



# **Soaring** **AUSTRALIA**



**October  
2002**



**Paragliding at  
Eungella – Finally**



**The Largest Gliding  
Club Grows Larger**



**Review:  
Moyes Litesport**



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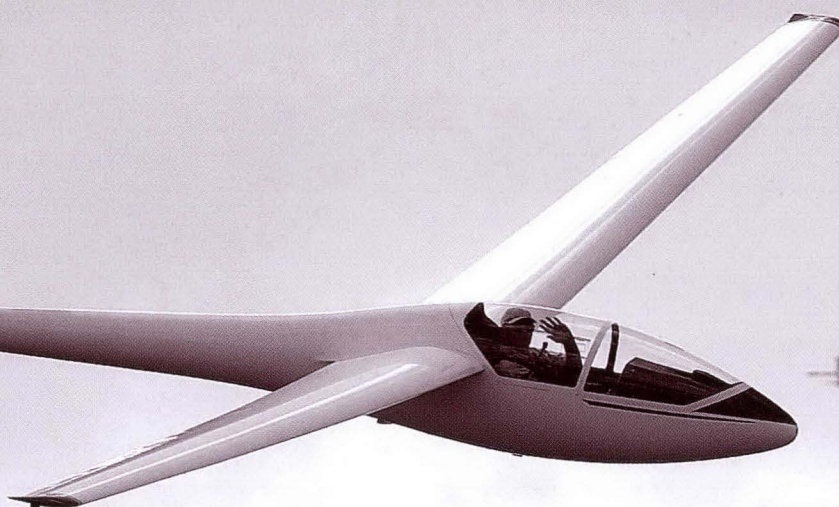
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Barry Bowerman in Ximango ZBF  
Photo: Courtesy Henk Meertens



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# FLYING WITH WATER BALLAST – Some Practical Hints

**Col Vassarotti**

REALLY, YOU CARRY WATER  
IN YOUR WINGS TO MAKE  
THE GLIDER HEAVIER?!

**M**ost of my non-gliding friends are incredulous that we glider pilots do such a strange thing. Even some experienced power pilots have been known to raise their eyebrows at this apparent eccentricity.

Now, it does seem strange at first blush. After all, throughout the history of aviation huge investments of creative engineering effort and money have been poured into making airframes lighter and stronger, certainly not heavier.

So why do we glider pilots buck the trend? Why do we fill our ballast tanks with hundreds of litres of water? Why do we deliberately make our aircraft more than 40% heavier than their basic flying weight? And what happens when we do?

## WHAT IS WATER BALLAST?

The wings of most modern gliders are fitted with integral tanks or removable bladders. These are designed to hold quantities of clean water ranging from 50 litres for a Standard Libelle through to more than 200 litres in some high performance types. Many gliders also have a water tank in the fin to allow

compensation for the forward travel of the centre of gravity caused by loading up the wings with water. There are dump valves for wing and fin tanks to allow the pilot to jettison the water ballast.

## WHY USE IT?

Carrying water ballast increases the wing loading. Very importantly this increased load is distributed over lift producing parts of the airframe (the wings) in such a way that the aircraft stays within its design limits. Typically, the wing loading range for modern gliders is 30 to 50kg/m<sup>2</sup>.

The prime objective, then, is to achieve a higher wing loading. This has the effect of improving glide performance at high speed. But there is a downside: Climb performance is reduced. The following tables illustrate the relationship of wing loading, speed polar and rate of climb for the Astir CS and Jantar 2.

**Diagram 1:**

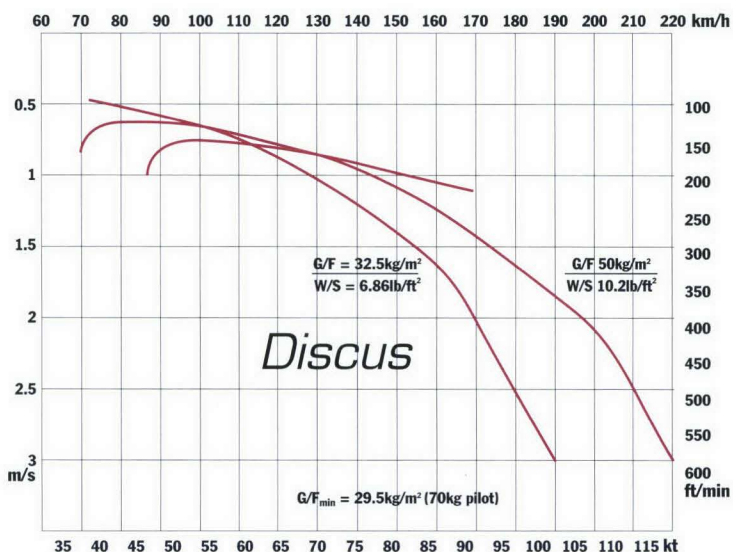
ASTIR CS	350KG	450KG
Best glide angle	38@51kt	38@56kt
Minimum sink	1.2kt@40kt	1.4kt@45kt
Circling speed*	43-45kt	48-51kt
Stall speed (approx)*	37kt	43kt

JANTAR 2	320KG	535KG
Best glide angle	38@51kt	38@66kt
Minimum sink	1.16kt@40.5kt	1.49kt@52kt
Circling speed*	45-48kt	50-53kt
Stall speed (approx)*	39kt	44kt

\*increases with bank angle

The performance enhancing effect of water ballast is also clearly demonstrated in the Discus sailplane polar chart (Diagram 2):





As well as the improved high speed performance gained by carriage of water ballast, it is useful to note the associated increased stalling speed. Consequently, circling speed needs to be higher when ballasted.

As Maurie Bradney put it (Flying Faster and Further, P37) 'water ballast moves the glide performance curve along the best glide tangent to a higher speed range.'

The reality is you don't go further, you just get there faster. By covering the same distance faster the gain is time.

## WHEN TO USE IT

In the words of Helmut Reichmann (Cross Country Soaring, 1978, P64) 'high wing loading is advantageous for fast flight and is worthwhile if:

- the thermals are large
- the thermals are strong
- cloud or thermal streets suitable for dolphin flight exist or are expected.'

In general terms it is better to use a higher wing loading for cross-country on strong lift days. For Australian summer soaring conditions, it is always a sound tactic to start out with water ballast on board, unless the day is clearly going to be weak.

Whenever conditions seem to favour dolphin soaring techniques, water ballast should be used.

## HOW MUCH TO USE?

Pilots should decide the optimum wing loading for a given task taking account of the forecast likely climb rate. The relationship of climb rate, wing loading and water ballast quantity for a Discus A sailplane weighing 340kg with pilot, parachute and other in-cockpit equipment is set out in the following table:

Diagram 3:

### DISCUS 340kg DRY

Climb (kt)	2	3	4	5	6	7	8
Wing loading	32	36	40	43	45	47	50
Litres	0	50	80	105	130	150	190

As shown, on a day where five-knot thermals are anticipated a Discus would be flown at a wing loading of 43kg/m<sup>2</sup>. Depending upon pilot weight and the individual weight profile of the aircraft, this would need in the vicinity of 105 litres of water ballast. For the same aircraft, if eight-knot climbs are expected, the optimum wing loading would be 50kg/m<sup>2</sup> requiring 190 litres of ballast.

For most cross-countries, a wing loading range of 35 to 45kg/m<sup>2</sup> is generally suited to Australian summer conditions. In summary, water ballast should be carried on any serious cross country where two-knots lift or more is expected.

## WHEN NOT TO USE IT

Again, Reichmann (*ibid*) summarises the key issues: 'since heavier sailplanes pay a climb penalty, ballast should be dumped if:

- thermals are small
- thermals are weak.'

As noted earlier, increased wing loading carries the penalty of higher stalling speeds and impaired circling performance. Where thermals are narrow and tight turns are required it is likely that better performance will be achieved if water ballast is dumped.

For sustained flight above freezing level, special precautions are necessary if water ballast is to be carried. Use of anti-freeze additives is advisable provided they are compatible with the ballast tanks or bladders.

## FLIGHT WITH WATER BALLAST

### On the ground

The first thing to do is to read and understand the water ballast notes in the glider manufacturer's handbook. Then calculate the best permissible wing loading for the forecast conditions. Competition pilots frequently make this calculation but fill the tanks to the brim anyway. Their rationale is that it's easy to dump water in flight but not possible to take on ballast if it turns out the day is stronger than expected. Pilots also need to ensure the water fill does not cause the aircraft to exceed maximum all up weight. Apart from the safety aspect, competition penalties will be applied if the glider is checked and found overweight.

There are several other precautions that must be taken before filling with water. It is essential to ensure the amount of water placed in the glider does not cause the all up weight to exceed airframe loading limits. The figure will vary from pilot to pilot and needs to take account of equipment such as tie-down gear, parachute and in-flight consumables. Tyre pressure is also a factor. The Astir CS, for example, should be flown with 36psi in the main wheel. The Discus wheel needs 64psi when flown at maximum all up weight. Tempting as it may be to ignore tyre pressure, don't take the risk. There is nothing more depressing than seeing the tyre burst or roll off the rim during ground handling when the glider is full of water.

As it is most unfortunate to start the day with a wet parachute, another precaution should be to remove water-sensitive items from the cockpit during the filling process. When all is ready for the fill, open the dump



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tap control and rock the wings to ensure no ballast has remained in the wings from the previous flight. Then close the tap and make a visual check that it is really in the CLOSED position.

**Note:** Some gliders, such as the Jantar, fill through the open dump valve.

Be careful to provide for venting of tanks during filling where this is called for in the manufacturer's handbook. Failure to do so carries a very high risk that the tanks will rupture – a very expensive mistake. Measurement of the amount of water is also important. The normal method is to use a water meter. A less satisfactory but effective alternative is to time the filling of a container of a known volume, such as a bucket, and extrapolate the timing to the volume required in the tanks. In any case, it is always good idea to hold the wings level after the fill is complete and check that they are evenly balanced.

After the fill is complete check that there is no leakage from the dump valves. A sensible practice is to smear the valve mechanisms with plumber's grease or the equivalent before filling. During the tow out make sure the wings remain level.

Prior to take off inform the tug pilot that water is being carried – particularly if it is a large quantity. Also brief the wing runner about the water and ask that the wings be held level for a few seconds before take off. Where a wing walker or sticks have been used to keep the wings level while awaiting launch, it saves complications after landing if the wing runner is asked to collect and stow them to your motor vehicle or some other convenient collection point.

### In flight

The ground run will be longer than usual. In some cases the tug may actually become

airborne before the glider. It is vital to avoid wing drop, particularly where partial water is carried and the load may shift out to the lower wing tip. In some gliders use of half dive brake in the initial part of the ground run will give improved aileron control. The air brakes have the effect of overcoming the aerodynamic inertia of the wing (by increasing the relative efficiency of the ailerons).

Once airborne a more forward centre of gravity may be noticeable in gliders where there is no fin tank. Be prepared also for a higher stalling speed. Some sloshing noises may be heard as water moves around with in the wing tanks. It is unusual for this water movement to have any significant impact on handling in balanced flight.

One of the pleasing things about water ballast, particularly with lighter sailplanes such as Libelles, is the more stable feel that comes from the higher wing loading. At the same time, unless thermals are strong, a slower climb rate may be evident. The higher wing loading will also necessitate a higher circling speed.

Best of all is the satisfaction that comes from the improved penetration and solid feel of the aircraft at high speed. On the other hand, because the aircraft is heavier and travelling faster it is very easy to miss thermals by punching through them before realising they are there. All that increased inertia is energy that can be readily converted into height. The technique is to slow up just a little sooner (whilst this appears contrary to MacCready theory, which says speed up in sink, it is valid if the sinking air is the down-draft which usually surrounds a good thermal).

When it is evident the thermal is likely to be strong, pull up and convert speed into height before starting to circle. A crucial safety point is that any pilot following

another and particularly, a lower, sailplane should be alert to the likelihood it may suddenly pull up and in the subsequent zoom gain hundreds of feet in height. The very real risk of collision in such circumstances is obvious.

If possible, carry the ballast for the duration of the task. If the lift weakens, dump water selectively. In the event of an imminent outlanding, dump all of it. Remember, dumping water onto other pilots circling below is not a good way to win friends and influence people.

After successfully completing the task, dump the ballast during final glide. Allow at least six minutes for the tanks to empty. This means that in an aircraft such as a Discus or a Jantar, with full ballast tanks travelling at 90kt, the pilot should open the dump valve 20km out from the airfield. For an Astir or equivalent dumping should commence at least 10km out. Allow also for airspeed mis-readings if the ASI static is affected by water.

### Approach and landing

When carrying out the pre-landing 'Flaps, Undercarriage, Speed, Trim' check, verify visually that the water dump valve is open. Also assume the water has not been dumped and fly accordingly. Allow an additional five knots circuit and approach speed, land on smooth ground, plan for an extended landing run and take account of a possible wing drop as a result of water having not drained from one wing.

Happy soaring adventures!



**Author's Disclaimer:** This article is not intended as a comprehensive guide. It is essentially a summary of my own experience with water ballast and the helpful advice of gliding colleagues.

## It's Never Too Late – to Submit a Badge Claim

In January 1959 when Kevin Scott was a sprightly 29-year-old and a member of the Southern Cross Gliding Club at Camden he attended a summer camp at Narromine. During the week long event he completed his A B and C Certificate, filled out the application form, had it signed by Official Observer, V. Husen, forgot to send it in, then gave up gliding.

Forty-three years later, having moved to Mudgee, he decided to take up gliding again

and chose the Orana Soaring Club at Narromine as his training club. While searching for his log book Kevin found numerous long-forgotten documents, including the old application form. Wondering if it was still valid Kevin approached the GFA Badge Claim Officer, Mrs Beryl Hartley, who promptly collected the appropriate fee and issued the precious certificate.

As you see – it's never too late!



Kevin Scott with Orana Soaring Club instructor Keith Dixon



# Gliding CFI to Fly to Antarctica

WELL-KNOWN GLIDING IDENTITY, IVOR HARRIS, HAS BEEN APPOINTED STATION LEADER AT CASEY ANTARCTIC STATION.

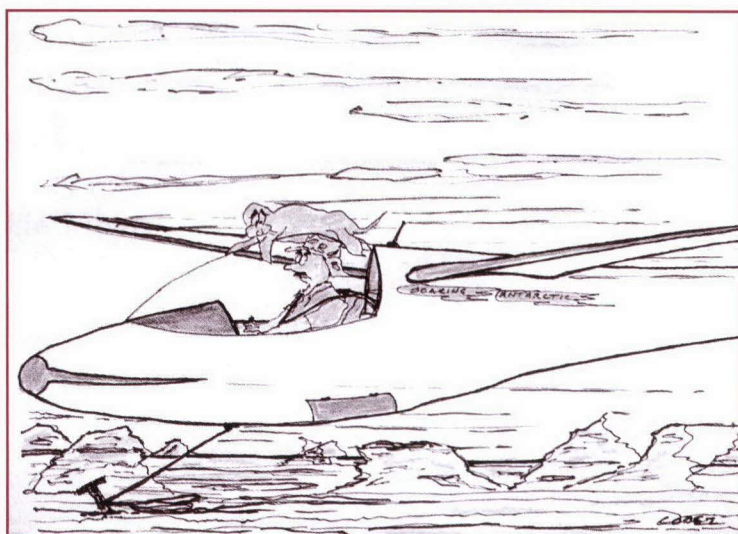
## Codez

Okay, the headline stretched the truth a little. Actually he flew to Tasmania in August and, following intensive training with his group, then sailed on the Polar Bird to Casey Station at 66 degrees south on the Antarctic mainland.

Multi-talented Ivor applied for this position for calendar year 2003 along with many other applicants. As a veterinarian, scientific officer, Australian Army Major, tug pilot and Southern Downs Soaring's CFI, we of the gliding movement would realise the major factor for his success would have to have been the last-mentioned skill. On the serious side, the position of controlling a myriad of scientific experiments, the logistics and up to 60 personnel in such isolation will be a difficult assignment, but one in which Ivor will surely succeed.

He will return to the warmer climes of Queensland in January 2004.

So next time you're complaining about the weather and the 25kt crosswind which helped mess up a landing, cool it. Think of Ivor and the wind strengths and weather he'll be experiencing



Harris knew well the value of a tightly sealed canopy!  
Codez

at Casey Station. In fact, drop him an email at <ivorharris@hotmail.com> to remind him of the joys of our sport.

The guys at Warwick, I'm sure, will be sending information re 10kt thermals, ideal temperatures, 1,750km flights and other tantalising lies.

Good luck, Ivor, and good flying.



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# PARAGLIDING AT EUNGELLA – Finally

Graham Lee

THE EAST/SOUTH-EAST FLYING SITE AT EUNGELLA, ABOUT 80KM INLAND FROM MACKAY IN NORTH QUEENSLAND, HAS BEEN WELL KNOWN TO HANG GLIDER PILOTS FOR YEARS NOW AND HAS HOSTED ANY NUMBER OF COMPETITIONS. UNFORTUNATELY THE EQUALLY WELL KNOWN TAKE-OFF RAMP AT THE EUNGELLA CHALET HAS ALWAYS BEEN DISTINCTLY NON-USER FRIENDLY TO PARAGLIDER PILOTS.

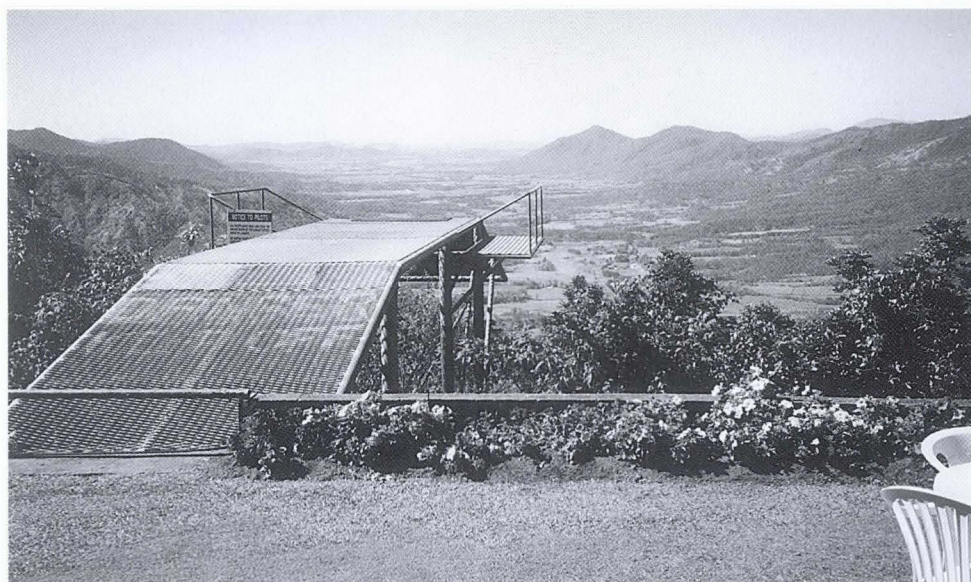
**F**irstly there is the problem of the narrowness of the ramp itself, coupled with the fact that it is built from expanded metal mesh so that the lines of paragliders tend to get annoying

(not to say dangerous, if they tangle and you wind up pitching off the end of the ramp).

Then there was the problem of bomb-out. The hangies generally head out towards the road, which means a slightly chancy trip

over a short band of tiger country. The problem is that a bunch of trees has put those options out of paraglider bomb-out range. Oh, there has been a closer potential bomb-out site, but you wouldn't want to use it from the Chalet ramp as you have to go over the top of high-tension electrical lines which run down into the valley.

The Eungella Chalet is on the southern side of those electrical lines whilst the possible bomb-out is on the northern side. Over the years a number of travelling pilots have taken the chance and flown from the ramp, however, despite being a local, I have not until recently been game to try it. Hell, it's that bad that the only flying site near Mackay which I have been able to use has been a tiny beach site at Black's beach. Hopeless. Only a few hundred yards long, so small that even the local wallabies don't bother to run when



The take-off ramp at the Eungella Chalet. The Chalet is a good place for accommodation for travelling pilots





## Photos: Graham Lee

**Left: Ian Macfarlane flying from the caravan park take-off**

I fly over anymore. I have come pretty near to moving to live somewhere more favourable to flying.

That's all changed now thanks to the new owners of the Eungella caravan park and to two travelling pilots, Ian MacFarlane (a southern Queensland pilot) and Chris (a professional from New Zealand). Basically, the caravan park, which is to the north of the power lines, has managed to get Parks permission to clear an opening over the rain forest which makes a brilliant take-off site. And there is no longer a problem with getting to bomb-out.

Getting to fly Eungella gives us access to a really good flying site with ceilings as high as you can go, and the chance of cross-country flights east along the Pioneer Valley using the hills on either side down to the Pinnacle. In the right conditions back northward across the valley is also possible. We have a record from January 1990 of 10,000ft asl. I know from talking to hangie pilots that 30km is a very reasonable day's flight along the valley with many longer flights possible. Flying is possible year round, though the best flying season seems to be from September through to June.

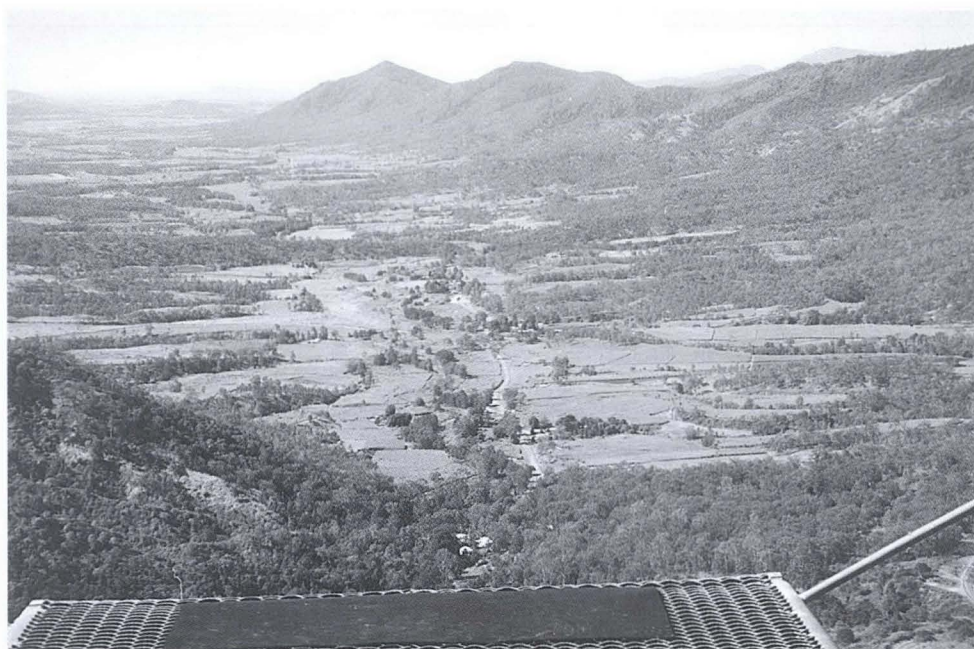
Once you get away you'll probably find your best lift heading right from the caravan park and to the front of the Chalet, where I'd suggest you work up some height before heading further right (south). The first and second bowls in the escarpment as you fly along south and east from the Chalet have traditionally been the best places to look for lift.

There are a few Don't's I must mention.

- *Firstly, generally it's not a good idea to fly Eungella if the wind is blowing from the west, from the north, or too far to the south. Generally this isn't a problem as the prevailing wind is just what we need, east or south-east up the valley.*
- *Secondly, don't forget the high tension powerlines; make sure you're getting good height at the head of the valley before you commit yourself.*
- *Next, although the landing out into the valley is good, remember you will be coming down into private farming land, so avoid crunching the sugar cane.*
- *And, most important, don't take motor vehicles into private farmland! Don't!*

If you do wind up heading for the bomb-out, which is the small pair of paddocks directly below the caravan park take-off, please be very aware that they are potentially in rotor from surrounding trees if there is any strength of wind.

October 2002



**The view east down the Pioneer Valley from the take-off at the Chalet. The pointed hill – the Pinnacle – in the distance marks the typical end point of most flights along the southern side of the valley**

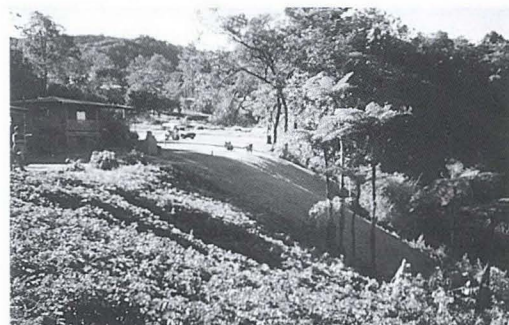
The Eungella site is no more dangerous than any other, but pilots should be careful as the site can be rough. I suggest that it be considered as at least an intermediate site, and in general that pilots of less than intermediate level don't fly without a more experienced buddy.

Other interest for travellers to Eungella might include Mackay and the Whitsunday Islands on the Queensland Coral Coast to try a spot of diving for variety. It is also situated in a National Park, which features a range of Rainforest walks. The local village is small, but will have most essentials as well as a couple of eating spots, and you are not too far from any other items you might need down the valley.

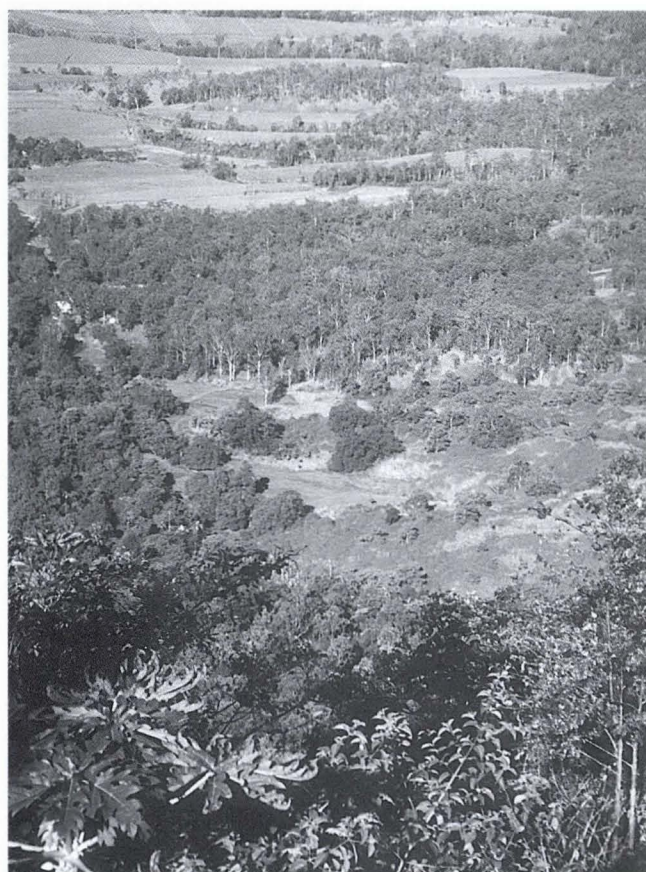
*For accommodation: Eungella Chalet, ph: 07 4958 4509 or fax: 07 4958 4503. Eungella Caravan Park, ph: 07 4958 4590 or fax: 07 4958 4583 or email <EungellaHP@bigpond.com>.*

*For flying contacts from the Whitsunday Hang Gliding Club: Graham Lee, ph: 07 4954 6726 or email <gdsrlee@hotmail.com>. Ron Huxhagen, ph: 07 4955 2913.*

**Right: Our suggested bomb-out directly below the caravan park take-off (which, by the way, is actually quite a bit bigger than it looks here). The powerlines run down the hill to the right. You will notice the trees around the site**



**The new paraglider take-off at the caravan park. This is also a good place for travelling pilots to stay**







# STANWELL UPDATE – Important Rules

Robert Lepre

FOR MANY YEARS FLYING HAS BEEN RELATIVELY HASSLE FREE AND INEXPENSIVE. OUR HEARTS RULED OUR FLIGHT-PATHS AS WE FLEW MUCH BY THE SEAT OF OUR PANTS. SINCE THEN THE SEAT BECAME HOTTER AND THE PANTS BECAME TIGHTER. THE HEART IS STILL THERE BUT IT HAS TO BE RULED BY A WELL SCREWED-ON HEAD TO BE ABLE TO HANDLE THE ADDED RESPONSIBILITY AND UNDERSTANDING THAT GOES WITH THE NEW TERRITORY IN HANG GLIDING AND PARAGLIDING.

## THE FORMAL FRAMEWORK

Control over our flying at Stanwell Park/Bald Hill is exercised by the following official bodies:

1. CASA (*Civil Aviation Air Safety Authority*)
2. State Government
3. HGFA (*Hang Gliding Federation of Australia*)
4. Wollongong Council
5. SPHG&PC (*Stanwell Park Hang Gliding and Paragliding Club*)

These official agencies are supported and advised by the following sources:

1. The Coroner's Office
2. The Public
3. Related flying sporting associations (eg, remote controllers)
4. Club members
5. Landholders of land adjacent to our sites (eg, Wild Life Service)

With so many cooks spoiling the broth, you may wonder whether flying has been regulated out of existence. Not quite, or not yet! The net of rules, regulations and procedures is tight, but, with a sense of responsibility, goodwill and common sense, flying will continue.

Fatalities or severe accidents, involving members of the public, attract the spotlight of the controlling agencies. These controlling bodies have to be seen to develop regulations and procedures that should eliminate or reduce the risk of such events recurring. Unfortunately, we had such a severe accident over Bald Hill, so that,

I believe, Stanwell/Bald Hill is in the process of becoming the benchmark for site assessment, procedures and practices for the future of hang gliding and paragliding.

