

# *Australian* **Gliding** SKY SAILOR



## In this Issue:



### Afternoon Glory



### Our Little XC



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## FUNNY CAPTION COMPETITION



If you have a witty mind  
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Send your entries to:

Richard Lockhart

c/o Blackheath Post Office, Blackheath NSW 2785

or email <skysail@ozemail.com.au>

by 25th January.

The winner (announced in the March issue) will receive a HGFA cap.

And now, the moment you've all been waiting for, the winner of the October comp:



The November comp must have been harder than the October one, judging from the number of entries. However, the winner is:

*"As he waited for the tug, Jamie once again reflected on how Alice had bloomed in pregnancy."* – John Reynoldson – Nice one, John.

Other entries included:

*"Wind? You had better believe it!"* – Trish Christie-Taylor

*"Yeab, I've always found a side mounted reserve easier to get to than a surgically implanted belly mounted reserve!"* – Karl Texler

*"I don't mind lying vertical but you ought to see what gravity does to my manly physique then."* – Greg Graham

*Wind Tummy* – Leigh Forbes



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### AUSTRALIAN For all editorial contributions contact:

**GLIDING** GFA sub-editor Anne Elliott, PO Box 189, Narromine NSW 2821, phone/fax: 02 6889 2266 (w), email: <annell@lisp.com.au> or The Gliding Federation of Australia, 130 Wirraway Road, Essendon Airport VIC 3041, ph: 03 9379 7411, fax 03 9379 5519, email: <secretary@gfa.org.au>.

### For advertising bookings contact:

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### SKYSAILOR For all editorial contributions and advertising bookings contact:

HGFA sub-editor Richard Lockhart, c/o Blackheath Post Office, Blackheath NSW 2785, ph: 0418 130354, email: <skysail@ozemail.com.au>, web site: [www.hgfa.asn.au]

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# The Queensland Soaring Association 2000 State Competition



Launch in progress

## MICHAEL O'BRIEN (CONTEST DIRECTOR)

The Southern Downs Aero and Soaring Club, which operates at Massie Airfield, near Warwick, Queensland, is a small club. It used to be a bigger club, and still has the assets of a large club, but that is another story. While the traditional part of the club, which revolved about instructing and ab-initio training, has withered, we have built up a core group of people who love to fly cross-country.

**T**radition had it that the three "big" clubs in Queensland take turns to run the state competitions. However Warwick dropped out of this cycle for several years. Then four years ago one of our club members volunteered us to run a state Competition. What ended up happening was that our club ran the competition out of Chinchilla airfield, 202km away, while the local aero club looked after all the camping and catering issues. The organisation was strained, and our club didn't gain a lot out of it. Fortunately, the weather was reasonable, and that is the most important requirement for a gliding competition.

There was a suggestion by some that we should again see if we could run the competition at Chinchilla. Fortunately rationalism prevailed, and we decided to run it at our own club.

### Work!

Our airfield was in poor condition, with a rough surface and inadequate space for marshalling and tie-down. We made a decision to invest in a secondhand tractor plus roller plus slasher.

This was a silly decision in terms of the economics of the competition, but we knew that it was essential we start rolling the grass after rain for safety reasons. A few of our members started putting in many hours slashing all around the airfield boundaries. As it happened, the roller never got used, because it never rained! No one was really upset, because droughts are good for glider pilots.

At about the same time, the local council had a plan to upgrade the airfield, with some locals pushing for a "Warwick International Airport" Shock! Horror! Again rationalism prevailed, and one good thing came out of this. The council decide to buy a block of land adjacent to the airfield and our clubhouse, to give room for further hangar development. Now it was our turn for a pleasant shock; it suddenly seemed that the council was aware of what our needs were, and was really willing to help us. So with council help, the new land was slashed, and stumps were removed to make it a tie-down area, and possibly suitable even for emergency landings. They graded some rough areas near

the tie-down. They made a new gate area. They provided a mobile toilet block. A local business provided an "events van", where we kept all the computers required for meteorology, task setting, verification and scoring. The local bush fire brigade helped with cleaning up.

The club spent lots of money in getting power available for camping sites and setting up a good water filling system. This proved to be perhaps more than we needed, but we have very good infrastructure for the future. About all we need to make it better for next time is more tall shady trees in the camping area, but that takes even more time than a committee decision.

## The October competition

At Warwick we always like to try and be different. Traditionally, the Queensland state competitions are held early in the season, to minimise the chance of a washout. The state competition is often referred to as the October competition. However, to encourage a few well-loved friends from New South Wales to attend, one of whom is a school teacher, we ran the competition in the time when New South Wales and Queensland school holidays overlap, which is the last week of November. This is definitely a first for the "October Competition".

It turned out to be a small competition; 33 pilots flying in 25 gliders. Once again Standard Class proved that it is the real "racing class" with 22 pilots. As well as having the Australian Standard Class representative (Thomas "the freight train" Claffey), and the back-up team member (Andrew Georgeson), we also had a member of the New Zealand team, Grae Harrison. We had three LS8s competing, a few LS7s, and lots of Discus.

I think it is important to encourage people to turn up in lower performance aircraft, which



**PHOTOS: MICHAEL O'BRIEN**



**On the flight-line - Bill Wilkinson (seated in glider), Michael O'Brien, Matt Anglim and Rod, Simon and Michael Haase. Simon and Michael did a great job running ropes**



**An idyllic gliding camp site – hot, dry and dusty!**

is why we should emphasise the club handicap trophies. Of course I have a biased view here, but as well as Errol Spletter and myself scatter-flying our LS1-f, we had two standard Libelles, an Open Libelle, an Astir and a Cirrus.

We had another international visitors, Kiwi Martyn Cooke, slumming around in an LS8. We had a few New South Wales visitors, and even had to give some of them a few of our trophies

### How fast is fast?

I think we had great racing weather. I enjoyed it! We flew six days out of seven. Most of the days were difficult, and at times it seemed like some were going to turn out impossible, but most people got home eventually. The best speeds on the best day were over 130km/h. We only had one best day. On the next day, there was a change of pace. A speed of 70km/h was needed to win in open class. It was one of those classic days where we have what I call a "gaggle of fear". No one is game to lead out, but the gaggle makes its way relentlessly around the task. The slower pilots get a chance to catch up

while the leaders waste time at the top of the gaggle. It is a truly beautiful sight to watch about a dozen gliders ahead, flying in formation, and dumping water ballast as they headed down towards circuit height.

The last competition day was the hardest day I have ever flown. I started nice and high at the airfield almost as soon as the gate opened, and drove determinedly off into the 25kt headwind. A short time later I found myself forced to climb away from circuit height in a weak thermal, drifting backwards. Eventually I ended up drifting to one of my other startpoints, and re-started, a little bit lower, and having covered eight kilometres in 38 minutes! This is scary stuff indeed, and in case you think that proves I am absolutely hopeless, I should add I won this day in the handicap class. It did improve, but it was no day for "gaggles of fear". It was essential to fly fast and waste no time in weaker thermals, because the headwind meant that if you were not going forward, you were going backward. Conditions turned bad around the upwind turnpoint. Most good

pilots know that it is important to try and round an upwind turnpoint as low as is safe. However about 1,500ft AGL seemed like the norm, and that is very difficult flying.

### Assigned area tasking

A lot of people hate the idea of this form of task. I am not sure it is allowed in the rules, but we used it on three days with great success. With weak days, and uncertain weather with strong headwinds, we opted to set a compulsory first turnpoint, and a choice of second turnpoints, but with the proviso of a minimum task time of (say) tow-and-a-half hours. On one of these days, everyone, including open class, opted for the shortest possible task. It didn't make the poor Libelle pilots think too highly of the people flying the Nimbus 4DMs and 3DMs, but some of the standard class pilots enjoyed the company.

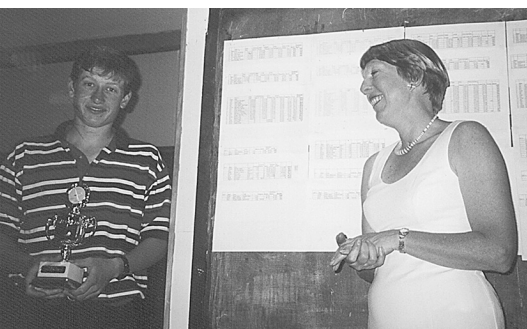
If we had set a conventional task on these days, based on our best guess at the weather, it would have been longer than what everyone flew. I believe that just about everyone would have outlanded. The assigned area task is a bit of extra effort for the scorer, but not too much. It certainly keeps a lot of the advantages of conventional fixed tasking, and does not have some of the aspects of POST tasking that so many pilots hate so much. Certainly I thought it was an excellent idea.

On one of the days when everyone did the shortest task, some finished in under the minimum time. Of these some flew further because of different start points, and came out ahead even though their real speed was lower. A few complained about this anomaly, but it was pointed out that those who flew further may well have had to take a weaker last thermal.



**The presentation dinner – can you find an unhappy face?**

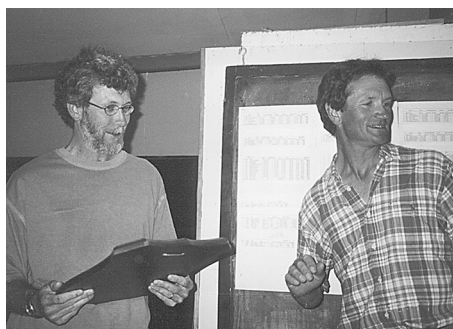




▲▲ Health L'Estrange (Astir, SDASC) receives the Encouragement Award from Kerry Claffey

▶ Mike Codling (LS7, DDSC) received the award for the best performance in first or second competition from Bruce Taylor

▲ Mal Tuit presents Standard class winner Matt Anglim (Discus A, SDASC) with his trophy



## Final results

### Standard Class

1 Matt Anglim	Discus A
2 Grae Harrison	LS8

3 Andrew Georgeson	LS8
--------------------	-----

### Open Class

1 Peter Griffiths/Lars Zander	Nimbus 4DM
2 Hank Kauffman	Ventus 2C
3 Bob Ward	Ventus 2C

### 15 Metre Class

1 Trevor West	ASW20B
2 Giles Taylor	Open Libelle
3 Mick Webster	LS3

### Standard Class Club Handicap

1 Michael O'Brien	LS1F
2 Bevan Lane	Discus B
3 Martyn Cook	LS8

### Open Class Club Handicap

1 Harry Medlicott	Nimbus 3DM
2 Dave Mutton	DG500M
3 Mike Maddock	DG500M

### 15 Metre Class Club Handicap

1 Giles Taylor	Open Libelle
2 Mick Webster	LS3
3 Dudley Waters	ASW20B

## The really important people

One of the great things about a gliding competition is the chance to meet all of those good friends who you only meet once a year. But for all it is nice to see the same old faces, we all enjoy seeing a few newcomers. The really important trophies go to these people.

This year Mike Codling flew his first competition in the Darling Downs Soaring Club's LS7 XOW. Overall he came ninth place out of the 22 pilots in standard class, which is a pretty creditable effort. Mike earned the trophy for the best performance for a pilot in their first or second state comps. Bruce Taylor presented the trophy, and it is worth remembering that there was a time when Bruce flew his first competition.

The encouragement award went to an 18-year-old Warwick pilot, Heath L'Estrange, who was sharing an Astir. Kerry Claffey presented the trophy. All the Warwick pilots know Heath is a promising pilot, and we were delighted to see him get a trophy not so much for what he did, but for what we know he will do in the future.

The Wally Mills trophy, for best performance by a pilot in a non-competitive glider, went to Giles Taylor, from Byron Bay, who flew an Open Libelle in 15M Class. Managing to not outland every day in an old glider without water ballast was impressive. Winning a day outright was a real achievement. With the trophy, Giles also gets a free entry to next years state competition, and we look forward to his company.

## The workers

Being competition director brings some special pleasures: Morning tea with the Mayor, the chance to talk too much while telling other people to shut-up at briefing, and the chance to stand up on tables and give speeches after having drunk too much at the presentation dinner. But the real pleasure is to be part of a great team.

Matt Anglim was in charge of meteorology, task setting, airspace, verification and scoring! He was up early most mornings to download the weather out of the Cusonde, and he was up late most nights doing the scoring. The fact that he somehow managed to get his Discus cleaned and filled with water each day, and out on the grid was remarkable. The fact that he then went on to win Standard Class was just great. People who are not from the Warwick club could not realise just how much of a thrill it was for us to see Matt win, and do it at his own club. In an article in Australian Gliding some time back, someone from Narromine refereed to Matt as "Warwick Rising Star" so if you ever hear us refer to him as "RS" you know what we mean.

Matt had many helpers. Miles Gore-Brown had his newly imported Discus 2 impounded on the docks, but came up and helped enormously in the first couple of days. Errol Spletter stepped in to help when Miles had to leave. Dale Armstrong, not a Warwick regular, turned up on the first day to see if we needed a bit of a hand, and ended up working solidly for the rest of the week. Val Wilkinson worked a bit of magic in the kitchen, and orchestrated a superb final dinner. In the months leading up to the competition, Bill Wilkinson and Big Rod Haase did an incredible amount of work getting the airfield up-to-scratch.

So many people helped in other ways, doing the meteorology, flying towplanes, doing the start gate, or doing the dishes, that I cannot remember them all. Thanks to Heath, Dave Donald, Elaine Lane, Lorraine Kauffman, Wendy, Harry, Simon and Michael Haase, Kerry, Sto Kentish, "Lofty", Ivor, John Fairbairn etc, etc, etc.

It was a great competition. I believe that people who fly gliders, but do not fly cross-country, are really robbing themselves of a great experience. We are all very sad we will not get a chance to run another one for another three years.



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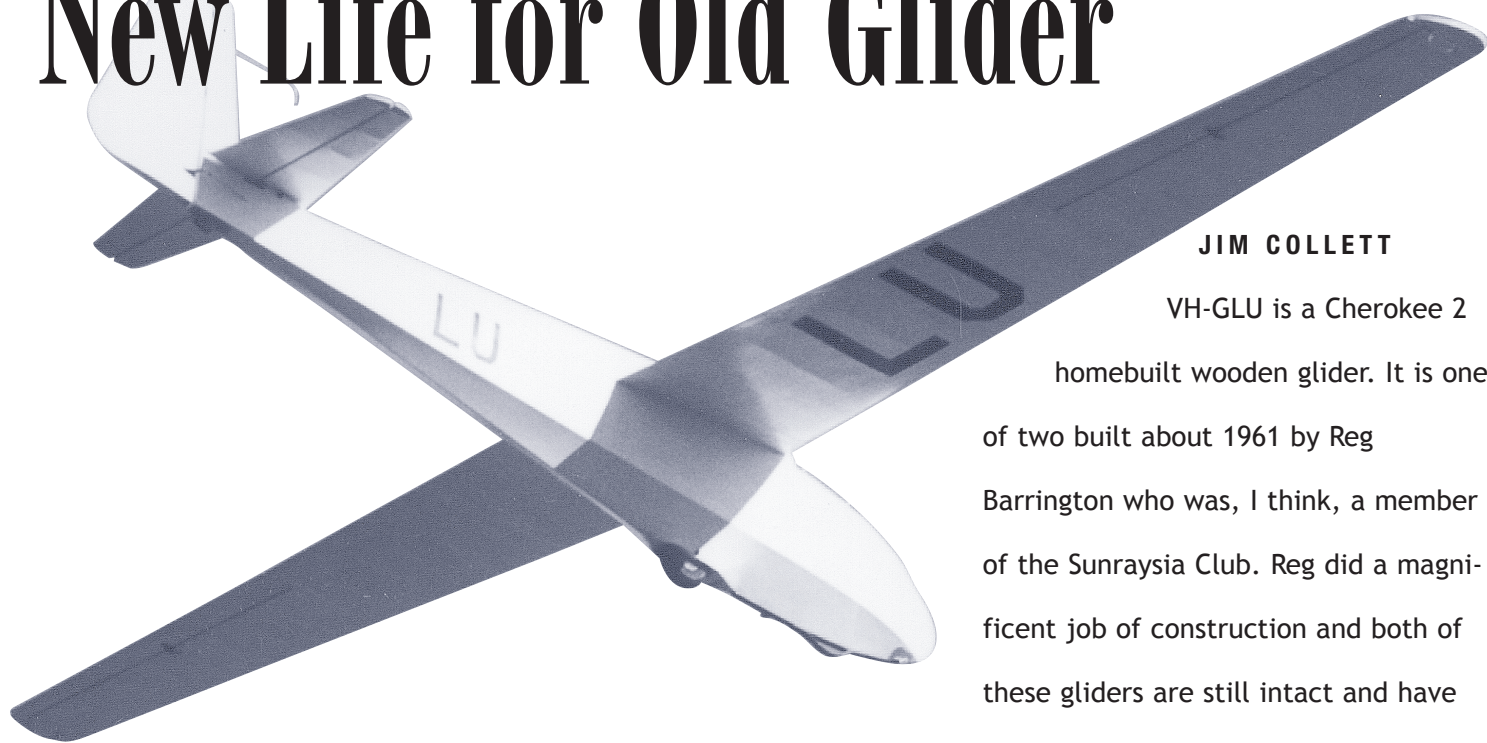
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# New Life for Old Glider



**JIM COLLETT**

VH-GLU is a Cherokee 2

homebuilt wooden glider. It is one of two built about 1961 by Reg Barrington who was, I think, a member of the Sunraysia Club. Reg did a magnificent job of construction and both of these gliders are still intact and have many good flights to their credit.

**Cherokee 2 VH-GLU on final**

I first became aware of GLU when Tom Gilbert advertised it in a newsletter. A syndicate at the Bathurst Soaring Club owned it, and it was for sale. I did a test flight at Bathurst, and three Goulburn members decided to buy it. We towed it home the same day.

The Cherokee has done some very good flights despite its relatively modest glide angle of 24:1. One story, and I think it is true, is that one of the Bathurst syndicate, Harry Crossan, was participating in a "camp" at Forbes in 1972. After many struggles, dodging hailstorms and rain, Harry landed at Benalla at 7:30 pm after eight-and-a-half hours in the air, and over 400km. Nobody saw him arrive, and when he tied it down and went to the clubhouse, someone asked him where he came from and what was he flying. Harry replied that he came from Forbes and was flying a Cherokee. He was then asked if he wanted to refuel right away or would it be okay to fill up with gas in the morning! I believe he enjoyed free drinks all night. Apologies to Harry if some of the details are not right.

We had many enjoyable flights in the Cherokee at our field at Carrick near Goulburn, but eventually moved on to a more modern glider. We sold it to another Goulburn club member, Paul Macmichael who wanted to build a glider, but opted to restore the Cherokee instead. Paul is a qualified Form 2 Inspector and, with the help and guidance of our then January 2001



▶ Glen Hoffman preparing for flight  
▲ Milan Youngman in glider, and Glen Hoffman with Cherokee 2 – Photos: Jim Collett

RTO/A Roger MacRury, set about making GLU better than new.

Among the work done on GLU, Paul completely stripped the fabric, checked and repaired anything that needed attention, re-covered it with Dacron and re-finished it in Blue River paint. Paul also re-positioned the belly release (a GFA approved modification) to make it easier to handle on a winch launch. He also re-designed and fitted a new canopy to improve visibility. The old heavy wooden skid was replaced with a much lighter fibreglass version, and a bigger wheel fitted. In short, in my opinion, GLU is better than new, and a delight to fly.

Paul too has moved on to a more efficient glider (an IS29) and for two years now, GLU has been sitting dejected and neglected in the hangar.

Good news though, two members of our club are now flying the Cherokee again. Glen Hoffman and Milan Youngman are both members of the Goulburn club, and went solo on their 15th birthday. Glen is also a member of RANGA, and Milan is also a member of Bathurst Soaring Club. They both helped Paul

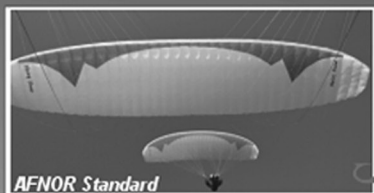
to carry out the annual inspection on GLU, and restore it to flying condition.

The Cherokee is now fully functional again and Glen and Milan are enjoying some very good flights at Carrick with minimum cost using winch launching. The trailer has been modified, repaired and registered, and is ready to transport GLU to some of the more popular flatland sites for some serious cross-country soaring. Glen and Milan will probably take the Cherokee to Leeton, for the next inter-service competition.

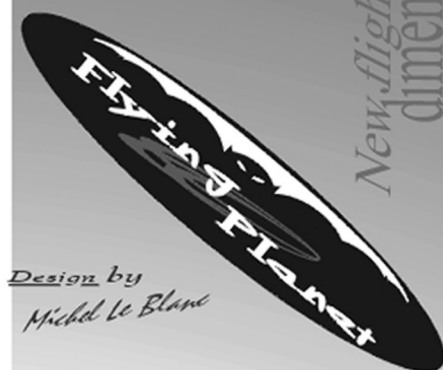
The Cherokee may have a modest performance by today's standards, but in its day the designer described it as a "medium to high performance sailplane". Because of the light wing loading and slow speed, the Cherokee will thermal with the best of them and can frequently out-climb the higher performance gliders. It is easy and fun to fly, and Glen and Milan are enjoying the experience. If you are at the inter-services competition, look for a Cherokee, which could be out-climbing you in the centre of the thermal!





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Warriewood NSW 2102**Paragliding****Running with the Cows****MARK CROSS**

Just a short story from a few weekends back that I thought readers might be interested in. I received an invitation to fly with Teo Kaiser up at his property. I think the name of the town is Penny Water or something... inland from Lorne, anyway. So I got an early start, arriving just after 10am. We had a cuppa and set up across the road in a neighbour's paddock. We both launched at the same time and had a nice 30 minute flight. After landing we left our gliders in the paddock and had some lunch before refuelling and launching again.

**T**he day was a little thermic, but the scenery was so nice you didn't worry too much about the bumps. We flew over the State forest, soared with some eagles, then over to the township, waving all the while to farmers and their families. When we started to get a little cool we headed back to finish our hour long flight.

After landing we rolled up our canopies and left them in the paddock. I carried my GT motor over the fence and we walked to Teo's for a drink. About 10 minutes later his neighbour was knocking at the door saying something about one of his cows running around with a paraglider chasing it – you haven't seen two men run faster! Sure enough it was my trusty Symphony doing laps of the paddock, and from what I could see it was covered in cow crap!

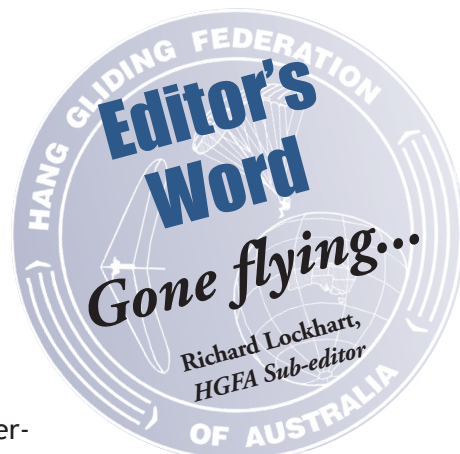
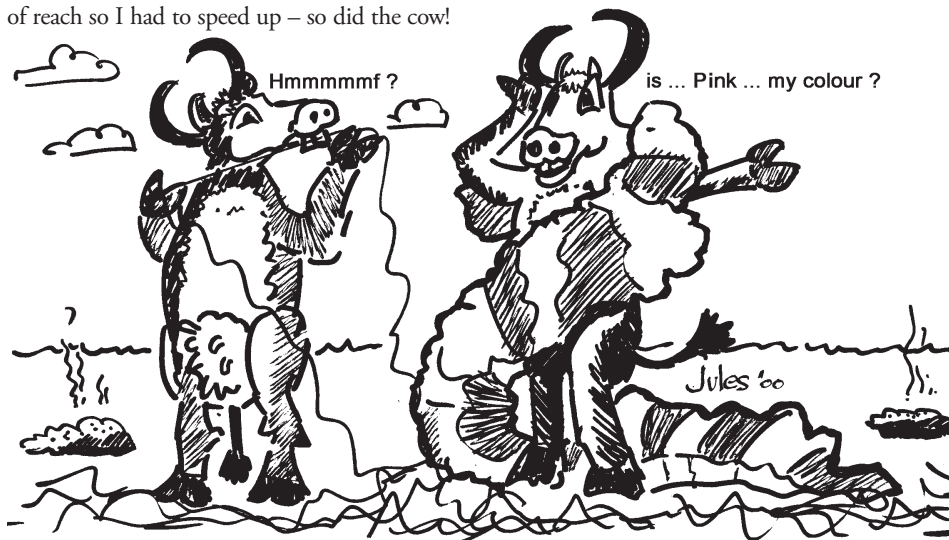
My first reaction was to run to the cow – bad move. The cow started running faster, so I slowed to a walk. So did the cow, but just out of reach so I had to speed up – so did the cow!