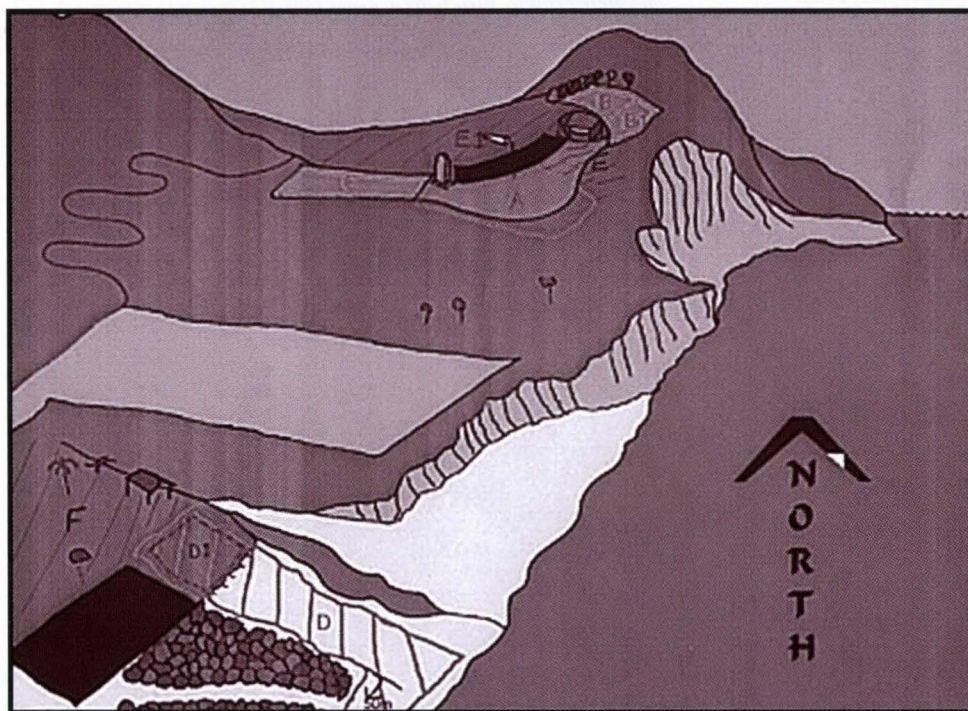
The SPHG&PC will have to sign a contract with Wollongong Council. One of the contractual obligations is the compliance with the licence-agreement. The agreement sets out our obligations that permit us to fly at Bald Hill. The supervision of flying has widened. It is no longer only your fellow pilots who watch you flying. Among the watchdogs enforcing our compliance with the rules are Council Rangers, officers from the Coroner's Office, CASA representatives, employees from Wollongong Council, Life Savers and Garden Managers. Needless to say that the enforcement of rules and prescribed procedures must be much more meticulously observed than we have done in the past.

## SANCTIONS AND DISCIPLINE

On 12 August, a number of pilots, club and non-club members, breached basic but important rules that are stated in the SPHG&PC model rules. These rules are also listed in the HGFA Operations Manual. Two pilots argued that their breach of the rules became necessary as a result of an emergency. This defence was denied because the pilots could not show that they had been involved in a life-threatening situation. As a result, the two pilots are currently being reported to the HGFA.

The SPHG&PC has to be seen to fully enforce the licence-agreement and manage the site in a manner that is consistent with overall safety. The SPHG&PC takes a dim view of any deliberate breaches of rules and will follow them up with actions through CASA, the Police and the HGFA. This has been done on two occasions in recent months with aviation incident reports sent to the Operations Manager of CASA at Bankstown.

I hope that the message is sinking in that there is no room for tolerance or nonsense. The reason for the heavy approach is not the SPHG&PC's hunger for power. The reason is the simple fact that Wollongong Council has stated to the SPHG&PC that they will stop the Club's flying operations on or off Bald Hill if the club cannot honour the development and licensing contract. The Director of Wollongong Council has made this quite clear to me on several occasions. Let me assure everybody that this individual







doesn't pull any punches. He has the legal power to shut us down, and I believe he will choose this option if the current trend of rule-breaking/bending continues.

It follows that, if you cannot take off from Bald Hill under current procedures or if you cannot land consistently in the designated area, then this site is not the site for you. If your concept of flying is to buzz the hill and land where remote controllers are based, then, once again, this is not the site for you, and I would suggest that you find another site. It is important that you understand that this is what the agreement with Wollongong Council is all about.

## CONCLUSION

The SPHG&PC has eliminated practices that could lead to fatalities or accidents. We have put additional practices and procedures in

place that will eliminate or reduce the risk to the general public and to pilots.

By taking these steps, we have demonstrated an ability that we can self-manage a professional operation.

The following rules and procedures will be helpful to pilots who fly at Stanwell Park/Bald Hill. I should like to point out that almost all of these rules/procedures are based on common sense and courtesy and are basic rules, laid down by CASA 95.8 or the HGFA Operations Manual. Remember that, as a licensed pilot, you must fully understand CASA regulations. You are involved in a sport where you share the sky with commercial and international operators. You are in a sport where you affect the interests of landowners, Councils, governing bodies and the general public. Keep all of them in mind!

Safe flying.



# Rules and Procedures

On weekends and public holidays please make yourself known to the SPHG&PC Duty Officer; you can contact this person on 0401 076917. He can be recognised by his fluoro-orange vest with the word "Duty Officer". On weekdays, please make yourself known to any of the designated Safety Officers, they will be wearing fluoro-green safety vests and will be recognised by the wording, "Safety Officer". A phone number will be presented on a removable white board affixed to the Council signs.

1. Council signs display a map showing certain areas that are totally out of bounds, like, for example, no top landing on the top Southern shoot, represented as "C" on the map, or no landing whatsoever within the area, called the, "Saddle" represented as "E" on the map. This is the area just north of the main windsock to the toilet block.
2. Top landing may be permitted on the north-east face only in the area marked "B1" on the map, just past the toilet block, but orange-fluoro witches hats must be put in place. Only intermediate or advanced rated pilots may top-land.
3. On the top of Bald Hill you will see lines on the grass for the placement of witches hats. These witches hats must be in place whenever Tandems are operating. This line also identifies the area where hang gliders and paragliders must be set up and checked. Our equipment must not be placed outside the boundary-line. Placement of our equipment is not permitted outside the lines. These lines separate the public from the pilots and their equipment. The boundary-line may be enforced with commercial or non-commercial Tandem Operators, paragliders or hang gliders.
4. Buzzing of the hill in any form is out. We concede that, if you are low and coming up the face, you need to be close, but once above the hill, keep away, abiding by the 100ft rule for vertical distance above spectators and the 25m rule for the horizontal separation from a public road or the general public.
5. Landing at the bottom must be within the confines of the designated area, ie, "the shoot" (Section "D" on the map). This area is surrounded by bunting and witches hats. The bunting on the top and at the bottom must be in place before Tandem Operations can begin.
6. Paragliders may land on the very edge of the sand marked as section "D1" on the map and may deflate their wings on the grass to keep the sand out of their wings and eliminate mid-air collisions. When paragliders land up in the mid shoot (Section "D" area), they must not, under any circumstances, fly the canopy back to the grass. Deflate your canopy immediately on landing. In a recent incident, an inflated canopy of a pilot on the ground nearly caused a mid-air collision. Please drop those canopies!
7. When flying at Stanwell Park/Bald Hill, travelling in a southerly direc-

### Stanwell Park Hang Gliding & Paragliding Club (Est 1972)

Wind Directions: East through South  
Launch height ASL: 550ft (170m)

**Public Notice:**  
Hang Gliding and Paragliding have inherent risk. Please be aware at all times

**Baldhill is rated - INTERMEDIATE**

**GENERAL**  
Visiting pilots to consult safety officer before flying  
No landing on the point  
No buzzing the hill or point  
Helmets to be worn by all pilots  
All pilots to be issued with A-number  
No radio controlled planes to be flown by club members  
Pilot must endeavor to remain as far out from the point as considered allow

**LAUNCHING/LANDING**  
When launching down slope - a "spotter" is to be employed  
No landing on the West of the bottom carpark (in the recreation park)  
No landing on the beach near sand dunes  
Top landing is permitted to the West of the monument and North of the toilet block  
Observe a right hand (clockwise) circuit when top-landing  
No top-landing approaches from the back (North banded area)  
Restricted paraglider pilots may top-land only under DIRECT supervision of their instructor.

**UHF Radio channel:**  
EMERGENCY 5  
Beach Biquard 562  
Post Kambra Coastguard 19  
Pilot call channel 75610

**EMERGENCY - PHONE - 000**  
ALL PILOTS CLEAR THE AIR IN THE EVENT OF AN ACCIDENT (V-Sheet, Sirens or Smoke-flares will be used to advise)

**Rules Specific to Bald Hill**

**Air Rules**

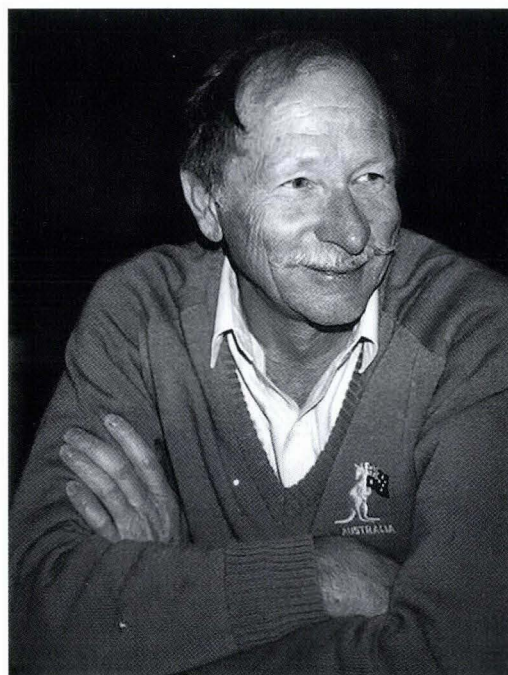
**TOP LANDING ON SLOTTED SUSPENDED UNTIL FURTHER NOTICE**

tion, ie, heading towards Wollongong, you have the right of way, closest to the ridge. This applies to paragliders and Tandem Operators also.

8. A glider above any other glider must give way to the glider below, as the glider below cannot see any traffic above him that might threaten a collision.
9. Always remember the turn-right rule. If you are flying towards on-coming traffic, turn right to avoid mid-air-collisions.
10. No hang gliders or paragliders are permitted to land within the Stanwell Park Beach Reserve Park, Marked as "F" upon map provided. Make sure you land within the designated area, marked by bunting and witches hats.
11. Kite flying or remote control aircraft flying is prohibited off Bald Hill. An ordinance to this effect is under way.
12. When joining a thermal always turn in the same direction as other craft that are already circling in the thermal.
13. Paragliders taking off below any designated take off area due to stronger wind conditions must utilise a spotter. If you do not have a spotter, then you must not take off until you find one.
14. To signal the intention of a top-landing to other pilots, approach with a right-hand circuit pattern. Soaring pilots who observe you will respond by giving you more room for the impending landing. Paragliding pilots, take notice of this point! It will become particularly relevant again when top landing operations are back in force.
15. When flying in close proximity to other gliders, be mindful of the 20m horizontal and 50ft vertical separation rule.
16. Be particularly mindful of the 600m horizontal and 500ft vertical separation rule for normal aircraft. If you hear the drone of an aircraft that is close by, do high-degree angle banks to signal your whereabouts.







Maurie Bradney

# Final Glide

## MAURIE BRADNEY

### – 1935–2002

**Terry Cubley**

National Performance Coach for 10 years where he developed the syllabus for the GFA coaching program and the reference manuals *'Flying Faster and Further.'*

Maurie's personal performance in the sport of gliding spans many decades. There have been many top level competition pilots in Australia, but none have lasted and performed at the elite level for as long as Maurie. He commenced competing in national championships in 1960, won Standard Class in 1973 and again won Standard Class in 1990. Maurie competed in two World Championships – at Waikerie in 1974 and at Riete, Italy in 1985 – and coached the Australian team which took part in the 1995 world championships at Omarama, New Zealand.

He has also been active in the administration and management side of the sport – Manager at Waikerie for 20 years; QSA Secretary/ Treasurer; NSWGA RTO/Ops, Vice-president and Councillor; SAGA Councillor, Vice-president and President; GFA President.

*'A Life in Gliding'* lists some of Maurie's achievements. It is certainly a very impressive list, spanning 46 years, three states and a multitude of roles. What it doesn't show is the great friendships that Maurie developed over these years, the many people that he influenced within the sport, and the commitment that he made to achieve and excel in a broad range of activities.

Maurie will be missed, but his legacy will continue for many years. It was a pleasure to be his friend.

#### A LIFE IN GLIDING

*Total hours in gliding: 10,000 plus; towing: 3,000 plus.*

*Started gliding on 11 March 1956 at the Leichhardt Soaring Club, Mount Isa, QLD where he was CFI from 1958 to 1961.*

*Member Darling Downs Club, Oakey (now Jondaryan), QLD.*

*Member Southern Cross Gliding Club, Camden, NSW – CFI 1965 to 1967.*

*Waikerie Gliding Club – Manager/CFI/CTP 1971 to 1991.*

*QSA – Secretary/ Treasurer 1962 to 1963.*

*NSWGA – RTO/Ops 1965 to 1967;*

*Vice-president, Councillor 1966 to 1971.*

*SAGA – Councillor, Vice-president, President.*

*GFA – Executive Vice-president 1985 to 1988; President 1988 to 1989.*

*National Sports Coach 1990 – 2000.*

#### Contests:

*Competed in the Australian National Gliding Championships from 1965 to 2000; National Champion Standard Class 1973, 1990;*

*National Champion 15 Metre Class 1979, 1980;*

*National Champion Standard League 2 1984; International representation.*

*Instructing – from 1957.*

*Airworthiness – Form 2 approval since 1960.*

*Coaching – from 1972.*

*Established the GFA National Coaching Program.*

*Recipient of – the Hoinville Award; the FAI Airports Medal; the Centenary Australian Sports Medal; and GFA Life Membership.*

Maurie Bradney is one of the most well known identities in Australian gliding known to pilots all over this country as well as many overseas. He had a long history of involvement in aviation, and in particular with the sport of gliding.

Diagnosed with Motor Neurone Disease in December 2001, Maurie knew it was fatal but there was an expectation that he would have five years or more before becoming fully incapacitated. As it turned out the disease was not kind and Maurie died at Waikerie at the start of August. This is truly a sad loss for his family and friends, but also for the sport of gliding.

Maurie's face was probably the best known in Australia for many years, appearing every month in Australian Gliding when he was manager at Waikerie.

He is recognised as one of the most experienced, if not 'The' most experienced, instructors and coaches in Australia. He has influenced much of competition and basic soaring skills through his roles as coach and instructor, but also through his role as

## Maurie – the Early Years

**Margaret Hunter**

Maurie commenced flying at Mount Isa on 11 March, 1956. Alan O'Rourke was his first solo gliding student.

One school holidays Maurie made a gliding trip south through Alice Springs to Gawler – a fairly impressive trip in those days.

He returned to Brisbane (in 1963 I think) so he could complete his power instructor rating at Archerfield aerodrome. At that time he was still teaching Primary School for the Queensland Department of Education and lived in a caravan in the backyard of his parent's house at Moorooka.

On weekends he would glide with the Darling Downs Soaring Club from Oakey aerodrome. We used to "fly" our VW Beetle off the road at a certain spot on the way home. Beetles were like that if the conditions were right and the speed high.

I think it was about this time that he had a minor problem taxiing into a slight dip on Archerfield aerodrome and damaged a propeller.

We married in December 1964; collected the Arrow, freshly painted bright yellow;





and went off to the Australian National Gliding Championships at Benalla.

When we returned to Brisbane Maurie found he had been transferred from Primary to Secondary teaching. This was due to the fact that whilst in Mount Isa he had studied Philosophy 1 for interest, or out of boredom, and the Department of Education had trawled their records for any teachers who had ever done a university subject because it showed they could teach secondary students. The school was in a particularly rough area, and Maurie's heart was in flying. We made a pact that the first flying job that came up, wherever it was, he'd take it.

And so that Easter, 1965, we moved near Bankstown, Sydney. Financially this was disastrous, as junior instructors/commercial pilots could be, and were, very poorly paid. We had no savings – I hadn't worked for two years as I was at Teachers' Training College and the cost of living in Sydney was much higher than in Queensland. Each weekend, and occasionally during the week, Maurie flew with the Southern Cross Gliding Club, and our lifetime friendship with Roger Woods was firmly established.

The next comps were at Waikerie, where I went with son Carl, aged three months, and Don Stewart from Brisbane to Sydney to Benalla to Waikerie picking up a trailer and Don's new Boomerang en route. Maurie arrived just in time to again co-fly with Don.

The next memorable comps were at Narromine – I remember writing an article about our trip, with a cot on top of the VW Beetle, which was published in Australian Gliding (summer 1966/67). As I was a few months pregnant at the time I was, for some odd reason, put in charge of ablutions. I was still crew of course.

I missed the next Australian championships as I was pretty exhausted with two little children.

The position as Manager/CFI of Waikerie came up when I was back teaching, with Carl having finished his first year of school. Maurie was doing charter/commercial and instructor flying off Bankstown, mainly with Cessna. One week he worked until the Friday night, and then we set out for Waikerie in two vehicles, (Maurie now had a second-hand station wagon and I had a \$200 Beetle) with all our worldly goods, two kids and two Siamese cats. Early life in Waikerie was fun but totally exhausting.

One of the Club members hired us a caravan to put on the airfield, and I spent every spare moment trying to rent, to no avail. I even talked an ambulance officer into letting me know when someone had died so I could race "others" to rent their abode.

Maurie was flying in his first International Championships as our house went through critical stages of construction. We moved into it (by glider trailer of course) on Christmas Eve. The first meal cooked

in the new oven was Christmas dinner for the gliding students staying at the club. Then they all went flying!

The running of the club, the preparation for the World championships, the continuous flying, the family and my teaching took a huge and devastating toll on our physical, emotional and mental energy. I don't ever remember going away without a glider trailer hooked on the back of our vehicle.

I know that Maurie had many good friends in Waikerie who helped him after we split up, and to them my grateful thanks.

In the summer of 1983 I received a call at work (Moonta Area School) that Maurie had had a very bad crash and it would be advisable to take the children to Waikerie, fast. His student had been airlifted to the Royal Adelaide Spinal Unit; Maurie was to follow by road if they managed to stabilise his condition for the trip. He did stop breathing in the ambulance en route. We found a very mushed but live body ready for ICU.

In Maurie's later life, he started to make efforts to care for himself – walking, becoming an excellent and knowledgeable cook (earlier he only knew that you should change the water you have boiled the eggs in or heated the tin of beans in before you make a cup of tea, otherwise it tasted funny), and he developed a passion for recreational gardening. His infatuation with gliding continued to the end.



# Final Glide

## FRANK ZEICHNER

### 1929–2002

#### G Raph

**F**rank Zeichner was born in Australia in 1929 and consequently spent his teen years in war-torn Europe. As part of a youth training programme he was introduced to gliding, kindling a passion which was to consume him for the rest of his life. Fortunately, the war ended before he was drafted into military aviation.

The early post-war years saw him learning engineering skills, specialising in welding.

In 1951 he married Rita, his wife of 50 years. Together they fled Austria in search of a better life and eventually arrived in Melbourne in 1956. He found work in

Morwell where they raised their family of Frank Jr and Susan – both of whom eventually became glider pilots. Frank joined the Leongatha Gliding Club where he rose to become the Chief Flying Instructor – a position he held for many years. During this period he also attained his private pilot licence.

Frank was a keen cross-country and competition pilot, especially after moving to Melbourne and joining the Gliding Club of Victoria at Benalla and flying his own beloved Jantar. During this period he set a new 300km Australian record which was broken 15 minutes later by Terry Cubley.

In the mid-80s he moved to Buderim and semi-retirement. There, he became a members of the Kingaroy Gliding Club where he joined the instructor and tug pilot roster. Frank's enthusiasm was infectious and generated a renewed interest in cross-country and competition flying.

He served as treasurer and was the driving force behind the purchase of a Jantar 3 which still serves the club well.

During his three-monthly trips to the central Queensland coalfields selling welding equipment he would call in to the Central Queensland Gliding Club and do a day's instructing – such was his dedication to the sport.

Unfortunately, during one of these trips Frank was involved in a motor accident from which he never really recovered. His visits to the club became fewer and finally he retired from gliding to take up lawns bowls, with the same enthusiasm which was part of his gliding years.

Finally, Frank succumbed to cancer and passed away peacefully at his home in Buderim in May 2002.





# LIFT – MAKING THE BEST OF IT

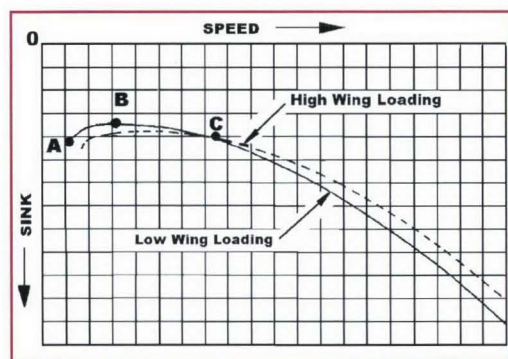
## Part 3

WELCOME TO PART THREE OF OUR DISCUSSION ON EFFICIENT THERMALLING. THIS MONTH WE WILL INVESTIGATE THE OPTIMUM SPEED IN THE THERMAL AND THE EFFECTS OF WATER BALLAST.

**Bernard Eckey**

### 1.6 Thermalling speeds

I'm sure it will come as no surprise to anyone that the speed for minimum sink is best for thermalling. However, contrary to popular belief the speed for minimum sink is NOT just above stalling speed. In fact we pay a significant penalty for flying too slow. To highlight this fact let's look at the polar curve of a typical glider.



**Figure 4: Polar curve**

For the purpose of this exercise let us look at Points A, B and C only.

Point A represents the minimum speed at which the glider will still fly. Any slower and our aircraft turns into a brick.

Point B is the speed of minimum sink – the optimum speed if our aim is to sink as slowly as possible.

Point C is the speed for best glide ratio. We are not concerned about Point C while circling.

Fairly basic and simple stuff you might say, but why are some of us so keen on thermalling as close as possible to Point A? We need to remember that any speeds between Points A and B are resulting in higher than necessary sink rates. It means that flying just above the stall is not only dangerous, uncomfortable and inefficient but it is also far from ideal from a performance point of view. Poor aileron control at speeds between A and B makes thermal finding and thermal centering extremely difficult, unpleasant and tiring.

The question is, how much extra speed is required? I will come back to that in a moment but for now let's look at the benefits of thermalling at higher than minimum speeds.

- *First of all control response is much better enabling us to manoeuvre the glider quickly, effortlessly and easily into the best*

*part of the thermal.*

- *Another important advantage is the nice feel and the feedback a glider gives us if only we let it fly at the right speed. It becomes so much easier to FEEL where the best part of the thermal is thus decreasing our reliance on the instruments.*
- *Higher speeds also increase safety margins. If we ever hit a severe gust or we have inadvertently washed off some airspeed for any reason we are less likely to drop a wing or even enter a spin – a very important issue in a crowded thermal.*

Having said all of that we need to realise that speed has a significant influence on our radius of turn. Due to the fact that the radius of turn is changing with the square of our airspeed it is very important not to fly faster than necessary. Still, we can conclude that the penalty for flying a bit faster is minimal but the benefits are plentiful. We can also conclude that looking at the polar curve and drawing conclusions for optimum thermalling speeds is definitely not a good idea, because of its misleading picture in circling flight.

While we are talking about speed we should move on to more practical matters and touch on the subject of speed control. Sure, we have an airspeed indicator but if we constantly need to keep an eye on it while thermalling we are not quite ready to fly in close proximity of other gliders. We need more practice and refine our skills until we learn to use some other indicators of speed such as our nose-horizon attitude, control forces or airflow noise for that matter. Experienced pilots only glance at their airspeed indicator from time to time, but take by far more notice of these secondary indicators. By doing so they can observe the airspace around them and take notice of other gliders, soaring birds, dust devils etc. No doubt, a very important safety aspect, important enough to remind each and everyone of us that constant airspace observation is a precondition for safe flying.

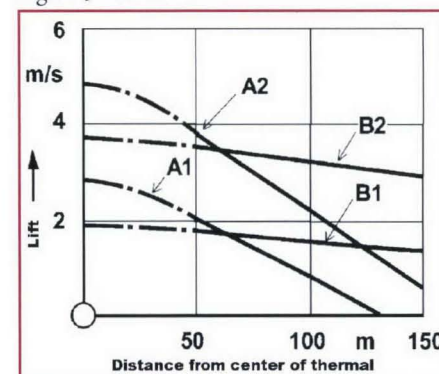
### 1.7 Flying with water ballast

Increasing the weight of our glider can be an advantage on cross-country flights as it flattens the glide angle at higher speeds, although we won't discuss this aspect in detail as it is well beyond the scope of this article. What

we need to know is that changing our glider's wing loading makes it behave differently. New pilots suddenly notice the effect when flying without an instructor for the first time. The reduced weight changes the characteristics of the two-seater for the better as the aircraft can be flown a fair bit slower without stalling or losing control responsiveness. Because a lighter glider allows slower flying it tends to flair on landing for much longer and for this reason I've yet to see a first solo flight which does not end up with a touch down much further down the strip.

Quite the opposite happens when we load the glider up with water ballast and Figure 4 provides the explanation. Now we need to look at the dashed line which highlights an increased minimum rate of sink occurring at a significantly higher speed.

Needless to say we have to adjust our thermalling speed to the weight of our glider. The heavier our glider becomes the faster we need to fly and the slower we climb. A little later we will also discover that our radius of turn will become bigger, making it more difficult for us to climb in weak and narrow lift. For this reason our thermalling skills should be well advanced before we start experimenting with water ballast, but regardless of our level of skill we must accept a reduction in the rate of climb. The \$64 question is: "When is water ballast beneficial and when does it affect our cross-country speed adversely?" Very smart people have worked on the answer to these questions and – surprise, surprise – have come to the conclusion that the characteristics of the thermal affects our speed more than anything else. Basis of the research formed a thermal model as per Figure 5 below.



**Figure 5: Horstmann thermal model**



We will come back to this a little later, but for the moment it might suffice to say that a defined strength and diameter of thermals allows a mathematical evaluation of optimum wing loadings for the purpose of cross-country flying.

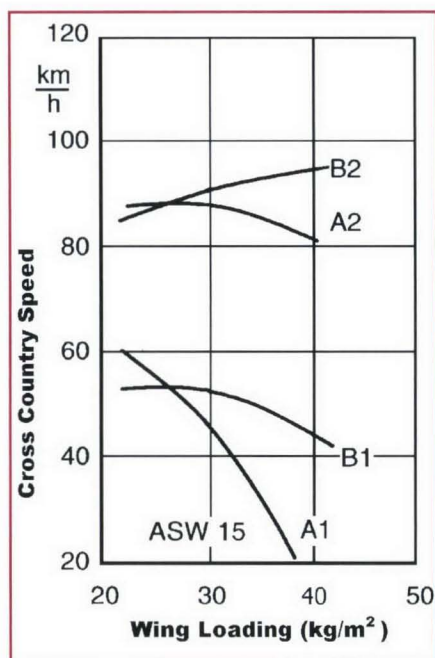


Figure 6: Average cross-country speed as a function of wing loading and thermal model

Taking the investigation one step further researchers calculated achievable cross-country speeds for a Standard Class glider (in this case an ASW15) and the four different types of thermals shown above.

Looking at Figure 6, it becomes rather clear that only in a thermal of type B2 (strong and wide) can we benefit from water ballast and expect to increase our speed. Although the graph is based on one of the very first fibreglass gliders, it speaks for itself – on days with strong lift a heavy glider can provide a competitive advantage for the performance orientated pilot. However, the graph also makes it abundantly clear that ballast is detrimental when (for whatever reason) we have to be content with a rather slow rate of climb. For this reason keen competition pilots often launch with maximum ballast on board but dump some of the water after they have sampled a few thermals and assessed the conditions of the day. After returning from a flight they are always interested in comparing their wing loadings. As different types of gliders have different wing areas this is the only way of conducting a fair comparison.

As a rule of thumb, higher wing loadings provide a competitive advantage with strong and large diameter thermals. The advantage is even more significant on days with good

streeting on track. During such conditions water ballast is very beneficial as lift can be extracted in a straight glide and the amount of thermalling can be kept to a minimum. However, on days with weak and narrow thermals water ballast is certain to slow down progress. In such conditions it is far from beneficial and turns into a hindrance.

Partly ballasted gliders are known to create problems due to sloshing of water and for this reason it might be a good idea if newcomers to slowly increase the amount of water and familiarise themselves with the new behaviour of the glider. Only then should we think about going to the maximum legal limit.

## 1.8 Angle of bank

### 1.7.1 Practical Considerations

Without doubt, the single most important issue in terms of extracting the maximum rate of climb from a given thermal is the optimum angle of bank.

Here pilots can gain the most. Circling too shallow means that we will fly around the core and work very weak lift. On the other hand an angle of bank too steep for our thermal is also detrimental to our rate of climb due to a significantly higher sink rate of our glider.

I suggest we consider the issue from a practical point of view first.

I'm the first to admit that the graphic on the right is too simplistic and not entirely representative of what is happening in the real world. Still, let us assume we are approaching our thermal from left to right. At first we fly through neutral air with our total energy variometer showing the sink rate applicable to the current airspeed. (Point A)

Next we notice some slight turbulence (Point B) and soon afterwards we experience an increased rate of sink. (Point C) Now we have entered the area of sink normally encountered next to a thermal. Naturally we would tend to fly faster here to transit this area quickly.

Flying along and arriving at Point D we again feel some turbulence. More often than not it is more pronounced compared to Point B and Figure 7 explains why. Obviously the friction between sinking and rising air is the culprit. Now it gets interesting – we are in lift which means that we have to make decisions. Not only do we have to decide when to turn but we also need to decide

- which way to turn
- what angle of bank to use
- what airspeed we select
- what flap setting we use (if any)

And that brings us back to our angle of bank. A small and comfortable angle

of bank will result in a radius of turn which is more often than not too large to stay in lift. At best we will be flying near Point E. It means that we will not only climb in very weak lift but also get dangerously close to heavy sink.

Wouldn't it be better to increase our angle of bank and achieve a much smaller radius of turn? We would then fly near the core (Point F) and take advantage of lift at least twice as strong as near Point E. Furthermore we would still be in weak lift after momentarily losing the core and we can re-centre our thermal just by variations in the angle of bank.

Unfortunately we cannot walk away from the fact that the tighter the turn the higher our rate of sink becomes. Just by way of an example, let us assume our gliders sink rate is 1.5kt at a comfortable radius of turn. By reducing the radius we must fly at a steeper angle of bank and accept a significant increase in our sink rate to approximately four knots.

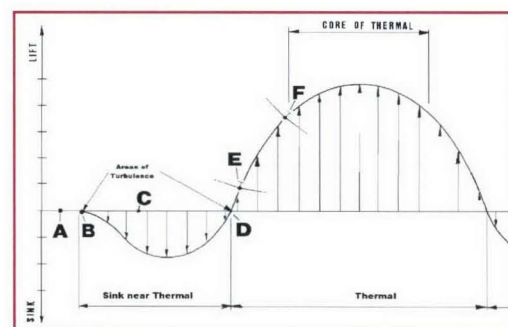


Figure 7: Vertical air movements (simplified)

If we now go back to Figure 5 we can do some simple arithmetic.

**Point E** – Flying through Point E we might get 1.5kt of lift.

However as our gliders sink rate is also 1.5kt there is at best no sink for us in that thermal.

**Point F** – If in contrast we thermal steeper and manage to fly near Point F we will find lift of five knots. By subtracting our higher rate of sink (four knots) we still go up at a rate of one knot.

This simple example serves to show that pilots prepared to fly a little faster and thermal steeper will climb away while others find themselves back on the ground rather quickly. The lesson is simple. Unless we bank the glider according to the diameter of our thermal we will not achieve the maximum possible rate of climb.

Although this is all for today it doesn't mean that the subject is exhausted. Next month we will consider theoretical issues in relation to the optimum angle of bank.





# An Introduction to Map Reading

Kelvin Glare

MAP READING IS A DIFFICULT ART AND REQUIRES, LIKE MOST THINGS, PRACTICE TO BECOME PROFICIENT. THIS MATERIAL IS INTENDED AS AN INTRODUCTION TO MAP READING ONLY. IT IS HOPED THAT IT STIMULATES FURTHER STUDY BY THOSE WHO MAY NEED TO RELY UPON BEING ABLE TO NAVIGATE ACCURATELY BY THE USE OF MAPS, AMONG WHICH, FROM TIME TO TIME, INCLUDE HANG, PARA AND MICROLIGHT PILOTS (AND THEIR DRIVERS!).

A map is a visual representation of a portion of the earth's surface, usually including some objects upon that surface. However accurately it may have been produced, the map represents the appearance of that surface at a certain date and a variety of changes will occur over time. It is important to note the date the map was produced or revised and to judge its reliability accordingly.

Aeronautical maps or charts are divided into grids by latitude and longitude. Other maps may use a different grid system. The emphasis in this material is on aeronautical maps and in this material frequent reference is made to World Aeronautical Charts (WAC) as they are representative of charts or maps used for air navigation.

## MAP READING

Map reading is the ability to translate information from the map to the ground and the ground to the map.

### The Aims of Map Reading

The aims of map reading are:

- To enable the user to find his or her way about the country and to recognise features on the ground and on the map.

- To enable the user to understand the information given on the map so that the user can picture the ground and its possibilities and limitations without having seen it.
- To assist in the rapid and accurate transmission of information, if required.

### Information from Map Margins

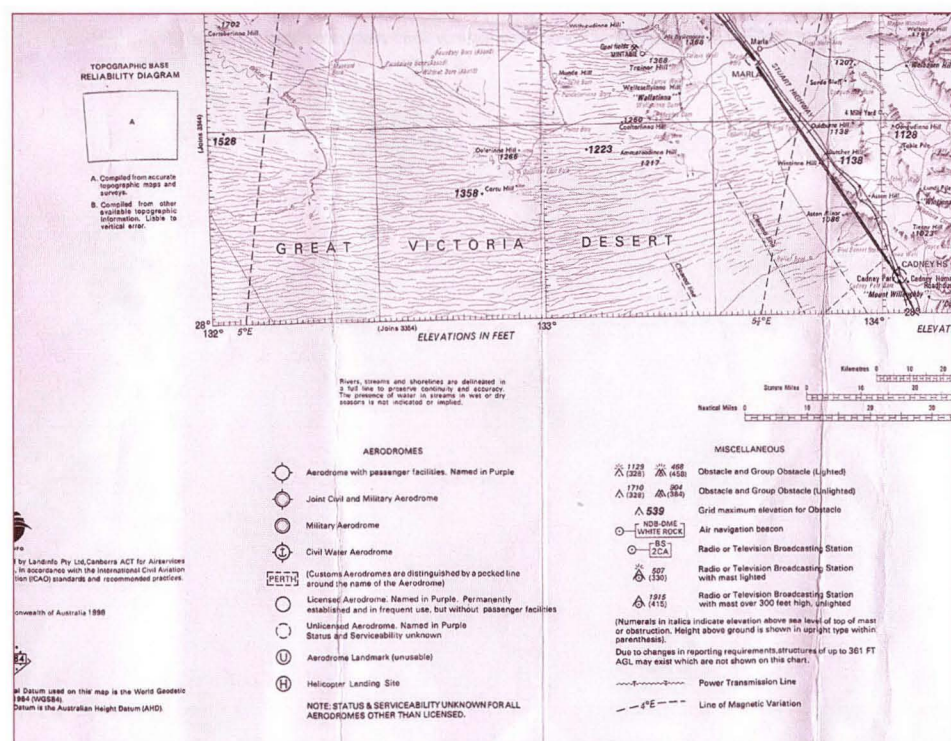
Printed around the margin of a map is the information needed when the map is being used. The type of information and layout may differ from map to map. For example, on WAC charts the area of Australia is depicted in a grid type pattern based on longitude and latitude.

On most maps there is a standard layout adopted that gives, among other things, the following information:

- The Title of the map.** Shown on the top left corner of the map is a reference number in brackets and a map name to identify the general location covered by the map.
- Index to Adjoining Sheets.** WAC charts have an index to adjoining sheets on the bottom right corner of the map.
- Map edition.** Immediately under the map name is the map edition.
- Magnetic Variation.** All maps should show the degree of magnetic variation. Along the bottom of a WAC chart the magnetic variation is shown and just under the bottom right of the map the date of the magnetic variation is shown. Magnetic north is the direction in which the compass needle points and may be to the east or west of true north. The magnetic variation changes slightly over time so one should always try to use maps that are of recent origin.

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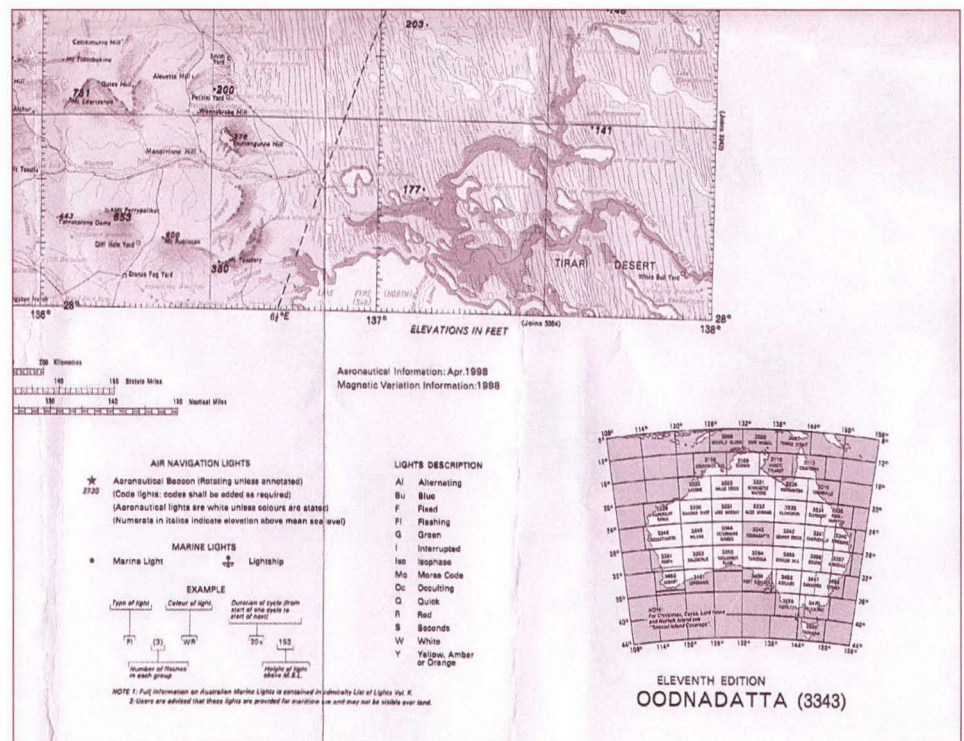
- Reliability Diagram.** An "A" reliability rating indicates a map was completed from accurate topographic maps and surveys, sometimes in conjunction with aerial photographs. A "B" rating indicates the map was compiled from other topographical information and may be subject, for example, to vertical error.
- Scale of the Map.** The scale of the map is the relationship between two points on the map and the distance between the same two points on the ground. In essence, it is the size at which the picture of the ground is produced.
- Linear Scale.** This scale line is drawn to assist in the measurement of distances. On current aeronautical maps linear distance is usually shown in kilometres, statute miles and nautical miles.







- h) **Elevation.** Elevation on many maps is shown in metres, but the convention is that aeronautical maps show height in feet. WAC charts carry a conversion scale between feet and metres on the left side of the map towards the top.
- i) **Conventional Signs.** Map makers show objects on the ground in the clearest possible way, but they are not shown as they appear as they would be too small to recognise. Simple symbols, referred to as conventional signs, are used to indicate the objects. It is important to note that with signs that do not of themselves indicate a particular position, it is the centre base of the particular sign that indicates the position of the particular object on the map.
- j) **Legend.** WAC charts in particular show a wealth of aeronautical information, and the legend to identify what is shown is at the bottom left of the map. The legend for other miscellaneous objects is also at the bottom of a WAC chart.
- k) **Relief.** There are a number of ways of showing relief on a map including shading, hatching and contours. About half way down the left margin of a WAC chart is a block labelled "Hypsometric Tints" that indicates by colour the height of terrain on the map. Individual spot markings are also given on the map. It is important to note that elevations on WAC charts are given in feet, as is indicated across the top of the map.
- l) **Contours.** A common way of showing the shape of the ground on maps is by contour lines. The concept of contour lines is very simple. It is a line drawn on a map to indicate all places of equal height above sea level. The difference in height of the contours is called the Vertical Interval and is shown in the marginal information on the map. From the height and spacing of the contours the shape of the ground can be deduced. The closer the contour lines the steeper the terrain.



### Bearings

The purpose of a bearing is to give an accurate indication of the direction of one point from another. A bearing is the angle, measured clockwise, that a line makes from a fixed zero line. Unless stated otherwise, the zero line is always taken to be north.

### North point

In map reading reference may be made to three north points. These are:

- True North.** The North Pole is geographic North or True North. Lines drawn from the North Pole to the South Pole are true north-south lines. True North therefore is the direction from any point on the earth's surface to the North Pole.
- Magnetic North.** A compass needle does not point to the North Pole, but to a place in the far north of Canada that is known as the Magnetic Pole and thus to what is known as Magnetic North. There are only a few places where True North and Magnetic North coincide.
- Grid North.** The grid lines on a map do not lie true north and south except along one standard meridian, and, as they are drawn parallel, the north-south grid lines on a map (Eastings) point to what is known as Grid North.

### Protractors

Familiarity with a protractor is assumed. To measure the bearing from one point to another, simply draw a line between the two points. If the distance is small extend the line past the point to which the bearing is to be taken. Position the protractor on the map so that its centre point is over the position the bearing is to be taken from and ensure the north line is pointing to grid north. The bearing can then be read off the graduated edge of the protractor where the line you have drawn crosses the edge.

### Conversion of Bearings

Compass bearings taken on the ground must be converted to grid bearings for plotting on a map. Conversely, grid bearings taken from a map will have to be converted to magnetic bearings before they can be used with a compass on the ground.

To convert a bearing it is simply a matter of adding or subtracting the magnetic variation. Unfortunately, it is easy to subtract when

### Important Note:

**It is incumbent upon pilots to familiarise themselves with all aspects of the maps they use.**

### The Compass and Bearings

#### The Degree System

North, east, south and west are the cardinal points of the compass. Although there are 32 points of the compass it is usual to only use 16 when map reading.

For accuracy the points of the compass are divided into 360 degrees, with "0" or "360" being the north point, and as each of the four quadrants are 90 degrees apart, reading clockwise, the east, south and west points are 90, 180 and 270 degrees respectively.

Each degree may be divided into 60 minutes and each minute into 60 seconds.

### Caution:

**When using a compass remember to consider the presence of metallic objects or influences.**

For example, move away from:

Vehicles	10m	Powerlines	80m
Firearms	4m	Metal buildings	60m
Wrist watch	Put it behind your back		



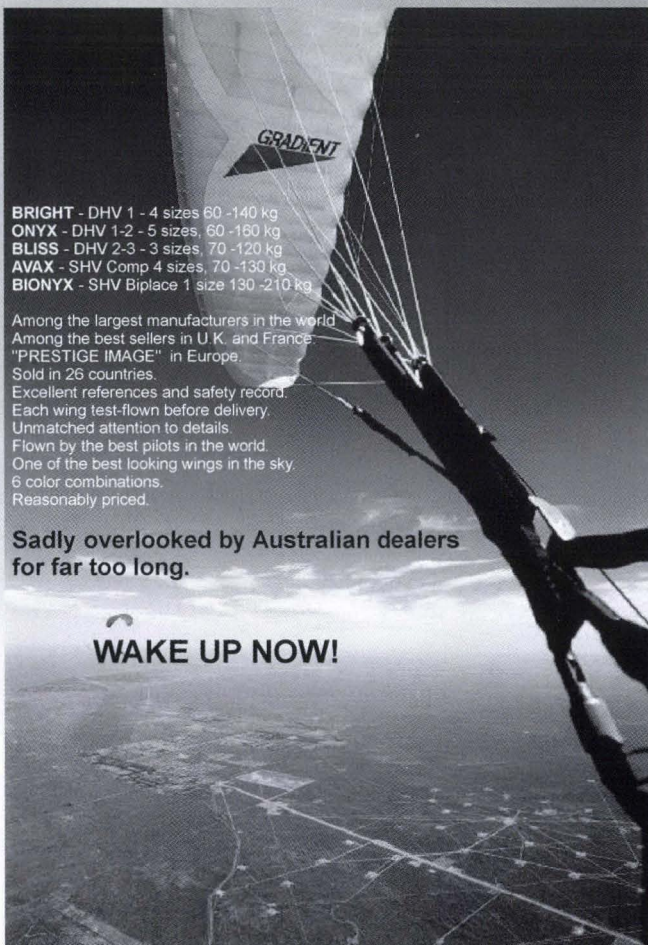
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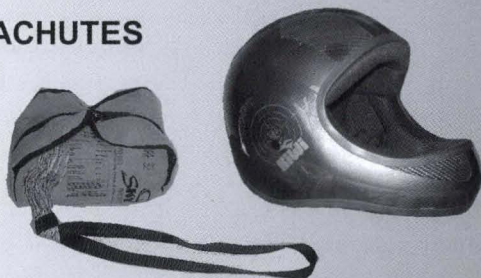
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you should add or to add when you should subtract. The way  
 to avoid error is to draw a diagram.

## Remember this rhyme:

**Variation east, compass least;  
 variation west, compass best.**

For example, a magnetic bearing of 50 degrees where there  
 is a magnetic variation of 12 degrees East leads to  $50 + 12 = 62$   
 degrees as a grid bearing.

## Back Bearings

A bearing gives the direction from the point of observation to  
 an object. A back bearing gives the direction from the object back  
 to the point of observation. The difference between a bearing and  
 a back bearing is always 180 degrees.

## Latitude, Longitude and the Grid System

### Latitude and Longitude

Some maps, for example WAC charts, use a positional reference  
 system based on latitude and longitude. In Australia latitudes are  
 south and longitudes east. It is customary when giving a position  
 in latitude and longitude to cite the latitude first, then the  
 longitude. For example, Melbourne's Tullamarine Airport is  
 at S37 40.4 E144 50.6.

It is important when determining the position of any point  
 on a map in latitude and longitude to remember that a degree is  
 divided into 60 minutes, not 100. Failure to remember this is the  
 most common mistake in determining positions on a map using  
 latitude and longitude.

### The Grid System

Some maps use a grid system based on lines placed at a regular  
 distance, often 1,000m, to form a network of squares.

Lines are numbered consecutively from left to right and are  
 called "Eastings" and from bottom to top, called "Northings".


To ensure a common understanding when giving grid  
 references it is necessary to invoke a standard form. The distance  
 east is always given first and the distance north second. These  
 two distances are then combined to give a composite number.

## Remember, go across before going up.

For example, if a position is in a square 75 units east and 35  
 north, it lies in a square with a reference given as 7535. It must  
 be noted that the reference is to the south-west corner (bottom  
 left corner) of the square. If our map is divided on the basis of  
 1,000m intervals, our point of interest will be inside a 1,000m<sup>2</sup>.

To ensure even greater accuracy we can imagine that each  
 square is divided into 100 smaller squares and estimate which  
 small square our point of interest is in. We can then give a six  
 or eight figure grid reference. A six figure grid reference will  
 indicate our point of interest is within a 100m<sup>2</sup>, while an eight  
 figure reference will indicate it is within a 10m<sup>2</sup>.

Finding north without a compass. Face the 12 o'clock point  
 on your wristwatch at the sun. North will be at the point mid-  
 way between the hour hand and 12 o'clock (at Standard Time).

Using the Stars. Locate the Southern Cross. Extend the long  
 axis of the Cross 3 1/2 times. The point reached is south. 





## CLUB NEWS

### Western Victorian Hang Gliding Club

At the AGM held in Ballarat at the end of July, the standing club officers were retained with the exception that Carla Pierce was elected as secretary. The club has an ambitious program for the coming year, including holding towing fly-ins for club members at Dynamic Flight's Flight Park on the last Saturday of every month, designing and building a club house within the hangar at the Flight Park and organising a Vic Spring Comp. The club's Mission is: *"To maximise opportunities for members to fly and develop skills, within a socially supportive environment"*. The club now has an organisation chart with well defined areas of responsibility for its officers, including Pilot Development, Financial/Legal Viability, Communications, Site Retention/Development and Social Activities. Much of this improved organisation and commitment to a Club Mission has stemmed from attending the Active Australia workshop run in Melbourne in March this year by Belinda Head. We hope we can maintain the impetus provided by this workshop through our own efforts and with the assistance that we are getting from Paul Rundell, our new Regional Development Officer for the Active Australia program.

**Steve Norman, President VWHGC**

### High Adventure Airpark

We are planning a tow course and XC clinic on the dates of 18 to 22 November.

The first two days (18-19th) of the clinic are free to our customers that have received their licence from us and/or have bought gliders from High Adventure during the last two years.

If you wish to join in on the remaining three days the cost is \$90 per day and includes all your towing, instruction, guiding and XC retrieval.

Accommodation can be organised at Gunnedah as the road system is better from there than Tamworth.

Course is limited to 10 persons.

Further courses will be run in late February and mid March 2003.

We will be also running a "free" three day thermal XC program from Laurieton on 2 to 4 December, this will be mountain thermal flying.

I can take 15 pilots on this one. Only cost will be to cover overall fuel cost and \$10 per head site fee.

**Lee Scott**

### Australian Paragliding Centre

The Australian Paragliding Centre is expanding and has recently moved to larger premises.

We will still be based in the Paragliding Capital of the World, Murrumbateman, and will be located only a few hundred metres as the crow flies from our old home. To find our new home/office/school and to make navigation a breeze look for the large cumulus cloud positioned daily directly over our house from 9am to 5pm. Come see for yourself!

You are all welcome to drop in for a coffee or a chat anytime, but please call beforehand to be sure we're home and not circling high above the house.

Our new address is:

3 Hall Place, Murrumbateman NSW 2582.

Our new postal address is:

PO Box 370, Murrumbateman NSW 2582.

Telephone/fax numbers are the same:

02 6226 8400. Mobile: 0412 486114.

**Peter Bowyer, Australian Paragliding Centre**

## NEW PRODUCTS

### AV-Pilot Vario

Bräuniger are pleased to announce a new low cost vario, the AV-Pilot.

Bräuniger have designed this instrument based on the successful IQ-Comfort. The

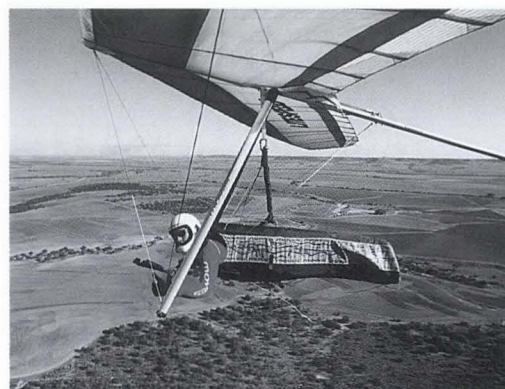


AV-Pilot is specially designed for paraglider pilots who are entering the sport or for pilots who just want an easy-to-use-instrument. There is no speed probe connector available. The case is in a translucent iMac blue. The components are the same high quality as all Bräuniger instruments.

The new AV-Pilot is available through Moyes Delta Gliders, 1144 Botany Road, Botany NSW 2019, ph: 02 9316 4644, fax: 02 9316 8488, [www.moyes.com.au].

### SkySpare Reserve Parachutes

High Adventure are the exclusive importers for SkySpare reserves. The SkySpare reserve is certified to the European Norm (EN), being the new and current standard for certification in Europe. SkySpare also make reserves under licence to other manufacturers, so why pay more for a brand name when it's the same reserve? Visit [www.highadventure.com.au] for more details on these high quality reserves.



**Soaring Mt Rennie, Geraldton. Taken with Cannon EOS 300 with 20mm wideangle landscape lens and 1kg counterweight on opposite wing**  
Photo: Steve Ewen

### OziExplorer

OziExplorer has gone 3D! That means it is now easy to create and use 3D terrain data and flight logs. Also Auslig have released a CD that provides Australian height data!

This product gives good resolution at nine second intervals (250m). It is called GEODATA nine second DEM. (DEM = Digital Elevation Model). The two products go hand in hand which makes it very easy, and of course they are both Australian products. The DEM costs \$97 for all of Australia, and the Ozi 3D updates costs \$40. They are both available from [www.ozieplorer.com]. Remember that you still need to have the 2D Oziexplorer (\$130), and the Auslig TOPO maps (\$97) before upgrading. All that adds up to \$364 for every map of Australia complete with DEM data, and the software to use it all!

## FAI NEWS

### World Record Claims

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

**Claim number 7459**

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

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

Course/location: Mansfield, WA (USA)

Performance: 44.1km/h

Pilot: Martin Henry (Canada)

Hang glider: Aeros Combat 2-14

Date: 24/7/2002

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).





# Experiences of a New Gliding Club Member

Brian Talbot

THE FIRST TIME I'D HEARD OF TEMORA WAS MANY YEARS AGO WHEN, AS A PMG (PRE-TELSTRA DAYS) TECHNICIAN IN TRAINING IN SYDNEY I WAS IN DIGS WITH A FELLOW COUNTRY TRAINEE WHO CAME FROM TEMORA. NOW, MANY YEARS LATER THAT NAME RE-SURFACED DURING NOVEMBER OF LAST YEAR WHEN FELLOW MEMBERS OF THE SYDNEY GLIDING CLUB DISCUSSED THEIR ANNUAL CHRISTMAS CAMP PROGRAM.

**B**eing a member of the club for only two months I did not really have any firm idea of what was being talked about, only that it was being able to fly higher than 4,000ft, attempting cross-country flights of various distances, outlandings, silver badges, silver badges with diamonds – the latter two sounding very familiar to target awards in a party plan organisation my wife was involved with some years ago. In reality it meant that there would be no local club activity at the Camden airstrip for some weeks because the two club gliders, the K13 and Astir including the Pawnee tug were to go to Temora for some serious flying.

As someone who wanted to achieve his first solo flight within a year of starting his training (I'd seen some log books with pages of pre-solo training flights spread over many months and did not want that to happen to me) and being self-employed in the service industry, getting limited leave, I thought that I could be missing out on some summer flying for up to four to six weeks. During discussions outside the hangar by club members as to whom required which glider to go for what award and on what day, I made the utterance that perhaps I should also attend. This was met with the response, and not unkindly, that the time at Temora was meant for members attempting their solo gliding awards, that both club gliders were fully booked and that there would not be any opportunity for basic tuition for beginners like myself. However, if I was available then I was welcome to attend.

Come 27 December and with the completion of the inevitable couple of last minute jobs which always seem to crop up I finally

was able to drive up through the bushfire-smoke-covered Blue Mountains and finally to Temora, arriving late in the evening. Peering through the darkness I could make out club members seated around a camp light rugged up against the cold. A quick chat and beer to wash the dust down, I then attempted to peg my tent down but the ground was bone dry and rock hard – luckily there was a spare tent erected and I was able to use that for the night.

From the start of that day it could be seen that the weather was going to be very hot and club members were keen to make an early start on their allotted tasks. As the morning became hotter, and conditions got better, both gliders were launched for the day and then there was virtually nothing left to do for the rest of us except sit around and wait for their return. CFI Les Kovaks wandered off around the club hangar some time later then came back and asked if I would consider going for a flight in the Temora Gliding Clubs' Blanick L13 which was not being used at the time. Naturally I jumped at the chance!

That flight lasted for well over an hour which, for me, was outstanding considering that my previous training flights were all about 20 minutes and consisted mainly of thermalling – easy I thought at the time in those ideal conditions. Once we got the glider back to the airfield others decided that they would also like to use it and that was it for us for the rest of the day.

The following day, Saturday 29 December, the weather was perfect again with virtually no cloud – I had been under the impression that blue sky was supposed to be ideal. All

the club gliders were launched and again there was nothing for us to do except stay in the shade to keep cool. Les, once more, made the suggestion that my time (and I expect his) would be better spent gaining flying experience and we should take the Blanick up again for practice. I readily agreed and it was decided that we should attempt some form of cross-country training from Temora to West Wyalong to improve my speed control and straight line flying.

My launch left a bit to be desired but once in the air things did not quite turn out as expected. At first, believe it or not we had to scratch around for lift by flying to likely areas such as the quarry or a dark paddock, then later encountered reasonable thermals. Finally we encountered huge columns of hot air that banged beneath the glider. From behind me I could hear Les hooting with delight as he yelled 'this is what gliding is all about Brian'; from that point on the cross-country attempt was a lost cause – it was back to thermalling. We could hardly miss a trick, no need for tight turns to remain in the columns which was just as well as I was checked several times by Les for getting pushed out of turns by the effects of the upward thrusts. We kept rising and rising and before we knew it we were at 10,000ft – what a pity I wasn't going for a height award!

We knew one of our club members would be entering our area as he was returning to Temora via the West Wyalong direction so we attempted to make contact with him. We succeeded when a few kilometres apart. It really gave me a buzz when we made visual contact with him in the K13 a short time later – it was hard to miss the distinctive red and yellow livery – and flew beside him for a time. I was also impressed by the fact that conditions were so good that when the time came for us to return to Temora we had to work to descend by applying dive brakes and carrying out 'S' bends to wash off height to get down! Once back at the airfield the word was quickly spread about the excellent conditions and those club members not flying were encouraged to beg, borrow or steal a glider to attempt their Gold Height award.

One of our members should receive a special mention for his ability to recover from potential disasters – he managed to



hit the only sheep's skull in the paddock chosen for his outlanding and didn't damage the K13 despite the explosive nature of the impact. Then, on landing back at Temora he was the only pilot there who discovered that there was a third runway, much to the astonishment of those watching. On Saturday while attempting his Silver C he had another little problem where he mistakenly released from the aerotow at 800ft instead of 1,800ft and we watched in disbelief as he carried out his dip and appeared to sink low over trees. This turned to admiration as he scratched around and slowly but surely gained sufficient height to continue with his task, surely an occasion he, and us, won't forget in a hurry!

Flying instructor Bill Wotten, after years of trying, finally experienced conditions that allowed him to gain his Diamond Goal. He was having such a ball that on his return to Temora he delayed his landing by continually circling the airfield. On landing he couldn't wipe the smile off his face and was on a high for the rest of the day – congratulations. Also, congratulations to Dr Low for gaining his Silver C and to Astro, Pippi and Jacko for their Silver C and Gold Height. Terry

had some good cross-country flights and Eddie had a good time just flying. Mick and Eddie, our tug pilots, put in a lot of hours especially when the situation got very busy prior to the arrival of tugs from other clubs. Les deserves a big mention for just being there, offering advice and making sure that members were well prepared for their certificate attempts.

Most of the members reluctantly had to pack up and return home on New Year's Eve which then left Les and a few others able to plan their own agenda. Unfortunately, a couple of days later, the weather deteriorated due to strong winds so the group abandoned any ideas of staying on for some serious cross-country flying and decided to return home as well.

The 'old' hands said that it was probably the best camp that they had attended at Temora for a long time due to the excellent weather and flying conditions. I know that I had a good time and learnt a lot and am looking forward to the next one. Everyone appreciated the facilities provided by the Temora Aero Club which made camping just that much more pleasant.



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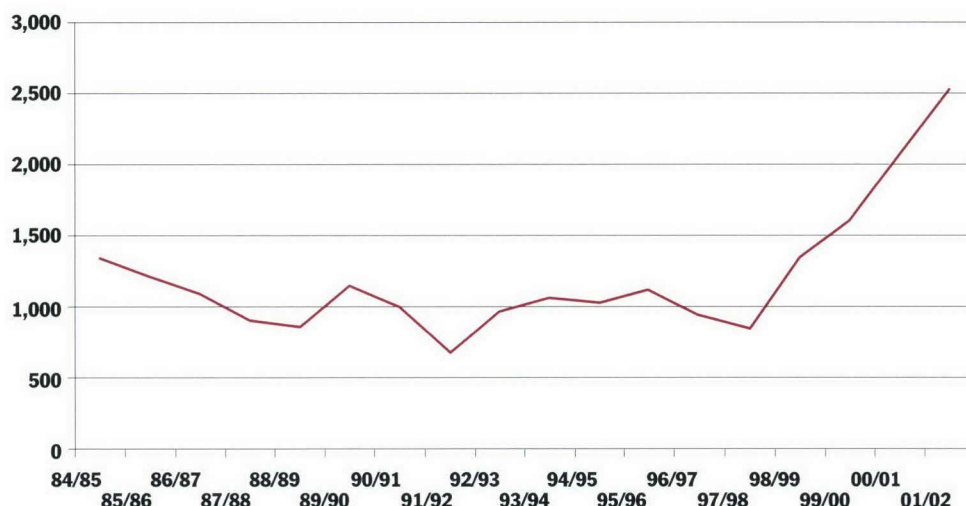
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# IT CAN BE DONE

Ralph Henderson, President, Darling Downs Soaring Club

## HOURS FLOWN IN CLUB GLIDERS



The above graph shows the hours flown in club gliders by the Darling Downs Soaring Club over the last 18 years.

For many years we have all read and written about the decreasing number of members, lower levels of activity and general decline in the gliding movement. The above graph shows that it does not have to be so and that increases in membership and activity can be achieved.

What follows is an account of what our club has done over the last five years to achieve this turnaround in our club's fortunes. This is written to show that it is possible and that it can be done. Hopefully this will motivate, inspire and guide others to share in the opportunities that are there to be had.

Five years ago our activity levels were down, our flying hours were down and we were hurting financially. Fortunately, some farsighted and hardworking members of our club, decided to do something about the poor position our club was in. I was only an interested observer at the time.

They set in train a sequence of significant events that are now paying dividends. Over the last five years many members have worked hard and contributed to our success and this good news story would not have been possible without all their efforts.

My earlier view of gliding club management was that it came down to three 'A's – Assets, Activities, and Administration, however I now know there is a fourth, Attitude.

### ASSETS

We had taken some steps forward in 1994 and 1995 when we built a hangar extension to house six private aircraft and replaced one of our K7s with a Puchacz. But the real advances have come since 1999. Over the

last four years we have spent over \$300,000 upgrading our club assets with the purchase of a second new Puchacz two-seater, a Cessna tow plane, additional land to widen our airfield, an Astir single-seater, a second hangar extension and a Ventus. These funds have come largely from revenue plus the sale of outdated assets, donations from generous club members and one relatively small government grant.