I realised I was going to have to go for it, so I made a dive for the canopy and caught the wing tip. By this time the cow had taken off again, with me skiing behind.

At this stage I could see one of the lines in the cow's mouth; it must have been caught between its teeth. I couldn't keep skiing forever so I gave a big yank! It came free, but not without damage: one broken line from cow flossing and at least seven tears in the top and underside of the canopy from the skiing exercise. We carried it back to Teo's where we washed it in his spa bath.

So it looks as though I'll be getting a Legato now! I guess I'll get this one repaired for a spare. Now I'm sure there's a moral to this story, I'm just not quite ready to hear it yet...

(For anyone who would like to enlighten Mark as to the moral of his story, please email me with your one sentence morals! – Sub-ed)







## DAMIEN 'TEX' GATES

### Friday, 20/10/2000 — Registration Day

The weather was looking so promising for so long, with no rain in the pattern expected up until December. High pressures had dominated and the air was big because of the near drought and fires for the last three months. Big air going up, just as big going down. A week or two before the start of the competition though, it rained. No one was concerned as it might help to dampen out the extreme conditions a bit. The forecast was not good, however, for the start of the comp. Farmers loved us – another drought breaking hang gliding competition.

All the contestants had arrived by the evening and the bar was stacked full for the 'Culcutta'. The Culcutta is where teams of pilots are auctioned off, and if one of the pilots or more end up in the top four the money is given as a prize to those who purchased the pilots.

There was much of the once written-off, ritualistic incantations, chanting and singing as the first night's rituals were played out... "VB, VG, HANGEE HANGEE, LAUNCH LAUNCH".

### Saturday, 21/10/2000 — Day One Moderate E, SE winds, Beechmont to Kalbar 60.1km

We all arrived in good time at Beechmont launch to a somewhat bleak sky. There was high cloud shrouding the flying area completely from sun. The low cu's though would have looked so promising if not for the high cloud, so some motivation was gleaned. Gliders were set up and wind techs launched. Most managed to soar the ridge and soon all, apart from some who got away early, were ridge soaring the site. Some said it was crowded, some said not.

A number of pilots flew a long way north and east from the ridge to near the middle of the valley. Most topless gliders and some with clotheslines made it out and away from there.

The day was a great success with 18 into goal. Steve Moyes won the day with NOMA, Yasuhiro second and local Dave Staver in third, all on Litespeeds. So Steve Moyes was the proud wearer of the prestigious 'Red Shorts' at the morning briefing and throughout the day. He would be allowed to keep them for three more days as the weather was now against us.

Two of these days were wet. Monday we were invigorated by a call from Jonny (Jon Durand Jnr) "It's pumping!" only to arrive at cloudbase together, still in vehicles. A good old fashion lynching was called for and all agreed, hunting and scheming for Jonny's demise. A noose was erected but

when the lynchee failed to arrive for his appointment, flaming torches were lit and we all set off to set fire to the Durand residence and burn the Warlock who had set us upon our path of misadventure. Lucky we have short memories and had forgotten why we travelled to their house by the time we arrived. So instead, all meandered throughout the grounds of Durand Manor, observed maps of long flights, enjoyed the view and company, and as pilots do, stared fixated at the weather channel attempting to change the course of the weather pattern by shear collective will.

Tuesday we never got away from the hill. Some breaks in the weather allowed gliders to be dried, although some timed it badly and just got them wetter. No problem; RC models and the amazing aerobic rings where launched successfully throughout the day. That night was a trivia night at St Bernards. The 'Old Fogies' were in hot demand at tables to expound knowledge and lore of hang gilding past. Some were honoured for their commitment and service to the sport by receiving Australian Sports Medals.

Wednesday the Meet Head thankfully cancelled the day early. If not for the early cancellation and my trip with Sal to attempt a movie on the Gold Coast, the day would surely have been a dud. But these two factors

combined to cause Murphy's theory of Flyability to kick in and Tambo cleared and came on. Everyone was on the hill by midday for a practice day.

That night stupidity rained instead of H<sub>2</sub>O with the "Red Faces" at Moriarty Hall, as various acts failed to convince the judges of even the lightest smattering of talent. More pagan rituals were performed, like stacking 'greenies' as high as possible (had to drink 'em all first). All prize money was put on the bar. AHHHH! screamed bar staff during the stampede.

### Thursday 26/10/00 — Day Two W, SW Moderate winds, Tamborine to Maroon 50.4km

The day saw crisp clear skies with early cu's popping from about 8:30am onwards. The wind, which started quite lightly from the WNW, soon increased from the W and SW. The task was set to Maroon and I must admit that the day looked good (which meant I thought I could get there). Once in the air my confidence took a battering. Punching the headwind was a problem with the air between thermals crushing glides with big down cycles. You really had to get high and stay that way in anticipation of the sink.

Steve Moyes got to keep the shorts yet again with Ricky Duncan (flying the Climax at its first comp) taking second. Locals Glen Macleod and Jon Durand Jnr came in next on Litespeeds, followed by World Record Holder Tove Heaney then Atilla Bertok in Litespeeds with another World Record Holder Rohan Holtkamp also in a Climax. Four more Litespeeds and a Climax made goal this day, making a total of 12 at goal. Top kingpost was Tim Cummings, with a worthy flight by C-Grade





# Hang Gliding • Paragliding

pilot Paul Rundell and also Gary Taber in an XT having a good flight. This no doubt may be attributable to "Drew's Coaching Clinic." Local legend Drew Cooper discussed strategies, flight post-mortems, weather, GPS and basically everything flying for those who registered to siphon his brain of much knowledge. Some just hung around the edges garnering tidbits from the many guest speakers like Ricky Duncan, Steve Moyes, Jon Durand Jnr and others. He even got in some airtime himself amongst all this.

## Friday, 27/10/2000 – Day Three

**Light to moderate WSW winds with a strong sea-breeze. Tamborine Coulson intersection 44.7km to goal Moogerah Dam 64.5km.**

This day was really quite epic, with postfrontal conditions as the trough causing the rain pushed off the coast. Pilots, including yours truly, had climbs averaging 1,300ft/min up. Pilots were warned about height restrictions around launch. Normally 4,500ft, they were released to 6,500ft before a step up to 8,500ft further west. PAX aircraft were on approach into Brisbane under cloudbase further east behind Tamborine, so everyone knew where they should be before climbing out and what was possible. Turns out base was higher again than 8,500ft, maybe around the 10,000ft mark. So I am sure it was hard for many when they had to leave before topping out.

The convergence with the approaching sea-breeze offered a select few re-flyers the chance to get away in style. Most just punched the headwinds and got extremely cold. Glen Macleod made good initial progress and may have won the day only to spend an hour ridge soaring 5km from goal, watching others glide in from high and afar. He was 50m short when he finally had a dig at making it. Jamie Cannon won the day with Atilla then Jonny third. Steve Moyes floundered due to a wrist injury sustained practicing the most dangerous of all extreme sports, skateboarding. Considering the swelling I saw, he did well to fly at all. Turns out it may have been broken.

A battle royale had developed between Jason 'Yoda' Reid and Lloyd Pennicuik for top kingpost position, with Lloyd about 5km short and Yoda about 7km. This would mean a competitive last day for these two for top clothes line honours. Yoda from B-Grade no less.

## Saturday 28/10/2000 – Day Four

**Moderate WSW winds, strong sea-breeze, Tamborine Kalbar 54.4km.**

Similar to the third day the winds were from the west but not quite as strong. Though when the sea-breeze kicked in it came in hard and fast just after 12pm.

Those who went early paid the price, with 6,000ft from Tambo not really being a lot to play with. Those who waited got the extra height and the development was much better out west as far as Beaudesert; after that things seemed to die a bit. Scott Tucker had cloud forming underneath him in the convergence but may have had trouble keeping separation from the oncoming tide without a broader speed range. Some were simply nearly, then finally, overrun by the sea-breeze, getting BAMMED! by it as it crawled past. Yoda was thanking the strength of his glider during a couple of 90-degree plus tip overs.

He mentioned at times it was like fists punching out from the convergence wave to knock you around. He won out over Lloyd nonetheless. Jerry Furnell was trying to spiral down and get to goal without success, getting sucked high by all that the sea-breeze front could dredge up. Once the goalie had him across the line he went back to burn off height in the sea-breeze behind the convergence.

## The End

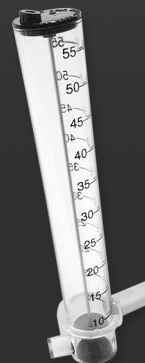
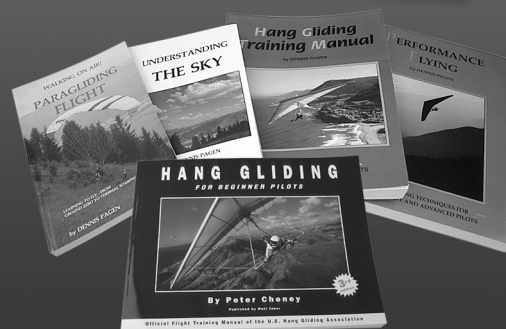
Well, it was true what Davo had said, *"Finish on some good days and the rain will be forgotten."* We had a valid comp at Canungra this year for the St Bernards Classic 2000. Everyone praised the family atmosphere, great camaraderie and a well-organised competition, logistically and generally.





# MOYES

## ACCESSORIES



Name needing thanks are Phil Pritchard, Davo, Ken Hill, Gordo, Dave Phelps, Speedy, Linda, Nadine, Sandy, Drew and a cast of many others.

The venue at St Bernards Hotel, our major sponsors, on Tamborine for the Presentation Night was beautiful; awesome views and a fine establishment all round with welcoming staff, good food and service.

### Results

#### Open

- 1 Atilla Bertok, Litespeed
- 2 Rohan Holtkamp, Climax
- 3 Jamie Cannon, Litespeed
- 4 Tove Heaney, Litespeed
- 5 Jon Durand Jnr, Litespeed

#### Kingpost – A-Grade

- 1 Jason Reid – in only his second and yet again successful comp, Xtralite 147
- 2 Lloyd Pennicuik, Xtralite

#### Kingpost – B-Grade

- 1 Jason Reid, Xtralite 147
- 2 Michael Porter, Shark
- 3 Paul Rundell

#### Kingpost – C-Grade

- 1 Paul Rundell
- 2 John Wilson

#### Floater

- 1 Dave Pearson – won in his PG
- 2 Gary Taber – gave him a good show, XT

#### Female

- 1 Tove Heaney, Litespeed
- 2 Neva Bull, Climax

All results are at [[www.triptera.com.au/canungra/classic2000/index.html](http://www.triptera.com.au/canungra/classic2000/index.html)].  
A great photo journal can be found at [[www.ancons.com/classic/main.htm](http://www.ancons.com/classic/main.htm)].

While the flying was not in long three figure range tasks, most would agree that it was pretty good flying all round. Most nights had something organised and for a social event this competition would be hard to beat.

Thank you all for making this occasion so special and hope you can all be there for the next opportunity to live our dreams.







# Winglets

RON BAKER

The primary consideration of winglets is to reduce induced drag without increasing span – very important to those classes of sailplane which have span limitations such as standard, 15m and 18m. Club and Open Class sailplanes have, however, benefited by reduced stall speeds and improved roll authority and roll rate.

Any pilot who has flown an Open Class sailplane will be aware of the often appalling rate of roll. Centring a thermal is often a battle between pilot and sailplane. All sailplanes benefit from an improvement in LD, courtesy of the reduced induced drag, and an improvement in lift in the area of the wing adjacent to the winglet.

The most important point to remember with winglets is that they operate at **very low Reynolds numbers** (Re), typically in the ranges normally associated with model aircraft. The airfoil of a winglet must therefore be one that will operate efficiently at these very low Re.

The dimensions and speeds that the winglets will operate at will, of course, dictate the actual Re. The airfoil PSU-90-125 has proved to be very suitable, needing only fairly thin turbulators to optimise its performance.

The following parameters are those that have led to successful winglet designs.

- Ratio of winglet root chord to wingtip chord
- Sweepback angle
- Taper ratio
- Winglet tip design
- Twist distribution
- Toe-out
- Cant angle
- Winglet to wingtip junction
- Turbulators.

In detail these are:

## Ratio of winglet root chord to wingtip chord

Unless the wingtip chord is less than 300mm then a ratio in the order of 60% is common, ie the winglet root chord is 60% of the wingtip chord. Where the wingtip chord is less than 300mm the winglet will have chords so narrow that the RE will be extremely low. Remember that the efficiency of an airfoil relates to its design RN range.

## Sweepback angle

Most winglets are swept back about 30 degrees. This is to control the loading and stalling characteristics and is

related to the degree of geometric twist incorporated in the winglet by design.

## Taper ratio

When considering the taper from the winglet root chord to its tip chord (taper ratio) a ratio of 60% is common

and to a degree dictates the height of the winglet (in order to preserve the RN efficiency at the winglet tip).

## Winglet tip design

As winglets act to reduce induced drag then great care is taken with the winglet tip to minimise in this area. One simple way is to angle the outer surface quite sharply towards the inner surface, see Figure 1 for a more graphic illustration of this.

## Twist distribution

Winglets incorporate a degree of geometric twist in their design, in the positive sense – **wash-in** as opposed to the wash-out normally found in sailplane wings (to delay the stall at the wingtip). The degree of twist is usually about two degrees. This, together with the sweepback, controls the loading and stalling of the winglet. A secondary benefit is improved performance at higher speeds.

## Toe-out

Winglets are angled out at the leading edge, usually two-and-a-half to three degrees (toe-out). Toe-out is used to maximise the speed at which no further benefit is gained from the winglets. As there is about two degrees of twist in the winglet, this means that the root of the winglet is almost at a zero lift angle whilst the tip of the winglet is operating at a low lift angle. This means that due to the difference between the root and tip chords the winglet is generating roughly the same amount of lift over its entire span.

## Cant angle

Winglets are also canted out slightly. The idea being that the inner side of the winglet is vertical or slightly canted outwards *when in flight* and in particular *at high speeds* due to the flexing of the wing under flight loads. Any inward cant would make the winglet self-defeating.

## Winglet to wingtip junction

This is a most complex area of constantly changing sections, from that of the wing to that of the winglet. Taking into consideration that the winglet leading edge is about 40% of the wingtips chord aft of the wingtip leading edge makes the designers' task even more complex. Plus, when looked at from the front it will be noticed that this area is curved through quite a substantial angle. This gives the designer the opportunity to deal with any interference drag that is generated by the differing pressure patterns from the wing and winglet.

## Turbulators

As noted earlier, winglets need a thin turbulator to optimise their performance, typically about 0.125mm thick as opposed to the, say, 0.4mm thickness on the inboard sections of the wings. There are several ways of calculating this thickness – one is to consider the thickness as a ratio of the chord; another is to consider the thickness as a ratio of the thickness of the boundary

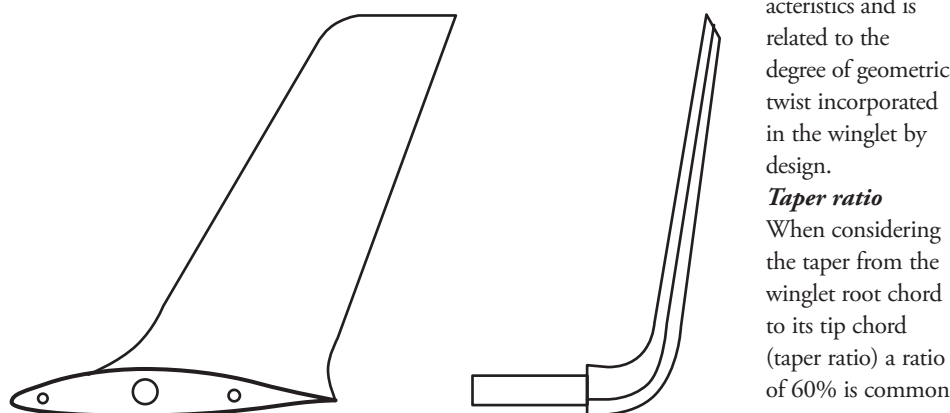


Figure 1: A typical "Masak" style winglet and proved during the 1990's to be the most effective, note the angled outside to the tip.

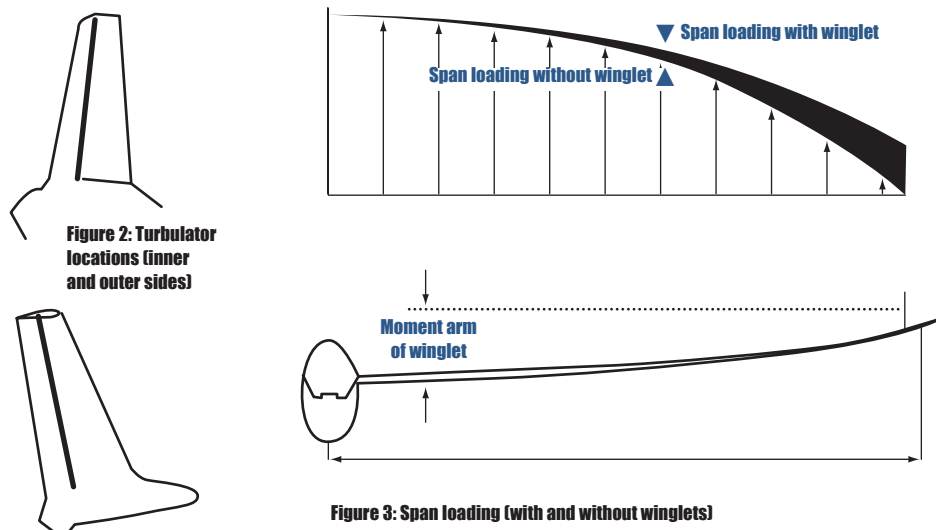


Figure 2: Turbulator locations (inner and outer sides)

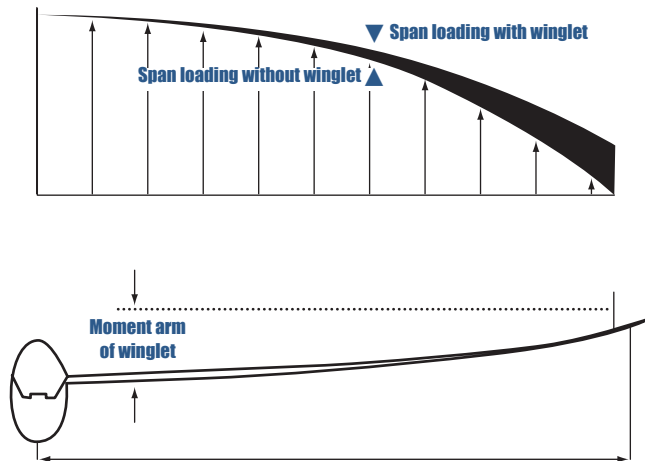


Figure 3: Span loading (with and without winglets)





**A:** A fairly low Ar. "Masak" style winglet  
**D:** "Masak" replica winglets fitted to a Discus  
**G:** LS7 wingtip, note some LS7s were later fitted with winglets

**B:** A "Masak" look-alike winglet  
**E:** LS type curved up wingtips  
**H & I:** Hoener style tips on a Glasflugel Mosquito

**C:** A rather high Ar. winglet, note the rounded tip  
**F:** 18 metre span Ventus with polyhedral tips

layer. Yet another is to relate the thickness to the pressure pattern over the winglet. It has been found that turbulators need to be fitted to both the inner and outer surfaces of winglets. The laminar bubble on the upper surface of wings is fairly small but moves considerably with varying angles of attack. With winglets the angle of attack does not vary (except by poor piloting) therefore even this very small laminar bubble can be eliminated by turbulators. See Figure 2 for typical turbulator locations.

### Variations

During the late 1990s, two variations appeared. The first was to actually bend the entire wingtip up until the actual tip was almost vertical. The second was to abandon winglets altogether in favour of **polyhedral**. This is where the wing increases its dihedral in stages, mainly towards the tip. This is the method

used by free-flight model aircraft to increase spiral stability.

### Conclusions

There is some increase in the bending moment of the wing, more from the increase in lift in the area adjacent to the winglet than from the winglet itself. With new designs this is taken into account in the design stage. With older designs that are to be fitted with aftermarket winglets this has to be considered, but has so far not proved to be a problem. See Figure 3 for an illustration of this. Designs as old as the Bolkow Phoebus having been retro-fitted successfully.

There is no doubt that winglets are a useful tool for both designers and pilots. They increase performance, improve handling and reduce stalling speeds.



## Everyone talks about the weather, but no one does anything about it

EMILIS PRELGAUSKAS

**O**ne of the by-products of living at a gliding strip, surrounded by tourist destinations, conservation park, land revegetation and mixed farming, including emergent stock and crops of both the legal and inhaling varieties, is that you get an interesting variety of visitors.

Most recently, flouncing her skirts while shepherding offspring, was an emu on the strip. Suddenly, kangaroos on the strip seem quite tenable; by cripes an emu is solid, not to mention erratic in behaviour. At least you know the kangaroos will always run in front of you precisely where you want to go. The emu goes between you and the chicks, irrespective of where you are going.

Of more consternation was an adult deer met on the nearby freeway bridge. Emus I can understand, probably an escapee from the nearby zoological park.

Truckies on CB have been known to open the zoo electronic front gates out of hours (unintentionally that is, as was the shared frequency with the gate controllers) and the animals which roam on the visitor side of the interior fence, including emus, can thus get out past the perimeter fence. It is an interesting moment, to see the national coat of arms come alive in front of the house.

But there is no venison herd resident in this area. The dry land and low rainfall is contraindicated. This one must be an en-route trucking escapee. Perhaps that forlorn look from the raised vantage point over the bridge guard rail was for the rest of the herd trucking on out of sight.

Other migrants are not as welcome. Traditional enemies are blow-ins including exotic weeds which out-compete the resident grasses, and make the FBO lose its shielding vegetation cover. Some come in on vehicles visiting the gliding strip. Nearby emergent olive plantations promise new forms of feral invaders likely to be carried in by birds for the future. The response is hand-pulling, burning, slashing, and increasingly interesting chemicals.

So, for hang gliding and paragliding, which aspire today to having secure flying sites in the future – bye-bye to launch and fly; and welcome to the world of mower and pump pressure spray unit.







# Vintage Gliding Rally

## The Golden Eagle at Harris Hill and a visit to Oshkosh

IAN AND TIGHE PATCHING

### The Beginning

The idea of attending an international rally came from the success of the 1995 IVSM when a number of Europeans travelled to the United States of America and made the event a success.

At the rally held at Ararat in 1995, we moved a motion to increase our annual subscription from \$10 to \$15 to establish an international fund that would be used to send a team and a glider overseas to an event in 2000.

Little did we know what we were getting ourselves into!

ALAN PATCHING

### The USA

When BHP advised us that they could ship the Golden Eagle to America, we were faced with a long cross-country haul. Thankfully, John Ashford volunteered to share the driving and we immediately started to look for a suitable towing vehicle.

Janice Armstrong, who is the Editor of the Sailplane Homebuilders Magazine, learnt that Jeff Byard was getting a new truck to tow his Schweizer TG-2 across to Harris Hill. By the time John and I arrived in Los Angeles, she had convinced Jeff to give us his old Ford F-150 truck after having it serviced and a pollution check.

Janice not only collected us from Los Angeles but also took us to Tehachapi for some R & R – like me flying the TG-4 and John the Caproni – then over to the coast to collect the truck.

By this time the glider had arrived and we drove to Los Angeles about 130 miles away, picking up Dinah, another glider pilot, as a guide. The container eventually arrived at the depot and we unloaded it without too much trouble. After fitting a new plug we wired the lights to suit the US system of common turn and brake lights.

Back at Tehachapi we waited almost three days for the airconditioner to be fixed since the daily temperatures were around the century mark.

Off we went, with still a few unserviceable items such as fuel gauges but since there were two tanks this was not a problem. The first few

days saw us having the alternator, battery and ignition lock mechanism replaced. After that we had no further problems.

Since John had not travelled on the ground in the USA, we fitted in some sight seeing such as the Meteor Crater, Petrified Forest, Painted Desert and the Grand Canyon.

In Moriarty, we were the guests of George Applebay, designer of a number of gliders. He had also started a gliding museum at the airfield. Since John and I are involved in the Australian Gliding Museum we took every opportunity to visit museums. The biggest was the Wright-Patterson Air Force Base at Dayton where we spent seven hours looking at aeroplanes.

The first third of the trip was through hot desert country. Crossing the Texas Panhandle we met up with a tornado and sheltered amongst some huge trucks. We were very lucky with the weather, as every day there were big thunderstorms and flooding either in front or behind us.

We had been trying to contact Mark Maughmen at Penn State University and finally got onto him. Mark joined the OSTIV Sailplane Development Panel during the Saint Auban meeting and has become a valuable member. He met us at Tom Knouff's airport and took us on a tour of Karl Striedeck's ridge running site in the Allegheny Mountains.

The last part of the journey was through a very pleasant valley as we headed off the highway for a change.

At Elmira there were extensive road works which delayed our arrival at Harris Hill. However it was still daylight and there were a few people still around to help us. We had made it!

### The Rally

IVSM had quite a selection of vintage gliders brought by their US owners. However, there were many glider pilots from overseas. Chris Wills – President of the International Vintage Glider Club came to open the event along with past and present VGC secretaries from England. The event was opened with the traditional ringing of the cowbell. A number of pilots came from Sweden and brought a glider that had been sold to a new US owner. There were also pilots from Germany, Norway and Japan. Many of us stayed in the same motel at the

bottom of Harris Hill and met for breakfast in the lobby before joining the others at the top.

Each day started at 9am with presentations for the highest and longest flight made the previous day, followed by a briefing on operations. Then for the next hour a talk was given on gliding in each of the various countries. I gave one on the development of gliding in Australia followed by Kevin Sedgman who spoke on the formation and activities of our vintage movement. Both talks produced a number of interesting questions. One day, we were presented with a painting of Chris Wills in his Kranich in recognition of our efforts to attend.

Harris Hill is a small airfield and, unless the wind was 10kt, all take-offs were towards the edge of the hill with landings in the opposite direction.

There were about 20 visiting vintage gliders and these, along with the club and private aircraft, often led to a congested airfield. However, the only problems were with visiting pilots who found the airfield a little short. There was an emergency landing ground at the bottom for those who landed long or had a launch failure.

Both Martin Simons and Bob Wyatt made their first flights in the Eagle with Martin managing the longest flight of just on two hours. Thermals were always bubbles and, with the wind, it was difficult to stay up. I managed to get hill lift on one flight, which I used until a thermal came along, but unfortunately it had stopped when I needed it again! Locals in their modern gliders seemed to be able to use the hill lift better. In fact it was annoying to see them do a beat-up, sorry, low pass, and disappear over the edge only to reappear sometime later in another thermal!

Launching was by two Pawnees, a Super Cub and a Husky. All towing was of course high tow to either 2,000 or 3,000ft costing US\$30 or US\$38. The field was 2,700ft amsl.

The Golden Eagle created a lot of interest amongst the pilots and visitors to the National Soaring Museum. Unfortunately, it was not the oldest glider present – that honour going to a Franklin which had first flown in 1936, but of course the Eagle has been kept airworthy and flown most of its life.



## Oshkosh

After a visit to Washington with our US host Howie Burr to see the Smithsonian Museum and Restoration Facility, John and I set out for Oshkosh with the glider. Thanks to Brian Creer, I had been invited by Phil Coulson, an EAA Board Member, to display the glider amongst the EAA antique aircraft.

Armed with letters of introduction, we arrived at Oshkosh and were guided to a parking spot opposite the antique headquarters – the Red Barn. This was a prime spot being on a road from the main gate to the flight line and it resulted in a continuous stream of visitors on each of the seven days that we were there.

The Eagle was one of four gliders at the event. The others being the latest Stemme, a super Blanik from the Civil Air Patrol and an Italian lightweight 'Silent' (which we never did find). Most people were surprised to learn that the Eagle had been both designed and built in

Australia, and that it was still airworthy after 63 years. Some questions were very amusing such as, "what height did you tow it at across to America?"

Oshkosh is a great human magnet and visitors included my power flight instructor of 30 years ago from Fort Worth, Texas, to one of the German Akaflieg students who brought the big SB-10 glider to Australia some years ago to set records from Alice Springs. He is currently a design engineer with the Diamond Aircraft Co. in Austria. Of course there were many Aussies who passed by to say hello and pilots who now live overseas enquiring about mutual friends, etc.

At Oshkosh, we were joined by Kevin Sedgman and Bob Wyatt who had travelled with Howie Burr via Old Rheinbeck. All of us enjoyed being part of the Air Venture 2000 Event and having an Australian glider there for all to see.

We all found the trip to be most satisfying in that we were able to demonstrate to the international aviation community that we are serious in Australia about preserving our gliding heritage. Also, that we are also restoring and keeping airworthy old gliders, so that new pilots can experience the difference between modern composite and early wooden gliders.

During the seven weeks that John and I were travelling around, we visited 13 museums of which only three did not have some aviation content. We also met a number of people involved in the running of gliding museums which provided us with many ideas for our own Australian Gliding Museum.

The Golden Eagle has arrived back in Australia and now awaiting the next big event – the Rally at Bacchus Marsh!



# Accidents

EMILIS PRELGAUSKAS

Accidents happen. In many fields of human endeavour. Human reaction to these events vary.

To those involved, the focus is to identify the causes, reasons, contributions. To identify improvements in process so that for the future something of value toward prevention of re-occurrences can be secured. To observers, reaction ranges the spectrum from prurient entertainment interest through to allied sympathy and support. In between are the calls for finding someone to blame; the calls for authority intervention; and the blanket conclusion that 'everyone always knew it was dangerous'.

Reaction appears to be related in some way to the frequency of occurrence, and where it encapsulates a small identifiable section of society. Car accidents are numerous, and barely rate a mention. The numerous accidents contributed to by mood influencing chemicals are combated by agency promotion and societal censure rather than any residual outrage by the citizenry. It seems the word accident in the public mind is associated with the unique or one-off event – the death arising from bugs in an air-conditioner, a road falling on a ski resort.

Aviation, through its attention to flight safety, has made its accidents infrequent enough to attract attention. There have been commentators who suggested optimising the sport aviation accident rate as a promotional medium. And possibly to make the individual aviation accident less newsworthy. That is unlikely to be a tenable strategy.

So the conundrum for the sport aviation media is: to report or not report.

Reporting is an integral part of finding ways to avoid repetition of accidents in the future. However, at the same time reporting also raises questions in the general public. These are only superficially aware and likely to attribute an accident as symptomatic of sport aviation overall.

Middle ground is to report the preventative action arising from incidents, and pro-active safety programs being enacted; and give less direct notice of individual accidents, without reducing emphasis on the repetitive causes that bite aviation again and again.

Sport aviation modes seem to take it in turns to have their accident spates. Power planes conflicting or landing on top of one another on runways are replaced by balloons or parachutists colliding, then sailplane outlandings damage become a trend, then others take their turn.

For participants, the contributing causes re-occur: dehydration, tiredness, workload overload, over-confidence, 'I got away with it last time...'

The realities of senior pilots being high in the lists reminds us that each of us is vulnerable. The primary defence continues to be the decisions we make ourselves each time. That will never be replaced by edicts from on high, nor by calls from the public for these dangerous sports to be shut down.



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# Waivers and Flying Schools

KIERAN TAPSELL\*

**A**dventure sports have become a growth industry. Gliding, hang gliding and paragliding are only some of many. One feature of adventure sports is that there are many people who just want to try it, without actually becoming committed to being regular participants. The three forms of gliding have experienced significant growth in the number of people who just want a tandem ride and no more. Many other sports such as parachuting, bungee jumping, canyoning and white water rafting have the same experience.

Adventure sports companies have for many years used waiver forms in order to attempt to reduce or even eliminate any liability if anything goes wrong. The common belief is that these forms are not worth the paper that they are written on. This is not true. What is true is that they will not always work. Waiver clauses can work, but it is important for the proprietors of adventure sports businesses to understand the circumstances where they may not work. It is also necessary to understand how the proprietors of adventure sports companies can best protect themselves against personal liability, as distinct from the liability of the company that owns the business.

## The Philosophy behind Waiver Clauses

The reason for having a waiver clause is essentially to try and protect the owners or employees involved in adventure sports businesses from incurring personal liability, losing their assets and going bankrupt. It is very easy these days for an injured person to establish negligence on the part of someone.

That is not to say that customers should be exposed to being recklessly injured without any hope of compensation. A properly constructed waiver clause should try and strike a balance between these two extremes. This can be done by insurance, but then also providing for the protection of the individual should the insurance cover fail for any reason.

In 1994, the British Columbia Law Reform Commission recommended legislation to provide a balance between industry and public safety interests. It is my belief that the adjustment of risks along these lines is what the Courts in Australia are doing now.

## Liability for Negligence

The law of negligence requires the payment of compensation to anyone injured by the breach of a duty of care. That does not mean that in

all cases of sporting injuries, someone other than the injured participant is likely to be liable. The inevitability of a certain level of danger in sport is recognised in law by means of the concept of inherent risk. This principle has again been asserted by the Australian High Court in *Agar v Hyde* (2000) where the Court held that the makers of the rules of Rugby Union owed no duty of care to adult players. If the players do not want to take the risks associated with the sport, then they do not play. Sportsmen are taken to assume the risks that cannot be eliminated from the activity without fundamentally changing its nature. Examples of these are a fracture resulting from a football tackle within the rules, or an occasional fall in skiing. However, where an injury results from something outside these inherent risks, there can arise a liability in negligence for the person causing it.

## Liability in Contract

Apart from this general duty of care, all students of flying schools would be covered by a contract, even if it is not in writing and fairly informal. A recent case in the High Court decided that the defence of contributory negligence is not available in a claim for breach of contract. In the case of an injury to a student of a flying school, this could have the effect that the instructor is liable for the whole of the damage, even though the student was 90% responsible for his own injuries. In a claim for negligence, however, the damages would be reduced by 90%. As all students would be operating under a contract, the instructor will naturally be sued for breach of contract, so as to avoid the defence of contributory negligence.

## The Use of Companies

An important feature of negligence liability is what is termed, "vicarious liability". When a pedestrian is run over by a car driven by an employee of a firm, in the course of the firm's business, there are two people who are liable. The driver is primary liable, but so is the employer. This latter liability is called "vicarious liability", and it attaches to every employer where someone is injured in the course of the business by the activities of employees. The same principle applies where there is a claim for breach of contract.

The first thing that anyone involved in a flying school should do is to form a company. The reason for this is to protect the owner of the business from personal liability arising from

the negligence of employees. It is common, for example, for hang gliding and paragliding businesses to employ additional instructors to carry out tandem flights. If that instructor is an employee of an individual who has simply registered a business name and not formed a company, then the proprietor of the business will be personally liable for the negligence of the employee.

On the other hand, if the business is run by a company, then the instructor is the employee of the company and the company becomes liable. As the company will be a limited liability company with limited assets, the person running the business through the company will be able to protect his or her personal assets.

Where a company does own substantial assets, for example, a gliding field or gliders, there should be a different company involved in the operational aspects of the school.

## Implied Warranties under the Trade Practices Act

Companies involved in adventure sports are providing a service within the meaning of the Trade Practices Act 1974. S.74 of that Act provides a compulsory warranty that the services will be provided with reasonable care and skill. S.68 of that Act provides that any attempt to get around S.74 by means of waiver clauses will be void. Consequently, the use of a waiver clause to protect the company itself will be useless. But this does not matter, because that is precisely why the company has been formed to run the business – to keep the owner's personal assets at a distance from the company.

What a waiver clause should attempt to achieve is some protection for the person running the company. There is nothing in S.74 that affects the right of both the company and the customer from entering into an agreement whereby the customer waives any rights to sue the individual person who directly or indirectly caused the injury. S.74 will preserve the liability of the company against the use of a waiver clause, but it will not affect the right of the individual to be protected by such a clause.

## Traditional Ways of getting around Waiver Clauses

When courts are faced with the interpretation of contracts, they sometimes have to decide between two conflicting philosophies. The first and basic philosophy is that the agreement between people set out in their document

*\*Kieran Tapsell is a partner in the firm Watkins Tapsell of Kirrawee, an Accredited Specialist in Commercial Litigation and Advocacy, and a hang glider pilot for 24 years: ph: 02 9521 6000, fax: 02 9521 4168, email <mail@wattap.com.au>.*



should be respected and enforced. The second is that Courts do not like clauses in contracts which have the effect of operating unfairly towards one party. This latter philosophy will always yield to the first if there is no way of getting around a waiver clause. However, there are limits on how this can be done. In a case called *Darlington Futures v Delco*, the High Court of Australia said that waiver clauses will be enforced in accordance with their natural meaning. However, if they are ambiguous, and can be interpreted in more than one way, they will be interpreted contrary to the interests of the party to the contract who is protected by them.

It is not surprising that many of the cases involving waiver clauses arose out of the activities of used car salesmen, who promised a first class car, and it blew up on being driven out onto the road. The contract signed by the customer, in small print, would say that any representations made by the salesman were not part of the contract, that the customer accepted the vehicle in its present condition even if it literally blew up on being driven out onto the road.

There are a number of cases where the Courts avoided the effect of the clause. One way was to find that the contract was actually made before the waiver was signed, and the signed document was really no more than a receipt, so that it could not effect the rights of the parties. One was to find that the clause itself did not completely exempt the used car yard from all liability, where, for example, it only waived the liabilities in contract and not in negligence. In *John Dorahy's Fitness Centre P/L v Buchanan* (1996), the NSW Court of Appeal by a majority, held that a waiver clause in a membership of a fitness centre did not exclude liability for breach of contract, as distinct from liability for negligence. Some entry forms for competitions exclude liability for "all claims" against the organisers or associated bodies. These forms suffer from this defect.

### The Contracts Review Act 1980

NSW has a Statute called the Contracts Review Act, and it allows the Court to set aside or vary a contract which is unjust at the time it was made. This Statute gives the NSW Courts authority to effectively ignore a waiver clause if the Court is convinced that it would operate unjustly.

Most of the cases where the Contracts Review Act has been relied on have been cases involving contracts, usually with Banks, where some misrepresentations are alleged to have been made about the nature of the loan. However, there are a few cases involving sporting injuries where the Court has dealt with the operation of the Act over waiver agreements.

In one case, *Gowans v Hardy*, (1991), the Court found that the instructor of a parachute

school, the pilot of the drop plane and the school were all negligent. However, the injured parachutist had signed a waiver form which exempted them all from liability. The Court held that she knew what she was signing and was bound by it. She appealed to the NSW Court of Appeal and that Court agreed that the contract should stand. In other words, the waiver clause worked.

In a second case, *John Dorahy's Fitness Centre P/L v Buchanan* (1996), the NSW Court of Appeal decided that a waiver clause which was not drawn to the attention of the plaintiff when she signed a membership form for the fitness centre, should not be enforced under the Act. This was a case where the member suffered personal injury when some equipment in the gym failed. The gym relied on the waiver clause.

The difference between winning and losing over a waiver clause can be very small. In *Gowans*, the student parachutist was aware of the waiver of liability. In *Buchanan's* case, she was not, and it was contained in very fine print on the back of the membership form. It is this fine balance between winning and losing a case involving a waiver clause that gives rise to the common perception that they are not worth the paper they are written on.

### What is the Answer?

It is the writer's view that the effectiveness of the waiver will be enhanced where it properly adjusts the respective interests and risks between the parties. One of the matters which seemed to influence the Court of Appeal in *Buchanan's* case was that the waiver clause was so wide, that it could exempt liability even in the case of a deliberate injury. Persons involved in running flying schools have an understandable fear that they might lose everything in the case of a finding of negligence against them. Customers of adventure sports companies should be placed in a position where they can receive compensation where an accident has been caused by something outside the risk which he or she could reasonably be expected to take.

One way of doing this is to provide for liability insurance, but placing the risk of the insurance failing for whatever reason, on the customer. In other words, the waiver is not a total exclusion of liability, but of limiting the amount of damages which the customer can recover, according to the insurance which is actually available.

In *Penrith District Rugby League Club v Allen*, (1997) the Full Court of the NSW Industrial Commission said that a provision in a football club contract that the player only be entitled to compensation under the NSW Sports Injuries Act was not unfair. This Act

provides for a much lower level of compensation than would be available under the Workers Compensation Act. This case was not a case involving a clause limiting legal liability for negligence. Allen was injured in a game, and not due to the negligence of the Club. It was a case under S.275 of the Industrial Relations Act 1991 whereby the Industrial Commission has the power to declare employment contracts unfair. However, it is significant that the Commission, in overruling the trial judge, was prepared to find that a limitation on the amount recoverable rather than an outright exclusion, was fair.

A waiver clause which has the effect of protecting an insurance company which has received a premium to cover precisely this sort of risk, may well be regarded by the Court as unjust under the Contracts Review Act 1980.

In order to fly hang gliders and paragliders in Australia, it is compulsory to be a member of the Hang Gliding Federation of Australia. The HGFA has a liability insurance policy covering all its members, including instructors. Tandem flights are initial instructional flights, although it is well recognised that a large portion of the passengers will not take up hang gliding or paragliding - as is the case with all adventure sports.

The normal practice is for the tandem passenger to become a short term member of the HGFA. Section 11 of the Associations Incorporation Act, under which the HGFA is incorporated, provides that the constitution of an association is a contract between the parties. The Constitution of the HGFA provides that where one member sues another for injuries arising out of hang gliding the amount of compensation is limited to the extent to which the Insurance Company actually pays. If for any reason the insurance company is not liable to pay, or does in fact not pay (for example because it has gone into liquidation), then that is the limit of the member's liability.

Where a tandem passenger signs a waiver which has the effect of completely removing all liability from the pilot, and at the same time signs a short term membership, there is likely to be a conflict between the two contracts which have been formed. It is therefore better for the waiver clause which is signed by the passenger to be in the same terms as that provided for in the HGFA constitution. Most of the waiver forms being used by schools were drafted before this change to the HGFA constitution. It would be prudent to have them re-done to reflect this change. In addition, the waiver forms currently in use should be amended to reflect the decision of the High Court in *Astley v Austrust* which provided that there is no defence to a claim for breach of contract by reason of contributory

negligence, unless that is specifically written into the contract.

In my view it is preferable to preserve some liability of the individual, but limited to the amount recovered from an insurer along the lines set out in the HGFA constitution. While *Gowans v Hardy* is still the authority for the proposition that the Courts will enforce waiver clauses which completely absolve liability of the individual, times do change. The existence of an insurance policy may well be enough to sway a NSW Court into thinking that an attempt to waive all liability where there is an insurance policy covering exactly this type of risk would be unjust under the Contracts Review Act 1984. There is another advantage in having such a clause. Courts decide liability irrespective of whether there is insurance or not, but all lawyers believe that courts are influenced by the existence or otherwise of a fund to compensate the injured person, and the consequences for the individual if there is no such insurance. This clause means that the

true insurance situation will have to be expressly brought to the attention of the Court. The problem is that there is no way under the traditional rules to bring the true insurance position to the attention of the court.

There is nothing unjust about the risk of something going wrong with the insurance being passed onto the passenger. Instructors and members of the HGFA are covered by the policy. But it is taken out by the executive officer of the association. Insurance companies do have legitimate excuses for failing to pay claims, for example, where there has been some non-disclosure of matters material to the risk. But the members have no control over this. Consequently I do not think that a court would regard the passing of the risk of the insurer not paying, onto the passenger, as being unfair. Nor is it unfair for a waiver form to preserve the defence of contributory negligence in a claim for breach of contract.

In States which do not have the equivalent of the Contracts Review Act, the same

comments apply because of recent amendments to the Trade Practices Act 1974, dealing with unconscionable conduct by Corporations. The criteria for determining what is unconscionable conduct are very similar to the provisions of the Contracts Review Act (NSW). S.87(2) of the Trade Practices Act allows the Court to declare a waiver clause void, either in whole or in part.

## Minors

Waiver forms are unlikely to work where minors have signed the forms. This is because most States have legislation which provides that contracts with minors are unenforceable unless they are "for their benefit". The only way of providing some protection was to have the parents sign an indemnity, ie. an agreement by which they agree to indemnify the gliding school or its agents for any damages which they have to pay the minor. The problem with an indemnity is that it is only as good as the assets of the parent.



# Mind over Matter

PHIL LEWIS

*I feel the tension mount as we drive up the winding road to Buffalo. Going through all the old stories doesn't help. 'Yeah, it looked like it was on. The streamers were coming straight up. It was just rotor though, and he went down like a stone. Managed to pull out safely. Landing in the Burrs is a hitch, though.' 'But they've never lost anyone at Buffalo,' some hopeful puts in. Never say never, I think.*

**W**e pull up in the car park. Buffalo's already brewing and there's a big cloud building over launch. The streamers at the end of the ramp are blowing straight up. Right on cue the Buffalo nerves kick in. Butterflies flutter madly in my stomach. Do I really want to do this? I stand warily at the end of the ramp, legs soft and uncertain. I've taken off here three days in a row, and many times before. And yet, standing there on the edge of the world, it's like the first time all over again.

I dawdle back to the car and unload the glider, then stagger back over the rocks. Hot and sweaty, I pause for a rest, and postpone matters further by going back for my harness. Then again to put on sun screen. Eventually, almost reluctantly, I unzip the bag and begin the long set up ritual.

"How long before you go?" a spectator calls hopefully. I shrug, not willing to commit myself. The man gives me a look: they should commit the lot of you, he seems to say.

Pre-flight completed, I check the ramp again – it's still on. My stomach fires up once more. It might just be hunger: I didn't have much for breakfast. Then again, the water in Bright is supposed to make you a bit crook. My hands are sweaty and I need to go to the toilet. I head back to the car park for a last leak, knowing that I'll need to go again as soon as I've been.

I check the streamers one last time. One of them is snagged. Some brave heart strolls casually to the end of the ramp and unfurls it. I shudder. I have always been afraid of heights. Or at least those that involve edges and precipitous falls. I don't feel safe on the ramp without my glider. And that's just the prompt I need: Why not strap in?

I don my helmet and pull on my gloves. My heart's in my mouth. "Hang check?", somebody asks. A fleeting image spins crazily before my eyes: launch into the abyss, not hooked in, hanging desperately from the base bar... A hang check seems like a good idea. "Thanks."

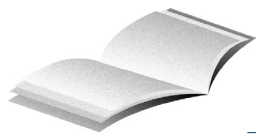
I shuffle up onto the ramp. The wind goes cross. I go through the pre-launch litany for the umpteenth time. Pick up the glider. Wings level. Nose down. Look at the target. Accelerate smoothly. I take a few deep breaths to calm myself.

The wind flicks on. As I race down the ramp the hollow thump of my feet on the boards echoes the pounding of my heart. Look at your target! I remind myself. But, as I go over the edge, I'm still awfully aware of the chasm that's opened beneath me.

And it's done. Another safe launch at Buffalo. My spirits soar. Yeah! Mind over matter.







# Book Review:

# BHPA Pilot Handbook

## Author: Mark Dale

ANDREW POLIDANO

**A** mind is like a reserve chute – it only works when it's open... Technique-wise the UK systems are similar enough to ours. Pick up the book and sure enough you'll learn something new. The book has been well written. Both hang gliding and paragliding topics are covered, although no references are made to hang motoring or paramotoring. Trikes are only mentioned on three pages with references to towing. I will highlight some of the things I found interesting, although 311 pages of technical info will keep your mind in motion for some time. Remembering a few factors of location will be of benefit. Firstly, the weather in the UK is different (thank God). Therefore some techniques in this country have developed beyond the needs of the Standard European conditions. Secondly, the huge benefit of such a book from an area with so many more pilots, instructors and manufacturers is priceless.