We bought the Astir because our early solo pilots were losing too much flying time waiting for a turn in the two-seaters before they were able to fly the Hornet. We bought the Ventus because the glider doing the most hours in our club was our top of the line LS7. We simply needed another top of the line glider.

We bought a second tow plane to give us greater certainty of towing availability when one tug was unavailable and so that we could operate at two sites simultaneously, ie, maintain a normal club operation and have fly-away weekends and support local competitions. The tug also enabled us to train tow pilots.

We bought additional land to widen our strip and make our operations safer. The second hangar extension houses three privately owned gliders and one tug. We also spent some lesser amounts of money upgrading our clubrooms.

We also invested in a new and, at the time, unconventional asset, a website. The website was established in 1998 and included a weather station, a web cam, an online aircraft booking system and a chat line. The weather station enabled members, many of who live more than two hours drive from the club, to check the latest weather conditions on the Internet. The web cam provides regular pictures of the current weather conditions outside the clubrooms.

This means that before leaving home you can check yesterdays and previous days weather, read the forecast, look at the satellite picture, and more importantly, look out the window. The address is [www.ddsc.org.au].

### ACTIVITIES

The big turn around came in 1998 when a strong marketing and promotion effort was begun and we became active again. Our December 1998 newsletter said:

*"Another year has come and nearly gone, but, at least we can say we accomplished something. It has been a big year in a number of ways. We took on the scouts, changed our prices, bought a new pie cart, started wearing name badges, flew pylon races, visited Watts Bridge (a ridge-flying site), looked for the wave from the Kingaroy side, resurrected mid-week flying, completed some flying training courses, put winglets on the LS7, appointed a marketing and promotion officer, conned a new editor into writing CHAOTIC (our monthly newsletter), restarted the club comps, changed the format of the AGM and dinner, set up a website and conducted successful working bees."*

As the graph shows, 1998/99 did prove to be a big year for the club with a 60% increase in hours flown leading to a 15 year old record being broken. Many of these excellent initiatives continue today, some have fallen by the wayside and other new initiatives have been added.

We strongly support members participating in local competitions, particularly our low key Easter comps. We got to the stage this year where we shut down our home operations and took the whole fleet, gliders and tugs to the Easter comps in Chinchilla.

The high level of club member participation at this competition, more than 20 pilots, led to renewed interest in cross-country flying in the club. We now have monthly cross-country training days, which consist of a short lecture, weather briefing, task setting and team flying. These days have proved to be very popular and club aircraft are booked out well in advance. They are an addition to our previous cross-country training program.

We attracted four groups from England to come and fly with us for periods of up to three weeks. While these expeditions produced additional revenue, they required a fair amount of work. However, the benefits were far more than monetary. They caused us to get better organised, they gave us a goal to work toward, to upgrade our ground facilities and make the place look better.

Perhaps more importantly, they inspired many members to join in and fly and socialise with our visitors. More than 50 club members contributed in some way to the last



expedition. The expeditions also gave us an excellent media profile with any number of local newspaper articles and radio interviews.

With support from the Queensland Soaring Association we ran a Youth Scholarship, which resulted in four new young members. This has made it easier to attract other younger members. The injection of some youthful enthusiasm into the club was good for all of us and changed us as a club. Our recent marketing efforts have included a range of clothing with the club logo and a range of wines with club labels, which we sell at the club bar.

## ADMINISTRATION

Most of us join gliding clubs to fly. Administrative workloads must be minimised to give people the maximum opportunities for flying. The website is now our core repository of information. It contains flight manuals, rosters, operating procedures and other information. The attached chat line is the principle means of communication.

Over 75% of our members now have email addresses. Almost all new members have e-mail addresses. Our newsletter is now only printed and posted to those without email. Other members receive it electronically which means they receive it the day it is written, not a week later. We use email as much as possible.

We administer the club in a very open, accountable and democratic way. We have a general meeting every second month with a normal committee meeting in-between. Attendance at general meetings is usually 20 to 30 members. Meetings start and finish on time and are agenda driven.

We manage the agendas for the general meetings in an effort to make them interesting for members. We generally put major decisions through a general meeting. This year these decisions have included deciding not to buy a high performance two-seater, deciding to buy the Ventus, deciding to increase most of our fees and charges, revising our rebate scheme, deciding to increase our level of public liability insurance and deciding to become an incorporated association rather than a company.

In most cases the background information was supplied to all members through our monthly newsletter before the meeting. Members were then able to come to the meetings well informed. This resulted in sensible and constructive debate, which lead to good decisions, which have the support of the members.

At general meetings we deal with the important issues first and those on which we want members' input. We minimise the

administrivia and do not follow a traditional agenda. The trivia of minutes of past meetings, matters arising and correspondence are dealt with quickly at the end of the meeting, if at all.

Detailed financial reports are provided at all meetings and are available to all members. All members who attend general meetings know as much about the club's finances as the committee members. Committee minutes are available in the clubrooms and are on the website. We endeavour to involve as many club members as possible in club activities. When we are looking for someone to take on a new task we look first for someone outside the committee.

## ATTITUDE

We have consciously set about establishing a friendly welcoming attitude toward club members and visitors. There should be no difference in our approach to members and visitors. We all have something in common, an interest in flying. We try to make everyone welcome at our club and make it an enjoyable place to be. We try to encourage and support everyone in their flying, regardless of who they are, or what stage they are at.

We established an effective duty pilot system. Key among the duty pilots' responsibilities is welcoming everyone to the club, ascertaining their requirements for the day and then organising the days flying to maximise everyone's flying opportunities.

As well as being friendly and welcoming, we try to take a professional and business-like attitude. We need to take over \$1,000 a day, every Saturday and Sunday during the year if we are to survive. Our principle source of revenue is glider time and that means gliders in the air as much as possible. Efficient turn around is important. Lose an hour's glider time every Saturday and Sunday due to poor turnaround and we have lost \$30 a day or \$3,000 a year. And it's more than that. The more time gliders spend in the air, the more time members are spending enjoying themselves and that's why they joined the club in the first place.

Good teamwork is necessary for a successful day's operations, just as it is in all other areas of club activities, administration and asset maintenance.

All our committee members are active members of the club. They spend time at the club and know what is going on. Only one committee member is not on the duty roster somewhere, and that is only because we won't let him be on it because he does too much other work for the club. On one of our recent cross-country days we had all but one committee member involved in the day's

operations, and he would have been there too if he hadn't been in Darwin.

## SUMMARY

We still have areas to improve: our club rooms and caravan are not up to the standard they should be, we want to be able to send invoices and receive payments electronically, we want to improve our member retention by introducing a mentoring program and improving our post solo training, and we want to attract more expeditions and improve mid-week utilisation of our otherwise idle fleet.

My short list of the essential requirements for a successful modern club is:

- *Modern, well maintained and well instrumented aircraft*
- *Good clean ground facilities*
- *Enthusiastic and motivated club members and a high level of activity*
- *Maximum use of modern electronic communication*
- *Open, accountable and democratic club management*

Over the last four years we have been successful, but success is a journey not a destination, and our journey has many kilometres still to be flown.

It can be done, you just have to want to do it.



## 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 .....

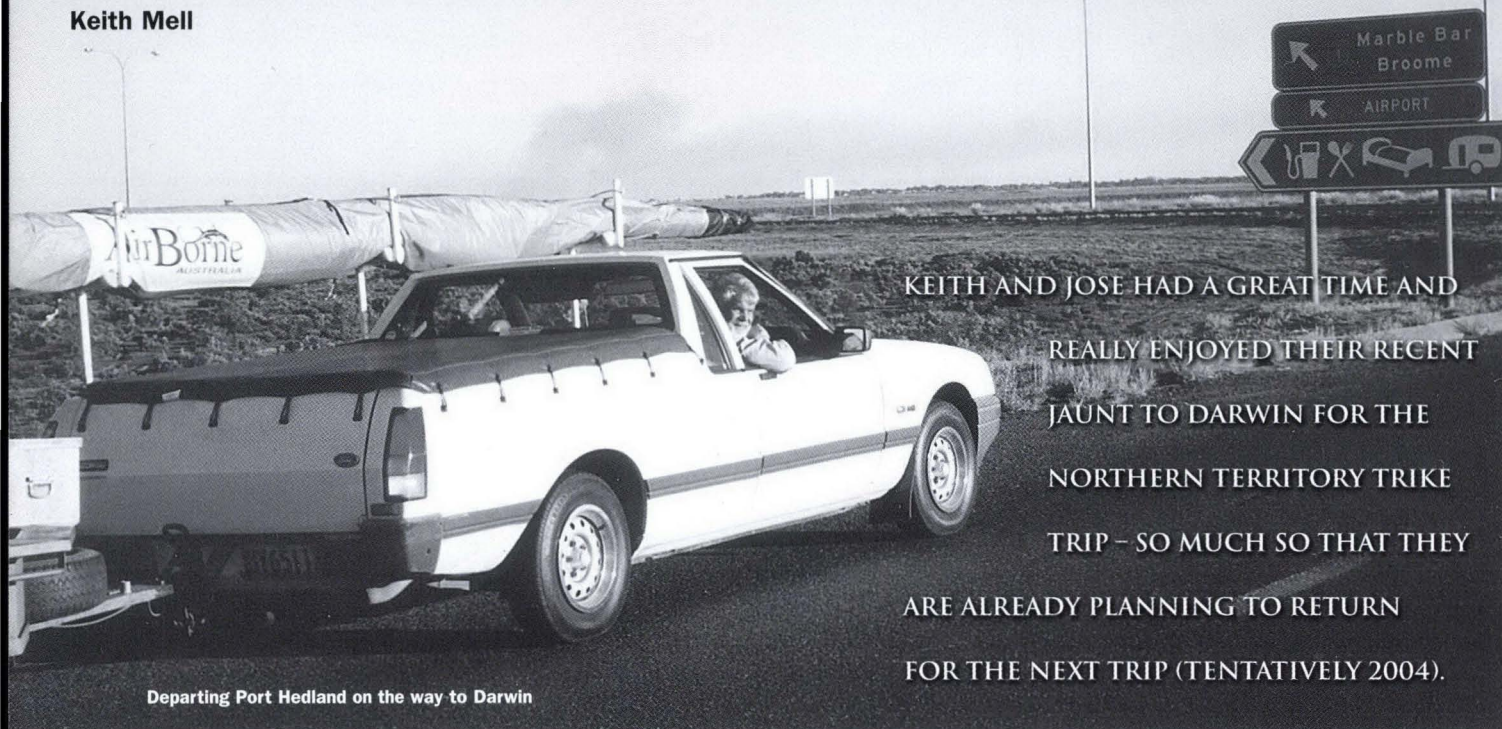
\* prices include GST

Forward to:  
GFA Secretariat, 130 Wirraway Road,  
Essendon Airport VIC 3041



# IT REALLY IS A SMALL WORLD...

Keith Mell



KEITH AND JOSE HAD A GREAT TIME AND REALLY ENJOYED THEIR RECENT JAUNT TO DARWIN FOR THE NORTHERN TERRITORY TRIKE TRIP – SO MUCH SO THAT THEY ARE ALREADY PLANNING TO RETURN FOR THE NEXT TRIP (TENTATIVELY 2004).

Departing Port Hedland on the way to Darwin

After months of preparation, catering for a trike, a trailer and camping gear for our trip to the Northern Territory, the day finally arrived. Endless days of driving north through such tremendous country did not seem unfamiliar to us. To Jose and myself it was a continuation of a trip that started out when we were first married. Our intention back then was to travel around Australia before settling down and having kids. We got as far as Port Hedland before we returned to Perth due to our first child on the way. Christmas of '74 was when cyclone Tracy hit Darwin and we would have been there for sure. It wasn't until we saw the display at the Darwin museum which showed the full extent of the disaster that it really hit me.

The accompanying photo showing the road to Broome has significance for us, as it was the next step of the journey that we didn't make. I would not like to have towed my trike over it back then. From what I remember the small section that we had been on was extremely rough and dusty.

We were now heading for MKT, a strip approximately 30km south of Darwin, just off the Stuart Hwy at Noonamah, which would be our base strip (home of the Top End Ultralight Club). MKT, labelled on the charts as Emkaytee, is brought about by the initials of the children of Kath, the owner of the airstrip. I would loved to have had a photo of Kath, however she always managed to side-step me when confronted with the camera. A truly delightful woman and a pioneer of aviation in the area.

The Top End Ultralight Club consists of various aircraft including drifters, gyros, a thruster and of course many microlights. (One microlight has been adapted with a BMW motorcycle engine, which we hope to be able to supply more information on at a later date.) The club differs from my own with the availability of places that cater for them; some being tourist locations, and one a resort called 'Crab Claw', approximately 25 nautical miles west towards the coast to which we flew to for breakfast on several occasions. This is mangrove country with tidal creeks.

To the south within the 25 nautical mile radius is Manton Dam – a huge reservoir which supplies the Darwin area. To fly there you pass over an abundance of mango farms and the Northern Territory

Wildlife Park. There are several WWII airstrips within the immediate area, still serviceable.

To the east is Humpty Doo, which reminds me of Coolgardie country, later on becoming a marsh with the occasional creek which seems to extend forever. Many brumbies, buffalo, crocodiles and an incredible amount of birdlife.

The area to the north soon becomes controlled airspace. All of the area described above has a ceiling of 2,500ft, and it's not until Manton Dam that you can climb up a bit to 4,500ft. Circuits at MKT are at 500ft, however you arrive at 1,500ft.

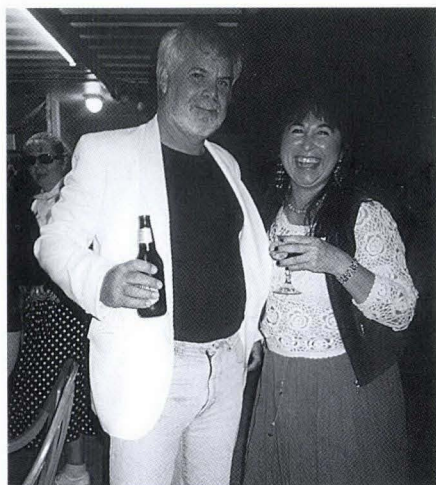
The trip was exceptional, however with all the careful preparation one puts into a trip like this, it's always the unexpected that will get you. Here's an example. While flying a lot of tiger country over Kakadu, I lost a lens out of my glasses. No problem though because I had a spare. But then, on the very next trip, I broke the side arm on the spare pair. On expressing my exasperation of bad luck and futile attempts at repairing them, Peter Lucas, a fellow pilot, gave me a pair of "El Cheapo" glasses that sort of did the job well enough for me to set up the GPS for a local flight. Then I put them in my pocket and, you guessed it, they weren't there when I landed. Nor were they anywhere where we taxied. We gave up looking and as I'm driving back to the camp, there they were at the end of the strip. Still in good condition, considering they must have fallen at least 300ft.

There were bigger surprises than that, though. Imagine what your reaction would be when your elderly mum (now living in a small retirement village), phones up just prior to your trip to Darwin and tells you that she has just been talking to her neighbour and that her son too is currently up in Darwin. She told me he is learning to fly and that I would more than likely meet him when I get there.

Yeah, nice one mum, he probably flies GA out of Darwin airport and not MKT.

I'm glad I didn't say that because five days later I rock up at MKT and the first person I happen to meet is a guy with a Drifter (Fred Woods) who says to me "Your mum wouldn't be in Menora?" Even more to my surprise was this other bloke Bill Carey (a previous member of South West Microlights) who's elderly mum lives in the





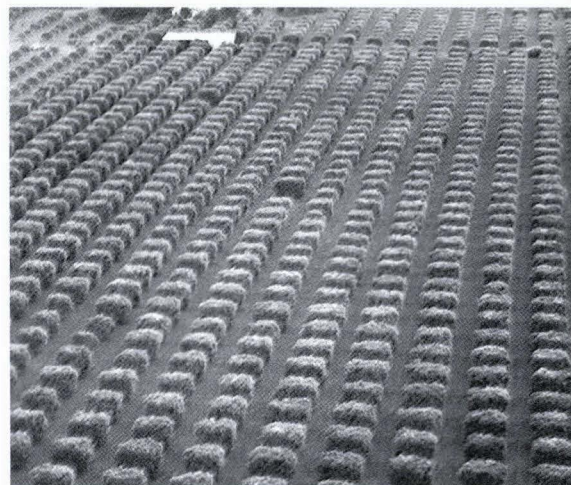
Photos: Keith Mell



The three amigos in Darwin – Bill, Fred and Keith

Left: Keith and Jose

Right: Flying over a large mango farm



retirement village right next door to my mum's and met Fred's mum while waiting for a bus. Is it a small world, or what?

The whole time I was away it always amazed me that the people we met either were from, or knew people from, the area that we've come from. I suppose this may have been because upon meeting people the leading question usually asked was, "Where do you come from?" Like after our landing at Pine Creek several of the locals came out to meet us, one being Chas Collins, who turns out to be from Donnybrook. His uncle, Noel Collins, is author of the book 'Tigers to Bombers', known to not a few microlight pilots.

On our return trip, while crossing over a bridge, I noticed there was water on the floodway below (that would have been used prior to the bridge being built) and took the opportunity to wash the trike and trailer. What would you know, but the only other person to have parked there said, "Hey, I know you." What was so extraordinary about this was that Jose knew him as well, as he had built a house through her building company.

While taking a swim in a place called the Grotto just out of Windham, we met some people from Busselton. Their conversation

got around to four wheel driving on the Gibb River road, and they seemed enthralled that they had spent over an hour to travel 17km. To me that seemed a total waste of time, and later the conversation (which included another couple as well) drifted into the pros and cons of four wheel driving. To me this seems like arguing the difference between Holdens and Fords – much of a muchness, so I left them to it. I returned to my vehicle before he did, and the poor bastard nearly had whiplash when he saw that I had been towing an aircraft behind the ute – it's the only way to see this sort of country.

Of great concern to me while driving were the kites and eagles who were everywhere, feeding on the abundance of road kill. They tend to take off at the last minute, sometimes in swarms of 30 or more and just clearing the vehicle. Of major concern in this matter was the prop, which could easily have been snapped.

The sun tan has faded now, and even though I've been back for a few weeks, I'm still not used to the cold weather or flying in a freezer suit again. Since I've been away, Bunbury now looks very green with water lying everywhere. I still can't get used to not constantly looking out for crocodiles or buffalo.



# GFA Badges & Certificates

## FAI REPORT AUGUST 2002

### A CERTIFICATE

McCLANAHAN Craig Lee	10717	Albury/Corowa
HARTMANN Mark	10720	Byron Power
BOTT Geoffrey Peter	10725	Bathurst
CROWHURST Peter Brien	10726	Lake Keepit

### B CERTIFICATE

TANKARD Lewis Arthur	10652	GCV
McNALLY Cassie Anne	10562	Narrogin
PLESSER Gil	10645	Byron Power

### A AND B CERTIFICATE

HARRIOTT Matthew John	10719	NSW AIR TC
FAWCETT Steve	10724	Port Augusta
DAVIS Jo	10727	Darling Downs

### C CERTIFICATE

MITCHELL Sandra Louise	10664	Byron Power
SAUNDERS Michael John	10713	Bundaberg
POWER Kimberley	10677	Geelong
KELLY Michael Patrick	10655	Adelaide SC

### A, B AND C CERTIFICATE

KEMP Jeff	10718	Lake Keepit
ROACH Dianne Margaret	10721	Gympie
DEAL John Charles	10722	GCWA

### A, B AND C CERTIFICATE continued

CRUICKSHANK Ian	10723	Locksley
MISTRY Bhupendra V.	10728	Bathurst

### GOLD C

BENSTEAD Phillip Michael	1556	Sthn Downs
GRIFFITHS David John	1557	Beverley

### DIAMOND HEIGHT

WOODWARD Donald George	Beverley
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### DIAMOND GOAL

WOTTEN William	Concordia
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Claims for all badges and certificates to:  
FAI Certificates Officer Beryl Hartley  
PO Box 275, Narromine NSW 2821  
Ph: 02 6889 2733 (w), 02 6889 1250 (h)  
Fax: 02 6889 2933, Email  
<hartley@avionics.com.au>

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

## GFA AIRWORTHINESS DIRECTIVES

### GFA AD 337 – Issue 4

**Types affected:** General AD, not specific to type.

**Subject:** Airworthiness surveys and life-extension inspections.

### GFA AD 570 – Issue 1

**Type affected:** Stemme powered sailplanes with light metal (aluminium alloy) control rods, as follows – S10-V, serial numbers 14-004 to 14-030, 14-042M and 14-047M; S10-VT, serial numbers 100-001 to 11-063, except for 11-002 and 11-009.

**Note:** S10 models are affected if they have had light metal control rods fitted as a result of modifications after repairs, otherwise they are not affected.

**Subject:** Checking of the curled or pressed ends of light metal control rods for visible cracks.







IT'S HARD TO  
BELIEVE THAT  
IT'S 2AM, AND  
A PARAGLIDING  
AND HANG GLIDING  
COMPETITION IS  
IN FULL SWING.  
BUT THIS IS THE  
MIDNIGHT SUN  
CUP, PERHAPS  
THE MOST  
UNUSUAL FLYING  
COMPETITION  
IN THE WORLD.

## MIDNIGHT SUN FLYING

David Leith

The sun at midnight 12:30am during the Midnight Sun Cup, silhouetting the island of Landegode

I came upon this unique event during a recent visit to the town of Bodo, in northern Norway. Despite what I would have thought about this cold and distant place, there is a thriving local club which hosts this all-night flying competition in early July every year.

Bodo is a few kilometres inside the Arctic Circle. For two months, the sun doesn't set on this spectacular flying location, with its enormous grassy take-off hills, long ridges and soft landing places right beside the fjord. So, this has got to be one of the most picturesque and versatile sites in summer. The sun navigates an unusual course from east to west across the southern sky during the "day", then arcs back across the northern sky during the "night", to where it started. Of course, Bodo is not so good in winter, when it's pitch black for weeks on end!

The town has a strong tradition of aviation in general. The airport doubles as an airforce base, so on most days the air reverberates with the roar of F16s and Mirages. The national aeronautical museum is also located here (not a bad place to spend a couple of hours if flying isn't on).

Every year, the Bodo Hang and Paraglider Club issues an international invitation to come to its Midnight Sun Cup. The competition usually starts on the Friday afternoon and concludes 48 hours later. For an entry fee of less than \$20, pilots this year received transport to the top of the 340m hill by minibus, all the flying they wanted, and post-flying entertainment which included a Turkish dancer and a dip in a hot tub at the clubhouse.







Even though the weather is rarely what Aussies would call hot in this part of Norway, it's actually a good thermalling location and, while I was there, one local pilot did a 20km-plus flight through the mountains. The main ridge above the town is soarable for 10km.

The competition itself consists of passing a number of pylon turnpoints, which require the use of both the ridge and thermals. There are categories for all levels of pilot experience and, truth to tell, the whole event is not the most hard-fought. Any pilot who actually flies between 11pm and 2am qualifies for membership of the club's Midnight Sun Squadron – once he or she has also succumbed to a “baptism” ceremony back at the clubhouse.

This year there were 76 pilots, including three from overseas. The weather remained good for just one night of competition, long enough to get a result. Sadly, by the time I had arranged to borrow a glider and gear for the following day, the clouds had rolled in from the North Pole and covered the hills. Just para-normal!



All other photos: Flying from Kelservarden, the highest peak in Bodo, 340m above the the fjord

Photos: David Leith



## Miles Gore-Brown, Chairman

**T**his is the first NCC news this year. Many issues have become of interest over the past soaring season and it is hoped that several of the more important ones will be addressed in the coming soaring season. In July the annual NCC meeting was held in Sydney. The minutes of this meeting, which cover many of the topics that are outlined here, will appear on the GFA website shortly.

Topics relevant to the Decentralised Competition will be detailed in a separate article and issues related to the Club Class competition will be detailed in the next issues of NCC news.

The two major issues that have raised concern within the NCC are safety and the future of the Multi-Class Nationals.

Since the Horsham Nationals we have had four mid-air collisions: two with fatalities, and five gliders destroyed. Mid-air collisions along with other safety issues are of prime concern to the NCC. It is hoped that the future initiatives will help to reduce the risks with the aim to achieve a safer competition environment.

In addition to safety the other major issue of concern to the NCC is the future of the Multi-Class Nationals. In previous years the number of entries has been in steady decline. In many cases, some of the individual class events would not have had sufficient entries to meet the minimum entry requirement if it had not been for overseas pilots. If the steady decline of numbers is not addressed soon then the Multi-Class Nationals, as we have known them, will probably become an event that is not financially viable for host sites to run. As such, it is intended to make some major changes to the format of the Multi-Class Nationals in the hope that entries and general interest in the event will improve.

In addition to the major issues of safety and the competition format, changes to the rules will also be discussed. The issues discussed in this NCC news are mainly relevant to the Multi-Class National championships, however it is intended that the general issues relevant to safety and some of the proposed rule changes may be implemented at other competitions in the future.

### Safety

Unfortunately we had another mid-air collision at a competition during the last soaring season. I am sure everybody would agree that this is one too many. Thank goodness both pilots survived this serious accident.

As a consequence, it has been decided to take a more pro-active stance with regard to competition safety. This has been actioned by the formation of an NCC Safety sub-committee. Harry Medlicott will co-ordinate the

committee with the assistance of several experienced pilots. The main aim of this committee is to put together safety-related briefing material to heighten the awareness of safety issues relevant to flying at competitions. It is intended that the briefing material will be distributed on a wider scale in the future. In addition the sub-committee will arrange a compulsory pre-competition safety briefing.

The mandatory safety briefing will be conducted on the first competition day of the Multi-Class National events. The requirement to hold this briefing has been incorporated into the rules and requires competition organisers to hold a compulsory briefing with the attendance of all competitors, without exception. It is also intended to call upon pilots with relevant experience to conduct specific talks on safety issues such as look out, dehydration and other safety-related topics. I call upon all pilots to take this seriously as it will be treated seriously at the competition. We must do all that is possible to improve safety at our competitions. This small step is the beginning of a wider scale safety-related campaign.

In order to try and address competition safety issues a Confidential Reporting System (CRS) will be introduced. The CRS will be aimed at trying to identify those safety aspects of the competition that can be improved, ie rules and flight operations. In addition the CRS will also be available for pilots to report unsafe flying by other competing pilots without the fear of peer pressure.

At registration a CRS form will be distributed to all competing pilots. The CRS form will be a questionnaire covering most areas of competition flying, ie start and finish procedure to tasksetting and general organisation. There will be a CRS box available for the submission of these forms. The forms will be confidential with the name of the submitting pilot withheld and only used as a means of communication for further action and input. The CRS is implemented to try and improve safety and act as a conduit for an educational initiative. It will not be used as a "policing" tool.

In addition it is intended to split the Multi-Class National championships into two events. Each event will comprise of a championship for two classes. In this way the total number of gliders flying in any one combined event will be reduced considerably. This will reduce the number of gliders within the competition area and hopefully reduce the level of possible conflict. The issue of splitting the championship is detailed as follows.

### Multi-Class Championship Format

A major issue that has concerned the NCC is the declining numbers attending the Multi-Class Nationals.

There are possibly many reasons for the constant decline in numbers. Long gone are the days when we had over 60 gliders attending what use to be called the FAI National Championships.

The championships have historically been held over a two-week period inclusive of two three weekends, ie 16 days. In the past the concept of holding one major two-week combined class championship was very popular for many Australian and overseas pilots. This "long" competition period is quite unique to Australia as several overseas countries hold their National event over a seven to eight-day period. In addition many countries hold an individual event for each class.

It has also been implied that the current two-week event tends to reduce the necessity of setting tasks on difficult days, especially if the competition has had several reasonable competition days. This is not desirable and tends to dilute the requirement of a long event. In addition in the current two-week event it is a (rule) requirement to hold a rest day if several competition days have been flown in succession. Both of these situations indirectly reduce the effective number of days actually available for flying in a two-week event.

In the current climate it is believed the major issues that have affected the number of pilots flying in the event are:

1. *The length of the event,*
2. *The costs involved in attending the event,*
3. *The perceived safety issues, and*
4. *The time of the year when the event is held.*

In addition to this it is also understood that there are more events available for pilots of older generation gliders to attend where they can fly in a more competitive environment. The NCC has attempted to make the Multi-Class Championships attractive to pilots who own these gliders by allowing the majority of the older generation gliders and two-seater gliders to enter in 18 Metre Class. This change is showing signs of popularity, and it is hoped that in the future the number of older generation gliders attending the event will increase.

The major initiative that has been proposed is to shorten the period of the Multi-Class Nationals to a seven to eight-day event, inclusive of the two weekends, in an attempt to try and boost the numbers of pilots entering each individual class.

It is expected that by shortening the event there will be a considerable cost saving by:

1. *Reducing the number of aerotows required, ie approximately \$300 saving,*
2. *Reducing the accommodation expenses by half, depending on the level of accommodation – a saving up to \$500 is possible,*





3. *Reducing the tug ferry fee component of the entry fee as the required number of tugs will be reduced (see below) and*
4. *Reducing the amount of annual leave/holidays required for the event.*

In the current climate where costs are of prime importance along with free time, it is hoped that the reduction of costs, and the time required, will make it more attractive for pilots to attend the event.

It can only be assumed that the level of attendance at most State Championships is an indication that a one-week event as compared to a two-three week event is easier to arrange leave and is considered by most pilots to be more cost effective. Currently, a minority of pilots dedicate three weeks for the current Multi-Class Nationals inclusive of practice days and transport time. It is understood that in many cases this is a major strain on the family/budget and also on annual leave allocation.

It is hoped that reducing the period of the Multi-Class Championships to a one-week period will make the event easier to arrange and also less expensive and possibly more "family"-friendly.

In addition to shortening the period of the event it is also proposed to split the event into the following two groups:

Group 1. Standard Class/18 Metre Class and Group 2. Open Class/15 Metre Class.

Initially it is intended that the two events will be held back to back so that the current two-week competition period remains. Instead of having the current combined two-week four-class event, two one-week two-class events will be held. Group one in the first week and then Group two in the second week.

Having the event in this way, and at the same site, will allow many pilots to fly competitively in two classes of the Multi-Class National. International Team selection policy would need to be changed slightly to cover this situation.

The classes in each of the two groups have been specifically selected so pilots have the opportunity to fly two events over the two-week period. This is possible with pilots flying in two classes, ie Standard Class pilots will be able to fly in 15 Metre Class, 18 Metre Class pilots will be able to fly in Open Class and 15 Metre Class pilots will be able to fly in the 18 Metre Class event. It has been expressed that many pilots would fly in two events if given the opportunity. The grouping of these classes can be changed depending on the level of demand for pilots to fly cross class. It is possible that if a large number of pilots who own gliders such as LS8-18s express an interest in flying both Standard and 18 Metre Class then the class combina-

tion can be changed. The proposed class combination can be refined but it is mainly the concept at this stage that is important.

Unfortunately Open Class will not have a second event. However, as shown, the Open Class event can be held in the second week so that those Open Class pilots who wish to practice at the host site can do so in the previous week. The infrastructure and towing will be available.