The author, Mark Dale, is the British Hang Gliding and Paragliding Association's full-time Technical Manager, with current across the board experience and world class achievements. The book is broken up into eight sections and 31 chapters. I found it easy to navigate through to fish out what I wanted. The illustrations are a little limited compared to some other books on the market.

### Paragliding

It is possible that the British system pays more attention to the Parachute Landing Falls (PLFs) and is more critical, or less dependent, on paraglider back protection. This chapter is worth reading. Mark is not afraid to say that some products on the market are useless. I suppose we all know of instances where a PLF would have reduced the risk of injury. I haven't seen this in teaching practices in Australia and believe it has some merit.

I found the Safety Chapter good reading. The reserve chart on page 47 enables pilots to choose the right reserve to get you to the ground at the recommended 5.5m/s or slower. This is worthwhile data for people thinking about buying a reserve or those selling them. It has inspired me to look closely at what I have and what I really need.

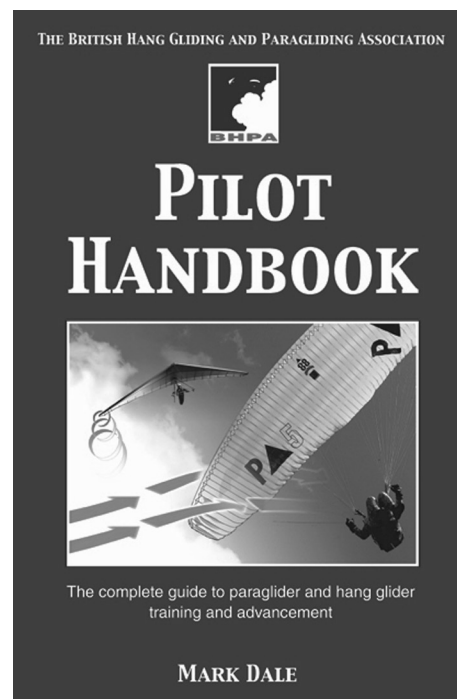
As paraglider certification is in transition, the table on page 39 outlines the new CEN ratings on paragliders and compares it to the old DHV rating system. The background reading that goes with this is also valuable.

The chapter on harnesses is thorough for both hang and paragliding, with good background reading for people wanting the right gear to suit their flying needs. There are good points made about harness attachment points on hang glider harnesses. I've not paid as much attention to certification and stitching as I will now. Crucial for people who are attaching bridles to their harness for towing.

As there has been much discussion in the past in Australia about paragliding launch techniques, I paid particular attention to this chapter. For launching paragliders in strong winds (ie 26km/h+) the British system crosses brakes similar to the Aussie continuous control method. Their standard method seems to involve letting go of the brakes, turning around and finding them again. The updated method involves crossing the brakes as we do in Oz, but using A's to inflate the canopy without the C's or D's to control the canopy on the way up. I use this method at times in light to moderate winds while paramotoring, as one has the throttle to deal with as well. I use A's and C's in strong conditions as the C's allow steering as well as the option of breaking the lift and dropping the glider effectively. I'm sure you'll get something out of this chapter.

### Hang Gliders

In section 2 of the book, 'Know Your Equipment', there is a chapter on hang glider maintenance. There is mention of doing a yearly inspecting on your glider. As I glanced at the table in the HGFA Ops manual (section 9.4.2) a few of the checks surprised me. For example, checking the reflex on a hang glider. How many people know how this is done? I don't remember ever doing it myself. I do, however, remember going 'over the falls' and thanking my creator that my hang glider had reflex and that it was set right. It's mentioned in the Handbook that this is measured once a year, and compared to the original manufacturer settings. Some comments on page 28 are made about 'tuning out turns'. Some pilots find their hang gliders develop turns, even without having had bad landings. It's mentioned that even when our hang glider sustains damage to one wing, the shock can transmit damage to the opposite



wing. There are some simple checks pointed out that one can make without being an aeronautical engineer. A very worthwhile read.

There is a section on certification where the various requirements that manufacturers must meet to gain the BHPA Hang Glider Airworthiness Certificate are broken into five key areas. There is a mention that these system requirements are similar to the German DHV system and the American system. The tests are carried out using vehicle-based tests developed in the early 1980's. There are some figures given about G tests, but no comparisons to other country's requirements, which I would have found interesting.

There was a note for coastal pilots regarding periodically washing down gliders due to the corrosion affect from salt water.

Sounds to me like these inspections would make an excellent club activity day, as the experienced pilot can often pick up faults at a glance and rectify them. I remember once being ready for take off, on a dolly in prone at Inglewood airstrip in Queensland some years back, ready to embark on my first real XC, still quite new to the sport. As Bill Moyes taxied past in his Dragonfly, he noticed (out of the corner of his eye) that the batten profile was out on my Mission 170. This is something, I suppose, that each one of us will pick up over the years, but meanwhile batten profiles take the guesswork out of the job and need to be done regularly.

There is a worthwhile section in the book on Weather, and a very useful one on Flight Theory and Performance. All in all a great read which should provide you with much useful knowledge. I recommend a copy in every pilot's library. And by the way, Richard, I'm keeping this copy... (*Bugger, I was going to – Sub-ed*)





Cartoon: Jules Hakk



# Wave, Hello!



Wimmera Soaring Club's Janus CM back on earth at the home of the annual Horsham Week soaring competitions  
Photo: Steven Schneider

**STEVEN SCHNEIDER, Wimmera Soaring Club**

Things are pretty quiet around the aerodrome today.

The afternoon is hot and the pilots on the ground have taken refuge around the kitchen bench in the clubrooms. Up on the roof an evaporative airconditioner churns away quietly as it dumps cool moist air onto those gathered below. Just through the wall the Pawnee rests in its hangar, as it seems, are half the light aircraft in the country, grounded by fuel contamination. No aerotow today.

Around the kitchen bench conversation turns to stories of when winch launches were the go, and what length of runway might be needed for an autotow.

Out in the glider hangar the graceful white aircraft wait for the day when they might once again soar up to the clouds and silently skim over the flat Wimmera plains far below. Max arrives back from town with some new rollers for the hangar door, he has maintenance in mind. I am more interested in trying a single-seater on for size with ideas of taking a flight in it sometime soon. Just settled into the cockpit, not yet comfortable, a voice calls *"Come on, let's go. The Janus is back."*

We hasten out to the strip, arriving in time to see two pilots disembark from this recently acquired flagship of the Wimmera Soaring Club fleet. The mandatory question is asked, *"What height?"* *"Around five thousand,"* comes the reply. Parachutes on we climb aboard, harnesses secure, pre-flight checks begun. From the rear seat I hear a motor whir as the engine rises from the fuselage behind me on its pylon. Picking up the earmuffs, so frugally purchased, they disassemble themselves into a number of individual components requiring reconstruction.

The engine roars and we begin to move, slowly at first but speed builds and the wing-

runner is left behind to stand and watch as our aircraft rises above the ground, borne on long slender wings into the sky. The propeller bites at the hot, dry, buffeting air that supports our plane, altimeter rising, airspeed constant, engine roaring smooth and even. Below, the parched paddocks fall away as we reach sufficient altitude to dispense with the engine. Grateful for its assistance, yet glad to be rid of vibration and chatter, the power plant is returned to the fuselage to rest quietly until next summoned.

Now the flying really begins. Max pilots the aircraft, turning and twisting first this way, then that, searching for the elusive currents of air needed to carry us aloft. He reads signs like a skillful tracker. Observing dust rising, clouds swirling, changes in attitude and sounds of wind caressing the form of our plane as she passes through the air. In the rear seat I am not so fully occupied. I look out into the airspace that surrounds us, then watch the instruments report our progress on this journey to the clouds. Hot sun burns through the canopy and I slowly cook, basted with perspiration and longing for that cool relief which beckons from the altitude of those unusually smooth clouds high above.

Higher now, my hand reaches through the tiny opening in the canopy to welcome in cooler air from outside as fluffy cumulus loom closer. No longer do we turn in rising thermal currents, now our course is set to track along a street of lofty cloud, brushed smooth by the wind that formed it. Cloud base, where thermals fail and their moisture condense, arrives then falls away as we continue to rise, lifted on the wind. Never before has a glider carried me so high and for the first time I look down onto the billowing

tops of white cumulus cloud like islands floating high above the patchwork land below.

In the distance a fellow aviator shares the currents that we ride. Neck outstretched, wings beating the air, what appears to be a black swan flies speedily northward as if late for some important appointment. Our companion disappears from view as the Janus continues to rise. Variometer shows healthy lift as the pilot manoeuvres our sailplane to maximise the vertical rate. I comment on the absolute smoothness of the ride to which Max replies, *"This is wave."* Wave, hello! Spoken of by experienced pilots, but only rarely achieved, this is what soaring is imagined to be. Turning above the highest of the clouds, misty fingers reach up towards us, our craft wants to take us higher still.

But we have ventured into this rarefied world unprepared, as each breath draws less oxygen than before. Being unable to linger, airbrakes are deployed and we descend earthward, beside the cloud.

Now I have command of the aircraft, it responds reassuringly to the controls as the wing is lowered in a steep turn to track back along the wave. Once again our graceful craft soars upwards to the delightful altitude of before, where panoramic views of the ground below blend with sky at horizons many miles away. The large expanse of water that is Lake Hindmarsh clearly visible to the north. Once again we must choose to descend. Arriving near the lakeshore, I turn south and we speed for home.

I wait beside the glider, on the dusty ground once more, while Max goes off in search of a rope to tow the Janus back to its hangar. A little cooler now, the breeze blows gently by as I think of the flight and look forward to having a cool drink in the shade. Not much else is going on.

Things are pretty quiet around the aerodrome today.





# American Odyssey

LEIGH YOUNDALE

April is a bit early to tour the USA. At least it is in the north.

The day before I arrived in Philadelphia it snowed and as the

Airbus joined circuit you could see patches of snow remaining

in sheltered spots on the ground.

Maybe if we'd gone south the spring would have been more advanced and warmer, but Jan and I had made a promise to visit friends in Canada, so as soon as my work was finished, and Jan arrived, we stayed a few days with friends in Delaware before heading west through Amish farm country in Pennsylvania. From there we travelled north up the Susquehanna River Valley and over the end of the Appalachian Mountains towards Niagara Falls.

When I received my GPS it had the North American cities database installed, which I thought was pretty useless, but in fact I was able to plan our route in some detail and used it to help ensure we were heading in the desired direction. As the skies were totally clouded over and everyone drives on the wrong side of the road, it's easy to get disoriented and drive south when you should be going north, but the GPS at least helped us avoid that trap.

Part way along our route I noticed in the Rand McNally road map we were using that just near Elmira, in upper New York State, there was a site marked "Soaring Museum". As this was deep in the hills I thought it was probably something to do with hang gliding, but decided to check it out as it was right on our route north.

Elmira (pronounced el-my-ra) is a classic American rural town with two-storey weather-board houses lining the streets and reflecting an image of family life in middle America that is reminiscent of Norman Rockwell's 'Saturday Evening Post' cover illustrations of the 1950s. A charming place in its own right, but if you swing left at the cemetery where Mark Twain is buried and follow the signs to Harris Hill you will first see signs to "gliding activities" and then come to a golf club that has a glider as a weather vane. Turn left there and follow the road around through a recreation area and you will see a glider wing mounted vertically

in a concrete plinth at the entrance to the 'glider port' at Harris Hill. Quite an imposing entry to a most interesting place.

We drove in to find a large modern building housing the National Soaring Museum and beyond that some old wooden huts used as basic accommodation, and then the clubhouse of Harris Hill Soaring Corporation. We were fortunate, it being mid-week and out of season, to find two members there – John Gill, and Heinz, who was busy trying to sell his ASH25 to two Texans. He knows John Buchanan, but other names I was familiar with meant nothing to him.

They have two hangars there behind the clubhouse. Two Pawnees were there with the same dropped wingtips that Southern Cross Gliding Club's most recent tug has. Also a Piper Super Cub, used as a back-up tug if one of the Pawnees is out of service. There was a workshop, plus a couple of gliders – the ASH25 and a new 'ASH27 – but it appears most private members keep their aircraft in trailers. There were no 'T' hangars on the site at all.

It was fairly cold and I was wearing my Bathurst Soaring Club jacket, which got me quick recognition from John Gill who was working on his own '27. The US dollar is so strong at present he tells me that private members have bought no less than four new ASH 27s this year! He had only flown his own new one for the first time the previous weekend when he did some 150 miles. He says that they get good thermals there in spite of the hills but the height is often limited to between 4,000 and 6,000ft. John mentioned they are expecting an Australian contingent later in the year when they host a world vintage glider event.

The older hangar behind the clubhouse has two levels. Under the main floor is a parking area in which 20 trailers were parked, with a long list of very desirable German gliders

cocooned inside, mainly from Schleichers, but with a sprinkling of LS4s, Nimbus 4, Discus, Ventus, etc.

Upstairs in the main hangar area were the club gliders. They have four, almost new, ASK 21 – in fact John showed me the latest one which had not yet flown. They do all their instruction in the 21s. John tells me they are delighted with the aircraft. When pilots go solo they first get to fly the three Schweizer trainers for six or more flights. These are an older, high-wing glider with struts supporting the wings. (I don't know the model). After this the transition is to a Schweizer I-26 single-seater that is roughly about the same size as a Junior or Astir. Beyond that point they either stay flying the club gliders or get into a syndicate, or buy their own glider. The club doesn't provide higher performance gliders for club members to use.

They have a good sealed strip and plenty of grass about. The site is on the top of a hill, so I imagine a rope break could be interesting if it happened too low!

After that, we went to the museum building. A wide entrance foyer has the reception desk at the rear. On the right are some displays and toilets – on the left a wide selection of gifts, memorabilia, books and toys, models, etc which are for sale. Entry costs US\$5 or \$4 if you're a 'senior'. Inside you are first directed to a comfortable room where there is a continuous video show about gliding in general and the Harris Hill club in particular. Also strongly featured are the youth camps which Harris Hill run under the sponsorship of Eileen Collins who, as well as being the first female astronaut, is also a long-standing member of Harris Hill.

Inside the main part of the museum there are many displays, models, cutaway sections and information panels about gliders and gliding. Suspended from the ceiling, or on the floor are about 20 gliders of all types including primaries, famous German gliders of the '30s, American experimental gliders (including the original Genesis 1 and a flying 'wing'), a cockpit simulator, a 1937 truck-mounted winch and a WW2 military glider section.

In the centre section of the floor is a circular booth in which 122 models of gliders from the 1880s through to the end of the 1980s are displayed, each with an information panel giving pertinent manufacturers and performance data.

All in all a place well worth the visit. If you get the chance to visit the NE part of the USA, try to make time to drive out to Elmira and have a look. We don't have anything like it! They have a web site which you might like to investigate. <[www.soaringmuseum.org](http://www.soaringmuseum.org)>





# Annual Council Meeting

The 1999/2000 annual council meeting of the Gliding Federation of Australia held on 14 October saw the election of the following office bearers:

**President:** Beryl Hartley;  
**Executive Vice-President:** Bob Hall.  
**GFA Regional Vice-Presidents:**  
*New South Wales* – Eric Sweet,  
*Queensland* – John Fairbairn,  
*Western Australia* – Bryan Blackburn,  
*South Australia/Northern Territory* – Kim Bennett,  
*Victoria/Tasmania* – Maurice Little;  
**Treasurer:** Rudi Salter;  
**Chairman Technical Committee:** John Ashford;  
**Chairman Operations Panel:** Daryl Connell;  
**Chairman Sports Committee:** John Buchanan.

The following officers were also appointed:  
**Chairman Development Committee:** Bob Hall;  
**Chief Technical Officer Airworthiness:** John Ashford;  
**Convenor Design and Development Committee:** Gary Sunderland;  
**Convenor Airfields and Airspace Committee:** Eric Sweet.

## Regional Technical Officers Airworthiness:

*New South Wales* – Len Diekman, Keith Hayden, Mal Williams;  
*Queensland* – Alwyn Reid, Robert Bradley, Alan McMaster;  
*Victoria/Tasmania* – Gary Sunderland, Eugene Blunt, John Ashford;  
*South Australia/Northern Territory* – Mark Morgan, Gunter Ziegler;  
*Western Australia* – Owen Jones.

## Regional Technical Officers, Operations:

*New South Wales* – Laurie Hoffman, Glen McLean, Jim Stanley;  
*Queensland* – John Clayton;  
*Victoria/Tasmania* – Peter Gray;  
*South Australia/Northern Territory* – Reg Moore;  
*Western Australia* – Peter Fauser.

## Airfields and Airspace Officers:

*New South Wales* – Eric Sweet;  
*Queensland* – Peter Summerfeldt;  
*Victoria/Tasmania* – Darcy Hogan;  
*South Australia* – John Hudson;  
*Western Australia* – Kevin Saunders;

*Northern Territory* – Gavin Wrigley.  
**Regional Technical Officers, Sport:**  
*New South Wales* – Brad Edwards;  
*Queensland* – none appointed;  
*Victoria/Tasmania* – Peter Buskens;  
*South Australia/Northern Territory* – Bruce Tunks;  
*Western Australia* – James Cooper.  
**Radio Officer:** Aaron Stroop;  
**Legal Adviser:** Paul Matthews;  
**GFA Auditors and Accountants:** Horwarth Partnerships;  
**Computer Officer:** Jerry Wells;  
**Convenor, Awards Committee:** Tony English;  
**Editor Australian Gliding/Skysailor:** Suzy Gneist;  
**Convenor, International Teams Committee:** Paul Matthews;  
**Convenor, National Competitions Committee:** FAI – Miles Gore-Brown,  
*Club/Sports* – Tom Gilbert.  
**Convenor, Decentralised Competition Committee:** Chris Stephens;  
**FAI Certificates and Badges Officer:** Beryl Hartley;  
**Trophies Officer:** Fred Foord;  
**OSTIV Representative:** John Ashford;  
**IGC Representative:** Terry Cubley.



## GLIDING FEDERATION OF AUSTRALIA

### Airworthiness Inspection

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- ☐ A Form 2 inspection is due  
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# Australian Sports Medal Recipients



**Ken McAnally, CFI of the Narromine-based Orana Soaring Club, received an Australian Sports Medal at an impressive ceremony held in Narromine late November**  
 Photo: Anne Elliott

Last year, being the Olympic year, the Commonwealth Government produced a commemorative medal, known as the Australian Sports Medal. This medal will be issued only once and represents a distinctive mark of recognition in the recipients chosen sport.

Several members of the gliding fraternity throughout Australia had the honour of receiving the medal. These included Brian Voce, Rudi Salter, Redmond Quinn, Tim Shirley, Ingo Renner, Roger Brown, Ray Ash, Harry Medlicott, Dave Sharples, Jerry Wells, Terry Cubley, John Buchanan, Brad Edwards, Maurie Bradney, Ian McPhee, Peter Fauser, Rob Young and Ken McAnally.

Congratulations to all.

*Sub-editor's note: These are the names I have been given through various sources. Please accept my apologies if you received a medal and your name is not listed. If any recipients omitted from the list would like to contact me I will be more than happy to publish a further list in the next edition of the magazine.*



# Unusual Bird Strike at Gympie

RON GEAKE

**Peter Brown of the Gympie Soaring Club was carrying out an evaluation flight for his Jantar 3 after the completion of his annual Form 2 inspection.**

He had noticed an eagle in the vicinity during the flight but proceeded to carry out the required series of flight tests – slow and high speed runs, stalls, spins, etc. When satisfied that all was well, Peter decided to do a series of aerobatics.

The Jantar gracefully executed a number of stall turns and chandelles, and Peter, seeking a suitable finale, dipped the nose to build up speed and began to pull up into a loop. Then, as the Jantar began to climb – crack! something hit it near the tailplane.

Peter quickly levelled out, startled by the impact and proceeded to evaluate the situation, preparing to bail out if necessary. As all controls appeared to be behaving normally, he carefully lost height and landed safely on the airfield.

An inspection of the sailplane revealed a bird strike on the top of the rudder, which had caused minor de-lamination on the trailing edge but no other damage.

What had caused this unusual occurrence?

Well, it was the eagles' mating season and we are told that they engage in a spectacular ritual of breathtaking aerobatics, soaring and swooping with each other until they come together in mid-air in a magnificent moment of consummation of their courtship.

The spectacular aerobatics of the Jantar had apparently got the eagle rather excited, so we appear to have recorded the first known instance of attempted consummation between eagle and Jantar.

The ultimate fate of the eagle is unknown, but sometimes, at sunset, plaintive and pained eagle calls are heard on high.



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## Chamberlain Knights merger with OAMPS

The completion of successful negotiations to merge the services of Chamberlain Knights with OAMPS Insurance Brokers Ltd has recently been announced. OAMPS are a highly regarded publicly listed Australian Company with a national branch network and are currently one of the largest Australian Insurance Brokerages.

Kevin Chamberlain, Portfolio Manager – Aviation, is confident that clients will benefit significantly from the greatly enhanced service and facilities now available. However, he stresses that the majority of clients will continue to deal with the same staff in the same manner as prior to the merger. The main difference will be in the greater range of insurance products and financial services available together with the benefits of greater buying power that will be passed on to clients by way of improved covers and competitive premiums.

Kevin states "while our business has been successful and has grown, in recent times we have been aware of a changing business environment. There are many challenges, such as fast changing technology and the need to service all of our client's financial service requirements beyond just 'general insurance'. Our new partnership with OAMPS means we are now able to better meet the changing needs of our clients."

New services will include:

- Life insurance and superannuation
- Lease & hire purchase
- Equipment finance and
- Many other specialised insurance packages

Chamberlain Knights – OAMPS are committed to continuing to service the general insurance needs of their existing clients in much the same manner as before. In summary, Kevin states "it is vital to us that you continue to be afforded the same professional and friendly service you have enjoyed with Chamberlain Knights for more than 18 years".







## A Day Out For Sue

DAVE TONKS

I'd been paragliding for a couple of days short of five months, and in that time my wife had only seen me fly on one occasion, a lovely ridgesoar at Tamborine Mountain (topland included). She just managed to be in the right place at the right time. A day after our 29th anniversary, I had an RDO and Sue had taken the day off to spend with me, plan A being a nice quiet day pottering about the house together. Sue's plan A, not Huey's plan A! And everyone knows that when The Weather God decrees a Flying Day, plans go out the window. Okay, she says, but ONLY if you fly in the morning, then you buy me a nice lunch somewhere with a bottle of wine, then we get back home to this list of jobs. Sure, Sue, no problem. And I really meant it, too.

First stop, The Toy Shop in Canungra (the name I've given to Phil Hystek's PG shop – so many PG gadgets and associated stuff, so little money). We see Scotty (visiting pommie/mad keen Bandit driver) outside the shop peering skywards, watching a helium-filled balloon just released. Phil makes a quick call to the BOM. The wind is all over the place but Flying Fox (Coomera River Valley) might be on, so off we go. On launch 'The Fox' looks good with 5-8kt up the face and some nice cu's around, so we set up like little demons, Scotty jumping out of his skin having been grounded due to work/travel commitments for the last three months.

I'm first off the hill with my usual rotten launch technique, and fly straight into good lift – what the hell was that, a thermal passing through? Who cares – a couple of tight turns and I'm above launch already, then I misinterpret some advice from the hill and end up turning the wrong

way. Next thing I know

I'm in big sink. Crikey, I can't even make the standard bomb-out from here, I'll have to go to the south one. A bit bumpy, the thermals are kicking through the gullies here and giving me a hard time, but a good approach and nice landing. Now, down to the road for a pickup and I look up to see Scotty heading for the standard bomb-out – bummer!

Sue arrives not much later and we decide to do a quick run back into Canungra for a bite to eat, then we'll see what the weather is doing. During lunch, Sue says she's resigned to "a day of flying". Scotty and I grin at each other and tell her what a great sport she is.

She replies, "Yeah, well I may be a good sport but I'm not going to Beechmont." She hates the long winding mountain drive to the bomb-out there, so I say "No, if it's east we'll try Scotsman's (also Coomera River Valley), and with any luck we'll pick up the sea-breeze convergence" (more grins from Scotty).

A quick drive down the valley after lunch confirms our hopes; streamers in the valley tell us Scotsman's is a definite chance. We drive to the 'carpark', get our packs on and head off up the ridge. It's a steady little 20 minute bushwalk through nice country with great views. It's a little bit steep in places, but you mainly walk on cattle trails through knee-high grass. Scotty is out in front and I call out, "Mate, watch out when you're stepping from shady patches into sunny spots on the track, if there's any Joe Blakes around, that's where they'll be". About 30 seconds later he calls out, "Hey Dave, found one – and it's right where



## PHOTOS: DAVE TONKS

### ▶ Dave just after launch at Scottsmans

*you said it would be."*


I move up to have a look – he's big, agitated, and unidentifiable – definitely not a carpet or a green/tree type, could be a brown or even a Taipan. So we give him a very wide berth, and boy was I glad I gave that call to Scotty. Phil and Matt had said via radio that they were not far behind us, so we gave them a call to let them know about our little friend (and where we saw him last).

On launch, and the conditions look perfect – 5-8kt up the face with some gusts to 11, not to mention a nice big convergence cloud sitting over the middle of the valley right in front of launch. We're both desperate to get out there, but Scotty hasn't flown here and I've only been off here once, so we've agreed to wait for Phil or Matt for a no-go zone/general briefing. Phil arrives first (no surprise, with his gruelling daily mountainbike/running schedule), Matt was close behind and volunteers to go wind dummy – he knows this valley well (lives here!) so he's the one we want to see in the air. He does a perfect reverse and steps off into mucho lift, then scoots around the spur to the south, rising rapidly. I follow a few minutes later and find myself going up nicely in convergence lift, but – gee, it's a bit bumpy.

Just as I'm starting to think this flight will be a beauty I hear a rustling above, my canopy feels funny and I start dropping to the left, towards the hill. I quickly look up and see that about a quarter of the canopy on the left is tucked, so I let the brakes up immediately and get ready to dampen any surge. I fly a Bolero, so she comes out of the tuck quickly and smoothly and I hear myself saying *"that wasn't*



*fun."* I turn back away from the hill and realise suddenly I have dropped out of the lift. I'm too low to do anything at this point so I head for the bomb-out, picking up a little thermal on the way but not enough to keep me up. I have the usual bumpy approach and a nice landing right next to the gate. So, that's what a tuck feels like – I can live without that, but I'm pleased I remembered my training and reacted right (thanks, Phil). In hindsight, I could have counterbraked and/or pumped the tuck out, but for my first tuck, I'm happy with the way it went.

By this time Matt has bombed out to the south and Phil and Scotty are going great guns in their Bandits. There I am, lying on my back in the bomb-out, watching these two milk the convergence for all it's worth, and I'm worried sick about Sue coming back down the ridge by herself to get back to the cars – I warned her to carry a big stick and keep her eyes open, but it's a long wait. She finally turns up and we head down to Matt's place. Phil and Scotty have been skysurfing with the local wedge-tail (who appears to be carrying his dinner with him!) and have been in the air for about an hour and a half – and I'm not happy. I just hate missing out on flights like that.

The jubilant aviators land alongside the house. We pack up and head to Canungra for a celebratory drink (or two) and a 'Roast of the Day' at the pub. Scotty is over the moon, he's broken the drought with an absolute stunner of a flight, and Phil's managed to blow quite a few of those workday stresses right out the window. As for Sue – well, she says she had quite a day, too – not anything like what she'd planned at all! Not only that, she says she now knows how it feels to 'chase the wind'. 



▲ Dave gets ready to launch

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## Our Little XC



### BRENDAN WATTS

Isn't it amazing how a "spur of the moment" cross-country can turn out to be the best of all?

This is the story of one such event.

**P**eter Anderson was down from Perth to get some training hours under his belt and we had met at Bunbury airport at about 0700 on Wednesday, 29 March with the intention of getting a good day's flying in. After pre-flighting the aircraft and sliding into our flying suits we were ready to commit aviation, when Peter looked at me and said, "Did you know the Margaret River surfing championships are on today?" "No, I didn't," I replied, "are you sure?" "Yep, sure am!" he replied.

"So what? I don't surf." "Nor do I, but I like to watch, and they reckon the surf down there at the moment is bigger than your guts". No one has ever surfed a wave that big and survived – this I just had to see! "Okay, so what you're saying is, let's do a cross-country down to Margaret River?" Pete didn't have to answer, the grin on his moosh gave it away. These guys will do anything to get out of circuit training. "What do we need to take on a flight like this, Brendan?" was his next question. "Food, Peter, lots of food just in case we have an engine out and have to sit in a paddock waiting to be rescued." After a few seconds of silence I informed Peter that if we were to take lots of food we wouldn't be able to carry enough fuel for the return journey to Bunbury. So I said that I'd go without so we could take extra fuel – but only on condition

that when we got back it would be his treat at McDonalds. This was agreed and the cross-country fuel bags were secured to the trike. "Just grab the GPS, camera, mobile phone and we're ready." "What about a map? Do we need a map?" "We're flying coastal you nerd – coastal all the way – keep the coast on your right all the way down, and keep the coast on your left all the way home. Got it? Right, let's go." "Why do we need the GPS?"

"So I'll know when to leave Margaret River in time to get back before McDonalds closes! Let's go." At last we were airborne into that silky smooth air that all trike and ultralight pilots dream about. The trip down south would take about 1½ hours with a steady ground speed of 40kt. After a few minutes flying the trusty GPS confirmed a ground speed of 40kt. The forecast was right – light and variable. Approximately 35 minutes later we were passing the beautiful little town of Busselton, situated in Geographe Bay. As we flew past the famous Busselton jetty, the damage caused by fire was very visible from the air. It is said this structure is the longest wooden jetty in the southern hemisphere, jutting 1.5km into the bay. It would be a shame to lose such a famous landmark. As we left the small town of Busselton behind us, we could see a distinct change of colour in the water. As you follow the curve of the bay in a westerly direction, the water turns to a blue that would normally be associated with that of swimming pools, and so crystal clear. This is apparently due to the heavy shell and grit that accumulates in this part of



the bay, so even after a big storm the water quickly returns to its original clear state as the grit and shingle sinks quickly back to the ocean floor. In the distance we could see Cape Naturaliste lighthouse, which told us that it was time to turn due south. By cutting across the cape at this point, we would take about 12nm off the trip. The GPS confirmed that we were right on schedule for Margaret River. We had now arrived at a section of coast that we would follow from Cape Clairault due south to Margaret River – approximately 17nm of awesome coastline. A good look down at the beaches below, and the roaring surf, left no doubt in our minds that if the engine should fail along that stretch of coastline, there would be nowhere to land except the trees. There was no beach below as the surf pounds hard against the rocky cliffs. To try and land down there we would be shark bait for sure. We decided to climb to a safe altitude before leaving the security of those big clear paddocks that lay within glide distance. We climbed to 3,500ft above the cliff tops and felt a lot happier. As we started the final leg of our journey we noticed our groundspeed drop off considerably. A cool southerly had arrived and was becoming quite fresh. The GPS indicated that the last 14nm was going to be quite a slow trip, but no problems, as we had plenty of fuel on board and when flying a stretch of coastline like this,



## PHOTOS: BRENDAN WATTS

who cares? This is God's own country. Finally, we arrived at Margaret River and were now close to 40 minutes over our ETA but still had enough fuel to float around the sky and watch some breath taking surfing. To watch these guys paddle out into what I would describe as tidal waves and follow them in was a treat for both of us. We had a bird's eye view. No amount of money could buy tickets for the seats we had. The beach below had enough room to put down in if we had to, so we were quite happy to fly around and watch this spectacular event, always staying within our glide to safety. As time went on I started to look back at the fuel tank. This is transparent on the Edge X which makes it relatively easy to see what's left. The fuel was getting down to the 12 litre mark, give or take. This was plenty due to the fact that the Margaret River strip was only 7nm away. We calculated that the crosswind factor wouldn't bother us as we still had a groundspeed of 40kt. At that rate it would take us about 11 minutes to get there. If we burnt 14 litres in an hour, we should burn about 3 litres in 11 minutes, approximately (it's always better to work on the high

side). A quick glance indicated we had about 12 litres in the tank, but it was getting hard to see now as the lower part of the tank is hidden by the soft sides. So we played it safe and called it ten. So, with 3 litres to get to the strip, we would be left with 7 litres as reserve. On arrival at the Margaret River strip we noticed lots of unexpected activity and, to our horror, they had a big white cross on display. "What's going on?" "Oh, shit! They're sealing the runway!"

"Can we land alongside it?" "No way, it looks as rough as guts, I think I would rather take the beach." "Damn it, what now? How long does that tarmac take to dry? How much fuel do we have left?" "It's getting hard to tell now as it's hidden by the soft sides." "Okay, let's get some altitude above that paddock. That way, if the motor stops, we will have plenty of time to set up for a landing. Stay above the paddock while I check the GPS for the nearest waypoint." It turned out that we had a choice of two – Leeuwin Estate, or Boodge Guthrie's strip – both 7nm away. Leeuwin was out as we would have to punch a headwind, while to reach Boodge's strip we would have a tailwind all the way. We hit GOTO and



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up came an ETE of just 7 minutes. We were confident we'd make it without a problem as all our calculations had been over the top, and with all those big paddocks below there was no real problem. On arrival at Boodge's strip we were surprised to find nearly 9 litres of fuel still in the tank. In flight, it is difficult to accurately read what fuel is on board. However, we had neglected to check to see if the airport was open. This should have been part of the flight plan. Who would think that they would close a little bush strip? A quick phone call may have been the go. After refuelling we headed for home. With a nice 15kt tailwind to help us along, the trip back to Bunbury seemed to go quickly without any problems on the way. After putting the trike back in the hangar I grabbed the WA Country guide and looked up Margaret River. This is what it read: "Cancelled. For latest information contact the Shire Ranger. This strip is to be upgraded. At press time the airstrip is UNSERVICEABLE UNTIL FURTHER NOTICE."

Fortunately for us there was an abundance of paddocks in which to land, so there was never any real danger should we have ran out of fuel. And with alternative landing strips so close, and the aid of my mate Garmin, we can look back on this adventure and emerge a little wiser. Even the smallest of cross-country flights can go wrong. And it could have been a lot worse – it could have been YOU.





# Afternoon Glory

**RICHARD BOWIE**

Everyone has heard of the amazing Morning Glory up in the far north which sweeps through the gulf around September – it's awesome, beautiful and a long way away, which doesn't deter several of our keen 'glory' followers in their motor gliders.

**PHOTOS: RICHARD BOWIE**

So, after experiencing this rolling cloud for a couple years, soaring 260 miles across the gulf at 100kt which, for an old Motorfalke, is going with a vice grip on the propeller brake, I was hooked and now have become a rolling cloud funky.

Having noticed similar cloud formations materialising with cold fronts around Byron Bay whilst ridge soaring, our versatile aircraft allowed a bit of exploration. So, a couple of years ago I experimented with the left band – moved further out from the ridge and entered some light cloud which, interestingly, formed a fairly steady lift. Rather than land, being at 800ft and ready to do so, I opted to ride it. A few minutes later it formed into a curtain of vertical cloud, running east/west, travelling north at maybe 10kt which faded further west and built up over the ocean. I moved into a steady four-knot lift, tracked east up to 3,500ft and had an incredible experience. The setting-sun was gold over the rugged landscape of Mt Warning and Border Ranges and I slid along the face of a dark grey wall, topped with fluffy white curls. Five miles off the coast I turned, thought about my options, and ran back to Brunswick Heads where I dropped through a hole in the wall, encountered some moderate sink and headwind but had 2,000ft up my sleeve.

Arriving at Tyagarah, another morning glory buff, Brian jumped in and we took after the cloud; overtook it; soared the front; wound up to 4,000ft with tops curling to form a nice tube; put the wing in the wall; then did a nice

▲▲ The cape disappears

glide home in the fading light, hoping the 'roos were laying low.

I wanted more, so during the past two years I have waited for similar conditions and have experimented with flying storm fronts. This makes for some interesting, but scary, flying when lightning moves into play. The trouble is that they vary, and trying to find a safe operating zone isn't easy. But when the Byron Bay lighthouse disappears it's time to do likewise!

Being able to re-start once landed, taxi into the hangar and close the doors before rain and hail hit makes this reasonably safe. Timing when to land is most important.

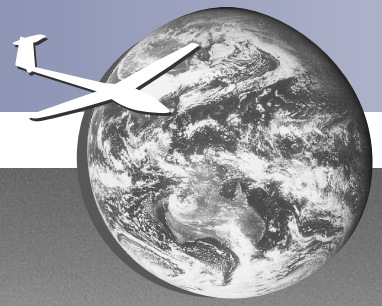
▲ View to the west

The most amazing flights encountered were very smooth and it is awe-inspiring to watch lightning and hail blitz the local towns.

I was once tempted to fly on further north to Murwillumbah. Luckily, I didn't, as it demolished the hangar there. Now I just keep local and give these fronts some healthy respect. Beware – they are addictive and when the weather starts to shape up I'm there waiting, soaring the ridges nearby with hope that over the horizon a 'Byron Afternoon Glory' is coming.







## Local News

### Queensland Soaring Association

QSA has agreed to purchase a Kookaburra and will make it available to clubs for all sorts of activities. It will be provided to clubs for use, primarily, but not exclusively, for youth groups. If it's available grab it! It will be provided at nominal cost at about \$6 an hour.

The whole idea is to entice kids (low income earners) into the sport. It's a MK 2.5 Kooka apparently a MK2 with a MK3 nose fitted. It came from Tarwan Club, halfway between Taroom and Wandoan.

Dave Donald

### Boonah Soaring Club

Two spectacular flights have been made in the DG. On 13 August Dave Mutton and myself ridge-soared the main range from Cunningham's Gap to Mt Superbus and back. The scenery was outstanding. While flying alongside cliffs covered in staghorns, orchids and other tropical vegetation, we enjoyed between two and four-knots of constant lift from the afternoon sea-breeze hitting the cliff face.

At one stage we were joined by two curious, but friendly, wedge-tail eagles. We left Cunningham's Gap with 4,000ft and arrived back at the strip with enough height to join Phil for a couple of runs along the hill before landing. On 15 October Dave and I headed off again this time to Cunningham's Gap then across to Beaudesert then Canungra along Mt Tamborine and return. Make sure you take a camera with you when you go I wish I had.

Mike Cramb

### First ASW28 now available for test-flying

Although Schleicher's newest Standard Class glider was only officially released earlier this year the first aircraft of this type has already arrived in Australia. Its New South Wales-based owner is currently putting his new glider through its paces and will fly it at the Australian National Gliding Championship at Gulgong in February.

A second ASW28 has been ordered by a member of the Australian team competing in South Africa. It is due for delivery in time for the World Championships this year.

The manufacturer is very happy with the acceptance of the ASW28 by the gliding fraternity. Orders have come in from all over the world and sales figures are well ahead of expectation. Schleicher's approach of making the

Photo: John Knox

This photo was taken in late September last year looking west at sunset from McCaffrey Field, Jondaryan, home of the Darling Downs Soaring Club.

That was the time when south-east Queensland was experiencing its worst general bush-

fires for something like 50 years. There was so much smoke in the air that visibility became a problem in some areas and the Bunya mountains to the north of the field, which are normally starkly silhouetted against the sky just 'weren't there'.

prototype readily available for test-flying seems to have paid off.

"A pleasure to fly and unbelievably docile" is the universal comment made by most pilots who have flown the prototype. It will be interesting to see how this new aircraft performs in the first major competitions. For further interesting reading refer to an article written by Brad Edwards and published in the June 2000 issue of AG/SS.

Australian glider pilots will soon have the chance to fly an ASW28 without travelling overseas. The proud Australian owner of the ASW28 with the serial number 007 will make his aircraft available for test-flying by suitably qualified pilots with a genuine interest in the aircraft.

## GFA Airworthiness Notice

### GFA AN 107 – Issue 2

Type affected: PW-5 Smyk

Subject: Miscellaneous airworthiness information.

### GFA AN 152 – Issue 1

Type affected: KA6E

Subject: Optional installation of nose-mounted release.

### GFA AN 153 – Issue 1

Types affected: ASK21, ASK23/ASK23B, ASW19/ASW19B, ASW20, all production series versions, ASW20 TOP, all production series versions, ASW22/ASW22B/ASW22BL, ASW22BE/ASW22BLE/ASW22M, ASW23/ASW24B, ASW24E, ASW24TOP, ASH25, ASH25E/ASH25M, ASH26/ASH26E – all serial numbers; ASW24 Prototype, serial number 24000.

Subject: Optional installation of O-ring to tailplane mounting bolt.

## GFA Airworthiness Directives

### GFA AD 543 – Issue 1

Type Affected: ASW 27, serial numbers 27001 to 27104 and 27106 to 27118

Subject:

- Product improvement
- Amendments to flight, maintenance and repair manuals.

### GFA AD 544 – Issue 1

Type affected: Stemme S 10 and S 10-V. Serials numbers S 10:10-03 to 10-63, S 10-V: 14-002 to 14-030 and 14-012M to 14-063M

Subject:

- Air brake eye bolts.
- Air brake sheets.
- Landing gear door hinges.
- Landing gear door actuation.





# Sunday Open Air Service

LEIGH CAMPBELL

I was keen to have some more training flights on the next beautiful day at Elliott Field, Bundaberg, so went out early to find only the instructor, John,



John the Instructor with Bundaberg Gliding Club's Blanik  
Photo: Leigh Campbell

on hand. Being a Sunday he thought that most of the other members would be at church, and one had a hangover.

This is the first club I have been in where anyone went to church, and all usually had hangovers on Sunday. While he pumped up the tyres I cleaned the canopies of the planes – and even cleaned the windows of the pie-cart control van and the two retrieve vehicles. What a difference it made. We dragged out two planes, a Blanik and an Astir, and got the winch-truck fired up.

Cliff appeared for morning tea and then we winched him up in the single Astir for a long solo flight. We sat down in the shade and yakked for an hour before two others appeared. Thermals were popping up all over the place, with lovely cumulus dotting the sky. I strapped into the Blanik; John climbed aboard and did the CHAOTIC check.

*"Right Leigh, I'll let you do the climb and release, then when we get up a bit, you take it, okay,"* says John in his sing-song voice. I still get freaked out at the launch. It's so fast, the climb is so steep and I just hold on and hope nothing goes wrong. I'm just no pro-active at this stage.

*"Right, we're at 1,800 feet, nose it forward and pull the release twice – that's right, now pick up speed and head for that cloud over to the left. Come on, you've got to fly it. Boot it to the left. Left turn."*

I was frozen at the controls from the launch, but his bark snapped me into action and I turned the plane. There was a bit of lift, centred, circled and climbed a few hundred feet.

*"It's lumpy and not very strong, but we'll stick with this one for a while. It's your plane. Circle to the left, 30 degrees bank, keep the horizon steady. No, you've lost the lift, fly straight and level, count*

*to three and then turn left again. There it is. Stay in this turn – nice and gent. Be a gentle pilot, it's Sunday morning remember."*

There were lots of bumps and variable lift, and I was frequently flying out of the lift vortex and upsetting the instructor.

*"Right, I'll take it for a while and we'll go out to another cloud to the right and see if there is better lift there. Yes, here we are, going up – it's bumpy but it's good. Now follow me around to the right, tight turn in strong lift, keep your string straight. We're up to 3,000 feet now. It's been hard but it's worth it,"* says John.

The twisting and turning, bumps and circling were very trying, but now we had clean air, a bit of height, and steady lift even in straight and level flight.

*"This will be the sea-breeze front rising up and pushing the clouds out west,"* says John. *"We'll just fly along parallel to this cloudbank and we should get lift all the way. Isn't it wonderful?"*

It was brilliant. A warm sunny day, 4,000ft above smoke haze, and sugar cane fields below. The airstrip was within easy range and the view was superb. The plane flew itself while I took pictures and John commented on ground features.

*"That's the 'promised land' over there – irrigated fruit trees, and that's Cliff's farm on the third bend of the river past the weir. You can see his house and sheds. When you can see his cattle you're too low. Just turn under the cloud and get a bit more height. Well, go on then, turn it."*

Everything was in such perfect harmony that I couldn't bring myself to change it. I snapped out of my reverie and whistled along

through some wispy cloud towards a darker cloud base.

*"Yes, that's good, we're still climbing – 6,300 feet. Oh there's lift everywhere now. We'll just fly onto that little township then back to the strip. Just get the feel of it. Trim to 50 knots. I've left my sandwiches on the ground today, so I'll just have to eat my apple!"*

John quietly munched away behind me as I flew along, concentrating on streamer straight and wings level – easy in stable air. The landscape below was fascinating and we spotted Cliff in the single far below us, seemingly skimming across the trees. The difficult and stressful climb up was worth it and all about us was serene. This is my idea of worship. I turned above the little township, getting a good view of the mini cars and shops a mile below us and languidly rolled out to slowly glide down to the strip. John pointed out power pylons by pointing the nose of the plane towards them as we strolled across the sky on a sunny Sunday afternoon. I turned this way and that, enjoying the absolute freedom of being suspended in air. The only reason to descend was that my backside was getting numb and John wanted his sandwiches.

I did the downwind leg, base leg and approach as John took the controls, air brake out, dropping down and I followed his movements, understand the need for them and the result. We rolled over the launch site, opened the canopy and laughed at the thrill of it all.

*"Wasn't that great? – Just magic,"* says John.

I had to agree with him. Even though my legs were stiff and my seat was sore from more than 90 minutes aloft, it was wonderful.

*"Yes, it was great – just magic. Thanks John. Thanks God."*

What a way to spend a Sunday.





# Glider Trailer Registration

**MILES GORE-BROWN**

Registering glider trailers has

now become easier in Victoria

and New South Wales.

**T**he GFA has been able to convince VIC Roads that glider trailers have special design requirements, especially related to rear over hang dimensions. In addition it is understood that many other states have relaxed the national rules for "box trailers" such that glider trailers can be registered without having to move axles, etc.

I have just imported a Cobra trailer and I would like to share some of my experiences such that the process maybe a little easier for others.

In order to import any vehicle into Australia, including a glider trailer, a "Vehicle Import Approval" is required from the Federal Office of Road Safety. Application forms are available from "The Administration of Vehicle Standards, Federal Office of Road Safety, GPO Box 1553 Canberra City, ACT 2601, phone (02) 6274 7506, fax (02) 6274 6013, email <Vimports@email.dot.gov.au>. Approval can take up to three weeks so make sure you apply in plenty of time before the shipment arrives. This approval form is also required for registration of the trailer as will be detailed below. The application fee is \$50. You will need a copy of the sales invoice for the trailer, stating the value, date of manufacture and the chassis number.

The "Vehicle Import Approval" is required before you can take delivery of the trailer from the Australian port of entry. If this documentation is not provided to customs at the time the trailer arrives at the port then customs will not allow the trailer to be released. The glider trailer will then be placed in customs bond storage, which is very expensive, until the documentation is complete.

Once the glider trailer is released from customs, you then have to go through the process of registering the trailer. This process may vary from state to state so I will reflect on my experiences in Queensland.

Firstly, you are required to have the trailer inspected by an approved roadworthiness inspector. The inspector will issue you with

a "Roadworthiness Certificate" Your local garage maybe able to carry out this inspection.

Once you have the roadworthiness certificate you then need to take the trailer to your local motor registry for the registration inspection. This is where the trailer will be measured etc to see if it meets the regulations. In Queensland the rear over-hang, dimension "R", is not allowed to be more than the dimension from the front of the trailer to the wheel axle, dimension "P". In addition the maximum overhang dimension "R" is 3.70m, my Cobra trailer is 4.32 metres.

At this stage you will be told that the trailer does not meet the dimension regulations and as such you will be told that the axle has to be moved. Make sure you get a copy of the "Pig Trailer Inspection Sheet". This sheet details the dimensions of the trailer as measured by the motor transport inspector.