It is intended that this competition format will commence with the Multi-Class Nationals after Benalla, and will be conducted on a trial basis for the next International team selection cycle, ie for the next two Multi-Class Nationals after Benalla.

It is understood that this is a major change in the way we have historically held the event, however it is also understood that we must try and improve overall attendance and safety. It is the aim that by changing the Nationals in this way will make the event safer, affordable and easier to arrange the time off to attend.

To try and make this transition as smooth as possible it is intended to hold the first two combined Multi-Class Nationals in the next two-year cycle within the common soaring season, ie December through January. An attempt will also be made to hold the event at the one site for the two-year cycle. In doing this it is hoped that an indication of the acceptance of the change can be measured.

As a consequence of splitting the Nationals into two events the total number of gliders flying in any one of the events will be drastically reduced. Currently 40 to 45 gliders compete in the Multi-Class Nationals within the four classes. It is expected that splitting the event into two groups of two classes will reduce the number of gliders at any one event to less than 30 gliders. This is a 50% reduction in the numbers of gliders competing in any one event and as such will tend to reduce the density of gliders within the competition task area and hence improve safety. However the total number of pilots entering the two events is expected to increase to more than the current 45 gliders. If we end up with 30 gliders flying in the two separate combined events, ie 60 pilots entering in the two events, then we will have achieved a 30% increase in the number of pilots flying in the Multi-Class Nationals. In this way it is possible to have an increase in the total number of pilots entering in the four classes without a considerable increase in the number of gliders flying from the one site at the same time.

It is also hoped that reducing the number of gliders at any one event will attract those pilots who have in the past been apprehen-

sive about entering the event. If in the future it is found that a combined group event is becoming well subscribed then a further split of the classes can be made where appropriate. In the long term it is hoped that it will be possible to have four separate class competitions with more than 15 gliders flying in each class.

It is well known that arranging a competition is not easy. It requires the assistance of many volunteers to dedicate their holidays so that the competition pilots can enjoy themselves, a very selfish sport! It is becoming harder and harder to find volunteers to do these jobs especially for a competition that runs for two weeks. It is hoped that splitting and reducing the period of the Nationals will make the event easier to organise and source volunteers to help run the event.

As a consequence of grouping the classes together it is also expected that tasksetting will be easier as the number of different tasks required will be reduced. Scoring will be easier and most likely results will be available in shorter time. Lastly, as the numbers are reduced the time to launch and marshal the gliders will be reduced and as such the ground organisation will be made a little easier.

It is easy to see that reducing the length of the event will help make the event easier to organise and splitting the event will make the logistics of holding the event easier, two major problems that are faced with the current situation.

As mentioned, this is a proposal that will be presented to the Sports Committee. However, the proposal was agreed unanimously by the NCC. As this is a major change this issue has been posted on the NCC website for discussion. It is also intended to discuss this issue in detail at the Benalla pilots' meeting. I also intend to discuss the issues with pilots at other events, such as various State Championships, in order to gauge the level of acceptance of holding the Multi-Class event in this manner.

## Competition Rules

As a consequence of the events of the past two nationals several rule changes have been proposed. The rule changes have been implemented to address safety, fairness, and improve the level of awareness of the rules.

The following is a summary of the current changes that will be implemented before the Benalla Nationals.

### Mandatory Equipment:

#### Audio Variometers

In order to improve the general "outside" awareness of pilots it has been proposed to make it mandatory that all competing gliders shall have at least one operational audio variometer installed.



### Stewards

There will be closer scrutiny by the stewards to make sure both the pilots and the competition organisation follow the (intent) rules.

Stewards will also be provided with an authority from the NCC to postpone the event if it is considered the event is not been conducted within the rules. The chairman of the NCC, Sports Committee, or the GFA President would have final ruling on the decision.

Stewards will be available to help with the interpretation of the rules and also to assist with disputes, which relate to the rules.

### Minimum Class Size

The minimum class size has been increased to eight from the current six entries.

### Finish Procedure

It has been proposed to introduce a "Finish Arc" as opposed to the current "Finish Line".

The finish arc will be based on a one kilometre radius centered as close as possible to the physical centre of the airfield. However, either threshold end of the expected runway for landing shall not be further than 500m from the finish arc.

This has been introduced to reduce conflict and improve situational awareness of pilots. It has been an increasing concern that pilot situational awareness during final glides is reduced because pilots are trying to aim for an imaginary finish line between two ground features. Pilots spend a considerable amount of time trying to identify the location of the finish line extremities to the detriment of awareness of other gliders in their vicinity.

The finish arc will be crossed irrespective as to which direction the pilot approaches the airfield. It will not be a requirement for the pilot to focus on a particular ground feature of the airfield in order to achieve a good finish. As such, once the airfield is identified on final glide there is no further requirement of the pilot, except to plan ahead for the circuit and landing, and look out for other traffic. This is considered to be a safer option than the current situation, as the pilot is not required to focus attention to a specific finish line. The pilot can concentrate on the identification of conflicting traffic knowing that as long as the pilot flies to the airfield the finish arc will be crossed.

A landing anywhere on the airfield will be considered a finish.

If for some reason a pilot requires an observed finish time then the finish time will be taken from the time the glider comes to a complete stop after having landed on the airfield.

If conflict is expected because of the final leg task direction then a controlling last turnpoint will be used.

The finish arc is very easy for verification programs to accept. The verification of the finish arc would be no different than the verification of the start within the start cylinder.

### Dataloggers

Garmin track logs will be accepted for primary verification in the Multi-Class Nationals. However, if height validation is required, such as in situations where controlled airspace may be a factor on task, then an acceptable means of height verification will be required.

Loggers without an acceptable height trace will not be acceptable as primary means of verification where controlled airspace is considered a factor. As such, if there is a chance that a task may require height verification then either a calibrated barograph or another logger that provides acceptable height traces will be required.

This change of policy is in line with that used at the Club Class Championships. It is hoped that in the majority of cases this will help to reduce the costs involved in attending the event.

### Ballast Infringements

There has been a growing concern in the past few years that pilots are not following the intent of the rules related to ballast and weight regulations. Flying outside the limitations is unsafe, against the regulations and in many cases provides an unfair advantage over those competitors who follow the rules.

It is a requirement, and the onus should be on the pilot, to prove that the glider is flown within the limitations.

The two percent outside weighing allowance will remain, however a severe penalty will be applied for excess weight above this two percent allowance.

As such, a more severe penalty has been incorporated into the rules by the application of a 100-point penalty for each one percent, or part thereof, over and above the two percent margin. If a glider is found to be 2.4% over weight then a 40-point penalty will be applied. If the glider is 3.3% over weight then a 130-point penalty will apply, etc. The application of the penalty will not change.

If a pilot wishes to make a voluntary weighing, and is found to be overweight, then there will be no penalty applied as long as the weight of the glider is reduced to the allowable certified weight. The two percent margin will not be applied in this case. The weight must be reduced such that the weight as shown on the scales is within the certified weight.

### GPS Flight Logs – Who Owns Them

The NCC has agreed that the GPS track logs are the possession of the competitor. No copies of the logs are to be made without permission of the pilot concerned.

However, an understanding from the pilots will be required so that individual track logs may be used for promotional reasons. A precondition of entry will require each pilot to agree that individual track logs will be available for promotional reasons.

Lastly, in the case of an accident or incident it is also understood that GPS track logs may be used for analysis purposes. In this case every effort shall be made to gain approval from the pilot concerned before such track logs are copied or used in such an analysis.

### Drugs in Sport Guidelines

The use of performance-enhancing drugs has not been outlawed in our national sport as yet. On an international level drug testing is enforced and does take place. For the foreseeable future drug testing will not be carried out at our championships but for educational purposes a document of such guidelines will be introduced as an appendix to the current rules.

### Devaluation Time Interval

The current devaluation time interval is two-and-a-half hours. Tasksetting guidelines are being amended to allow minimum tasks of 200km to be set. In line with this it is intended to reduce the minimum time interval to two hours.

It has been identified that the NCC should take a more pro-active approach to safety and also try to improve the level of competition at a Multi-Class event. It is hoped that the adoption of some of the above changes will help to achieve both of these aims. It is also hoped that competition pilots will provide the NCC with constructive input to try to further achieve the goal of an accident-free competition environment as well as making the event more enjoyable.

Thanks to Nick Gilbert there is a dedicated link to the NCC chat site through the GFA website. If you visit the GFA website and then access the "Competition" link, select the "NCC News" site you will then see links to all the previous NCC News topics and a direct link to the NCC chat site "NCC Discussions Group". If you have an opinion on any of these and other issues then please visit the site and enter in the discussion on the above topics and more. Without input from the pilot group it can only be assumed that everybody agrees with what is being proposed.

I look forward to discussing the above issues with all interested pilots both through the NCC website and also by direct discussion at gliding sites throughout the coming soaring season.

Safe soaring.





# VINTAGE GLIDING REGATTA

## – Stonefield, South Australia

Syd Wright

BETWEEN 5 AND 12 JANUARY 2002 THE BAROSSA VALLEY GLIDING CLUB (BVGC) CONDUCTED A VERY SUCCESSFUL REGATTA AT OUR CLUB AT STONEFIELD. VINTAGE GLIDERS FROM ALL ROUND AUSTRALIA CONGREGATED TO FLY, HAVE FUN, AND GENERALLY PROMOTE THE GRASS ROOTS OF GLIDING-CAMARADERIE.

With the news that our club had been selected to host the Vintage Glider Australia's (VGA) 25th annual regatta, our focus at the club changed from flying to upgrading and refurbishment. The bunkhouse and shower/toilet facilities became a priority. The finished product demonstrated an ability to cater for the 40 or so regatta participants.

We had three visitors from England at the regatta. They were Ged Terry, Ian Dunkley and his wife Pat. Ged makes the pilgrimage each year for the VGA's annual regatta. Ian, who is also associated with the vintage gliding movement in England, was on holidays in New Zealand and took time out to come to Australia for the regatta.

Thirteen gliders were present at the field. They ranged from single and two-seaters to the "Spruce Goose" – a static display undergoing a major refurbishment.

The competition was friendly, devoid of the thrust and parry of the more modern ultra competitive events. As only glider pilots can appreciate, the weather was not always conducive to sustainable flight. Even our resident Met Man, with his vast local knowledge, had difficulty predicting the conditions. They varied from marginal, to windy, to very windy, to extremely hot. With thermometers placed in strategic positions murmurings from the pie-cart one day questioned our sanity – if we were being paid for this we'd go on strike for more money. True grit prevailed and flying continued. Needless to say the first beer at the end of each day's flying hardly touched the sides.

Of the seven competition days four were flyable. This was the minimum for competition results to be recognised. These results saw Emilis Prelgauskas win the Single-seater Class in his Super Arrow with 2,947 points. Second was Paul Clift in his Ka6b with 2,797 points. Phillip Beale was third with 2,750 points in his Boomerang. The Two-seater Class had an interesting result when Emilis and Ian Patching tied for first place. The result was awarded to Ian when he gained three bonus points for landing within two minutes of the designated task duration.

As well as pilots competing against each other the gliders themselves were scrutinised by discerning eyes and perpetual trophies were awarded to proud and deserving owners.

- "Concourse d'elegance" – Best overall, Paul Clift's Ka6b.
- "Best Schneider-built aircraft" – Chris McDonnell's prototype Boomerang.
- "Best single" – Alan Patching's Golden Eagle.
- "Best two-seater" – John Ashford's K2.

From workhorse to show pony, the fact that these aircraft are preserved and still flying is a credit to all entrants. Well done guys.

Highlights of the regatta included presenting Harry Schneider with Life Membership to the Gliding Federation of Australia (GFA). Harry stayed well into the night and informal discussions gave an insight into his life's achievements.

A guided tour of Emilis' Monarto-based gliding museum gave the "bower birds" an ideal opportunity to seek out those hard-to-find bits and pieces required to keep aged aircraft flying. If you are a gliding enthusiast a trip here is a must.

A number of visiting pilots demonstrated their versatility by flying quarter-scale radio-con-

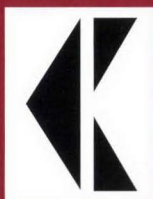
trolled gliders during lulls in operation. One of the members added a touch of realism by providing a radio-controlled tug to aerotow the models aloft. Once airborne you could have been forgiven for thinking they were the real thing as they showed all the grace and poise of their big brothers.

The end of day festivities provided ample opportunity to swap stories. With each telling they appeared to become more embellished. I soon realised that a completely accurate recollection of events shouldn't necessarily stand in the way of a good story.

A lot of hard work – worth it? You bet. In an unprecedented vote the VGA members endorsed that our club hold it again next year. What a privilege – 4 to 11 January 2003. The VGA/BVGC Vintage Regatta. Pencil it into your diary now.

On behalf of our club I would like to thank the visiting members for making the regatta such a memorable occasion and outstanding success.

See you guys next year.



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# Review: THE MOYES LITESPORT – A CINDERELLA STORY

## TECHNICAL SPECIFICATIONS

Area	13.7m <sup>2</sup> (148ft <sup>2</sup> )
Aspect Ratio	6.84
Glider Weight	31.8kg (70lb)
Hook-In-Weight	68-110kg (150-240lb)
Nose Angle	127 degrees
Span	9.7m (31.75ft)

Dennis Pagen

The story of Moyes is almost like the story of Cinderella turned on its head. Imagine the glass slipper being a bit too small for Cindy's work-callused feet and one of her spinster stepsisters fitting perfectly into the magic shoe. This elder sister then gets transformed from a homely also-ran into a morsel of fetching pulchritude and waltzes into the prince's arms. Moyes, the oldest company in our sport had a similar surprise transformation a couple of years ago. They had won everything there was to win, they had a full line of products, but they weren't queen of the ball.

All that changed with the injection of new blood, a new factory and new enthusiasm. The new blood was Austrian designer Gerolf Heinrichs. He initiated the process that resulted in the Litespeed line of gliders. As you probably know, the Litespeed has invaded the planet and shown its prowess in a myriad of competitions. Now Mr H. and Steve Moyes are fleshing out the entire Moyes line. Their newest product and prospect for eager pilots is the Litesport.

I had a chance to dance with the Litesport in southern California after the Air Sports Expo. We spent a day towing at the El Mirage dry lake bed (courtesy of Michael Robertson), and two days pirouetting in thermals at Lake Elsinore. I ended my mini-vacation with a smile and an appreciation for the innovations that render the Litesport unique and desirable. Here's the story:

## LITESPORT PEDIGREE

The last 10 years have brought about a revolution in hang gliding design, as most of us know. Airfoil development, the use of carbon graphite in the airframes and the topless format have given us an increment of performance and a new direction. The topless gliders themselves have gone through

an evolution, and now, in their third generation, they are better handling, more pitch stable and better performing. But this new technology has not really trickled down to the lower design level until now. The Litesport has stepped into the spotlight and demands our attention.

Here are some of the Litesport's features that came from topless development: The leading edges are the exact same as those on the Litespeed. That means they are fully adjustable for handling and are very torsionally rigid. The washout strut at the tip is "sprog-style" – strong, firm and effective. The battens attach with springs and tabs in the trailing edge hem for low drag. The VG system provides a wide margin of sail tension

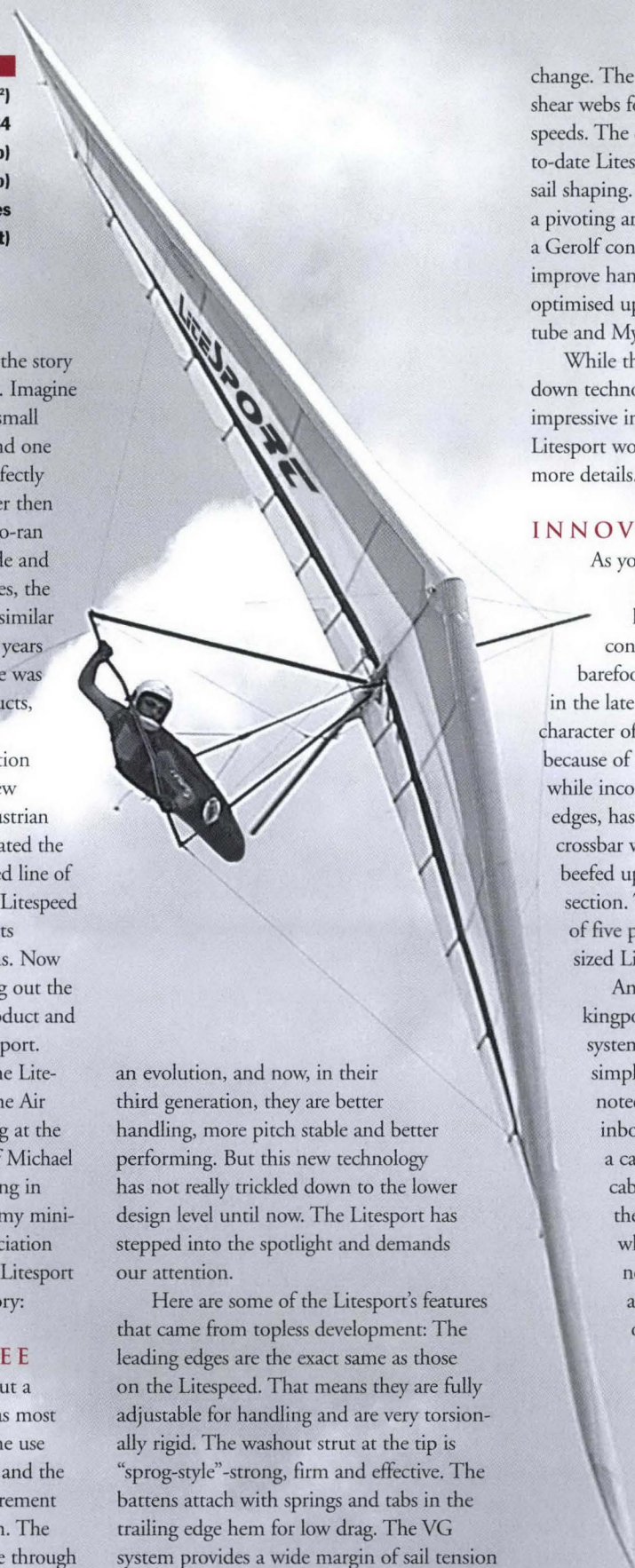
change. The interior of the sail has multiple shear webs for control of the airfoil at high speeds. The curved tips incorporate the up-to-date Litespeed cam lever and sophisticated sail shaping. The hang strap suspends from a pivoting arm (affectionately known as a Gerolf connection or dingle-dangle) to improve handling. The clean hardware, the optimised uprights, the optional faired base tube and Mylar sail all enhance performance.

While this is an interesting list of trickle-down technology, it is certainly not all the impressive innovations that render the Litesport worth a whirl. Let's look at some more details.

## INNOV(AHA!)TIONS

As you can see from the photos, the Litesport has a kingpost. Lord knows, a kingpost hasn't been considered an innovation since barefoot Aussies pioneered the sport in the late '60s, but it does define the character of this glider. For instance, because of the kingpost, the Litesport, while incorporating the Litespeed leading edges, has a much lighter aluminium crossbar without the necessity of a beefed up keel or an outrigger centre section. The result is a weight reduction of five pounds, compared to a similarly sized Litespeed.

Another feature allowed by the kingpost is the unique pitch stability system. The outboard dive stick is simply a Litespeed-style sprog, as noted. However, instead of an inboard sprog, the Litesport uses a cable connected to the upper side cable that is routed to the rear of the sail to create a reflexed airfoil when the angle of attack goes negative (in a dive). The sail attachment point is forward of the trailing edge to make the effect more powerful. The result of the improved pitch stability devices is that they can be set lower so that there is less bar pressure and better high-speed performance than with conventional arrangements. Also, you can relax your





arms more when gliding between thermals for more sensitivity to lift.

But the real forward thinking engineering comes from the ingenious side cable/reflex bridle compensator. When the VG is off, a slider in the kingpost raises the top of the upper cables so the reflex increases and the lower side cables remain tight! This feature is a great aid for launching. No longer do you have to deal with a wobbly bar in warbling air. The feel is solid because the rigging is solid, yet VG travel is not compromised. This cable length control enhances safety and instills confidence.

### SKIPPING THE "LITE" FANTASTIC

Enough of this technical detailing, let's go flying. As mentioned, my first flights on the Litesport were tow flights. We were pulled by a winch in a smooth 20mph ground wind. It's hard to tell how strong the winds were aloft, but the I-15 leading to LA was closed in the Cajon Pass due to three blown over trucks. Yet it was smooth enough on the pancake dry lake. It had been four or five years since I had winch towed, but after a few preliminary flights of increasing height, I step-towed to circa 3,000ft and put the glider through its paces.

Stalls with the VG full off as well as full on were normal for a glider of this format. As the bar was slowly pushed forward, the back pressure increased, the glider mushed a little, then the nose dropped smoothly. Recovery was quick with the bar held at trim. In a similar manner, stalls performed in turning flight resulted in a slight dropping of the inside wing and a quick recovery when the forward push was relieved. The resistance to seriously dropping an inside wing in an over-pushed turn is characteristic of curved tip gliders.

Smooth conditions are not the best for determining handling, but my roll reversals were quick enough for a glider of its performance class. Also, the successful spot landing attempts by Michael Robertson and myself were greatly eased by the glider's benign behaviour and quick response. Landing it with one wing down produced nary a break.

The next two days at Elsinore rewarded us with varied thermal conditions and several hours of airtime. I scratched in broken puffs and locked it into consistent thermals; I wove through canyons and skirted around paragliders; I landed uphill as well as across the slope while avoiding the famous landing field bogey, Mr Death. The glider performed admirably, considering the vast majority of

flights taken by hang and para pilots on those two days were sled rides.

I had the handling to hook and core when I needed to, and the sink rate to rise above the efficiency robbing traffic. At least three times I survived sink cycles by working up from 300ft over the landing field. I also went on a mini XC with Kenny Brown flying a Litespeed 4 and found I could stay with him at best glide speeds. All this apparent bragging is not to impress with my flying skills (I'd be winning meets if they were that good), but to show how the glider has a bountiful performance package.

My winch towing was easy. I expect aerotowing to be the same. One of the reasons for this assessment is the Litesport has slightly more sweep than the Litespeed and thus more yaw stability. I suggest that previous Xtralight pilots will feel right at home on a Litesport. That former Moyes model was known to be a sweet glider, and the Litesport is ready to pick up the mantle. In the words of Mike Barber (US pilot, third in the current world ranking): *"The Litesport tows very nice(ly) even in rough air. With the VG off it is a true intermediate-type glider. When you tell it to turn it turns with no adverse yaw. A big plus is that it lands great!"*

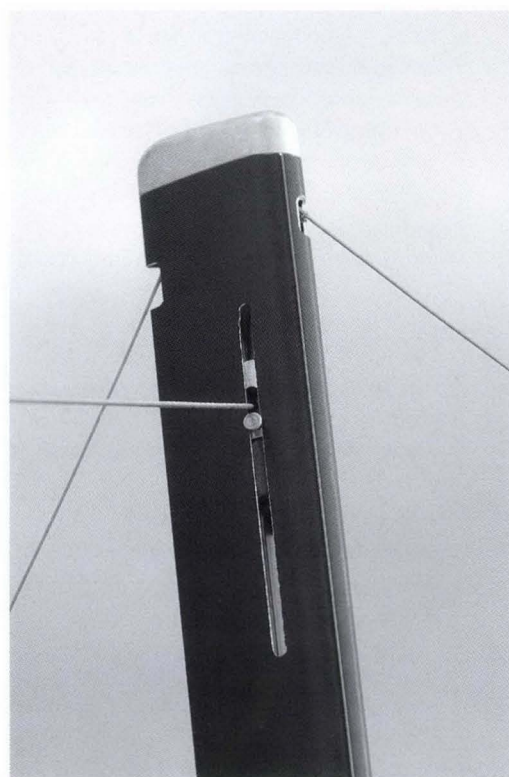
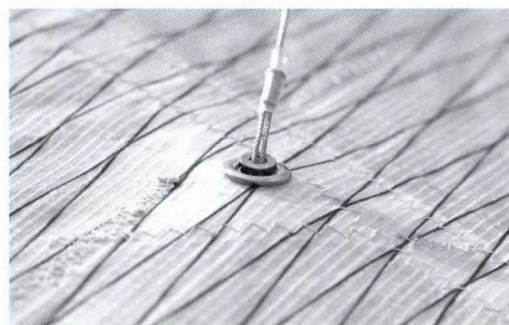
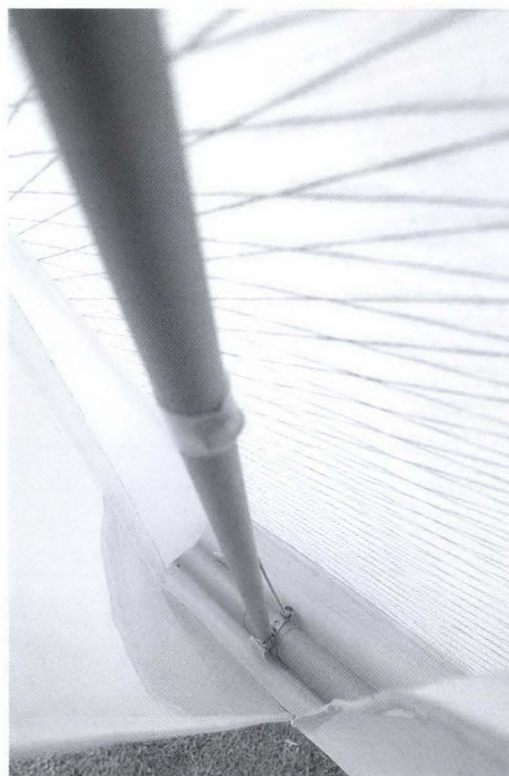
Take offs and landings were very easy; let me explain why: The glider is reasonably light and has tight side cables as mentioned earlier. In addition, it has a slight tail-heaviness. That helps you avoid a nose-in when your flare is not perfect. It is also easier to set pitch on take off when you have a bit of muscle feedback as you run (rather than having no forces and only hand position to monitor pitch setting). Perhaps those who have never flown slightly tail heavy gliders will be unfamiliar with the feeling, but once you learn it, you like it.

### WHY A LITESPORT?

You may (legitimately) ask, *"Why should I buy a Litesport instead of a Litespeed?"*

The answer is, the Litespeed is designed and intended for pilots with solid Hang IV skills and is ideal for XC and competition flying (although it likes to float above a home site as well). The Litesport is intended for an advanced Hang III pilot and above. It is a great recreational glider and is good for XC, but would not keep up with the best topless gliders in competition. (However, we must report that Gerolf flew a Litesport in the last Australian Open and won one day on it!) Essentially the Litesport is a sport version – slightly detuned – of the Litespeed.

In a word, the Litesport is more forgiving than the Litespeed. You've heard that



Litesport details

Photos: [www.essentialpictures.com.au]





term used in comparisons before, but what does it really mean? In this case, the optimisation on the Litesport allows it to slow down 1-1/2mph more than the Litespeed. Also, the greater sweep results in less yaw management required when you get hit with turbulence on final. Also, you have less bar pressure slowing you down on final with the VG off (the Litespeed's greater sail looseness with the VG off results in a strong trim force). In the air you get a bit less penalty for flying too slowly in a thermal turn, or getting yawed or rolled by a gust. All these forgiveness factors are like getting handed "get out of jail for free" cards by your guardian angel. This is what Rob De Groot (former Australian world team pilot) says: *"The Litesport is very light and easy to take off the car and pack around. With the VG half on it is the perfect glider. It handles beautifully and really goes. This glider is perfect for a pilot coming off a Sonic (Moyes' novice glider)."*

Remember the truism: you can buy performance but you can't buy results. If your skills and judgement are not honed to a fine edge, you will perform much better with a Litesport than a Litespeed. Just as we urge novice pilots to exercise patience by reminding them that the mountains will

always be there and the wind will always blow, we remind eager intermediate pilots that the topless gliders will always be there when they are ready for the challenge. This statement is especially true in relation to Moyes, for their track record has already been one of longevity.

In summation, the reason you need a Litesport is to get that increment of performance you have been pining for while keeping your flying in the comfort zone.

### SET'EM UP AND BREAK'EM DOWN

The preparation and packing of the glider are fairly straightforward, so we'll only mention a few matters that are probably unique to those pilots moving up from novice type gliders. First there is the matter of curved tips. These are easy to rig once you know the proper technique as outlined in the owner's manual. Essentially you stand in front of the leading edge to push the sail tip back until the wand pops into the wand cup. Then you pull the lever around and the tip is installed.

Secondly, the glider has a kickstand so you can set it up to hold the trailing edge higher once the crossbar is pulled back.

This position makes it easier to put the tips, tip battens, sprogs and undersurface battens in. No kneeling required. The sprogs themselves must be attached, and this action requires putting a loop over their ends and closing a zipper. That's it, other than the spring loaded batten ends which are easy enough once you learn the trick of tipping up the back of the sail to open the slot for the spring loaded end.

The Litesport is a glider that has all the refinements of airfoil, planform and hardware that can be gleaned from the topless generation, while maintaining maximum flyability. Remember: it is a product of at least two world class pilots (Steve and Gerolf) who regularly compete in international meets. They are at the cutting edge of the development of our sport and have refined the design of upper-level kingposted gliders for our benefit. If you need a new date for that ballroom in the sky, we suggest you give the Litesport a try. You won't be disappointed.



*To arrange a test flight, contact: Moyes Delta Gliders Pty Ltd, 1144 Botany Road, Botany NSW 2019. Ph: 02 9316 4644, fax: 02 9316 8488, web: [www.moyes.com.au].*





# Review:

## FIREBIRD HORNET

Hakim Mentes

### TECHNICAL SPECIFICATIONS

Trim speed:	35-37km/h
Speed range:	22-53km/h (DHV says 51km/h max)
Glider weight:	6.5kg
Number of cells:	49
Classification:	DHV 2
Weight in flight range (take off weight):	90-120kg

### SET UP

Harness:	Edel ProLight
Riser's separation:	44cm
Weight in Flight:	98kg (myself), 105kg (Zoltan)

### OVERVIEW

The Hornet has been tested at various sites under varying conditions and wing loading by different pilots including myself and Zoltan. The sites flown with this glider include Portsea, Bright, The Paps, Ocean Groove and Cairns Bay.

### PACKAGING

The glider comes with a decent size bag, but unfortunately I did not have much chance to use the bag. My limited experience with the bag showed that it was sitting uncomfortably high on my back, but could be okay for tall pilots.

### CONSTRUCTION

Another modern glider with good construction using diagonal V-rib technology, semi closed cells and internal stitching. Only the trailing edge has the protective reinforcement strip, but still better than nothing.

The risers are coloured differently, which I like. Lines are attached to the risers via popular triangular mallions. Like many other new gliders, lines are secured on the mallions via O-rings, which inherits the problem of O-rings slipping back over the mallion defeating the purpose. I recommend that pilots check screws on the mallions periodically to see if the screws loosen up.

Like the Spirit, the Hornet has a small transparent window on the upper surface for a UV meter.

### STABILITY AND TURNS

The glider has an excellent sink rate. While flying with the Hornet I enjoyed being on

top of the stack most of the time. It is an active wing and moves over the pilot's head. Despite the light wing loading, I did not have any problem while flying in thermals. It turns quickly and efficiently. Turns by weight shifting are no problem.

**Zoltan:** "I found the Hornet to be fairly active. More than I'm used to, but not too much to be uncomfortable. This may be because I'm at the top end of the weight range of my Promise, but only in the middle of the Hornet's. The Hornet was very responsive to break input, turning immediately upon application. In thermals, it responded extremely well to weight-shifting. The sink rate whilst turning was very good and I had no problems skying out the Hornet."

### BRAKE LINE FORCE

Brake force is on the soft side of the balance. Pilots changing to the Hornet need to consider it. DHV says full stall limit is 65-80cm. I was not going to test this, especially on solid ground.

**Zoltan:** "To me, break pressure seemed on the light side. Certainly lighter than my trusty Promise. The amount of break travel seemed about the same as the Promise – perhaps a bit longer."

### TAKE OFF AND LANDING

Launches and landings are very easy. I did many take offs (forward and reverse) and landings with this wing and never had any problem. It came over my head at the first go and stayed there. My usual reverse launch technique of using A and C risers worked very well on this glider.

**Zoltan:** "Reverse launching was a doddle. The Hornet came up at a steady speed with no tendency to shoot forward once overhead. On my second flight, the right brake handle accidentally slipped out of my hand as I turned around. Thankfully, the Hornet just sat there, perched above my head, as I fumbled for the break handle. Cool!"

### ASYMMETRIC COLLAPSE

Asymmetric tucks up to 50% produces the expected outcome: a turn to the collapsed side (bit more than 90 degree), dive to pick up some speed and then open up quickly. Nothing is unusual or dramatic. When I pulled A-risers a bit deeper to induce an asymmetric tuck more than 50%, it showed its DHV 2 rating characteristics. I was not



brave enough to leave the glider alone to see how things would come out. A touch on the opposite brake made a big difference and the collapsed side popped out without the glider changing direction.

**Zoltan:** "At one stage I experienced a 33% asymmetric when my right wing flew through the edge of a thermal over Emily. There was no gross tendency to change direction, with the Hornet turning only about 20 degrees before I applied opposite break."

### BIG EARS

The Hornet uses split A-risers which are very easy to reach. Big ear application is very easy, just grab the split A-risers and pull in. They come in smoothly but do not stay there, tending to pop out once released. For a DHV 2 rated wing, I like to see them staying in, but that is my preference.

### SPEED BAR

The speed bar force is on the ball, not too soft, not too hard, but just right.

### B-LINES STALL

If you are considering purchasing the Hornet and B-line stall is one of your methods of loosing height, then start exercising chin-ups right away. Initiating the B-line stall is not easy and it does not get any easier once initiated. I am a reasonably fit person, but was not able to hang on it for long enough. In addition to that, it is not very effective. So my recommendation to Hornet users is to improve other quick decent methods. Being at the bottom edge of the weight range of the glider might have played a role in this, but it still shouldn't be that difficult.





# THE LARGEST GLIDING CLUB GRC

**Martin Simons**

DURING THE WEEK OF 20 TO 28 JULY THE 30TH INTERNATIONAL RALLY OF THE VINTAGE GLIDER CLUB TOOK PLACE AT ACHMER NORTH OF OSNABRÜCK IN GERMANY. (THE AERODROME AT ACHMER IS A GRASS FIELD BUT QUITE LARGE. IT WAS USED DURING THE SECOND WORLD WAR AS A BASE FOR THE MESSERSCHMITT 262 TWIN-JET FIGHTER.) THE WEATHER WAS NEVER PERFECT BUT NEVER TOTALLY HOPELESS, ONLY ONE DAY BEING A TOTAL WASHOUT.

**I**n terms of numbers participating, this was possibly the largest soaring meeting ever. There were more than 110 airworthy sailplanes, the exact total being unclear. Several arrived after the opening ceremony and a few left before the end. Not all were listed in the official programme. Allowing two or more pilots for each aircraft, with crews, organising staff, winch crew, tug pilots, caterers, families and friends, there must have been at least four or five hundred people involved. Some camped on site, others were in caravans, hotels or other lodgings over a radius of kilometres. Sailplanes came from Austria, Belgium, Britain, Germany, Denmark, France, Finland, Netherlands, Poland, Sweden, Switzerland and Hungary. Among the friends, without sailplanes, were members from Australia, Italy, Japan, Spain, Norway and the USA. The Vintage Glider Club before the meeting had over 900 paid up members. By the end

of the week it is probable that the figure of 1,000 was reached and there is no slackening off of interest.

The oldest airworthy glider present was the Zögling built in 1929, restored and flown by a Hungarian group. But perhaps the newest of all was the most impressive. This was the Reiher III, a replica of the famous Reiher. None of the original seven or eight Reiher built in 1938-9 has survived, but enough of the workshop plans exist to enable replicas to be built. It has been necessary to substitute Baltic Pine for the spars instead of the carefully selected and now almost unobtainable Sitka Spruce specified by the designer, Hans Jacobs. The new wings had to be stressed for the different material, and came out rather heavier than the prototypes. This was the most advanced production sailplane ever, when it first appeared. The amount of intricate hand craftsmanship required to build it is staggering. In flight and on the ground, the Reiher is beautiful and impressive. It is not altogether surprising to discover that yet another is under construction

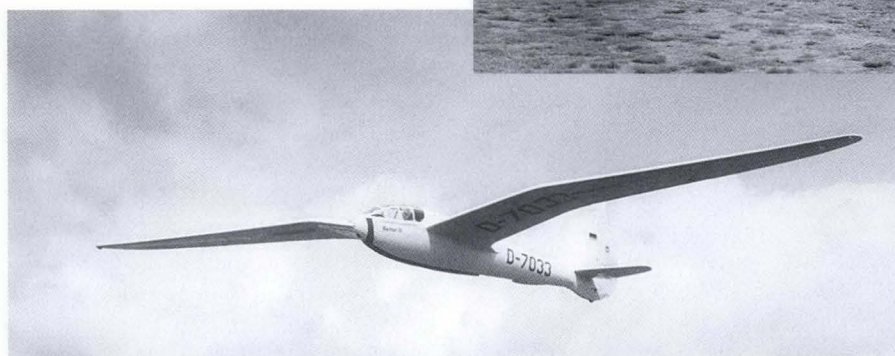


now in Achmer, so by the time of the next vintage rally there may be two.

Another new sailplane built to old plans is the aerobatic Habicht, this one finished in a spectacular red and cream sunburst. (Habichts, specially designed by Jacobs, were used for aerobatic displays over the Berlin Olympic Games Stadium in 1936.)

Otto Grau also brought his Rhönsperber, built from the plans dated 1935, but with increased dihedral.

Other comparatively rare birds included a Polish Lis, a two-seat Lehrmeister built in East Germany, a Swiss Moswey III, a Lo 150 and also a Lo 100, and the only American design present, a BG 12/16 built in Belgium from a kit.



**Above: The Reiher 111 approaching to land**

**Inset: The Elfe S-4A belonging to Lilli Grundbacher, who rigs and de-rigs it single-handed using her own specially built trailer. She also welded the trailer!**

**Top left: The oldest airworthy glider in the world – a Zögling from 1929, now flying in Hungary**

**Bottom left: Building another new Reiher in Harald Kemper's workshop in Achmer town**



## VS LARGER



Most of the other sailplanes were equally interesting, some quite unique. They seem less remarkable only because they have all been seen and flown at VGC rallies before. In almost every case, they were famous when new but suffered years or even decades of neglect before being re-discovered and meticulously restored to fly again. One thing that makes a vintage meeting look different is the great variety of bright colours. Unlike modern plastics, wooden sailplanes can safely be painted in a variety of hues, or, as some are, left in varnished plywood with clear-doped fabric.

The Vintage Glider Club is growing because the members enjoy flying. They do not strive to do better than anyone else, or fear doing worse. They fly for the fun of it. Each old sailplane is different and each requires its own technique. They do not all handle easily in the air, which makes them all the more interesting. There is nearly as much fun to be had on the ground talking about old gliders, as in the flying. The atmosphere of the meeting was quite unlike that of any modern soaring competition, simply because there was no competition.

The only important problem that the VGC faced this time was that the launching system was incapable of satisfying demand. In major competitions there is an intense hour or so of rapid launching, after which the entire fleet disappears on task. At a vintage meeting the queue for take-off forms in the first minutes after briefing and remains, edging slowly forward until the end of the day. As fast as those at the head of the queue are towed off, more come in behind. There is no respite for launching crews. There were

Photos: Martin Simons

Right: The newly-build aerobatic Habicht, designed for the 1936 Olympic Games air display

Left: Otto Grau's newly-built Rhönsperber from 1935 plans. It has a clear varnish and dope finish

four or five tugs (three of them Rotax Falke motor gliders) and six winch cables in constant use. Locally the air tended to remain full of sailplanes and clearing the landing areas was a full-time, very busy job for the two small cars provided by the local club. Delays were considerable, but it didn't seem to matter. While waiting for a launch, a pilot can wander about, look at other old sailplanes, chat with other old pilots, make new old friends and find old and older ones. It is



encouraging now to find a growing proportion of younger pilots among ones friends.

Next year, the VGC International Meeting will be in Finland at Jamijarvi, from 22 till 31 July. The Finnish pilots present at Achmer promised us good weather and accommodation. The co-ordinates are EFOR, 60 52 34N, 22 44 53E. The web page is at [www.padasjoenlentokerho.fi].

See you there?



## LETTER TO THE EDITOR

In his letter to 'Soaring Australia' (August, 2002) Ken Dawber puts forward several arguments in favour of GFA's accepting CASA's 'recreational licence' scheme. Let me offer a few counter-arguments; thus, in order of Ken's 'pros', here are some 'cons' to consider:

1. The name – like 'licence' – is all-important. Really? For myself, it's the 'doing' of the sport that matters, not possessing some 'prestigious' appellation like 'licence'. And I would contend that most people looking for a sport in which to invest time and money desire a whole lot more from it than the dubious kudos conferred by a piece of paper.
2. Glider pilots are leaving the sport because they don't have that magic 'licence'. Where, oh where do you get this 'fact' from, Ken? I'd tend to look at far more relevant factors like escalating costs of gliding, lack of disposable income for so many, the dearth of post-solo cross-country preparation at many clubs, and – dare I say it! – ever-increasing interference and lack of trust by government bureaucrats in a sport that has been doing an excellent job of self-regulation since 1949.
3. No-one 'in the street' knows much about things like 'Silver C', but the word 'licence' has instant appeal. An interesting argument, again along the 'image/packaging' line – but is it fact or fiction? It would be akin to suggest that youngsters steer clear of taking up skateboarding because they don't know what an 'ollie' is – but would just jump at the sport if they knew they could obtain a licence! (Excuse my facetiousness, but I hope you can see where I'm coming from!)
4. Then comes Ken's mind-boggling exam-  
ple of taking his friend, new to gliding, for a passenger flight. The newcomer, Ken writes, was enjoying the experience, maybe even about to join the club, but when informed that he would not be issued with a 'licence', "no longer (had) an impression that we were proper pilots or that we flew proper planes"! For this man, the licence magically gave that 'professionalism' so important to Ken... Phew! – that's a pretty tall order, and we both know it's not true. Consider: An overseas pilot of much experience visited my club several years ago. He had flown umpteen hours in umpteen glider types, and produced a sheaf of certificates in a card folder to prove it. He asked to fly a single-seater. "Let's do a check first, eh?" suggested the instructor of the day. You guessed it, Ken; the man with all the 'licences' went up in the twin, and had to be informed, tactfully but non-negotiably, that he wasn't quite ready for solo flying at our club without more dual. Despite the licence!
5. GFA pilots are disadvantaged overseas by not being in possession of a 'licence'. But GFA, like most other soaring associations the world over, is affiliated with the FAI (Fédération Aéronautique Internationale), whose badges (so pooh-poohed by Ken) are recognised universally. Therefore Australian pilots are as welcome as any other pilot to take a check and fly solo at an overseas club...

Finally, may I strongly recommend the article by Bob Hall on pages 15-16 of the August 'Soaring Australia'. Even if Ken discounts everything I've raised above, Bob's analysis of the CASA 'recreational licence' proposals should set off loud alarm bells. I hope you'll take note of Bob's points, Ken, and with or without your licence, keep soaring!

Geoff Hastwell

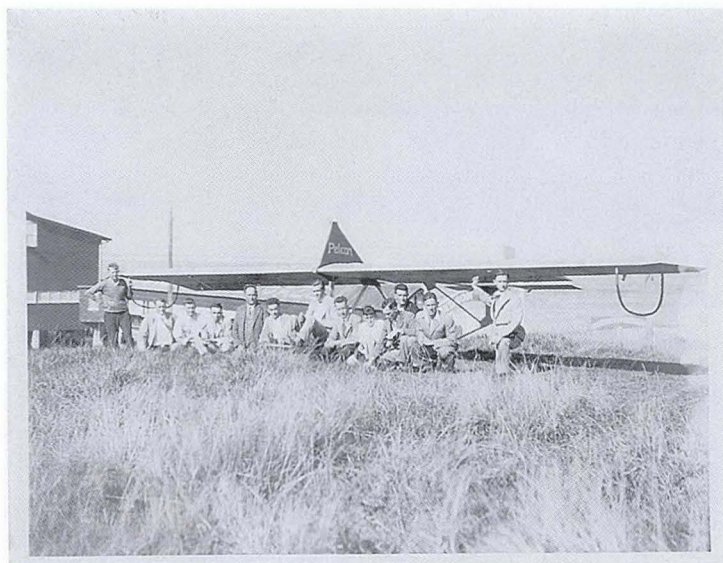




# OUR DAREDEVILS OF THE AIR

Gary Scully – reprinted with permission of the Gold Coast Bulletin [[www.gcbulletin.com.au](http://www.gcbulletin.com.au)]

IF YOU WERE WALKING THE SAND HILLS OF THE GOLD COAST SOME 70 YEARS AGO, YOU MAY WELL HAVE SEEN MEN TRYING TO FLY. IN FACT, SOME OF THEM DID. AND SOME SET QUEENSLAND AND AUSTRALIAN RECORDS.



Gliding enthusiasts shelter under the wing of the Pelican

Much of the club's early history is being drawn together by Janet McNee and Audrey Davidson, daughter and step-daughter of foundation member Oliver (Dick) Carey, helped by Audrey's husband Peter.

It began when a small group, some with names still identifiable with the Gold Coast today, put forward a proposal to the Brisbane Glider Club to form a club in Southport.

There was Rome Miles, who owned Southport Motors; Norm Purvis, who had a hardware store; Bob Akes, a plumber; Arthur Ledbury, a builder, Travis and Tol Parker, still students at the Southport School; local physician Dr Charles Huxtable, and; Dick Carey, a young mechanic who'd learned to fly the year before at Eagle Farm and had the blueprints for the Zögling Primary glider.

The gliding club was duly formed on 11 May 1930. "Rome Miles let us use the space under his house in Scarborough Street, near the Catholic Church, to build the glider," recalled Mr Carey. "To pay for it, we charged a club membership fee of one pound ten shillings initially, with members agreeing to contribute the balance when necessary."

"We did most of the construction at night after work. When the glider was complete we took it in pieces to Main Beach and looked for the biggest sand dune with the wind going up the slope of it."

"We assembled the plane on top of the most suitable one, launched it and, thankfully, it flew."

Photos: Courtesy Mrs J MacNee

The glider was duly officially launched and christened Pelican in the presence of 'a large and enthusiastic gathering... at the Pacific Kiosk, Main Beach', recorded the South Coast Bulletin.

Proceedings were opened by the Mayor, CH Steadman who, of course, made a speech.

"After the ceremony," said the paper, "the Pelican was removed to the beach and Captain Carey gave some interesting exhibitions of gliding, performing well despite the fact that the wind was rather squally."

In the early days of the club, the young enthusiasts spent much of their time looking for the best hill to extend the height and distance of their flights. Mishaps were not infrequent.

Dick Carey recalled that they thought they'd found the perfect hill on Wilson's farm at Merrimac, where they'd been assured the prevailing winds were south-easterly.

"After a great deal of trouble getting the glider there, we found the wind had changed to north-east and I was faced with flying over a fence, a road, another fence and a swamp."

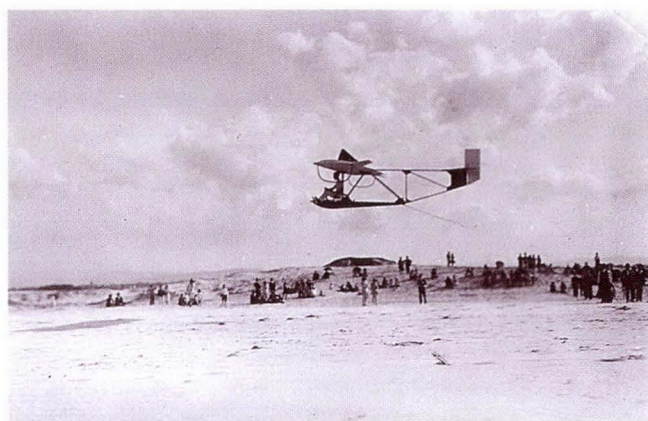
"On my instruction to let go, the rope broke and knocked a great hole in the wing."

"We went to the local farmhouse and got some brown paper, flour and water to repair the wing but the wind had got sores and we couldn't take off. We just had to dismantle the glider and carry it home."

Dr Bernard Huxtable, of Orange, son of the Southport doctor who was the club's first president, has some vivid childhood memories of the early gliding days.

"I remember we went down to Burleigh Heads, I must have been about seven at the time, and they were trying to break some sort of record for staying aloft. But the glider crashed into a tree at the top of the bluff."

"They brought it back down in sections. I remember seeing the part coming down carrying wings and things. It was very exciting."



It's a little known fact that in the early 1930s, the coastal sand dunes, particularly near Main Beach, were home to the newly-formed Southport Gliding Club, a group of daring young men who built, launched, piloted and occasionally crashed their flimsy flying machines.

Daring indeed. People today would more likely describe them as extremely brave, perhaps downright reckless.

Their craft was a German-designed Zögling glider named Pelican, which they built from imported blueprints for 25lb.

To launch it, they would carry it in pieces to the top of a high dune facing the wind. Then, while the pilot sat at the rudder-bar and joystick controls, six men, three on each side, would walk ahead with a bungee-type rubber rope hooked to the nose, while two or three anchor-men would hold a rope attached to the tail.

When the pilot felt the resulting catapult was sufficiently cocked, he would yell 'Let go!' and Pelican would soar aloft, the nose-rope falling away when it had gained sufficient height.

Or at least that was the theory.

Pelican, which first flew in 1930, was to make more than 200 flights, teaching many of the young Gold Coasters the true art of gliding. Four years later, one of its successors was to set a new Queensland endurance record at Palm Beach and, in 1936, a new Australian record was set in a flight at the same location.



# GFA Development Officer's Report

As time passed, techniques were refined. After two years of hill catapulting, members discovered how to tow the glider behind a car along the beach for lift-off. And in time, they were to build more sophisticated gliders.

In March, 1934, a sprightly WWI veteran Don 'Sandy' Milne set a new Queensland record after soaring for an hour from Palm Beach. Three weeks later, flying over Palm Beach and Burleigh Heads, he broke his own record by staying aloft for one hour and 55 minutes.

The glider crashed into a tall tree but was recovered and repaired.

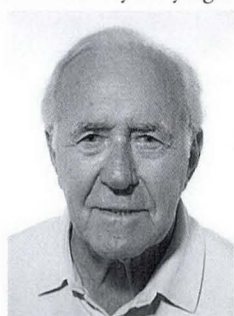
Two years later in a new glider, Don Milne set an Australia record at Palm Beach, staying in the air for two hours and 25 minutes.

The Brisbane Telegraph recorded at the time that he then took to the air again in a bid to fly to Southport. Apparently, there wasn't enough wind and it took him three 'hops' to get there.

With the outbreak of WWII, it was inevitable that most of the young gliding enthusiasts went into the armed forces.

Foundation president Dr Charles Huxtable, for instance, who had won the Military Cross and Bar in WWI serving with the Lancashire Fusiliers, enlisted but became a prisoner of war in Singapore.

He is remembered for the medical help he gave to fellow prisoners. Post-war, he worked with the Royal Flying Doctor Service.



Dick Carey, scion of a well-known Gold Coast family – his father owned Carey's Store in the '30s and his brother Cec became a state parliamentarian – gained a com-

mission in the army and commanded the 101st Field Force in Papua New Guinea.

Post-war, he ran successful Ford agencies in several Queensland centres before retired to his beloved Gold Coast in the mid-1970s, where he played a prominent role in the RSL and Southport Bowls Club.

His recollections quoted here were dictated to his daughter, Janet, a few weeks before his death in 1999.

*The Author: Walkley Award winning journalist Gary Scully reported for ABC Radio and Television News for 38 years in Australia, Asia and The Pacific before his retirement from full-time journalism 10 years ago. In his latter years with the ABC he was their National Aviation Reporter, based in Sydney.*

**Terry Cubley, <cubley@netconnect.com.au>**

## The New Committee

Many clubs have recently held their Annual General Meeting and have elected their new committee who are now setting their objectives and plans for the next 12 months.

In many clubs the new committee may be the same people as the previous one. This may be reason for some concern, in particular in large clubs. In small clubs there may be no alternative – everyone gets a job. There is always the issue of 'burnout' for these committee members and the club needs to take some action to try and compensate for this.

For large clubs the same committee each year is a major problem. It is vital for these clubs to get representation from a broad cross-section of the organisation, including a variety of ages, genders and experiences.

It is all too easy for the same old faces to keep putting their hand up; there is an expectation that these experienced people 'know best'. After expressing this view in a variety of ways, these people then complain about a lack of people volunteering to come onto the committee.

The Adelaide University Club has a constitution that requires the Committee to consist of students which automatically means that new people are roped into these roles every year. The more experienced people in the club act as advisors to the committee so that their expertise is not lost but there is still some fresh views being put forward.

I guess this shows that if you set up a need for newer people to get involved, and they are expected to do so, that it is a little easier to get their involvement. It also means that people have to approach the newer people to get their commitment.

Of course, by ensuring the committee maintains a balance of members means that some very experienced or talented individuals can maintain their involvement over a reasonable time.

So, your new committee has formed, now is the time to be asking them to explain what plans they have to improve the finances of the club, to get more people flying and enjoying themselves, to increase the membership and to improve the equipment and aircraft, etc.

You need to pin them down. General statements about "we'll promote flying over winter", "we'll look at new gliders later in the year" need to be clarified. There needs to be some specific goals/targets, and hopefully some measures so that progress can be tracked and ideas tested.

- Number of certificate received
- Coaching programs delivered
- Number people flying more than 20 hours in one year
- Cross-country kilometres flown
- Attendance at social events

The committee's job is to manage and drive improvement – not to do all of the work. You as a member can't expect the committee to do everything. Their responsibility is to provide the direction. It is your responsibility to support these activities.

## Some Examples

The Victorian Motorless Flight Group are putting panel-mounted GPS and loggers into their Duo Discus and LS3. Many other clubs are making GPS and loggers available – a great opportunity for members to use technology to their advantage. (It is important that these are panel-mounted so that pilots are able to concentrate outside the cockpit rather than fumbling on their lap trying to work out the logger)

The Gliding Club of Victoria is running a cross-country theory course for members, aiming to encourage increased participation in cross-country flying in club aircraft.

Canberra Gliding club runs a monthly pilots' night in town so that members have an opportunity to socialise and to have input to club activities. They also send out a weekly email to all members giving an overview of the activities on the last weekend. This alerts people to the range of good flying opportunities over winter.

Kingaroy Soaring Club operates a four-day weekend once per month to encourage XC flying and increased participation.

Gympie Gliding club were running a scholarship scheme and extended this to their current members. Through this they found out what the aspirations of their members were and so were better able to plan for their future. They have decided to buy a Discus to suit the needs of one part of the club.

Beverly Soaring Club runs a 'pylon race' on the first Saturday of the month which encourages pilots of all experiences to try cross-country soaring within close proximity to the home field. This is supported by a spit roast on the Saturday to also promote a social involvement.

There are many other such initiatives around the country. There are many success stories where clubs have taken action and improved the enjoyment and participation of their members. What are the examples in your own club? Why not tell us about them?

**Left: About to land at Main Beach, 1930**



# HGFA General Manager's Report . . . .

**W**e have recently sent out annual report forms to each of our 41 affiliated clubs. If any club executives are yet to return the form, I ask that you do so as soon as possible to enable us to update your club details.

## AirManShip and Pre-Flight Checks

It is a given that the basic philosophy behind good airmanship is a careful and methodical approach to flying. Two recent accidents resulting from inadequate pre-flight checks reinforce the need to repeat this fundamental tenet.

A hang glider pilot launched from a 300ft coastal site without a bolt fitted to the basebar of the control frame. Seconds after take off the control frame came apart and the wing folded vertically. The pilot and glider subsequently bounced off the near vertical face of the hill and fell onto rocks below. He suffered serious injuries, including broken ribs, ruptured lungs and spinal damage. He was certainly lucky to survive such a fall. He was doubly lucky given that he had only recently purchased a full-face helmet to replace the small cycling helmet he had been using. The rear of the helmet was substantially damaged on impact, and most likely saved his life. How he managed to launch without the basebar bolt remains a mystery, particularly given that ensuring it is correctly located is a primary part of a pre-flight check.

Though I am yet to receive a written report, I have heard that another accident resulting in serious injury recently occurred during a cross-country microlight tour in

the Northern Territory. Evidently the microlight pilot took off without locating the pins in the front bar of the trike base (the vertical bar forward of the control frame). After flying for a short period of time he noticed that the pins were not located and hurriedly returned to land. He was unaware that the aircraft could safely be flown without the pins in place and became increasingly agitated and concerned with the possibility of the aircraft breaking up. The approach to the strip was restricted by trees, and given the pilot's alarmed state, he failed to approach accurately and the wing of the microlight clipped a tree. The aircraft fell to the ground and slid under a motor vehicle, resulting in the pilot suffering serious injuries. Although the omission in aircraft set-up and the subsequent failure to detect the omission during a pre-flight check did not cause a structural failure, they certainly led to the accident occurring.

## HGFA Membership Statistics

End of financial year membership statistics show that over the past year our numbers have grown by almost 7% to a total current membership of 2,722. Though this is marginally below the past 10 year average membership, it is certainly favourable, given that rising insurance costs continue to put pressure on membership fees; and also given that during the previous year numbers decreased by 16%.

The statistics also show:

- Ten percent of current members hold pilot certificates in more than one HGFA discipline.

- Hang gliding numbers have reduced slightly over the year (down to 46% of membership).
- Paragliding and microlighting numbers have increased, each by around 10% (now 34% and 20% of membership respectively).
- Each state has seen a growth in membership, except for ACT, where there has been a 10% reduction in member numbers.
- Female member numbers are declining, now down to 5.6% of membership.

## Airworthiness Directive: Paragliding

The HGFA Safety & Operations Committee has passed on the following DHV safety warning regarding the use of Austria Alpin carabiners. I understand that there have been many of these sold in Australia. It is strongly recommended that these carabiners are replaced.

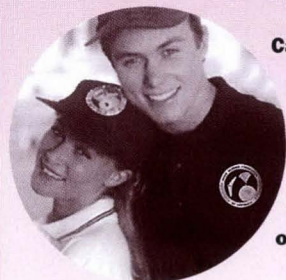
*"The DHV has announced that an Austria Alpin carabiner recently failed in flight, luckily without serious injury for the pilot. This was the third rupture this year. The first two incriminated a very particular model and series of carabiner: they were stainless steel in colour and manufactured more than five years ago, and we thought that only this series was to blame. Unfortunately this new case involved a carabiner from another series, and it is now imperative to warn every pilot to avoid another accident.*

*For the sake of safety, pilots are advised to cease using this product."*

## HGFA merchandise

Available from HGFA Sales: PO Box 157, Hallidays Point NSW 2430

Phone 02 6559 2713, fax 02 6559 3830, email: <office@hgfa.asn.au>, web: [www.hgfa.asn.au]

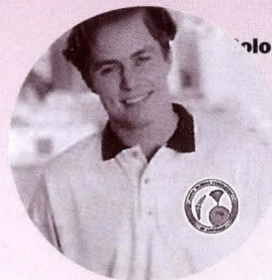


Cap \$16.50

(cotton or corduroy with HGFA colour logo) in red, blue, black, navy or green

Rugby top \$55

with embroidered HGFA logo in navy, green & grey (sizes 16 to 24)



Polo shirt \$33

with embroidered HGFA logo in navy, green & white (sizes 16 to 24)

Car Sticker \$1.65  
(colour HGFA logo) – no postage required

HGFA Hang Gliding Training Video \$30  
(23 minutes)

1998 HG Grand Prix Series Video \$30  
(110 minutes)

HGFA Pilot Training Workbooks \$5.50

Better Coaching – Advanced Coaching Manuals \$35

Hang Gliding or Paragliding Training Video \$30

Publications Replacement Copies:  
HGFA Operations Manual\* \$11  
HGFA Operations Manual Binder\* \$16.50  
HGFA Log Book\* \$5.50

Prices include GST

\$5 Postage and Packing  
(Bulk orders sent C.O.D.)

\* Replacement Prices only – These items are issued free with initial Membership (Full, Family and STM only)





## Landowner Request

I have been asked by the new landowner to advise pilots that may be flying at Johns River on the NSW Mid-North Coast to avoid landing on the property that was formerly the High Adventure Airpark. The current owner has a twin-engine aircraft and asks that all pilots avoid overflying or landing on what used to be the airpark. Lee Scott's airpark is now based at the Camden Haven Airstrip and in Laurieton.

## Accident Reports

### No 1:

**Pilot:** Advanced PG certificate holder  
**Experience:** 290 hours total, 17 hours last 90 days  
**Glider:** High performance PG  
**Pilot injury:** Bruising to shoulder and slight graze  
**Glider damage:** Nil  
**Location:** Inland mountain site  
**Conditions:** 5kt wind, light turbulence  
**Description:**

Whilst ridge soaring, the glider quickly collapsed due to turbulence from a step in the slope in front. The collapse was from the left tip through 80-90% with five cells remaining inflated. The pilot applied right brake; the glider snap turned 180 degrees; dived; reinflated; and entered a spiral dive. Given that he was now only 60ft above trees, the pilot decided against deploying his reserve and impacted the trees backwards with the harness taking most of the impact and the pilot landing on his feet.  
**Comments:**  
The SSO reporting the accident suggested

that the pilot could have been more "active" in controlling the canopy; and perhaps could have been quicker with control inputs to reinflate the glider.