If you decide that you do not want to move the axle, in order to maintain the designed dynamic stability of the trailer, then you can apply for an exemption against the dimension requirements. The request for exemption should be made (in Queensland to Queensland Transport) in writing. The letter of application is very straightforward in that you only have to make mention of the requirement that you are applying exemption against, ie dimensions "R" and "P". Make sure you send copies of all the relevant documents such as the "Pig Trailer Inspection Sheet". In Queensland the exemption application should be addressed to: Queensland Transport, PO Box 673, Fortitude Valley QLD 4006, attention Mr Linssen, I had a very quick response to my exemption request.

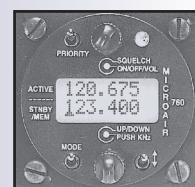
Once you have received the exemption notice take it to the motor registry with the "Roadworthiness Certificate", registration application form, and the "Vehicle Import Approval".

The "Vehicle Import Approval" will be required so that the manufacturer chassis number can be approved. The Motor Registry will arrange for this approval which takes about three days. Once this approval has been received from head office then your application for registration will be complete and you can walk away with the registration plates, yippee at last!

As you can see this can be a frustrating process. Hopefully, if you follow these steps then your application may be less frustrating than mine. I understand that the process

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maybe slightly different in each state but I have been told that the Vehicle Import Approval is required throughout Australia. I had never heard of this approval requirement and neither had many others pilots who had imported trailers in the past. All I can say is that the paperwork is required. If you end up with your trailer stuck at the wharf because you do not have the required documentation then it will be very expensive to have your trailer stored in customs bond awaiting the arrival of the documents.

I have been advised that national regulations related to trailers have been revised. However, at the time of writing, I was advised, by Queensland Transport, that general change had not been approved for glider trailers.

GFA has done a very good job to help streamline the process in Victoria, but some of the other states are a little behind. I think that if the Motor Transport Department in each state receive enough inquiries to register glider trailers with their current dimensions then hopefully the transport department may realise that the regulations need to be re-assessed for glider trailers.

Safe driving.





## Winch Launching

► The article (AG/Skysailor, September 2000) about the winching experiences of the Caboolture Gliding Club and the related factors, was particularly nostalgic for those of us who used this form of launching for many years.

Perhaps present day economics, especially increasing fuel prices will possibly see a wider reversion to this type of launching with highly developed and engineered winches, in contrast to the mostly amateur designs of the past. However some amazing results were achieved with those winches. Consider the following:

An article in Australian Gliding (September 1953) described a flight by Peter Killmier of the Adelaide Soaring Club and his pupil Ken Mortimer on 19 July of that year at Gawler aerodrome. Flying the Munn Falcon two-seater they achieved the remarkable height of 4,500ft on the launch. The Falcon had a very large wing area and thus a very light wing loading.

The club winch, powered by a Ford V-8 motor fitted with 5,500 to 6,000ft of cable, launched them into a 40-45mph wind initially to a height of 2,000ft. At this point the winch motor was stopped, and the drum braked. The Falcon continued to kite in the strong wind maintaining an indicated airspeed of 40kt.

When the winch-crew estimated the Falcon had achieved the maximum height possible with the cable then out, the cable was gradually paid out, with the pilot repeating the process.

The flight was of 30 minutes duration with 20 minutes being "on line". The short duration thereafter resulting from the strong wind and the Falcon's lack of penetration.

On the same day four other flights were made with launch heights ranging from 2,700ft to 4,100ft. It is interesting to relate that previous to this day, the club's Grunau Baby was launched to 2,300ft. Before the pundits descend upon me, let me say clearly that with today's heavy gliders this launch method is not only impracticable but potentially highly dangerous as, in retrospect, it was in 1953.

**Ray Killmier**

## All-Gliding Magazine

► This is a reply to those who criticise me for fighting to get our AG back to being a real gliding magazine. If one takes the so-called 'democratic route', those who don't agree conveniently 'lose' their point of view. You have to shout loudly, and often, to get yourself heard, even if it means upsetting some people.

As to the comments about volunteers, well I do appreciate the work they do. However, some just want to be big fish in little ponds and don't like it when someone dares to speak up – especially with ideas they don't agree with.

Incidentally, I do contribute to AG from time to time and, in fact, have several articles, including one on 'winglets' that will be published (I hope in January. Also, some years ago I,

as a GFA member, had an article published in Technical Soaring. As I remember it, the executive/council rejected an application for funding to attend the OSTIV congress in New Zealand. This was to present my paper in front of my peers. The reason given was that it 'was not in the general interest' or words to that effect.

**Ron Baker**

## Maths Lesson

► Some years ago I was taught a few of the basics of aerodynamics. This pleased me no end, however, it was all in Imperial and being (shame) somewhat mathematically challenged I found I could not do the same calculations in Metric. I followed many blind paths, all to no avail. The rather irascible old man who had taught me was no help. What worked before WW2 still worked today, and who needs metric anyhow. The fact of the matter is that the bulk of sailplane/glider construction is in Europe, and if we are to have any understanding of how they fly we have to think metric.

I digress here for a moment: 1 plus 1 does not always equal 2. It all depends on whose figures you believe. The US, British and Europeans all measure things differently, and converting US and British (imperial) figures to metric and getting the same answer is difficult without converting one to the other. Just try the US standard mile and the British imperial mile and see how far you get (unless, that is, you just happen to have the conversion factor to hand).

So, let's try Reynolds Numbers. Everybody knows Reynolds Numbers is a dimensionless figure which relates to the efficiency of an airfoil (I hope!).

For reasons unknown to me, but probably to simplify calculations, all calculations are done at sea level and assuming a temperature of 15°C and standard density 1.225kg/m<sup>3</sup>, and viscosity 1.789 Newton seconds per metre squared (all metric).

Now let us get to the nitty, gritty figures. As I said I was taught the imperial way, so let's do an example wing chord 2.5ft, airspeed 101.351ft/sec (60kt) and the magic figure 6378. This magic (imperial) figure being the reciprocal of kinematic viscosity. Kinematic viscosity being viscosity divided by density.

So,  $RN = 2.5ft \times 101.35ft/sec \times 6378 = 1,616041.7$  or in round figures an RN of 1.6 million. Sounds reasonable to me.

Now for metric:  $RN = 0.762m \times 30.899m/s \times 68690.75s/m^2 = 1,617326.3$ . Not too far out from the imperial calculation is it.

The figure 68690.75s/m<sup>2</sup> in the metric calculations is the reciprocal of 1.4558, which is the metric figure for kinematic viscosity. Or is it? Remember, I quoted viscosity at 1.789 Newton seconds and density at 1.225kg/m<sup>3</sup>. Now 1.789 divided by 1.225 = 1.4604082. The reciprocal being 68474.

So, let's try that metric calculation again.  
 $Metric\ RN = 0.762m \times 30.899m/s \times 68474 = 1,612222.9$ .

So, now we have three slightly different answers. Imperial 1,616041 – metric 1,617326.3 and metric 1,612222.9.

By now I expect all the aerodynamically-minded types will have their calculators going, perhaps one of you can tell which of the above is right. And, if by chance they are all wrong, then please, how, why and where did I get it wrong.

**Mathematically Challenged (Name supplied)**

## A Thank You from the Rebbechi Family

► Since Joel's accident on 8 October we have received an enormous number of cards, letters and emails from those who have known him. We would like to extend our thanks to all of those from the flying community for their very sincere words, and to publicly mention just a few:

Moyes Delta Gliders, for giving Joel the support to fly extensively overseas, and the opportunity to learn about hang glider design and manufacture.

Vicki and Greg Cain, for a roof over his head between the international competitions.

Rick, Shane and Russell Duncan, Rob Hibberd and all at Airborne, who gave Joel a particularly warm welcome, friendship, encouragement and support. After the accident, for arranging the memorial service in Newcastle, for looking after the many practical details, for shielding our family from the attentions of the press, and for countless other kindnesses.

The Durand family, for the pictures and book they sent following the wake they held for Joel in Beechmont.

Tish, for looking after us at Helen Street and in Newcastle.

The many members of the hang gliding community who sent flowers, cards, letters and emails. Although we may not be able to write to all of you personally, please know that we have greatly appreciated your kind words and thoughts.

**Brian, Robbie, Genevieve and Donovan  
Rebbechi**

## Rules and/or Common Sense?

► It is a well known observation that when people insist on a literal interpretation of rules and regulations, then things work less efficiently and often go against common sense. This is so evident that workers can often effectively go on strike without going on strike, simply by "working to rule".

Now take this observation, and apply it to HGFA competitions. Does it sound like a good direction to be heading? Our competitions manual is a very large body of work, and only a small fraction of competition pilots are willing to tackle it. Do we want people gaining competitive advantage by studying the rules to find loopholes,



and to find legal ways to knobble other competitors? Do we want competitions that are won and lost in the protest room?

Our current cultural approach is that if rules aren't working too well, we add more rules. If the new rules create their own problems and loopholes, we add even more rules, etc. The old Australian concept of "a fair go" is dying. Maybe we could have more simplified rules, and less of them. The actual implementation of the rules in HGFA competitions could regard the spirit of the rules as more important than the literal interpretation of the rules. The ultimate spirit of the rules must be that competitors should not gain unfair advantages over other competitors. Another important concept should be that the competition is to find the pilot with the best cross-country skills, not just the one with the best rule skills.

There are exceptions to every rule. As the number of rules increase the number of exceptions seem to increase exponentially. Just look at our tax laws as an example. The more sophisticated (complicated) the tax laws become the more the experts can find loopholes in them.

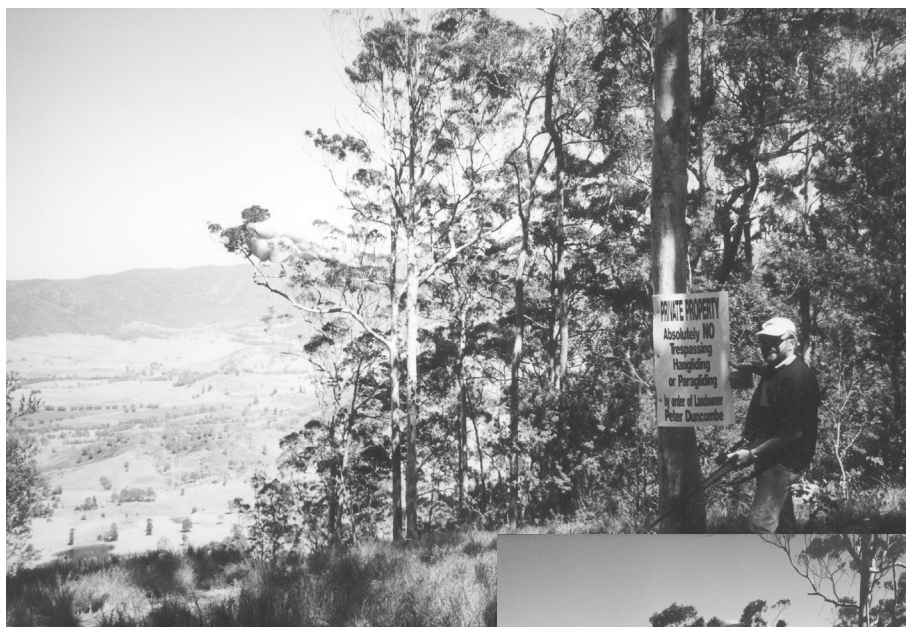
Simple rules force people to use their judgment and common sense. Complicated rules foster the idea that morality and fairness are too difficult. Why bother exercising some common sense, when we can just get a decision out of a book?

What brings all of the above to my mind is a couple of cases of cloud flying at the Canungra Cup. Eventually a sort of common sense approach won out, but it seemed for a while there that the literal rule interpretation crowd might win.

Both pilots said that they could see the ground the whole time. We know that it is often possible to lose sight of a pilot scraping through the base of a cloud if you are looking at an angle. The first pilot's infringement was probably the most serious as he did it more than once. However the second pilot did it after the FAI guidelines re cloud flying had been read out that very morning. According to those guidelines he was definitely cloud flying. He also deliberately gained height advantage over others that were flying low enough to be reasonably sure that they wouldn't get drawn into cloud.

The literalists would have had the first pilot loose all points for the day and the second pilot not be penalised at all (because there weren't the required three official complaints). As it was, the first pilot ended with a light penalty and the second with only a tarnished reputation. Considering it didn't seem possible according to the rules to penalise the second pilot, the light penalty to the first kept some common sense fairness.

The main issue, as I see it, is that the vast majority of pilots flying in competitions are not prepared to spend the great deal of time and effort required to know all the subtlety of the pile of competition rules. Consequently they rely on



► Fellow pilots contemplate rescue strategies

▲ The next day: Retrieval of canopy by removal of the branch thanks to top marksman Russel Groves  
Photos: Peter Bolton

what they consider "fair play" on their own part and on the part of the comp organisers and rule makers. It seems to me that we should be trying to cater to the majority rather than to a small minority to whom winning is so important that they will use and push the rules to gain advantage over other pilots.

When I mentioned this to Brian Webb, he said that other competitors can equalise the advantage by studying the rules as well. This is certainly true. However, given the size of the rule book, it will never happen for the majority of competitors.

Graham Sutherland



## Hanging Around

► The Funny Caption Competition in last month's issue has raised a few eyebrows and a bit of a chuckle. Here are a few words explaining how the situation arose.

The Conondale Cup in SE Queensland began with moderate winds on launch. The second paraglider pilot off (a Colombian known as "Chow") had the shortest flight of the comp – about 10 seconds. This consisted of getting off the ground and immediately being blown backwards into the nearest tree! He remained there, just hanging around for about an hour's "airtime". Some keen competitors continued launching under him, because the task was on and conditions were looking good (and launch itself was still clear)!

Luckily for Chow, there were quite a few helpful pilots still on the ground (mainly hangies). Also, between them, they had a climbing rope, a spool of weak link cord and a hook knife. These pilots delayed their launches to rescue him.

The rescue consisted basically of getting the thin line up to him (by throwing the spool over an overhead branch), then we attached the climbing rope to the thin line and Chow was able to pull up the climbing rope and tie it to his harness. The



hook knife was also lifted up so he could cut himself free from his canopy/lines. Then, with several bodies anchoring the climbing rope, Chow was able to climb down the trunk.

Of course, his canopy then remained up in the tree, so the rescue (of equipment) continued the next day. Quick, safe retrieval of the canopy required more specialised equipment. Again, Chow was lucky that one of the rescue crew also had a rifle with him. Permission for shooting the branch down was obtained from the landowner, then (trike pilot) Russell Groves started shooting. After several shots it came crashing down, with canopy attached.

Had Chow done the right thing and bought his rescuers at least a few beers, then this letter and photos may never have been sent for publication and he could have remained nameless. He also had the Australian "carton" tradition carefully explained to him, but to no avail. He was in the same pub at the end of the first day as his rescuers from the Conondale Cross Country Flyers, but they had to buy their own. Not being bitter about it, we still retrieved his wing the next morning (free of charge).

Apologies to any co-rescuers/helpers I've not named here.

Peter Bolton

## Board Resignations

► Dear Board Members,

Just a quick note to say that I'll be resigning from my position on the Management Board of the Hang Gliding Federation of Australia effective from today, Friday 24 November 2000.

I stood for election for the Board with the intention of helping refocus the administration on the needs of our membership. Whilst this vision is shared by some Board members, the majority appear to have a very different point of view.

If just for once the luddites were willing to share their vision (or justify their decisions) I might be convinced that the not insignificant amount of time I have spent on Board matters was worthwhile. Instead I feel like I am banging my head against a brick wall and pissing into the wind at the same time. Both my neurologist and urologist have suggested that these activities might be detrimental to my health.

It has been great getting to know you all and I wish you and the organisation all the best for the future.

**Cheers, Mark Plenderleith, HGFA Pilot**

► Hello all,

Just a courtesy letter to let you know that after a fair amount of pondering, I am following in Mark's footsteps and resigning from the HGFA Board as from today Wednesday 29 November 2000.

Whilst this does not affect my support for the HGFA, its overall aims and objectives, I would like to point out that as elected I was very keen to help introduce better value for the members of our organisation, improved lines of communication within the federation and a more accountable working system overall.

As yet I do not see these happening to any major degree, despite laudable efforts from both individuals and elected sub-committees.

Whilst I understand that any committee system must be run on a consensus basis, I really do not relish the thought of merely being an opposition vote for the foreseeable future. It becomes tiring and pointless after a while. As such, I feel the interests of the board are probably better served by another member who possibly has more affinity with the aims of the majority of incumbents. As things are progressing at the moment, I do not feel that I, or the members that voted for me, will be happy with the direction we are moving in – and therefore would prefer not to be associated with such decisions and initiatives.

I must admit I am disappointed to make this move, and equally disappointed not to have been part part of a brave new HGFA – especially

when I felt we had such a good opportunity to make major changes in a positive direction.

**Jeremy Torr**

## To all Paragliding Instructors and Clubs

The HGFA has a few free copies of the new Safety and Training video called "Check before Flight" available. The video was produced by the DHV who generously sent a master copy to all National Federations to copy in the name of promoting better safety within our sport. The video is all about legstraps and the importance of always performing a six point pre-flight check. It tells about the 10 deaths in 1998 in the European Alps from pilots forgetting to do up their legstraps.

I think the video has been very well produced and will go a long way to preventing any more fatalities from this all too common mistake.

I myself have taken off in a very public display at the last Bright competition with both my legstraps undone and can vouch for it being one of the most terrifying experiences any pilot can ever experience. I was incredibly lucky and landed safely, but very shaken. Take it from me, it's not nice being choked by your chest strap while hanging on for your life with weakening arms and thermals around trying to take you back up. I have always done my six point check, usually twice, but on this day I was distracted from it on launch by a camera and a short chat immediately prior. Also a change of harness and routine.

Since my incident I have spoken to quite a few other pilots and have been astounded by how many have experienced the same terrifying ordeal (some twice!). Most have been very private incidents and the pilot involved is all too often very embarrassed about talking about it. Never think that it can't happen to you!

All pilots make mistakes. It's just that aviation in all forms is inherently very unforgiving.

One of the best inventions ever has been the anti-forget legstraps that a lot of manufacturers are producing these days. I highly recommend them for all pilots. They can also be purchased as a retro-fit for most modern harnesses. Do yourself a favour and, check them out!

I hope everybody has a great start to the new season! Fly hard but safely,

**Peter Bowyer, Paragliding Safety and Operations Committee Member**

*PS: Contact Margaret at the HGFA head office if you don't already have a copy of this video! If they have run out of copies you may be able to track one down and copy it from another club.*

## Free Multimedia Website for Clubs

Readers may like to take note of a free website [www.airdisplay.com.au] where anyone can interactively create their own club newsletter or advert in minutes. It allows text, photos and word/pdf documents to be instantly uploaded for internet viewing. In fact, if you can browse the web you can create your own multimedia notice or advert!

See what's going on at other clubs! Sell that old glider, keep club members up to date with current events or post up your photos from your last cross-country to share with others. 114+ adverts to date. 2000 users Australia-wide. Intelligent email updates.

## Corryong Cup

The Corryong Cup is again being run by the Blue Mountains Hang Gliding Club this year. It is geared towards being a fun competition where you can gain valuable competition experience. Every year we have pilots who achieve personal bests. This year there will be a trophy for Best Topless as well as the usual trophies for Team, Veteran, Most Improved, Open Crossbar, and first three places for Kingpost gliders. We have kept the cost to \$85 which includes the presentation dinner, T-shirt and your first roll of film.

Registration/practice day is Saturday 13th, competition starts Sunday 14th, last day of comp is Saturday 20 January 2001.

Get your booking fee in now!

Contact me on (02) 4294 1268.

**Steve Bell**

## Club News

### ACTHPA Parachute Repack Night

End of last year our club had it's annual repack night. Around 20 members turned up, with an equal number of PG and HG pilots represented.

The format of the evening has developed into an initial talk on parachute inspection and packing principles, followed by a deployment session with our safety officers and instructors giving advice on deployment techniques as each pilot is hauled to the rafters and tries to get their parachute out of their harness and thrown to line stretch. Usually this provides plenty of cheap entertainment (ideal for pilots) and occasionally some genuine lessons. The sight of a senior instructor entangled in his reserve parachute lines will have lasting value. Important points seem to be – know where the handle is, make it a two action deployment (get it out of the harness first, throw it on the back swing), throw it into clear air, don't rush.

Once we have some rigs unpacked the serious business of inspection and repacking begins with me supplying advice and encouragement, but by and large most pilots repack their own parachutes. In this way we can get everyone repacked on the same night.

Over the last four years I have collected quite a few packing manuals and the basic principals are generally consistent – check for tangles, stretch out and inspect all the material and lines looking for stains and any damage, flake the gores into the familiar triangle shape (pull the pull-down-apex canopies into the correct configuration inside the canopy), fold and fold again to the bag/cloverleaf container shape, stuff it in, stow the lines as the container requires, secure the





container, stow the bridle and close the container into the harness. If you have any doubts about the job, deploy it again to test, then repack! Don't be scared to try it – this isn't rocket science!

The main problems I encounter each year have been parachute bags that don't suit the harness containers and handle configurations that don't suit the harness. Both of these can make the security of the container in the harness a concern and make deployment more difficult. Another danger that appeared this year is attaching the bag and handle to the canopy. This can easily entangle the parachute, and does it really matter if you lose it?

This year all the rigs we packed last year worked well, whereas last year we had one difficult deployment and one total malfunction (due to the pin coming off the bridle). So, I guess we are improving. Two of our members used their reserves in anger in the last year (both PGs, both in competition) – something to think about.

If anyone has any questions about parachutes give me a ring at the APF Office on 02 6281 6830.

This year's \$\$ contributions go to our Spring Hill Road Fund where we have lost our traditional access and need to build our own road – not a cheap business.

So, all the best from Canberra, give one of the committee a call if you are coming down this way (phone numbers in Skysailor), we have some good flying here – see you on a hill.

**John Chapman, ACTHPA (also Technical Officer for the Australian Parachute Federation)**

### Hill Flyers, WA

November is traditionally Mt Bakewell flying weather, when SE winds become dominant. Year 2000 was no exception; a total of 10 flyable SE days already, with a further five consecutive days predicted for the end of November.

The end of October saw Mike Duffy, after launching from Noondeening Hill, set a paragliding cross-country record for WA of 113km – well done Mike. Meanwhile, a large group of hang glider pilots attempted to better the WA hang gliding record of 297km cross-country, set by Ray Chatfield from Bakewell back in '84. Called the 333 Week, they aerotow launched from a Cundedin paddock 150km east of Perth. Initially they were dogged by strong SE winds, as luck would have it (probably an ideal time to be launching from Bakewell?). Full update and record news in the next Skysailor.

Many of us enjoyed the smooth late afternoon air out at Bakewell through November, with Dave Eckersly, Dave Longman and myself each having two hour flights in smooth buoyant Avon Valley air, which allowed us to complete several out and returns over York farmlets and the beautiful Avon River. Most of the time we had the company of several paragliders.

Dr John, tow launching after 5pm from his Greenhills property east of York, nearly completed a cross-country to Bakewell to join us in the silk air.

With the hot summer upon us, many of us will be retreating to the coastal sites down at Albany and to the southerly sites around Perth: Bakewell, Gin Gin and Serpentine. "Hot" pilots will be attending to the big feisty thermals and WA State comps around the end of February – check the Skysailor calendar for details.

A HGAWA meeting is expected to be held this month, where we will be addressing the vision for flying in WA for the new millennium. Details will be available on the hot line, listbot and via the clubs. Further HGAWA meetings combined with the various Perth clubs will be held throughout the year.

Gordo recently asked for people that were interested in helping out the new novice pilots and establishing a "buddy list". Thanks Gordo, and to all that replied with names and telephone numbers: *Rick Williams, Swan View, ph: 9294 3962, 0427 057961; Stephen Hoefs, Roleystone, ph: 9397 7250, Jamie Oorschot, Bullsbrook, ph: 9297 5522 (w), 95711426 (h) Sam Blight, Fremantle, ph: 9336 3738 (w), 9434 9726 (h), Phil Wainwright, ph: 9242 4483 (w), Michael Derry ph: 9284 0750 (h).*

For all our new pilots looking for a place and time to fly, feel free to call these fellow pilots; they are more than happy to talk flying, point you in the right direction and assist in any way they can. Hopefully we will be extending this list in the near future.

Fly high, fly far, fly safe, or just fly and embrace "AIRMANSHIP" and fun.

**Rick**

### CQ Skyriders, QLD

Just to let everyone know the story behind the new club name. CQ (Central Queensland) Skyriders formed from an amalgamation of the Gladstone Hang Gliding Club and The Capricorn Skyriders Hang Gliding Club. The new club does not contain the words "Hang Gliding" so that the name reflects a more discipline neutral club. Both of the previous clubs were struggling to survive with their numbers and the new club is much stronger, combining the resources of the two previous ones. If anyone is interested in flying in the region our members are only too happy to show you our sites. In the Biloela area contact myself or Geoff Craig; Capricorn Coast, Bob Pizzezy or Grayden Long. Names and numbers, etc, in Skysailor 'HGFA Addresses'.

Also, our web site is under construction if you are interested: [www4.tpgi.com.au/users/prbarry/]. I'm not much of a gun building these things so it may be a while before it is completed.

**Fly safe, Paul**

# ATTENTION

## High Adventure

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**IF YOU HAVE DONE A HANG GLIDING OR PARAGLIDING COURSE** with us in the last 2 years and you have bought your glider from us in the same period...

Then come along to our free XC Thermal Training Clinic to be held in Bright on the dates of...

**9-12 January 2001**

So be apart of this 4-day advanced thermalling course. More XC thermal courses to be advised for February and March.

**Please call for a booking on**

**1800 063 648**

**or just email Lee Scott on**

**leescott@highadventure.com.au**

One course will be winch towing in the Flatlands in either February or March – Dates to be advised.

This will be a first-in-first-served basis and numbers are limited to 15 pilots.

**And if you would still like to take part in this Training Course it will cost you \$600.**

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## Product News

### Flying Planet in Australia

Flying Planet paragliders are amongst the best-selling brand in France and are now distributed in Australia by WindWorks Paragliding. Flying Planet produces top quality gliders: the fabric Porcher Marine is used for all models and the seams are internal on both surfaces. Leading and trailing edges are fully reinforced.

Their school glider Astair is very popular amongst schools in Europe. The intermediate glider Sirius is a real pleasure for a safe progress to cross-country flying. Advanced pilots should have a look at the Whisper, one of the best performance gliders on the market.

Flying Planet pilots Olivier Loiodice and Steve Ham flew great results in the Serial Class of the PWC. They used a model with microlines which is now available for Australia. If you are interested in flying competitions with a glider from Flying Planet, WindWorks has some interesting offers for motivated pilots. For more information call Patrick at WindWorks Paragliding: 02 9913 9086 or see [www.windworks.com.au].

### Icaro to Produce and Sell the Atos

After two years of excellent teamwork, having produced and sold over 400 Atos' altogether, Icaro 2000 and A.I.R. have come to an arrangement

regarding production and sales.

In these past years, Icaro already played an important role at A.I.R., producing the major part of the sails, the A-frames and the keels for the Atos and, in addition, has sold over 130 of them. Following the principle of synergy, and in order to optimise production and deliveries, we have decided to concentrate production and distribution at Icaro (Italy) and development and technical support at A.I.R. (Germany).

Starting mid-November Icaro 2000 will assemble the Atos at Sangiano and deliver them. Icaro will be in charge of all related customer services for all dealers.

Contrary to rumours, the carbon parts will be produced by the same manufacturer and raw materials will be from the same companies. Their work has always been excellent, and we prefer to go on working with suppliers we can trust, in order to guarantee the best quality.

Icaro

### Airborne News

As most of you know by now we lost Joel Rebbechi in early October. Joel was heading the Climax project and obviously things were delayed as we began to transfer the various responsibilities. The Climax 14 metre project was well progressed and has required only minor fine tuning prior to the manufacture of a pre-production glider for certification.

Both size gliders were flown at the Canungra Classic in October against a strong field including all top ranking Australian pilots. Rohan Holtkamp finished a credible 2nd place on the Climax 14 and Neva Bull 11th. Mitoki from Japan flew the Climax 13 and came 15th. Considering the prototype was first assembled four days prior to the competition it was a good result. You can view the results at [www.triptera.com.au/canungra/classic2000/index.html].

During the week long competition we found ourselves very competitive and really happy with the glider. After the competition we looked at various options and felt we could get more performance out of the gliders and have been working hard since to improve both performance and finish.

We now have the 13 and 14 metre Climax ready for certification testing. Testing is scheduled for the first week in December with Wills Wing kindly offering the use of their test rig.

To improve productivity and allow greater scope for design we have recently purchased a four-axis Computer Numerically Controlled (CNC) milling machine. The machine will allow us to make all of the complicated hardware in-house, including integrated airfoil control bar corner fittings. Once this has all been finalised we will release pricing. We expect to start production on the Climax in late January.

Team Airborne

## Pro-Design News

Congratulations to Ian Ladyman for finishing third outright on a DHV2 glider in the Canungra Cup. Ian has shown us once again that you don't always need a Serial Class or comp wing to do well in competitions. Ian flew consistently and brilliantly throughout the comp and was the only pilot flying a Pro-Design wing proving that shotgun tactics don't always work. Look out for Ian and his Target this season!

### Limited Edition, Effect: Gold (Porcher Marin #39)

We are now offering a limited edition of Effect gliders in gold in all sizes. Same cloth as our other colours. The colour is somewhat like the colour of sunflowers or beautiful autumn leaves. Order quickly, not many left!

### New DHV2-3 wing coming!

Testing of the new Pro-Design high performance glider is in full swing. We can already tell you that the new top wing is becoming a revolutionary symbiosis between performance and handling. Armin Eder just returned from a test trip to Mexico, where he found ideal conditions, especially for testing flying behaviour in strong winds and ripping thermals. Public presentation will take place at the Stubai Cup in January 2001. Planned introduction to the market with DHV2-3 certification is designated for February 2001. First photo can be found at [www.pro-design.at/cgi-bin/prodesign/service/galerie.cgi?foto=].

## FAI News

### FAI and Discovery Wings Channel Partnership

FAI is proud to announce the first ever long-term partnership with a television channel: Discovery Wings Channel, premier destination for airports enthusiasts in the USA and North America.

Eilif Ness, (now former) FAI President, and Tim Knatchbull, Director of development and programme partnerships for Discovery Digital Network, signed the agreement in Sweden, at the FAI Annual General Conference, attended by delegates from the 93 member countries.

*"We are extremely proud to continue our work with FAI and our new agreement significantly augments Discovery Digital Network's continuing efforts to present timely, in-depth, and personal programming for our viewers",* said Charly Humbard, Senior Vice-President and General Manager for DDN.

*"FAI is pleased to have reached agreement with a prestigious network ... and more specifically with a channel that intends to explain airports to the public as well as show spectacular images. This agreement is undoubtedly a very important step in FAI's effort to give airports the wide television exposure they deserve",* said Eilif Ness, FAI President.

FAI's TV production began in 1999, with a series of six programmes featuring world or

Can you handle it?

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## DHV2/3

Serial Class Competition Wing  
Medium 80-105kg in flight weight\*

### 50 Hours

Meticulously Logged  
Still Crispy

Blue upper surface with Red stripe White lower surface

# \$2500

Selling because I had a fright!

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Tel: 0418 664267





**Outclimbed by a wedge-tail**  
**Photo: Courtesy Alister Johnson**

continental championships in various airports disciplines. The programmes were distributed worldwide and gained a total audience of more than five million adult viewers. This was only a start as the series continues in 2000, with Discovery Wings Channel's partnership and other programmes. The 2001 plans are already very advanced as FAI is preparing daily programmes during the FAI World Air Games in Andalucia, Spain, including coverage of more than 20 championships.

The Discovery Wings Channel partnership will include three one-hour programmes on the FAI 2000 World Speed Gliding Championships in Greece, the FAI 2000 World Aerobatics Championships in Muret, France, and the FAI 2000 World Cup of Skydiving in Eloy, USA. These events will be part of a new monthly series: "Sports on Wings", scheduled to launch in the second quarter of 2001. Discovery Wings Channel will also have the exclusive North American broadcast rights for the FAI 2001 World Air Games.

The monthly, one-hour series, will air in the USA on Discovery Wings Channel, and on Discovery's international network in the UK, Latin America and Asia. "This is a partnership made in heaven – or at least in the skies", said Tim Knatchbull. For more information contact Mrs Patricia Lamy-Airault (FAI Media Officer), email <patricialamy@fai.org>.

### FAI World Record Ratifications

FAI has ratified the following Class O (Hang Gliders) records:

**Sub-class O-2 (HG with a rigid primary structure/movable control surface(s)) – General**  
**Claim number 6669:**

*Type of record:* Distance over a triangular course  
*Course/location:* Saint André-des-Alpes (FRA)  
*Performance:* 249.2km

*Pilot:* Marcus Hoffmann-Guben (GER)

*Hang glider:* Atos Class II

*Date:* 11/8/2000

*Previous record:* 226.2km (9/6/00, T. Raumauf, AUT)

**Claim number 6670:**

*Type of record:* Speed over a 200km triangle

*Course/location:* Saint André-des-Alpes (FRA)

*Performance:* 37.75km/h

*Pilot:* Marcus Hoffmann-Guben (GER)

*Hang glider:* Atos Class II

*Date:* 11/8/2000

*Previous record:* New

**Claim number 6673:**

*Type of record:* Distance over a triangular course

*Course/location:* Saint André-des-Alpes (FRA)

*Performance:* 258.9km

*Pilot:* Marcus Hoffmann-Guben (GER)

*Hang glider:* Atos Class II

*Date:* 15/8/2000

*Previous record:* 249.2km (11/8/00, Marcus Hoffmann-Guben GER)

**Claim number 6674:**

*Type of record:* Speed over a 200km triangle

*Course/location:* Saint André-des-Alpes (FRA)

*Performance:* 39.83km/h

*Pilot:* Marcus Hoffmann-Guben (GER)

*Hang glider:* Atos Class II

*Date:* 15/8/2000

*Previous record:* 37.75km/h (11/8/00, Marcus Hoffmann-Guben, GER)

### FAI World Record Cancellations

FAI has now cancelled the following

Class O (Hang Gliders) record claim:

**Sub-class O-2 (HG with a rigid primary structure/movable control surface(s)) – General**

**Claim number 6638:**

*Type of record:* Straight distance

*Course/location:* Hobbs, NM (USA)

*Performance:* 415km

*Pilot:* David H. Sharp (USA)

*Hang glider:* Atos Class II

*Date:* 10/7/2000

*Current record:* 404.7km (03/7/98, R. Yanetz, ISR)

*Reason of cancellation:* Pilot withdrew claim.

### New Safety Notifications Web Site

CIVL has created a Safety Notifications web site at [[www.fai.org/hang\\_gliding/safety/safety\\_notices.asp](http://www.fai.org/hang_gliding/safety/safety_notices.asp)].

CIVL will create direct links to official national and manufacturer's postings of HG and PG safety notifications once contacted.

The German, British and Canadian Associations presently have websites dedicated to safety notifications. Links from the CIVL web site should be established shortly.

Fred Wilson 

## Feel the Effect



The result of many years of development in aerodynamics and profile design: The EFFECT is the realization of the best possible performance potential in the basic-intermediate class.\*

It meets all safety criteria and stands out with fantastic handling, convincing flight performance and a remarkable speed range

(max. speed 51 km/h with speed system).

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Peter Bowyer

**Australian Paragliding Centre**

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email [austparacentre@ozemail.com.au](mailto:austparacentre@ozemail.com.au)

or surf our homepage: [www.pro-design.at](http://www.pro-design.at)



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Ongoing research and development.  
**Paragliders since 1986!**

\*EFFECT 32/34/36/38 DHV1/1-2 accelerated



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# Effects of horizontal gusts on Total Energy variometers

RE-PRINTED COURTESY OF MIKE BORGELT from his website <[www.ozemail.com.au/~mborgelt](http://www.ozemail.com.au/~mborgelt)>

**Ever overcooked a final glide after a low scrape and flown home at 120+knots only to see the vario indicate 10kt thermals everywhere?**

**E**ver flown on a day when your vario tells you that there are five-knot thermals and when you turn into them you find seven-knot sink? You probably put it down to turning the wrong way.

Considerable effort and thought has been expended on gadgets to tell you which way to turn, from thermistors and/or humidity sensors on the wingtips to wing bending sensors. All of these devices have problems which have prevented them from working at all or being widely adopted.

In fact, the fundamental flaw in the concept of thermal detectors is that there may be no thermal (vertical air motion) at all when the vario indicates climb. Here's what is going on.

Most variometers in modern sailplanes are Total Energy compensated in order to remove the effects of the pilot pulling and pushing on the stick. This would otherwise cause vario indications due to the glider rising and sinking as it is slowing and speeding up. These will mask the effects of changes in the air in the thermal you are trying to use.

The Total Energy compensation device is usually a pressure source which acts like a venturi even though it nowadays doesn't look like one.

It can be shown that the TE device must produce a pressure below the static pressure by the same amount that a pitot will be above static pressure at the same airspeed.

In flight the pressure at the TE probe is the sum of the static pressure and the suction produced due to airspeed. At constant airspeed the TE probe acts like a static source and the variometer indicates the rate of change of static pressure converted to equivalent rate of climb or sink.

Note that the pressure seen by the vario changes with airspeed.

When we fly in a convective atmosphere there are all scales of turbulence from the very small (heat waves, basically) to thousands of kilometres in extent (synoptic meteorology) with all the scales in between.

Given that we know air goes up and down in the convective layer at 5-10kt typically and that there is mixing at the edges of thermals and general turbulence in a convective atmosphere it is not surprising that as you fly through a given piece of air the air may not be everywhere moving horizontally at constant velocity.

The glider has very low drag in the direction of flight so takes a long time to actually slow or

speed up due to these horizontal gusts and may fly from one parcel moving in one direction to another moving in another direction before it has done so.

This causes airspeed fluctuations which are relatively small most of the time (a few knots at most) and are unimportant to the pilot as far as airspeed control is concerned. A moment's thought will reveal that airspeed changes will cause suction changes at the TE probe and hence a reading on the variometer. What is surprising is the magnitude of the effect.

If the air encountered by the glider has a region where over a distance of a couple of hundred metres the horizontal gradient of the wind is +1m/s per 100m a glider flying at 50kt (approximately 25m/s) will cover the 100m in four seconds and see its airspeed increase by 1m/s or about two knots.

The 1m/s in four second change in airspeed is the same as that seen when you push the stick forward and change the flightpath gradient by 1 in 40 or about 1.5 degrees (point the glider straight down and the airspeed will increase at nearly 10m/s or 20kt/sec – the rest is simple trigonometry). This is a small change but results in an additional sink rate of 0.625m/s or 1.25kt approximately.

In the horizontal gust case where the glider isn't actually sinking but continuing on its original flight path, the vario will show at 50kt TAS a climb of 1.25kt when encountering the gust in the example.

So far so good. Hopefully we are looking for lift better than 1.25kt when the glider encounters such gusts. On very poor days when 1.25kt is acceptable the air is usually less gusty. In your 1-26 or K8 you don't have much of a problem as you wouldn't fly much faster than this.

Now look at the case of the same air being flown through at 100kt or 50m/s. The airspeed change is now two knots in two seconds or 0.5m/s and to get this acceleration in a push-over we would need to change the flight path gradient by 1 in 20. This causes an additional sink of 2.5m/s or five knots which isn't there in the gust case and so the vario reads five knots climb. Now we have a problem – the reading is comparable to the lift we might like to turn in and if we only look at the vario we might want to turn. What we will find is that after 180 degrees of turn we are going through the gust the other way and it causes the vario to

read sink. Note that there has been no vertical air motion here and you have wasted 30 seconds or so doing the turn and are lower than you started in the same place horizontally – maybe 100ft or so lower in energy terms, which if the average rate of climb in the next thermal is three knots, costs you another 20 seconds.

The effect of the gust depends on the horizontal gradient in the air and for any given gradient causes a vario reading proportional to the square of the true airspeed.

Now in a modern glider 85kt indicated or so isn't a very high cruising speed and at around 10,000ft this is close to 100kt TAS. You can calculate what happens at higher TAS.

Not only are the vario signals due to horizontal gusts comparable in size to the ones we are looking for due to vertical air motion but the durations are too. Slowing the vario causes you to lose information about vertical air motion also.

With current technology the only way to tell is to feel the vertical acceleration due to vertical air motion and mentally correlate this with the vario reading. If you get a vario reading with no vertical acceleration it's a horizontal gust. It's much easier to learn this with a properly compensated TE vario with reasonably fast response so that the vario doesn't have instrument or installation induced errors and the vario and "seat of your pants" are in phase.

I believe this is why some people find initial cross-country flights difficult. You learn to fly floating around the airfield at 50kt. Catching thermals on the run from 70 or 80kt IAS is more difficult even if the vario system is working properly. The ability to distinguish between real thermals and vario readings caused by horizontal gust encounters is essential for modern soaring pilots. It is a problem that has crept up on us as gliders of better performance have begun to be able to cruise at higher speeds and variometers of fast response connected to accurate TE probes have come into use.

It is also a reason for using the "constant attitude" method of inter-thermal cruise through "thermals" you aren't going to circle in. If you are enthusiastically dolphining the changing G loads will mask the G loads due to real vertical air motion. There are other effects in TE vario systems due to changing G loads that cause them to work much better when you make smooth and gradual attitude changes. You might also not make yourself sick and you have more time to look around and actually see that steeply banked circling glider going up through your horizon.



# Amended version of Sporting Code Section 3 on FAI web site

ROSS MACINTYRE

A fully amended version of the Sporting Code Section 3, incorporating amendments which took effect on 1 October 2000 is now available on the FAI website [www.fai.org/sporting\_code/sc3.html].

The versions are in \*pdf file format which require the Adobe Acrobat Reader programme to extract. The \*pdf version has the font they were designed for, and pagination is permanently fixed by the Acrobat programme, so it should have all indexing and contents listed correctly. It is designed for printing on both sides of the paper.

Also, at the same address, are an updated version of Annex A (with new links – the content is the same), and Annex B.

Now available, for the first time, is Annex C to Section 3 of the sporting code. This is the 'Official Observer and Pilot Guide' which gives support and examples by which the letter and the spirit of the sporting code may be met. The material in this annex does not have the force of the rules in the sporting code, but is intended to assist in its understanding. The examples given show ways of achieving the controls and checks required in the sporting code but these may not be the only methods that give acceptable results. It has been written to take into account the amendments noted in AL1.

## GFA Soaring Calendar

### Victorian Soaring Association Incorporated Amended Meeting Notice

18 January 2001 VSA Youth 2001  
22 March 2001 Executive meeting  
19 April 2001 Executive meeting  
To be held at 329 Dorcas Street, South Melbourne. These meetings will commence at 19:30 and conclude at 2200 hours.

### South Australian State Gliding Competition 2-6 January 2001

Hosted by the Balaklava Gliding Club.  
Details to be advised.

### Vintage Gliders Australia presents the 2001 Vintage Glider Rally 6-13 January 2001

Bacchus Marsh Airfield, VIC. Hangarage for 35-plus gliders, modern clubhouse facilities with clean amenities and bunkhouse, meals catered for at reasonable prices, aerotow and winch-launching available. Close to Melbourne, Geelong and Ballarat.  
Lots of family sightseeing and activities to do. Please contact the Chief Organiser, Ian Patching, 11 Sunnyside Crescent, Wattle Glen, VIC 3096, ph: 03

9438 3510, email <irtkpatc@melbpc.org.au> for details on accommodation, hangarage and other info.

### World Gliding Championships – Club Class

8-26 January 2001

Held at Gawler, South Australia.

### Australian National Gliding Championships and Australian Grand Prix Championships 10-23 February 2001

Gulgong, NSW. Full details available on the GFA web site [www.gfa.org.au]. Enquiries to Christine Meertens, ph: 02 9452 2777, fax: 02 9453 0777, email <hkmxor@msn.com.au>.

### Horsham Week Annual Gliding Competition

3-10 February 2001 (inclusive)

Enjoy a great week of competition, ideal for early cross-country pilots through to champions. Verification will require GPS and dataloggers only. Sorry, no cameras. Prospective competitors and volunteers willing to assist with running the competition please call Max Hedt 03 5381 0844 or email <sschneider@onaustralia.com.au>

## NEW LX20-2000 FAI Datalogger with final glide



The latest LX20 datalogger provides a moving map display in addition to enhanced navigational data and final glide calculator. The LX20 has 85 glider polars stored internally for use or you can customise your own. The large screen provides the pilot with comprehensive information in large easy to read fonts. McCready setting, ballast and final glide altitude deficit are shown. Windspeed is displayed and wind direction indicated graphically with an arrow pointer. On task the LX20 gives audible and visual confirmation of turnpoint rounding and automatically cycles to the next turnpoint on task. The LX20 also shows comprehensive postflight statistics in graphical format. The large 60X40mm graphical display shows your track flown, the barograph trace and flight statistics. On screen zoom feature. Does the job of a handheld GPS, Logger, and final glide computer. Internal battery (nicad) for independent operation. Actual size of LX20-130X88X38mm, current drain 100mA, supplied complete with mounting hardware, antenna, carry case, cables, AC adapter.

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## WSHGC 5th Annual BarMitsVuh

KRISTA GAUNT

### The Night

It was a clear, crisp winter's night in August, the night they'd been waiting for for so long, the 5th annual BarMitsVuh. They emerged from hibernation, donned tuxedos and evening frocks. These men and women of the Western Soarers Hang Gliding Club and Cloudbase Paragliding Club gathered together to celebrate the year's flying, and begin to dream again of returning to the skies. The tradition of the BarMitsVuh began five years earlier, as a celebration of the right of passage for novice pilots who had earned their stripes. It was also a good excuse to give out some other awards, tell some flying stories and have a few drinks with old mates. Gordon Marshall and Daryl Speight hosted the evening on 11 August, taking us on a journey of the previous year's highlights and lowlights. It was an unforgettable evening of laughter, tears and controversy...



An indignant Karl protests at having to relinquish the Longest Flight Trophy so soon

### Thrills, Spills and Controversy

Among the highlights were the combined paragliding and hang gliding comps, including the State Soaring comps and the Cross-Country League. Another highlight was the marriage of our good friends Sam and Nav Blight (previous Club President and Treasurer), on a 7,000ft day! We reflected on the lowlights too; Sam "Chopper" Blight's brush with a Blackhawk, and Mike Annear's swan dive into Mt Bakewell, thankful to have them with us in spite of their near misses.

Club president Mark "Bomber" Thompson awarded the Cross-Country League trophies to their worthy recipients. Among the upsets were paraglider pilots Mike Dufty, Dennis Smith and David Humphries taking out not only the top three paragliding spots, but also first, second and third in the league overall, and their team winning the State Soaring Competitions. A big blow to the ego of the competition and league organisers, and Western Australian hang glider pilots as a whole.

The Dali Larma award is an annual trophy presented to the WSHGC pilot who has made the greatest contribution to the club in the previous year. The award was presented by the previous recipient Sam "Chopper" Blight, to Mark "Bomber" Thompson. Bomber was instrumental in the organisation of the State Soaring Competition, the Cross-Country League, the winter lecture series, and the previous year's BarMitsVuh. Thanks Bomber.

The Bar Mits were awarded to four up-and-coming novice pilots this year; the author (Krista Gaunt), Geoff Smith, Gary Spranaitis and Graeme Sharpe.

The award of the Longest Flight of the Year Trophy caused a huge



Heavies Gordon Marshall and Daryl Speight host the event  
Photos: Krista Gaunt

stir. The trophy had gone mysteriously missing for the past two years. Therefore, on this night of nights, it was decided that the trophy would be presented to the previous two winners, along with the current recipient. Mole (Greg Maloney) was teary-eyed when he received the award for his 1997 flight from Cunderdin to Southern Cross (240km), but bitterly disappointed when he was asked to return the trophy for re-award. Host Gordon Marshall was forced to wrestle for the prize, but came out on top. Next Karl "Ruckus" Ruckriegel was awarded the trophy for his 1998 200km flight from Wyalkatchem to Corrigin. Again, the disappointment at returning the trophy was overwhelming. Finally, the trophy for 1999's Longest Flight was awarded to Mark "Bomber" Thompson for 190km from Cunderdin to Bonnie Rock.