### No 2.

**Pilot:** Microlight pilot  
**Experience:** 25 hours total, 10 hours last 90 days  
**Aircraft:** Weightshift microlight  
**Pilot injury:** Compression fractured to lumbar  
**Aircraft damage:** Extensive damage to trike and wing  
**Location:** Grass airstrip  
**Conditions:** 5kt wind, nil turbulence  
**Description:**

The pilot joined circuit crosswind close behind another microlight. Due to the fact that his aircraft was faster than the one in front of him, he was catching up during the downwind leg, and extended it a little before turning onto base. On turning onto final he was still too close and catching, so slowed up to give himself more room. This left him low and slow, and still too close. At the last moment (almost at touch down) he decided to power on and go around. Due to being low, slow and most likely hitting prop wash, a wing tip dropped and impacted the runway, followed by the trike.

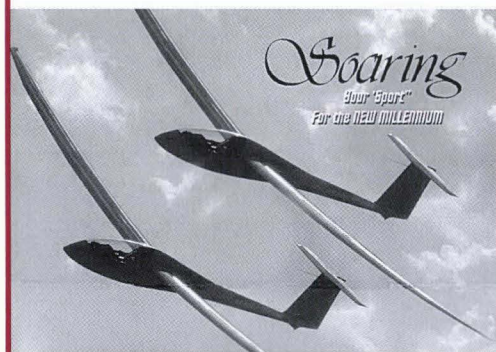
### Comment:

The pilot spent several days in hospital and will fully recover from his back injury. This accident reinforces the need to make decisions early, well before events escalate to a critical point.

**Fly safely,  
Craig Worth**



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## A PILOT WHO IS SCARED OF HEIGHTS?

**Carla Pierce**

LIKE MOST PEOPLE WHO FLY, I USED TO DREAM AS A CHILD OF LIFTING OFF FROM THE GROUND AND FLOATING UP INTO THE SKY. AS THE AIR FLOWED OVER MY SKIN, ARMS OUTSTRETCHED, I COULD SENSE THE WEIGHTLESSNESS AND FREEDOM THAT FLIGHT WOULD BRING. BUT AS I OPENED MY EYES, THE PRESSURE ON THE SOLES OF MY FEET GREW SLIGHTLY FIRMER WITH THE THOUGHT THAT 'FLYING LIKE A BIRD' WAS ALL BUT AN UNACHIEVABLE DREAM.

**A**lthough I tried running down many grassy slopes and taking off throughout my growing years, the idea of hang gliding as a means of achieving this passionate experience never occurred to me – until six months ago. Trying to think of a present to give to myself for my thirtieth birthday, the idea came to me from a place unknown. A quick flick through the Yellow Pages, and a phone

call later I was booked into a licence course at Dynamic Flight Hang Gliding School in Western Victoria. I had no idea what to expect, but I was excited!

Fast forwarding to the present, I can honestly say that flying is everything I dreamt it would be, and then some. But the road was not an easy one. After many (exhausting) runs down grassy slopes, feet skimming the ground and the brain in overload, I finally got the 'feel' for the kite. I was ready to take the next step – low tows. The idea of being hooked onto a rope attached to a car, which then sped off, lifting you into the air, was at first a daunting one. But I was assured that it was the safest and most time efficient way to obtain airtime and further refine my skills. "Go, Go, Go." Step, Step, Step and I was airborne. As the ground parted and I ascended, I waited for that warm fuzzy feeling to flow over me as I dreamt it would. Instead – FEAR! I panicked, forgot everything I learnt and focused only on the fence I was now descending rapidly towards. (Something must be done to de-magnetise those darn trees/fences). Of course we all know you fly where you look, so the rest of the descent need not be detailed. Fortunately, the glider took the brunt of the impact (broken leading edge and crossbar) and I escaped reasonably unharmed. The greatest pain lay in the realisation that my dream of flight was over – or so I thought. What I did not count on was the tremendous support, encouragement,

expertise and dedication of Rohan and Sandra Holtkamp, Paul Randell, James Freeman, Steve Townsend and numerous other pilots from the Western Victorian Hang Gliding Club who helped me regain my belief in myself – I can do it!

Five tandems and countless hand and low tows later (thanks guys) and I was back on track. But the thought of a high tow remained unbearable. So we hit the slopes (small ones of course). Standing on a grassy slope, 150ft agl, glider on my shoulders, I battled with my fear. Ten minutes later I still stood there, those around me patiently encouraging the taking of the first steps for launch. I wasn't at all sure that I would be okay when I began to run, but this time as my feet left the ground terror was overtaken by exhilaration. I glided gently to the bottom and landed perfectly. The sense of achievement was tremendous. Needless to say I became highly proficient in setting and packing up my glider as I continued to gain confidence flying from low altitude hills in non-soarable winds.

My persistence paid off. I chose to fly only in conditions I felt comfortable in, often choosing not to fly on days when others launched. I was conscious of enjoying the time I had in the air which required balancing my fear and my courage. When courage won I flew, when fear one I enjoyed the view. It may have taken four months to obtain my restricted licence (flying almost every weekend during that time) but it was an investment towards a lifetime of flight.

For those reading this article who have dreamt of flight, but have been prevented from taking the first steps through fear, or those who have obtained their licence but have not felt comfortable continuing to fly, have faith – you can do it! We all learn in our own unique way and it's okay to acknowledge that flying can be scary. Flying was not fun at first, but the more experience I gain the more enjoyable it becomes.

Thanks again to the team at Dynamic Flight and my friends at the Western Victorian Hang Gliding Club for helping me to grow my wings.



Both photos: Carla launching at Ben Nevis, Victoria, courtesy Carla Pierce





# Sharks Can't Swim

Neil Hooke

HERE IS A STORY OF A SHARK  
THAT COULDN'T SWIM, AND  
A SCORPION THAT COULD.

One day, the shark and the scorpion were flying together over the hills and the ocean, soaring high in the breeze, when the shark decided to go for a refreshing dip. The scorpion thought it was a bad idea, but the shark was very insistent...

Okay, I was flying a new site for the first time, and I made a series of mistakes. In aviation, you can usually make one or two, but when they start to add up, you get into trouble. Although I made it safely home without injury, I hope this analysis can generate some thought on flying techniques, site safety procedures and how to stay out of trouble.

We drove to Cape Liptrap, an intermediate coastal site near Wilson's Promontory. We had been having a fun fly for almost two hours, including five or six top landings on my part, when the wind abated somewhat. It was still well soarable, but without the heights achieved earlier in the day. There was also the occasional lazy puff of thermal giving good lift to several hundred feet above launch. In one of these thermals, I gained enough height to cross easily to the lighthouse at the point.

That was my first mistake. If you don't know a site, try experimenting a little before you go all the way.

We had discussed a rotor in the lighthouse bowl previously, so I elected to glide out and back with enough height to avoid the need to soar when I got there. I wasn't surprised, therefore, when I found no lift as I turned around the lighthouse. The mistake became apparent when I realised that I had misjudged the wind direction and now had to punch back almost directly headwind. I was told that the best way to get back was to fly out to sea and around the headland, so I proceeded out over the water with about 100ft clear above the cliff. I realised that I had just made my second mistake when I lost all of that height in one fell swoop. The rotor was not just behind the headland, but well above it, even in the lighter wind. If I was punching headwind, and had any chance of landing short, I should have stayed above the ground over the cliff top.

Anyway, having committed to my original plan of flying around the headland, I had no option left but to follow through. It was pos-

sible to turn back to the lighthouse to work up height, but there was no lift there earlier, and I needed everything I had to make it round the point. After some best glide flying with parallax, full VG and tucked arms, I realised that I was going to make it easily, but unless I could find lift I wouldn't have enough height to land on the beach. I radioed that I might be in trouble, unzipped and pulled off the VG to prepare for a landing. Trees, rocks, water. That was the emergency order I remembered from my training 12 years ago, and it came back as though it was yesterday. I had already made the mistake of leaving the trees, so I lined up with a rock.

The base of a cliff, even facing square into the wind, is a nasty place for turbulence and rotor. I nearly made the rock, but ended up a couple of metres short. Even if you are going in to land in a tree or somewhere else terrible, you can still do a good landing. I flared it out and sank gently into the waves.

From that moment on, there were no more mistakes. Everything became focussed and automatic. First, oxygen. I can hold my breath for over a minute if I have to, but found I could easily take in air at the crest of each wave. I was floating nicely, so I elected to undo the carabiner as the fastest way out from under the glider, which was pushing me under consistently. It came out on the third attempt and I swam for the rocks. I had unzipping and hook knife as back-ups. I expected the harness to drag me down, but the Skorpion is remarkably buoyant, with neoprene, air pockets and a large lump of polystyrene foam in the tail.

I climbed out, put the harness out of the way of the surf and went back for the glider, which was undamaged. It washed in and sat against the rocks, but there was no way I could lift it out of the water without jumping in myself, and one by one the waves snapped the frame members and broke the wires. We dragged it up and packed it as best we could.

So that's the story of the shark and the scorpion. This one has a few obvious lessons in it for me, one of them very costly. It has also made me think more carefully about emergencies in general.

The only injuries were some strains from carrying gliders up the hill, but if it had been worse, I think there are several things we could have done better.

We ended up at the bottom of the hill with four people, two radios and two mobiles on the beach. None of them had reception down there. There was also a first-aid kit lying idle in the car, which I knew about, but the others didn't. I could have told them about it, or made it more obvious before we even set up.

Mostly when flying, we don't like to think too much about emergencies. Over the years, I have helped someone from up a tall tree, pulled a Mars 190 out of the surf at Harold Holt's beach, and run to the aid of a paraglider pilot with severe concussion. The end result in all these was a good one, but when you go through something yourself, you see things from a different angle.

Our club is now working on site safety procedures, specific to each launch. We hope to get some detailed instructions assembled, so that if someone were injured, there would not need to be another 15 minute walk up the hill to get mobile reception. The Canadians have been doing this for some time now.

Another thing to think about is attitude. I have always been a very cautious pilot, seeming to take twice as long as most on pre-flights, standing on launch going through it mentally before committing, unzipping very high and going over the landing in my mind before the approach. It took me about eight years before I felt I was ready for Buffalo, and still consider myself a novice on tow. Partly as a result of all this, the only injury I have ever had was a cut to my little finger, and the only glider damage being a single bent upright. With all that in mind, how did I end up landing in the worst possible place, and how will it be avoided in future?

I think one possible answer is that, having turned back and realised the difficult glide, I still assumed that I could make it by following the pre-planned route out past the headland. If I had decided earlier that I didn't have the height, I could probably have made a safe, but inconvenient landing in the low scrub on top. I found out later that several others have had problems in the same place, and that might have alerted me that the topography and direction were worse than they appeared. Again, don't wish – decide early. Always ask more questions, and always make your decisions based on the conditions of the day.

## SUMMARY

(You already know all of this, but so did I.)

- 1) *Be extra cautious on a new site.*
- 2) *Start tentatively and work towards your goal.*
- 3) *Make your decisions early. It's about risk management, not wishing for the best.*
- 4) *Never, ever, land in the water.*
- 5) *If you do, don't panic.*
- 6) *Carabiner was finger tight only, with a good spring.*
- 7) *Get away from the glider first. It is replaceable.*

I don't believe it was bad luck that I went in, or good luck that I got out. It was all down to the decisions made at the time. Hang gliding is a thinking sport.

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# Contact Addresses

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**Australian Air League**  
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**Bathurst Soaring Club**  
PO Box 1682, Bathurst NSW 2795.

**Byron Power Gliding Club**  
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02 66847827, 0428 847642.

**Canberra Gliding Club**  
PO Box 1130, Canberra City ACT 2601,  
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**Central Coast Soaring Club**  
PO Box 1323, Gosford South NSW 2250,  
02 49772740.

**Cudgegong Soaring Pty Ltd**  
PO Box 352, Frenchs Forest NSW 1640,  
02 94522777, 02 94530777.

**Forbes Soaring & Aero Club**  
PO Box 267, Forbes NSW 2871,  
02 68523845.

**Goulburn Gliding Group**  
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**Grafton Gliding Club**  
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**Harden Gliding Club**  
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**Hunter Valley Gliding Club**  
PO Box 9, Newcastle NSW 2300.

**Kentucky Flying Club**  
The Hill, Kentucky NSW 2354.

**Lake Keepit Soaring Club**  
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**Leeton Gliding Club**  
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**NSW AIRTC Gliding Club**  
41 Simpson Ave, Forest Hill NSW 2651,  
02 69227526.

**NSW Police Gliding Club**  
27 Bourne St, Wentworth Falls NSW 2782,  
0427 592744.

**Orana Soaring Club**  
PO Box 240, Narromine NSW 2821,  
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**RAAF Richmond Gliding Club**  
RAAF Base, Richmond NSW 2755.

**RAAF Williamstown Gliding Club**  
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Medowie NSW 2318.

**Royal Australian Naval  
Gliding Association**  
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NSW 2540.

**Scout Association NSW Gliding**  
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Eastwood NSW 2122, 02 93519660,  
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**Soar Narromine Pty Ltd**  
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**Southern Cross Gliding Club**  
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**Sportavia Soaring**  
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**Summerland Gliding Club**  
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**Sydney Gliding Inc (Concordia GC)**  
PO Box 633, Camden NSW 2570.

**Temora Gliding Club**  
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**Tumut Gliding Club**  
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02 69471148.

**Wagga Wagga Gliding Club**  
25 Beauty Point Ave, Wagga Wagga  
NSW 2650, 0427 205624.

**Wee Waa Gliding Club**  
(formerly Warrumbungle Gliding Club)  
PO Box 586, Wee Waa NSW 2388,  
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### Queensland Soaring Association (QSA)

**Boonah Gliding Club**  
PO Box 107, Boonah QLD 4310,  
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**Bundaberg Soaring Club**  
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07 41553158.

**Caboolture Gliding Club**  
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0418 713903.

**Central Queensland Gliding Club**  
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07 49371381.

**Darling Downs Soaring Club**  
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07 46637140.

**Gympie Gliding Club**  
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07 54867247.

**Kingaroy Soaring Club**  
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**Moura Gliding Club**  
PO Box 92, Moura QLD 4718,  
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**North Queensland Soaring Centre**  
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**No. 229 Squadron Australian  
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**Southern Downs Soaring**  
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**Tarwan Soaring**  
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07 46274080.

### SA Gliding Association (SAGA)

**Adelaide Hills Soaring Group**  
PO Box 1, Bridgewater SA 5155.

**Adelaide Soaring Club**  
PO Box 94, Gawler SA 5118,  
08 85221877, 08 85223177.

**Adelaide Uni Gliding Club Inc.,  
Adelaide Uni Sports Association**  
The University of Adelaide, SA 5005,  
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**Alice Springs Gliding Club**  
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08 89526384.

**Balaklava Gliding Club**  
PO Box 257, Balaklava SA 5461,  
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**Barossa Valley Gliding Club**  
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SA 5356, 08 85640240.

**Blanchetown Gliding Club**  
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**Bordertown Keith Gliding Club**  
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**Gawler Gliding Club**  
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**Murray Bridge Gliding Club**  
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**Northern Australian Gliding Club**  
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**Port Augusta Gliding Club**  
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**Renmark Gliding Club**  
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**SA AIRTC Gliding Club**  
PO Box 2000, Salisbury SA 5108.

**Waikerie Gliding Club**  
PO Box 320, Waikerie SA 5330,  
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**Whyalla Gliding Club**  
PO Box 556, Whyalla SA 5600,  
08 86404432, 0413 127825.

### Victorian Soaring Association (VSA)

**Albury Corowa Gliding Club**  
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**Beaufort Gliding Club**  
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**Bendigo Gliding Club**  
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**Corangamite Soaring Club**  
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**Geelong Gliding Club**  
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**Gliding Club of Northern Tasmania**  
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**Gliding Club of Victoria**  
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**Grampians Soaring Club**  
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**Latrobe Valley Gliding Club**  
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**Mangalore Gliding Club**  
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**Mount Beauty Gliding Club**  
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**Murray Valley Soaring Club Ltd**  
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**RAAF East Sale Gliding Club**  
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**Soaring Club of Tasmania**  
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**South Gippsland Gliding Club**  
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**Southern Riverina Gliding Club**  
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03 58742063, 03 58742705.

**Stawell Gliding Club**  
20 Jones St, Stawell VIC 3380,  
03 53582713.

**Sunraysia Gliding Club**  
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**Swan Hill Gliding Club**  
PO Box 160, Nyah VIC 3594.

**Tumbarumba Gliding Club**  
Mundaroo, Tumbarumba NSW 2653.

**Victorian Motorless Flight Group**  
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0402 281928, 03 98486473.

**Wimmera Soaring Club**  
PO Box 158, Horsham VIC 3402

### WA Gliding Association (WAGA)

**Beverley Soaring Society**  
PO Box 136, Beverley WA 6304,  
0407 385361.

**Gliding Club of Western Australia**  
356 Abernethy Rd, Cloverdale WA 6105,  
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**Morawa Flying Club**  
PO Box 276, Morawa WA 6623.

**Narrogin Gliding Club**  
PO Box 276, Morawa WA 6623,  
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**Stirlings Gliding Club**  
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**WA Squadron Australian  
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## HGFA

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

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• • • • •  
**INFORMATION**

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

**States & Regions**

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1 Sturt St, Adelaide SA 5000, ph: 08 8410 1391, fax: 08 82117115; Pres: Stuart McClure 08 82973452 (h), <stuart.mcclure@csiro.au>; Sec: Mark Tyminski 0411 414 816, <marknjan@senet.com.au>; Trs: Robert Woodward 08 82977532 (h), <rob\_woodward@alternaterepositioning.com>.

**Tasmanian Hang Gliding Association**  
19 Christella Rd, Kingston TAS 7050, [www.thga.net]; Pres: Anthony Mountain 03 62299011, <anthony.mountain@hydro.com.au>; Sec: Warren Judges 0419 175170.

**Victorian HG and PG Association**  
PO Box 400, Prahran VIC 3181, [www.vhpa.org.au]. Pres: Geoff Tozer 03 97583250 (h), <gtozer@bigpond.com>; Sec: Adam Dixon 03 96895739 (h), <dna@smartchat.com.au>; SSO: Rob Van Der Klooster 03 52223019 (h). Site weatherboxes: Three

Sisters 0409 864700, Buckland Ridge 0407 356295, Mt Buffalo 03 57501515, Ben More 0417 112062.

**Clubs**

**New South Wales**

**Blue Mountains HG Club Inc**

Pres: Peter Burditt 0418 435204, <artisan@sia.net.au>; Sec: Jim Grant 02 47588625; Trs: Allan Bush 02 47738037, <fairallan@pnc.com.au>; SSO: Dave Petrie 02 47871610, <petrie@lisp.com.au>; Allan Bush 02 4773 8037, <fairallan@pnc.com.au>; Newsletter: Alan Bond 02 98995351, <skybond@primus.com.au>. Meetings: 3rd Wed/month, 7:30pm, Blue Cattle Dog Tavern, Mamre Rd, St Clair.

**Byron Bay Hang Gliding Club Inc**

PO Box 1903, Byron Bay NSW 2481, [http://bbhg.tripod.com/]. Chairperson: Andrew Polidano 02 66843510, <info@poliglides.com>; V-Pres: Brett Cook 02 66876907; Sec: Brian Rushton <byronair@optusnet.com>; Trs: Brian Braby 02 66280983, <bbraby10@scu.edu.au>; SSO (HG): Brian Rushton 0427 615950; SSO (PG): Lindsay Wooten 02 66847318. Meetings: 1st Wed/month 7pm, Byron Golf Club.

**Hunter Skysailors**

Pres: John Clifford 0438 302033, <fly77@bigpond.com>; Sec/Trs: Neil Bright 0412 689067, <enzobright@bigpond.com>; SSO: James Thompson 0418 686199, <james.b.t@hunterlink.net.au>.

**Illawarra Hang Gliding Club Inc**

Pres: Mark Ryan 0412 424760; Sec: Tim Causer 02 42948110, <timcau@ozemail.com.au>; SSO: James Nathaniel 02 4262 7677, 0413 737077.

**Kosciusko Alpine Paragliding Club**

[www.homestead.com/kapc]; Pres: James Rylie 02 62359120, <crymicalago@netspeed.com.au>; V-Pres: Nigel Hack 02 64576452, <freexoz@snowy.net.au>; Sec: Charles Palmer 02 62925664, <palmerc@charlespalmer.net>; SSO: Heinz Gloor 02 64567171.

**Manilla SkySailors Club Inc**

[www.mss.org.au]. Pres: Brian Shepherd 02 67852182; Sec/Trs: Felix Burkhard 02 67751050, <felixb@xyon.com.au>; SSO (HG): Patrick Lenders 02 67783484; SSO (PG): Godfrey Wenness 02 67856545, Trikes: Willi Ewig 02 67697771.

**Mid North Coast HG Association**

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

**Newcastle Hang Gliding Club**

PO Box 64 Broadmeadow NSW 2292; Pres: Mick Hurley <fly176@hotmail.com>, 02 49432903; Sec: Adam Donaldson <adnsic@rivernet.com.au>, 02 49472466; Trs: Brad Cootes <hugest@bigpond.com>, 02 4952 1428; SSO: Al Giles 02 49430674 & John O'Donohue 02 49549084, Scott Alder 02 49514581 & Jason Turner 0419 997196. Meetings: Last Wed/month, Souths Leagues Club.

**Northern Beaches HG Club Inc**

Pres: Kerry Bradley; V-Pres: Mark Robertson; Trs: Jim Gaal; Sec: Nils Vesik; SSO (HG): Glen Salmon 02 99180091; Wayne Fitzgerald 02 99827094; SSO (PG): Mike Brandt 02 98912391; Wayne Fitzgerald 02 99827094. Meetings: 1st Tue/month, 7pm, Mona Vale Bowling Club.

**Stanwell Park HG and PG Club**

PO Box 258 Helensburgh NSW 2508; Pres: Robert Lepre 0411 082642, <pepielepre@ozemail.com.au>; V-Pres: Shannon Black 0414 344363; Sec: Darryl Millington, 0413 978784; Trs: Joe Fussell 0419 635045; SSO: Jamie Cannon 0410 686232, Steve Pick (PG) 02 42943072; Activities: Matt Boad 0417 241966.

**Sydney Paragliding Club**

PO Box 225, Helensburgh NSW 2508, [www.sydneyparagliding.com/club/], <sydneyparaglidingclub@yahoo.com>. Pres: Enda Murphy 0412 445741.

**ACT**

**Dusty Demons Hang Gliding Club**

PO Box 1003, Fyshwick ACT 2609. Pres: Leeroy Patterson 02 64561590, 0427 220764, <leeroy@dustydemons.com>; V-Pres: Tove Heaney 02 48494516, 0419 681212, <tove@dustydemons.com>; Sec: Scott Hannaford <scott@dustydemons.com>; Trs: Joe Fussell 02 42943942, 0419 635045, <joe@dustydemons.com>; SSO: Grant Heaney 02 48494516, 0419 681 212, <grant@dustydemons.com>; Editor: Kath Kelly 02 64561590, 0427 220764, <kath@dustydemons.com>.

**Queensland**

**Cairns Hang Gliding Club**

Pres: Bernie Zwalen 07 40965593, <zswahlen@ledanet.com.au>; V-Pres: Joe Reyes 07 40555553, <reyes@ledanet.com.au>; Sec: Lance Keough 07 40912117, 31 Holm St, Atherton QLD 4883; Trs: Nev Akers 07 40532586, <nevjoy@ozemail.com.au>.

**Canungra Hang Gliding Club Inc**

PO Box 41, Canungra QLD 4275; [www.triptera.com.au/canungra]. Pres: Jon Durand Snr <durand@ausinfo.com.au>, 07 5533 3596; V-Pres: John Ripley <rip\_ripley@hotmail.com>, 07 32898275; Sec: Karen Sexton 07 55277636, 0410 433711, <kazbahtoo@yahoo.com.au>; Trs: Shirley Lake <chlgctreas@mac.com>, 07 5543 4047; SSO: Andrew Horchner <afactor@gil.com.au>, 0412 807516.

**Central Queensland Skyriders Inc**

915 Yeepon Rd, Iron Pot QLD 4701. Pres: Bob Pizzey 07 49387607; Sec: Grant Suthers 07 49361790; SSO: Geoff Craig 07 4992 3137, <gcraig@tpg.com.au>, Paul Barry 07 49922865, <prbarry@tpg.com.au>.

**Conondale Cross-Country Flyers Inc**

Pres: Peter Buch 07 54949579, <buchy9@bigpond.com>; V-Pres/SSO (PG): Graham Sutherland 07 54935882, <grahamsu@mail.cth.com.au>; Sec: Sue Buch, 343 Commissioners Flat Rd, Peachester QLD 4519, 07 54949579; Trs: Kim Hodson, 16 Gizeh St, Enoggera QLD 4051, 07 3354 1910; SSO (HG) & ML instructor: Russel Groves 07 54450084.

**Dalby Hang Gliding Club Inc**

27 Van Gogh Pl, Mackenzie QLD 4152; Pres: Daron Hodder 07 38762133; Sec: Rod Flockhart 07 32193442, 0412 882639, <flockhartrod@hotmail.com>; SSO: Damien Gates 07 39017401; Trs: Cameron McNeill 07 38913457.

**Sunshine Coast Hang Gliding Club**

PO Box 227, Rainbow Beach QLD 4581; <intheair@ozemail.com.au>. Pres: Phil Lewis 07 54840464; Sec/SSO (PG): Jean-Luc Lejaille 0418 754157; Trs: Michael Powell 07 54425568; SSO (HG): David Cookman 07 54498573.

**Townsville HG Association Inc**

Pres: Clint Smith 07 47747650; Sec: David McMahon, 07 4772 3858, PO Box 103, James Cook University, Townsville QLD 4811; Trs: Graeme Beplate 07 47732913; SSO: Graham Etherton 0427 831797.

**Victoria**

**Dynasoarers Hang Gliding Club**

Pres: Darren Brown 03 5222 8625; Sec: Tony Hughes 03 52437661; Trs: Greg Holt; SSO: Ted Remeika; Rob Van Der Klooster 03 52223019, <hrt@deakin.edu.au>; Meetings: 1st Fri/month, venue see: [vhpa.org.au/dyna].

**Melbourne Hang Gliding Club Inc**

[www.vhpa.org.au/melbourne/], <melbourne@vhpa.org.au>. Pres: Andrew Medew 0413 433537; Sec: Vanessa Sparke 03 9458 3780; SSO: Geoff Tozer 03 97583250, Kevin Grosser 0419 022225. Meetings: 3rd Wed/month at 6:30pm at the Palace Hotel, 893 Burke Rd, Camberwell.

**North East Victoria HG Club Inc**

[www.home.aone.net.au/gilbert/nevhc.htm] Pres: Horst Wimmer 03 57501075; Sec: Garrit Verway 03 57551074; Trs: John Coulton 0427 300656; SSO: Karl Texler 03 57501733. Meetings: 1st Thu/month, Alpine Hotel, Bright.

**Sky High Paragliding Club**

<skyhigh@vhpa.org.au>; Pres: Geoff Guest <gguest@fox.net.au>; V-Pres: John Styles <jdstyles@hotmail.com>; Sec: Zoltan Toth <fishhead@netspace.net.au>; Trs: Barbara Scott <bscott@iprimus.com.au>; Meetings: 1st Wed/month 8pm, Retreat Hotel, 226 Nicholson St, Abbotsford.

**Southern Microlight Club**

Pres: Kel Glare 03 94395920 (h), 0421 060706; V-Pres: Ben DeJong 03 97898970; Sec: Ian Rees 03 97621364; Trs: Dianne Pierpoint. Meetings: 2nd Tue/month 8pm, The Manningham Club, 1 Thompsons Rd, Bulleen.

**Western Victorian Hang Gliding Club**

Pres: Stephen Norman 03 98536554, <ursula@starnet.com.au>; V-Pres: Glen Bachelor 0419 324730; Sec: Nathan Grieve 03 53673106, <nathan\_grieve@yahoo.com>; Trs: Phillip Campbell 03 53313812, <campbell@giant.net.au>; SSO: Rohan Holtkamp 03 53492845. Meetings: Last Sat/month, The Golden Age Hotel, Beaufort.

**Western Australia**

**Albany Hang Gliding Club**

Pres & SSO: Simon Shuttleworth 0407 950 536; Sec: John Middleweek 08 98412096, fax: 08 98412096.

**Cloudbase Paragliding Club Inc**

Message bank 08 94875253; Pres: Mark Wild, 0411 423923, <mark@gastech.com.au>; V-Pres: Robin Rankin, 0407 441463; Sec: Mike Duffy, 16/3-5 Geddes St, Vic Park, WA 6100, 0417 923741, <mikeduffy@graduate.uwa.edu.au>. Trs: Colin Brown 08 94594594, <cobrown@bigpond.com>. Meetings: 2nd Wed/month 8pm, Rosie O'Grady's Pub, South Perth.

**Goldfields Dust Devils Inc**

9 Broadarrow Rd, Kalgoorlie WA 6430. Pres: Murray Wood 08 90215771, Sec: Mark Harrop 08 90228528, Trs: Peter Harris 08 90219234, SSO: Mark Stokoe.

**Hill Flyers Club WA**

Pres/SSO: Rick Williams 08 92943962, 0427 057961, <hillflyers@hotmail.com>; Sec/Trs: Dave Longman 08 93859469. Meetings: Last Wed/month, 7:30pm, venue announced on the HGAWA hotline 08 94873258 weekend prior to meeting.

**South West Microlight Club**

Pres: Brian Watts 0407 552362; V-Pres: Don Wilson 08 97641007; Sec: Paul Coffey 08 97251161; CFI: Brendan Watts 0408 949004.

**Western Soarers Hang Gliding Club**

<wshgc@hotmail.com>, PO Box 483, Mt Hawthorn WA 6915, [www.iinet.net.au/~navi]; Pres: Phil Wainwright <pwainwright@iqpc.net.au>; V-Pres: Daryl Speight 08 93568195, <Daryl.Speight@kbjv.com>; Sec: Geoff Smith 08 9223 2323, <geoff.smith@jhg.com.au>; Trs: Graeme Sharp 08 9445 7044, <GSharp@stothoore.com.au>; SSO: Mark Stokoe 08 9581 3572. Meetings: 1st Wed/month 7:30pm, The Irish Club, 61 Townshend Rd, Subiaco.





# Soaring Calendar

## AUSTRALIA

### Queensland State Competition 2002 28 September – 6 October 2002

Venue: DDSC Jondaryan. Practice day: Saturday 28 Sept. Comp days: 29 Sept to 5 Oct. Final dinner: Saturday 5 Oct. Ph: Libby Matuszczak 07 4634 4879 (h) or email: <libbymat@optusnet.com.au> entry form on our website: [www.ddsc.org.au].

### St Bernards Canungra Classic 2002 28 September – 5 October 2002

Canungra, QLD. Registration: Friday 27th. Entry fee: \$120 (\$150 if paid after 31 Aug) plus \$40 site fees. GPS mandatory. Intermediate with inland experience. Cheques/money order to Rod Stead, 9 Griffith St, North Tamborine QLD 4272. You can pay by Visa/EFTPOS; call Vicki at St Bernards to use their payment facilities. Entry inquiries: Rod 0428 132215, 07 55450969 or <canungrahg@mac.com>. Register at [www.triptera.com.au/canungra] and follow the links. Last year's accommodation and meal deals available; call Vicki on 07 55451177 to book and obtain prices or visit their website 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 53608275 or <cubtv@netconnect.com.au>.

### Manilla Mug 2002 5-6 October 2002

Mt Borah, Manilla, NSW. Long weekend Oktoberfest "Manilla Mug" competition. Entry is free, open to pilots of all levels. Lots of day prizes and free Borah Basher rides up the hill. All tasks set to be open distance. Scoring same as the State of Origin comp held at Manilla last Easter. Scoring according to level of experience, eg: Nov pilots are awarded 3pts/km and Adv pilots 1pt/km. This handicap scoring system lets anyone win regardless of experience level. Weekend includes free Bavarian style BBQ on presentation night at "The Old Mill". Prize awarded for best German dress. Registration at the Imperial Hotel, Manilla, 9-10am Saturday, 5 Oct. Towing also available at nearby Breeza with Rhett Rockman. Contact: Coxy, Central Coast Paragliding, 02 43858593 (w) or 0417 355897 or <farqcoxy@hotmail.com>. HQ: The Old Mill, ph: 02 67851515.

### Canungra Cup PG 2002 12-19 October 2002

Canungra, QLD. 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, comp 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 Sept. For more information visit the website [http://home.iprimus.com.au/plenderleith/canungracup/], email <canungracup@hotmail.com> or ph: Karen Sexton 0410 433711 or Robert Wilton 0418 732325.

### Victorian Spring Comp 2-5 & 16-17 November 2002, 14-15 December 2002

Bright/Beaufort/Birchip. The Vic Spring Comp is back. To be held by the VWHGC at Bright over the Melbourne Cup Weekend (2-5 Nov) and two subsequent weekends at Beaufort and Birchip (16-17 Nov & 14-15 Dec). For an info pack ph: Steve 0438 360655 or Carla 0422 021033 or email <carla\_pierce@middletons.com.au>.

### Renmark Gliding Club 50th Anniversary Weekend 2-3 November 2002

Help the Renmark Gliding Club celebrate 50 years in gliding. Bring your own glider or hire one of the club's for some local soaring. Join in the Saturday night celebrations at the Renmark Hotel, three course meal, easy listening live band, dine dance or just relax with friends till late. For more information contact the Renmark Gliding Club, ph/fax: 08 85951422 or 0417 890215, <renglide@riverland.net.au>; Leon Warren ph/fax: 08 85951043, <warrenlb@riverland.net.au>.

### Gulgong XC Classic 16-20 November 2002

Gulgong Gliding Strip, NSW. The Newcastle HG club runs this aerotow comp, which promises to be an enjoyable event with safety as the most important issue. Max number of entries: 50, one tug allocated per 10 pilots – so get your entries in quick to secure a spot! Gulgong is right on the edge of the flatlands and has produced excellent cross-country flights in the past. Basic camping available at airfield for \$7pn. Toilets and shower facilities adjacent to camping area. Pub and motel accommodation available in town, 10km south of strip. Practice day: Friday 15th. Entry fee: \$135 (late fee \$50 for entries received after 30 Sept). Entry fee includes \$7 per comp day strip fee, T-Shirt and presentation dinner. Tow fees: \$15 per tow payable to launch marshal on daily basis. Requirements: Current HGFA membership, aerotow endorsement, parachute and GPS. Registration: 8-10pm on Friday 15th. Comp format: Start circle around strip. GPS turnpoint and goal. Goal will be at the strip when possible. Contacts: Bill Olive, 0412 423133, <william.olive@telstra.com> and Rick Duncan 02 49449199, <RickD@airborne.com.au>.

### 2002 Outback Shootout 16-30 November 2002

International gliding competition for Open Class gliders at Tocumwal Aerodrome, NSW. Contest director is Eddie Madden (CFI). The competition will run over 15 days. First practice day: 16 Nov, official practice days: 17 & 18 Nov. Competitors must fly on one of the official practice days. Real contest starts on 19 Nov and ends on 30 Nov (12 days). Competitors must have previous contest experience at Nationals level. Both single and two-seaters can enter. The competition is open for pure gliders, sustainer equipped gliders and self-launching gliders. Number of entries may be restricted depending on registrations received. Competition 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.

### 333 Week 2002 16 November – 1 December 2002

Western Soarers are once again hosting "333 Week" to try and break the WA State records for open distance, distance to declared goal, out & return and triangle. The week is open to both paragliders and hang gliders and both static and aerotowing available. Guest appearance, lectures and expert advice on XC flying from Gordo when

he gets picked up first in the van. More details can be found at [www.iinet.net.au/~navi].

### 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>.

### The Australian Services Gliding Association (ASGA) 27 December 2002 – 10 January 2003

Annual competition at Leeton for all skill levels from late training/early solo through to experienced. Launching is by both winch and aerotow. Limited camping on airfield, good accommodation in Leeton Caravan Park. Contact Nathan Guinness on ph: 03 51467050 (w), fax: 03 5146 7014 (w), or Denis Lambert ph: 07 46917928 (w), fax: 07 46919010(w).

### Gawler Week (Gawler Xmas Regatta) 27-31 December 2002

Great flying and New Year's Eve wind-up party. Contact: Andrew Wright on 08 83034648 or <andrew.wright@adelaide.edu.au> to register interest.

### Vintage Gliding Regatta – Stonefield, SA 4-11 January 2003

The Barossa Valley Gliding Club of SA is proud to be hosting the VGA's 26th annual regatta. An invitation is extended to all vintage sailplane owners and interested people to join us for a week of flying and enjoyment. For more information contact Syd Wright, BVGC/VGA Liaison Officer, ph: 08 82432316 or <sydw@chariot.net.au>.

### 27th Vintage Glider Rally 4-11 January 2003

Host Club, Barossa Valley Gliding Club Stonefield SA. Fun flying and vintage comp. Details contact: Ian Patching 03 94383510 or <irtpatc@melbpc.org.au>.

### Australian National Club Class Championships 13-24 January 2003

Temora Gliding Club, Temora, NSW. Contact Geoff King for more information, ph: 02 69774424. Snail Mail: PO Box 206, Temora NSW 2666.

### Corryong Cup 2003 12-18 January 2003

Corryong, VIC. Celebrate 20 years of Victoria's best flying with the biggest and best Corryong Cup! Party 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. 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 is scored on a handicap basis according to glider type and flying experience, so everyone entering 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. Still the cheapest comp in the HG calendar at only \$100 if you register before 30 Nov (\$120 thereafter). Cheques made out to 'Blue Mountains HG 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



# Classifieds

with: Steve Bell, PO Box 110 Woonona NSW 2517, ph: 0412 686812, <spbell@earth.net>.

## Horsham Week 1-8 February 2003

After more than 30 years, Wimmera Soaring Club members have retired from hosting Horsham Week! But it's still on, being organised by the regulars. As usual, camping available on site. All classes. Please let us know if you'll be flying. Contact: Noel Vagg (Snake) ph: 03 9743 6830 or <noeljanvagg@primus.com.au>.

## Australian National Multi-Class Championships 2-15 February 2003

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

## In March 2003 Manilla...

...will be the centre of PG comps in the southern hemisphere: Two weeks of FAI Cat 2 comps with a rest day in between the two Nationals. The double header also gives pilots the chance to earn full value (with 100+ pilots entered) WPRS points from two high level comps in one location prior to the Portugal PG Worlds. Pilots entering both comps receive a discount: two comps for A\$280 (= Euro 140) if paid before 1 Jan. The 2002 Manilla PG Open was the most successful ever: 120 pilots flew XC on all eight days, goals up to 161km, over 50,000km total distance flown and GAP scoring 7,800 out of 8,000 points available! Note: These comps are some of the last FAI/CIVL Cat 2 comps counting for PG Worlds Team size in 2003. We expect them to be booked out months prior. Early registration is advised to ensure a place. For more info refer to the comp website or email Godfrey Wenness, Comp Organiser, <skygodfrey@aol.com>.

## Australian PG Open 1-7 (Reserve Day: 8) March 2003

Manilla, NSW. Final rego: 28 Feb, Manilla Town Hall HQ. Entry fee: \$160 before 1 Jan (\$180 after). CIVL Cat 2, HGFA AAA. Over \$5,000 worth of prizes in various categories. Max entry of 120 + 5 wild cards. Min pilot level is intermediate with inland experience. Entry: From 1 Oct 2002 online via [www.flymanilla.com]. Credit Cards accepted.

## New Zealand PG Nationals 9-15 March 2003

Manilla, NSW. Final rego: 28 Feb and 8 Mar at Manilla Town Hall HQ. Entry fee: \$150 before 1 Jan (\$170 after). CIVL Cat 2. Over A\$3,000 worth of prizes in various categories. Max entry of 120 + 5 wild cards. Min pilot level is intermediate with inland experience. Entry: From 1 Oct online via [www.flymanilla.com]. Credit cards accepted.

## OVERSEAS

### Nepal Air Sports Festival 2003 15-30 January 2003

Kathmandu, Nepal. Deepti, the Avia Club Nepal, invites all fans of Aviation Sports to the Kingdom of Himalayas for breath-taking XC flights in your own flying apparatus (microlights, etc) during a two week event starting 15 Jan. Be part of a unique and historic event and experience the stunning thrill. This is the first time Nepal has opened its territory to foreigners to fly. Don't miss this opportunity! If you're interested contact our website [www.avianepal.21bc.net].

## GFA

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Email: <frowe@optusnet.com.au>

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## Single-Seater Sailplanes

MOSQUITO XJQ, 1,600 hrs TT, oxygen, ATR720, enclosed fibreglass trailer & tow-out gear. \$35,000. Ph: John Ashford (Alice Springs) 0409 679867, <john.ashford@santos.com>.

STANDARD CIRRUS GOT, approx 900 hrs, basic instruments & electric vario, radio, enclosed trailer & tow-out gear. \$22,000 negotiable. Ph: Graeme 02 4423 1635.

SZD32A - FOKA5, complete with registered trailer, parachute, etc. Currently in Form 2 & flying at Boonah. Ph: 07 3216 6363, <dgataylor@itconnect.net.au>.

STD LIBELLE 201B, looks good, flies well. GPS, Joey, Dittel radio. Tlr, tow-out gear. \$18,500. Sale due to ill health. Ph: Frank 02 6785 2137.

THE GLIDING CLUB OF VICTORIA is restructuring its fleet & therefore offers for sale: PW5 - 860 hrs. Basic instr' & B40 vario & Dittel ATR720 radio. Incl trailer, tow-out gear, etc. Nimbus 2C - 3,600 hrs. Basic instr' & B50 vario, B57 computer, Terra TX760D radio. Wiring for Garmin 12XL & EW logger. Factory trailer, tow-out gear, etc. We are looking to purchase one of: Discus b, Ventus, LS6 or LS7 & are willing to consider a trade deal, which includes either/both of the above aircraft. For details contact, Bob Gray 03 5762 1058 or <glidingbla@cnil.com.au>.

BLANIK one piece canopy & windscreen (brand new). At cost \$900. Ph: 03 5874 2594.

PW-5 WORLD GLASS GLIDER. TT 83 hrs, better than new condition! Custom-built fully enclosed trailer. Ph: 02 6257 0501 or 02 6290 1730.

H201B GBA, 3,000 hrs life extension completed 10 hrs ago. Brand new mecoplex canopy. A1 mechanically, flies beautifully, average appearance. Fresh Form 2. Enclosed trailer. Located Darwin. \$13,500. Ph: 0412 599193, <smcgrath@justinternet.com.au>.

BG 12A. Excellent condition. Radio, parachute, open trailer. \$9,500. Ph: 02 4373 1147.

PILATUS B4, low time with enclosed trailer, parachute & ground handling gear. Ph: 08 8341 6556 or 0408 916795.

## Two-Seater Sailplanes

M200 FOEHN 18m, easy to fly, even for first solo. Ideal for club family or syndicate (four would only cost \$4,500 each, to share fun & cross-country experiences). Staggered seating allows easy communication & good visibility. L/D 32:1@ 53kt. Glider in showroom condition. Ph: John 03 9787 5922.

IS-28 B2 VH-CQD, Good condition. Approx 6,000 hrs. 720ch radio, mechanical & electric varios. Bathurst Soaring Club. Ph: 02 9899 8779 (h).

K7 VH-GNU, Good condition. Basic instruments, Stitts fabric, enclosed trailer. Inspect at Bala-klava. \$20,000. Ph: Brian 08 8672 5210 or Don 08 8672 5620.

## Motor Gliders

XIMANGO VH-ZAO. A share in the ideal gentleman's touring machine is now reluctantly for sale. Enjoy both economical touring aviation as well as the thrill of soaring flight in one aircraft. Enjoy fun flying in excellent thermal, ridge & wave lift in the picturesque Yarra Valley, (two 25,000ft climbs in recent years) less than 45 minutes from the CBD. Imagine no hassle gliding without the long drive. Based at Lilydale, VIC, in concrete floored, powered, individual secure hangar. Good airspace, small syndicate, local fuel available. One quarter share for \$42,000. Ph: Brian Taylor 03 9755 3545, 0411 401511 or <btaylor@labyrinth.net.au>.

DG-400 VH-JXD, tinted canopy, Slimpack chute, good trailer & ground handling gear. Just been fully refinished by Roger Bond. Immaculate condition. Ph: 02 4471 7223.

DG400, based at Camden, own T-hangar complete with all ground handling equipment, trailer & parachute. Well equipped with low engine & airframe hrs. Rare opportunity to buy a 1/4 share in a good syndicate. \$29,000 or near offer. Ph: Terry 02 4647 7734, 0418 868 727 or <terryoxborough@mpx.com.au>.

STEMME S10, share for sale in one of the best self-launchers in the world. Based at Camden airport near Sydney. Own T-hangar. Komet trailer. All the good gear. Ph: Tom Gilbert 02 4655 7079, <tnjgilbert@bigpond.com>.

PIK 20E VH-XOI, TT airframe 2,000 hrs, motor 170 hrs to major overhaul. Control surfaces fully sealed, Borgeit computer/vario, Garmin GPS, Becker 720ch radio, parachute. Complete with factory trailer, ground handling equipment, wing covers spare propeller & other spares. Always hangared, carefully maintained & in very good condition. Ph: Geoff Cox 03 9857 6951, <GERLECOX@msn.com.au>.

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# Classifieds

## Instruments and Equipment

**NEW PARACHUTES:** Short pack ATL M88/90 – \$1,925. Slimline long pack ATL 88/92-S – \$1,995 includes GST. Airborne Avionics P/L, ph: 02 6889 2733, fax: 02 6889 2933, email: <hartley@avionics.com.au>. Supplied with current CASA. JAR. FAA approval.

**CAMBRIDGE 302/303** is here & is the way of the future including everything into two small instruments & about 2/3 price of previous LNAV/GPS-NAV. Ian McPhee, ph: 02 66 (mob 0428) 847 642, <mrsoaring@gmx.net>, [www.mrsoaring.com].

## General

### OFFICE ADMINISTRATOR

**WAIKERIE INTERNATIONAL SOARING CENTRE.** Expressions of interest are invited for the above position. This is a full time permanent position responsible for the organisation, management & operation of the business office of WISC. As part of the WISC team it maintains all the financial, staffing, booking & office systems & provides advice to the CEO & Board of Directors on all aspects of these operations. It also undertakes secretarial/treasurer duties for the Waikerie Gliding Club & WISC Boards of Directors. These are close working relationships with both staff & customers & flexible working hours are required to satisfy the non standard & seasonal nature of operations. If this position appeals to you contact John Ryan on 08 8541 2644 or email <wisc@riverland.net.au> for further details.

### GLIDING INSTRUCTOR/TOW PILOT

**WAIKERIE INTERNATIONAL SOARING CENTRE.** This is a full time, permanent position at the Waikerie International Soaring Centre, Waikerie, SA. We are looking for a Level 2 instructor who possesses an unrestricted towing licence. Ours

is a commercial operation encompassing both flying & maintenance activities. The full time flying season is from November to March & the occupant of this position will be required to assist in the workshop & on grounds work during the off season. We also have a close working relationship with the Waikerie Gliding Club & provide support services to their activities. The lifestyle at Waikerie is very relaxed & we are only two hours from Adelaide by car. This is a contract position & terms & conditions are negotiable. If you would like more information about this position please contact John Ryan, ph: 08 8541 2644, fax: 08 8541 2761 or email <wisc@riverland.net.au>.



## Gliding Club of Victoria

Earlier in the year we commenced a passenger flying operation at Lilydale airport in order to create a greater awareness of Gliding in the Melbourne market & to attract new glider pilots. As a result, we are now running two operations, one in Benalla & one in Lilydale. This is stretching our resources. We are looking for the following support:

- We would like to cross-hire a TUG for Lilydale for the period mid-October 2002 to end of March 2003.
- We are also seeking tug pilots & Level 1 & 2 instructors, who are willing to join our roster in Lilydale & possibly in Benalla.

This represents an excellent opportunity for instructors & tug pilots, who live close-by & who would like to do some more flying. You would be part of an effort, which will ultimately attract new members to a number of clubs around the State & will therefore benefit the wider gliding movement in Victoria. If you are interested, please contact: Bob Gray, Manager Operations, ph: 03 57621058, Email <gcvbob@gmx.net>

## GLIDER OWNERS

The Gliding Club of Victoria (GCV), is seeking to hire a number of single-seater gliders for the next soaring season. More overseas & Australian glider pilots than ever are coming to Benalla each season & we expect this trend to continue. In the past we have supplemented our fleet with hired overseas gliders. Going forward we would like to hire locally owned aircraft as far as possible. As a result we are seeking a number of, LS4, LS6, LS8, Discus, Ventus or similar aircraft for hire during the period December 2002 to February 2003. We are seeking gliders which are well instrumented, ideally including GPS, datalogger, & flight computers. We offer:

- Good Commercial Rates.
- Prompt Payment. GCV has an excellent credit history. In the past 50 years we have NEVER FAILED to pay our creditors in full or on time. If you are interested, please contact: Bob Gray, Manager Operations, ph: 03 5762 1058, fax: 03 5762 5599, email: <glidingbla@cnl.com.au>.

## INSTRUCTORS/TUG PILOTS

Two instructors & a tug pilot are required for the coming gliding season (November 2002 to March 2003). The work will encompass a five day week with some weekend & extended hours work. Remuneration will be negotiated based on experience. Flexible terms are available. For enquiries contact John Ryan, ph: 08 8541 2644, email <wisc@riverland.net.au> or write to PO Box 320, Waikerie SA 5330.

**PARTIALLY BUILT KIT SAILPLANE.** Incl materials, red'g trailer. Reluctant sale. Ph: 0408 744 013.

## WANTED

**ASW-20, VENTUS & LS-6** Please send full details to Ian Patching 03 9438 3510, <irtkpatc@melbpc.org.au>.

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## Publications

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

**FREE FLIGHT:** Bi-monthly journal of the Soaring Association of Canada. A lively record of the Canadian soaring scene & relevant international news & articles. \$US26 for one year, \$47 for two years, \$65 for three years. 107-1025 Richmond Rd Ottawa, Ontario K2B 8G8 Canada, email: <sac@sac.ca>.

**SOARING:** Official monthly journal of the Soaring Society of America Inc, PO Box 2100, Hobbs, NM 88241 USA. Foreign subscription rates (annually): \$US43 surface delivery; \$US68 premium delivery.

**SAILPLANE & GLIDING:** The only authoritative British magazine devoted entirely to gliding. 52 A4 pages of fascinating material & pictures with colour. Available from the British Gliding Association, Kimberley House, Vaughan Way, Leicester, England. Annual subscription for six copies £17.50.

**SAILPLANE BUILDER:** Monthly magazine of the Sailplane Homebuilders Association. \$US29 (airmail \$US46) to 21100 Angel St, Tehachapi, CA 93561 USA.

**TECHNICAL SOARING/OSTIV:** Quarterly publication of SSA containing OSTIV & other technical papers. Annual subscription: 70DM. OSTIV c/- DFVLR, D82234 Wessling, Germany.

**GLIDING KIWI:** Official bi-monthly publication of the New Zealand Gliding Association, edited by John Roake. Specialises in up-to-date overviews of the world soaring scene & Omarama the NZ base for many of the current World Records. \$A44 annually (Send \$A25 for 12 months back issues). New Zealand Gliding Kiwi, Private Bag, Tauranga, NZ.

**AIRBORNE MAGAZINE:** Covering all facets of Australian & New Zealand modelling. The best value modelling magazine. Now \$60pa for six issues. Plans & other special books available. PO Box 30, Tullamarine, VIC 3043.





## HGFA

Classifieds are free of charge to HGFA members up to a maximum of 40 words. One classified per person per issue will be accepted.

Classifieds are to be delivered directly to the sub-editor, by email or post, not by phone. The deadline is 25th of the month, for publication five weeks hence. Submitted classifieds will run for one issue. For consecutive publication, re-submission of the classified must be made, no advance bookings.

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.)

## Hang Gliders & Equipment

### NEW SOUTH WALES

**AIRBORNE CLIMAX 14** adv, only one season new, flown 55 hrs fully logged, most inland. All original, even DTs. Well looked after. Dream to launch & land. \$6,200. Ph: Alan 0408 470544; 02 98995351.

**AIRBORNE SHARK 2 144** adv, only three seasons new, low hrs mostly inland with wheels, water-proof UV bag, never pranged, all original, fastidiously maintained, magnificent glider. Sacrificed at \$2,700. Ph: Craig Dorich 0412 108630; 02 94019680.

**AIRBORNE SHARK 156** adv, only 60 (inland) hrs, EC, spares, wheels. User friendly, quick set-up, ideal first adv glider, \$2,500. Flytec 4030, ASI & bracket \$900. Large chute, \$500. Full-face helmet, \$100. Ph: 0411 070041.

**CHUTE:** large SkySpare [www.sky-cz.com], complete with bridle & still under warranty, purchased Nov '01 & never been deployed, \$450. Helmet: black/blue/carbonfibre Lazer Pro Series, small (56cm) EC, \$120. Ph: 0411 070041.

**MOYES LITESPEED 4** adv, white with blue/yellow US, very nice glider to fly, easy to land, VGC, just under 100 hrs, \$5,000 ono. Ph: Rob 02 4294 8694; 0411 082642.

**MOYES SX5** adv, orange/purple/white US, white Power Rib TS. Approx 100 hrs, recent wires & tune-up by Moyes. Won C-Grade in Hay. Quick sale, \$1,750 ono. Ph: John 0421 352312; 02 42342081 (test fly Wollongong).

**MOYES VENTURA 190** floater, blue/red LE, <50 hrs, VGC; manual, batten profile, spare DTs, luff lines; pod harness, reserve, helmet with headset, vario. Easy to fly/land. Complete set for beginner/relaxation pilot. \$3,500 ono lot or sell separately. Ph: Justin 02 67724025; <heybourne@hotmail.com>.

**MOYES XTRALITE 164** adv, recent new sail with low hrs, frame, sail & bag in great condition. Two spare DTs. For price & more details ph: Steven 0439 081489. Also a Garmin 45 (\$150).

**MOYES X2** tandem glider, GC, \$3,000. Moyes XS, \$700. 5Five Apron harnesses, \$50 each or \$200 for the lot. Two Moyes pod harnesses, \$100 each. Two sets of water floats for tandem glider, \$100 each. Static winch, Datsun motor, 3,000ft tow rope, \$500. Ph: Jamie 0429 696523; <thebucks1@bigpond.com>.

### ACT

**MOYES SX5** adv, 10 hrs only & as new. Pink/yellow US. Speed bar, batten profile, manual, \$5,000 ono. Moyes Xtreme harness to suit 172cm (5'8"), black, VGC, \$800. Flytec 4010 vario, \$300. Ph: Craig 02 62921956 (h); 0418 232920; <happy1@cyberone.com.au>.

### VICTORIA

**Moyes XT165** adv, blue/yellow, VGC, flies well. Canadian made pod (\$1,200 new). Must sell. \$1,800. Ph: 03 92901109.

**MOYES XT-PRO 165** int, VGC, great colours (fluoro orange LE, blue/green US). Rubber-backed fared Aerosafe DTs, speed bar, Scrim LE with Mylars, complete with owner's manual & batten profile. Flies great, \$1,450 ono. Ph: Gabriel 0407 544511.

### QUEENSLAND

**AIRBORNE SHARK 156** adv, with spares, \$2,300. Bar mitts, \$20. GPS bracket, \$25. Video camera bracket, \$30. Aluminium double HG tube, \$180. Combat 152 adv, with spares, \$500. Ph: Clint 0415 181042; 07 47747650.

**MOYES CSX5** adv topless, 100 hrs, perfect cond, XC bag & spare DT's, \$2,000 ono. Ph: Colan 07 49721111 (w); 07 49792392 (h).

## Paragliders & Equipment

### NEW SOUTH WALES

**AIRWAVE MAGIC (M)** DHV 2-3, yellow/red, only 20 test flights/10 hrs, \$4,500 ono. UP Soul (M) DHV 2, blue, only 10 test flights, \$1,200. Freex Mission (M) DHV 2, yellow, 100 flights/50 hrs, \$1,500. Ozone Proton (M) DHV 2-3, blue, 20 flights/10 hrs, \$1,500. Ph: Urs 02 66849176; <happy@mullum.com.au>.

### VICTORIA

**EDEL CONTROL (L)** DHV-1, 95-125kg, blue/purple, approx 60 hrs, recently tested with excellent report, \$1,000. Email <qbgrop@bigpond.com>.

### QUEENSLAND

**APCO FUTURA 42** Tandem, Turquoise/white, 45 hrs use. Also, Apco harness fitted with Tandem reserve. Someone must want this glider. Make me an offer. Ph: Neil 07 54822199; 0438 131910.

**PARAMOTOR:** Raptor with Solo 210cc engine. Three blade prop, quiet with 100lb thrust for the big boys. Incl. harness. As new. \$5,000. Ph: Bruce 0418 805 332; 07 32542914.

### WESTERN AUSTRALIA

**EDEL ATLAS (XL)** DHV 1-2, 105-125kg all up weight, GC, only 27 hrs, white with red Edel logo, \$1,800 ono. Ph: 08 92973659; 0403 304974; <yorktyke1@iprimus.com.au>.

## Trikes & Equipment

### NEW SOUTH WALES

**AIRBORNE EDGE EXECUTIVE 582 T2-2544**, EC throughout after exhaustive rebuild. Engine fully, professionally overhauled. New three-blade Brolga prop, EGT, CHT, tach, new seats & windshield, new comms, Wizard wing, full covers. Great first trike, bargain at \$15,000. Reluctant but unavoidable sale. Also for sale: Surplus Edge wing sail, almost new, UV protected, 10 hrs, new lease of life for Edge wing, \$3,000. Surplus 582 engine, 100 hrs, prof. checked over, \$3,000. Various trike parts: spats, wheels, main wheel bracing cables, small 582 radiator, main wheel axle, bits & pieces, \$600 the lot preferred, but all reasonable offers considered. Ph: Oliver 02 66872202 after 3 October.

## Wanted

### VICTORIA

Vario in good condition. Ph: Terry 03 94381230 or 0407 559238.

## General

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### WANTED: HANG GLIDING INSTRUCTOR

**SKY SPORTS** Flying School (WA) requires a Level 2 instructor with tandem endorsement & a micro-light licence to conduct training sessions from Wyalkatchem (WA). Applicants will be provided with detailed job specification including details of remuneration. Written applications incl. full resume, copies of qualifications & recent work references to: PO Box K1182, Haymarket NSW 1240.

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**SPORT WINDSOCKS:** Portable windsocks/self-standing models available.

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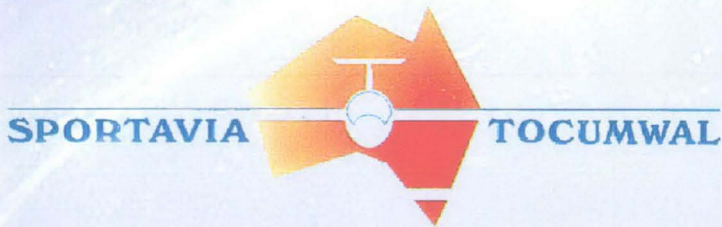
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# "Slips thru the air like a sharp blade.... turns on a dime..."



► **Dennis Pagen:**

*I had the handling to hook and core when I needed to and the sink rate to rise above the efficiency robbing traffic. At least three times I survived sink cycles by working up from 300 feet over the landing field. I also went on a mini X-C with Kenny Brown flying a Litespeed 4 and found I could stay with him at best glide speeds. All this apparent bragging is not to impress with my flying skills (I'd be winning meets if they were that good), but to show how the glider has a bountiful performance package.*

► **Jeff Blunt, Newcastle pilot:**

*What can I say? I was very impressed by the demo LiteSport but my new LiteSport is even better. Light responsive handling and if it glides as quoted it's icing on the cake! The new batten fittings are superb. Many thanks for a great glider. Please thank Steve for the perfect settings as requested. Kind Regards, Jeff Blunt.*

► **Toru Goda, Japanese Dealer:**

*I flew LiteSport 4 Ogasawara the day before yesterday. It was a perfect glider, I like the Powerib LiteSport!*

► **Steve Moyes after his first flight on a LiteSport:** "We're gonna sell a million of these!"

► **Peter Kestel, Canberra pilot:**

*I am the proud new owner (father) of a LiteSport!! & man does it fly!! Sooooo quiet & sleek. Slips thru the air like a sharp blade....turns on a dime....lands fast! (It lands very fast....but stops in a step!) Yahooooooo!!! Thanx Vick! PK*

► **Gerolf Heinrichs at certification testing in Germany:**

*Just finished the pitch testing. Both gliders passed in the setup from the factory. The Mylar was spot on and very similar in tight and loose - Impressive! Schmittler (Bernd Schmittler - Head of German DHV) was really impressed and said from the pitch curves, these gliders were the best he ever tested, Wow!*

► **Mike Barber, US team pilot:**

*The LiteSport tows very nice(ly) even in rough air. With the VG off it is a true intermediate-type glider. When you tell it to turn it turns with no adverse yaw. A big plus is that it lands great!*

► **Jose Galan, Spanish Dealer:**

*I have been flying the LiteSport, it is marvellous! It has the handling of the Xtralite and almost the performance of the Litespeed! Unbeatable thermaling behaviour! All the pilots were astonished and I think that it will be a big success! My sincere congratulations and thankfulness to the Moyes team for this magnificent glider!!*

► **Dennis Pagen:**

*In summation, the reason you need a LiteSport is to get that increment of performance you have been pining for while keeping your flying in the comfort zone.*

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