With the formalities over with, the festivities went on into the wee hours of the morning. Only then did a cry go up from the crowd... The Longest Flight Trophy – IT WAS GONE!

### How will it end?

At the end of the night, only questions remained...

Who stole the Longest Flight Trophy?

Will Bomber with his new Litespeed be able to pip the unsinkable Mike Dufty at the post for top honours next year?

Will the next hangy couple to marry (Anna Munt and Stewie McVey) pick another top flying weekend to have us all in Margaret River? And if so, will it be on at Conto's?

All will be revealed at next year's WSHGC BarMitsVuh.



An ecstatic Mole finally receives recognition for his 1997 240km flight



# Pilot Profile

## Mark Mitsos

Mark is married to Sarah with two children, Romy (8 yo) adopted from Sri Lanka in 1994 and Sukanya (6 yo) adopted from Thailand in 1999. Mark lives at Stanwell Tops, only three minutes from take off (when it's on). He is an HGFA approved Paragliding CFI & the Owner/Proprietor of Sydney Paragliding.

Mark Mitsos, or Mitsi as he is more commonly known, is one of the old school of pilots who is still involved in the sport after 22 years of flying. Mark was one of the first hang glider pilots in Australia to take up paragliding, and owned the first paragliding school to open in Sydney. His school, Sydney Paragliding, was established in 1990 and is the longest running school in NSW. In 1992 he developed the HGFA approved reserve launch technique and has used it successfully in his school ever since.

**Name:** Mark Mitsos  
**Age:** 52  
**Flying hours:** I've lost count of the hours, but thousands.  
**Usual glider(s):** Swing Arcus, Airex Shape, Airex Cargo, anything that's new to test fly.  
**Club:** Stanwell Park Hang Gliding and Paragliding Club  
**Occupation:** Paragliding instructor

**Reason learnt to fly:** Back in 1978 I used to scuba dive to 'get off the planet'. I got tired of scuba diving (refills, limited time under water, fear of decompression) and I happened to see hang gliding at Cape Byron. 'This looks like the next move for me,' I thought. With the help of Neil Mersham, Colin and Brian Rushton (the twins) as well as Alan and Bruce Daniels, I got into hang gliding in a big way. It was great in the early days.

**How has your flying career developed since then?** A couple of years after I started hang gliding I began modifying my own glider for more performance and this gave me the urge to design my own wings. I started my own company, called Skyland Sail Gliders, in Byron Bay and designed and built gliders there till 1984. After a relationship break-up I moved back to Sydney and took time out to do a Yoga Teacher's Course. After a while the hang gliding itch needed to be scratched, so in 1985 I started Enterprise Wings with a couple of friends. I designed Australia's first keel pocketless glider, the Foil A Series, as well as a few other gliders, the Giro 2 the Aero 170 and the successful B Series Foil.

In 1987 I went to England where I worked for Airwave Gliders and designed the Magic Kiss for them. This glider went on to win the '89 Worlds and be one of the world's most successful designs. In England I met my wife Sarah and got married on the Isle of Wight with John Pendry as best man and half the Airwave factory as the wedding guests.

We came back to Oz in 1988 and lived at Bulli. I set up Future Wings P/L, manufactured hang gliding harnesses and imported Airwave gliders. I flew hang gliders when I could. During my various trips overseas I'd seen paragliders, but dismissed them because of their bad performance, but they evolved into something better. One day, whilst flying in Fiesh during the '89 hang gliding World Championships, I was out-thermalled by a paraglider. I thought, this could be the next move for me. So I took some lessons on the Isle of Wight, bought a couple of paragliders and headed back to Oz where I did lots of ground handling and clocked up lots of airtime. In September 1990 I got my Paragliding Instructor rating, set up Future Wings paragliding school at Stanwell then changed the name to Sydney Paragliding in 1992 for better market identification.

**Favourite flying sites:** In Australia, Stanwell and the Illawarra Escarpment of course, as well as Tallows, Lennox and Montecollum in Byron Bay. Overseas? Fiesh was good, some sites in Austria as well as some sites in France, but I can't remember the names. Depending on the conditions all sites have great days and bad days.

**Favourite flying moments:** Taking my boy Romy for tandems. His first flight was when he was 3<sup>1</sup>/<sub>2</sub> years old (he's done 22 already). Sukanya is keen for a fly as well. Flying in light, scratchy conditions and getting up. Flying with ex-students.

**Favourite non-flying moments (there must be some):** Cruising on the net, listening to music and cooking.

**Interests outside flying:** Yoga, exercise, reading, computers, movies, cooking, learning to be a dad (it's definitely harder than flying). At present I'm extremely interested in the Sun and Solar Cycle 23 (sun spot cycles and the effects on the weather).

**Life goals, philosophy:** Live for the moment. Enjoy life, have fun.

**When asked by my spouse/partner whether flying or 'the relationship' is more important I usually reply:** Don't ever ask me to choose!

**What would you most like to be remembered for?** Giving Australia the safest reverse launch technique and setting an example by adopting my kids from poorer countries. All children need a chance.

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# HGFA General Manager's Report

**T**he HGFA Board has decided to continue the current arrangement with the GFA and keep the joint magazine for the coming two years.

The 5 "for" and 4 "against" vote was indicative of the Board members' opposing views on this, though I personally believe that it was a good decision. The recent survey indicated that members see the magazine to be deficient in article content and timeliness. I believe that we should address these areas, perhaps by more aggressively soliciting articles and seeking to shorten the lead-time (though this will be difficult).

There are major benefits in maintaining our current close relationship with the GFA. Aside from the magazine, we also share representation at meetings re airspace, regs, etc. Perhaps in the future there could be mutual benefit in sharing administrative services also, as both organisations spend considerable money maintaining and manning our respective offices. This may take some time to be a feasible option as our current administrative systems are quite different; perhaps in time we could parallel these systems and share an administrative office.

## HGFA Membership

Year-to-date figures show that our membership income is down on last year. Without a change to this trend we will be forced to increase membership fees to balance the budget. Several clubs have recently asked to have their membership lists checked against our database and found that some club members have not bothered to renew their annual membership and continued to fly regardless.

This is concerning, not just because of the legal requirement for membership, but as illegal pilots carry no insurance, they endanger our most precious resource, sites.

I encourage Safety Officers to check for membership. Clubs can gain current membership lists for their area on request from the Tumut office.

I have heard it said that some pilots fly infrequently and it is not worth them being a member; though it is these pilots who are most likely to have an accident! Why should only some of us pay for our right to fly?

## First Aid Courses

The NSWHGFA have recently been discussing the obvious benefits of members taking part in First Aid courses. I encourage all clubs to consider facilitating a course for members. The Australian Red Cross is willing to provide personnel to run a course for any group. It is an 18-hour course and usually costs \$120 per person, which includes a manual and bandages. Clubs can either contact their state

Red Cross branch or ring Debbie Heckeneerg on (07) 3835 1510 to co-ordinate arrangements.

## State Organisations

Several members have recently asked why we have state organisations. Put simply, their role is similar to that of clubs, though on a statewide basis. As they have no members, several of the state organisations are now sub-branches of the HGFA, which legalises their position and ensures their committees are covered under the HGFA insurance. The HGFA Management Procedures Manual states that the purposes and objectives of the HGFA state branches (and state organisations) are:

- to represent generally the views of persons connected with HGFA sports within the state;
- to coordinate and promote the development, progress and advancement of HGFA sports at state level in conjunction with HGFA programs;
- to acquire and disseminate information on HGFA sports in coordination with the HGFA;
- to promote competitions, events and records for HGFA sports throughout the state;
- to consider, originate, promote and procure reforms and improvements in state laws affecting HGFA sports;
- to facilitate training, coaching and instructional programs in HGFA sports in accord with HGFA programs and standards; and
- to promote, coordinate and assist with the implementation of HGFA standards and procedures relating to safety, airworthiness, flying proficiency and all other matters relating to the safety and protection of sport participants and the public throughout the state.

State levies are paid by all members (other than Trainee Members) and are available to fulfil any of the above objectives. State association contacts can be found on the Skysailor "HGFA Addresses" page (in last or next month's issue).

## Accident Reports

### No. 1

*Pilot:* Advanced hang glider pilot  
*Experience:* 24 years flying  
*Hours previous 90 days:* Not known  
*Aircraft:* Intermediate hang glider  
*Aircraft damage:* Broken keel, leading edge, crossbar and downtube  
*Weather:* 25+ kt wind  
*Location:* Coastal cliff launch  
*Pilot injury:* Nil  
*Description (by pilot):*

As it was a cliff launch I asked a bystander (who had flown hang gliders in the past) to hold the nose. As we approached the cliff edge the right wing rose up (I could see from the wind lines on

the water that the wind was coming from the right). I exerted great force on the control frame to level the wings. I stood about two metres from the cliff edge and with the glider steady I asked the helper to move away as he was dangerously close to the cliff edge. I guess I was not exactly square to the cliff edge as I was holding the right wing back because it had shot up moments before. As I ran forward the left wing hit the lift first and rose like a rocket into the air. I could not control the turn which resulted, and I crashed downwind into a car parked 10 metres behind launch.

### Comments:

It is so often a very fine line between a nil injury accident and a fatality; the circumstances of this accident are very similar to Joel Rebbechi's fatal accident, yet the pilot walked away unscathed. The pilot had to pay for repairs to the damaged car as it was less than our \$1,000 insurance excess. A small price compared to what may have been.

Launching from a cliff in wind is extremely dangerous, and if the wind is crossed, virtually impossible. Running at the cliff edge is just not on. A safe launch can only be achieved with two experienced wiremen in safety harnesses to enable the wing to be held out over the cliff and angled down into the vertical airflow – better still – just forget it and wait for a better day!

### No. 2

*Pilot:* Restricted paraglider pilot certificate holder  
*Experience:* Low hours  
*Site:* An undulating grass bomb-out paddock, 10km from the coast  
*Glider:* New DHV 2  
*Injuries & damage:* None  
*Description:*

The pilot was practicing forward inflations in nil or light wind and ground handling only. The pilot did a forward inflation and was slowly lifted off the ground. The pilot slowly climbed to 50m experiencing about 15 collapses on the way.

He was thrown about severely and was seen to be too deep on the brakes at times (over correcting).

Pilot landed safely but was white as a ghost.

### Comments:

There had been substantial rain a couple of days previously. There was only light wind and no noticeable rotation (ie not a grass devil). The pilot probably caused a thermal to break away by his forward inflation. It is certainly worth putting on a helmet when ground handling!

### No. 3

*Pilot:* Intermediate hang glider pilot  
*Experience:* 65 hours  
*Hours previous 90 days:* 48



*Hours on aircraft:* 15  
*Aircraft:* High performance hang glider  
*Aircraft damage:* Two broken downtubes and a broken leading edge  
*Weather:* 18kt wind and strong turbulence  
*Location:* Coastal soaring site  
*Pilot injury:* Concussion  
*Description:* Pilot flew out in front of the lift band and was very low and downwind of buildings on returning to the ridge. He encountered strong turbulence, clipped a tree and fell to the ground.

*Comments:* It was a hot and humid day and when taken to hospital the pilot was advised that his blood sugar level was low and he was dehydrated. This may have affected his concentration and judgement and led to the poor decision to return so low to the ridge. The wisdom of flying a high performance glider with only 50 hours experience is very questionable.

**Fly safely,  
 Craig Worth, HGFA General Manager**

## Flight Test: Flying Planet 'Syrius'

**This flight test was translated from the magazine 'Vol Libre' and was written by the independent pilot-journalist NOEL BERTRAND.**

The original bag is made in Korea for 'Mountain DAX', the Japanese importer of NOVA, Flying Planet and Gin gliders. This explains why the same bag is used for different gliders. It has multiple volume adjustments; very big to very small. It has a central opening, side and top handles. The bag can be adjusted to accommodate a helmet. Ergonomic shoulder straps, a padded chest strap and its basket shape make it pleasant to carry. The top closing cord can get in ones way when packing the bag, but this will be rectified. Along with the manual, the glider comes with spare material for repair and heat activated spare joints to connect the risers to the carabiners.

The Syrius has large cells separated with double diagonal compartments in Nylon Porcher Marine 44g/m<sup>2</sup>. Strong Dacron 120g/m<sup>2</sup> strengthens the leading edge and all stitching is internal. The cell openings are hemmed and the centre part is easily located by the logo. The lines are made out of Superam polyester with diameters of 2.15mm, 1.7mm and 1.1mm and are divided in 3-4-3-3. The stitching is protected with thermo-retractable sheaths. The lines are connected to four risers of 45cm by their triangular screw-in carabiners (1,000kg). The speed system is easy to use and has a range of 17cm with two pulleys between A and B. It pulls the A's, then A, B, C's together. This allows 38km/h at the first push on the speed bar and 43km/h when used at its limit.

On take off, the wing rises quickly and regularly over the head of the pilot with a bit of brake required towards the end. The Syrius is very easy to feel through the risers and the brakes. The feedback to the brakes is precise

and direct without inertia and proportional to the brake's range. It reacts very well to exterior hand control, especially when re-centring by releasing the pressure on the external brake. The wing will complete its turn on its own without input from the harness, which gives the wing a good natural coordination between roll and yaw. The glider has a good bite on roll without diving or inducing a spiral. The Syrius performs extremely well – it is alive without being too lively.

The tip of the Syrius may close a little near turbulence or in strong shear, just to reopen immediately. Therefore, the glider can be used comfortably in strong conditions without stressing, and a relaxed pilot can concentrate on his flight rather than on controlling the wing. The acceleration is fast when the breaks are released or immediately after pushing the speed bar. Flying through turbulence with 50% speed bar is possible without worrying too much about a collapse.

During a voluntary asymmetric collapse of 1/3 of the wing, no tendency for a big surge or a major change of direction was observed. The Syrius shows a willingness to reopen in any circumstances. Brake pressure needs to be maintained during spiral dive. The wing is stable; brakes off and it will come out of the 360 by itself in half a turn.

The Syrius of Flying Planet is well appreciated in the way it helps pilots to progress and enjoy flying. The performances are good and accessible. It is intended to satisfy a large range of pilots, from the beginner to the cross-country pilot.



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## Australia

### Laurieton Fly-in 2-6 January 2001

Run by the Mid North Coast Club for nov to adv pilots. The fly-in will be open to both PG & HG pilots who want to get some airtime flying a range of sites incl. 2,000ft inland to 120ft coastal. Entry fee: \$40. All pilots just need airworthy gliders & radios. Prizes will be donated for all licence categories. Come & join the fun! Contact us for more details on 1800 063648.

### Australian Nationals 3-12 January 2001

Hay, NSW. Practice day & registration: 3 January at the New Crown Hotel/Motel, Hay, commencing at 7pm. Welcome briefing to take place at 9pm. Sanction AAA. GPS scoring will be used, therefore GPS mandatory (Garmin or Aircotec). Entry fee: \$180. Minimum 4 pilots per strip. Minimum pilot requirements: Restrict., tow endorsed, HGFA member. Other min. requirements: airworthy hang glider/paraglider, parachute, instruments, tow gauge, rope, releases, driver. Entries close 24 December 2000 (information booklet will be sent upon receipt of entry fee) and should be sent to: Dynamic Flight Pty Ltd, RMB 236B, Trarwalla VIC 3373. Email us for further info <dynamic@netconnect.com.au>.

### Corryong Cup 13-20 January 2001

Registration & practice day Saturday 13th. Registration & start day: Sunday 14th. Last competition day Saturday 20th. Contact Steve Bell, ph: 02 4294 1268, email: <spbell@1earth.net>.

### Forbes Flatlands 2001 14-21 January 2001

Practice Day: 13 January; Presentation Night: 21 January. Rating: AAA and FAI Sanctioned WPRS (World Pilot Ranking Scheme). This will be a Flatties with a difference – an all aerotow meet. That is, we will supply the tows, you just have to show up with a glider, tow release and retrieve. Tow Organiser: Bill Moyes (we will be very organised in the paddock!). Meet Organiser: Vicki Cain (contact Moyes Gliders, ph: 02 9316 4644). Essentials: aerotow endorsement, HGFA membership, GPS (Garmin or Aircotec). Entry fee: \$500, incl. unlimited tows, unlimited flying possibilities, presentation dinner. Last Forbes comp in '99 had three World Record days! \$100 deposit is required by 30 November to secure a spot, and the balance at registration. Send cheque payable to 'Forbes Flatlands 2001' or register online at [www.moyes@moyes.com.au]. Postal address: Moyes Delta Gliders, 1144 Botany Road, Botany NSW 2019.

### Bright PG Open 20-27 January 2001

Bright, VIC. Sanction AA and CIVL Cat. 2. Entry fee: \$140 if payment received before 29 December 2000 (\$170 thereafter). Last year we had over \$5,000 worth of prizes incl. cash prizes & we hope to better that this year. Requirements: HGFA m/ship & a min. of 50 hours inland flying experience, reserve 'chute & HGFA Comp Committee approved GPS for flight verification. Recommended: UHF radio. For further info see [www.cnl.com.au/users/djm/2001pgbright.html] or contact David on <djm@cs.mu.oz.au> or ph: 0411 513404.

### Bogong Cup 2001 23 January - 2 February 2001

Registration: 23 January. Last comp day: 2 February. Entry fee: \$150. Rating: AA plus FAI Cat 2. For more info contact Phil Lahiff 03 57544247, email <mountaincreek@netc.net.au> or visit [www.geocities.com/mountaincreek2000/index.html].

### Tasmanian State Competition 26-28 January 2001

Australia Day weekend, January 2001 at Valleyfield. The Inaugural State Competition for PG & HG. To be held at Valleyfield. Guaranteed to be a fun comp. More info contact Stephen Bayley 0408 154156.

## Australia

### Australian Paragliding Open 2001 3-10 February 2001

Manilla, NSW. Registration: 2 February, Manilla Town Hall HQ. Sanction AA. Min. pilot level: int with inland experience. The comp will be a CIVL Cat 2 & is the last one that has validity for WPRS rankings to assist with team sizes for the PG Worlds in Granada! Prizes worth over \$5,000! Entry fee: \$140 before 1 Jan (\$160 thereafter). Discount of \$40 for those who attended the Big Wet Manilla 2000 PG. For more details email <skygodfrey@aol.com>, ph: 02 67856545, fax: 02 6785 6546, or full online info and rego at [www.mss.org.au].

### 2001 NSW HG State Titles 17-24 February 2001

A or AA Grade. Registration: 16th & morning of 17 February, Imperial Hotel. Entry fee: \$120, incl. films, T-shirt & presentation dinner. Requirements: adv rating or int with inland experience, UHF radio & parachute, GPS preferred, databack camera optional. Current HGFA rules & RACE scoring apply. Cheques payable to: NSW HG State Titles, 50 Park St. Charlestown NSW 2290. For more info contact Bill Olive ph: 02 49213804 (w) or 02 49423131 (h); <bolive@DOH.health.nsw.gov.au>.

### WA State Soaring Competition 2001 24 February - 5 March 2000

Open to all HG & PG pilots. Venue: Wylkatchem (200km NE of Perth). Ground & aerotowing based comp. Pilots to compete in the Open, Advanced, Intermediate & Novice Classes plus the coveted Teams Trophy. Main emphasis for the comp is fun & safety. Mandatory requirements: GPS/databack camera, parachute, tow endorsement & UHF radio. For further details contact Mark Thompson ph: 08 9491 3076, 08 9368 4474, email <mark.thompson@team.telstra.com>.

### State of Origin 2001 PG Comp Good Friday - Easter Sunday

Manilla, NSW. A fun comp for all levels. Registration: Friday morning 9-10am. Free entry, just turn up & fly for the glory of your state (& maybe some free beer). For any further info contact Enda Murphy 02 4294 2129 or email <endamurphy@ozemail.com.au>.

### Flatter than the Flatlands 2001 13-17 April (Easter)

Birchip, VIC. Entry fee: \$60 per person. Entries from teams only. Min. 5 pilots per team. Entries open 15 January 2001, NOT before. For more info & updates visit [www.ains.net.au/~warwickduncan/].

## Overseas

### New Zealand Paragliding Competition 20-28 January 2001

Sites used will be Inwoods Lookout, Barnicoat & Takaka Hill. The cost will be NZ\$160 if received before 6/1/01, NZ\$180 thereafter. Incl: Comp levy, Tasman Club fee, Cat 2 FAI sanctioning, films, maps, T-shirt, BBQ & prizegiving meal. Transport will be organised at extra cost for those requiring it, but only with prior notice. Entries limited to 85, filled on a first come first served basis. For more information contact the organisers, Richard & Andrea Hadfield ph: 64 3 566 863, 64 21 400 295 (mob), email <rich\_hadfield@hotmail.com>.

### Mexico Millennium Cup 2001 PG: 29 January - 2 February HG: 5-9 February

El Peon del Diablo (15km South of Valle de Bravo) US\$10,000 prize money. Entry fee: US\$250. Training days: 26-28 January. Registration & general meeting: 28 January. You can fly from 10am until 6pm most days. Cloudbase is between 2,700m asl & 5,500m asl. The weather in January & February is very consistent. Scoring system: GAP 98/2 (race program). Types of task: Triangles of more than 50km, out & return & race to goal. For more information see [www.delta.net.mx/eneva/copa.htm]. Contact: Erick Salgado Ribera (organiser), fax (52) 726 23279, email <eneva@delta.net.mx>.

CLASSIFIEDS ARE NOW 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 membership 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

#### East Coast HG and PG Centre

For the following equipment contact: Jason Turner, Chief Flight Instructor, ph/fax 02 4963 7070 or email <jasonturner@iprimus.com.au>.

**Airborne Fun 220** nov/tandem, red L/E, orange/white, 50 hrs, VGC, \$3,800. **Airborne Fun 190** nov, red L/E, blue/white, 50 hrs, VGC, new crossbars, \$2,950. **Airborne Fun 160** nov, mint L/E, lavender/white, 20 hrs EC, perfect for the lightweight, \$2,950. **Moyes Mars 170** nov, blue L/E, yellow/white. New sail, airframe in great cond., \$800. **Moyes Mission 170** nov, black L/E, yellow/white, GC, 2 patches on US, \$600. **Stealth II Harnesses** (x 2), both black with blue pockets, suit 5'10" medium build, 1 x \$950, 1 x \$900. **Cocoon harnesses** (x 3), medium to large, \$100 each. **Moyes cable tow release** new, \$70. **Apco small full-face helmet**, \$130. **Lazer full-face** (x 2), 1 x new \$240, 1 x scratched \$190. Both XL black.

**Aero 170** int, as new only approx 5 hrs old, pod harness & chute to suit 5'8" plus, Ball vario & altimeter. All in GC, sell complete, \$1,450 ono. Ph: 02 6368 8442.

**Airborne Blade 141** adv, 69 hrs airtime, better than EC, \$2,000 ono. Ph: 02 4325 7908 (w); 02 4362 1401 (h).

**Airborne Fun 160** nov, only 20 hrs old, in new cond., \$2,999 ono. Incl. Bräuniger vario & carbon fibre helmet free with glider. Ph: Eddie 0412 145144; email <enovak10@scu.edu.au>.

**Airborne Fun 220** nov, 50 hrs, purple/lime. Fat boy's glider, tandem or big glider ideal for Explorer harness. VGC, \$3,200. Ph: Trevor 02 6586 4800; 02 6585 2045.

**Air Support pod harness**, as new, EC, black with red/blue 'chute bag. Suit 5'9"-6'2", \$600 ono. Ph: 02 4476 2098.

**Moyes CSX4** (149ft<sup>2</sup>) adv, purple US with split rear panel. Power rib TE. GC, \$3,000. Ph: 'Collo' 02 4929 2175 (h); 02 4985 8302 (w); 02 4929 5133 (fax).

**Beginners Package:** Mars 170 nov, red & yellow, as new 50 hrs with Moyes pod harness, GC, \$1,000 the lot. Also Sjöström vario, \$250. Tandem V2, white & lime green, EC, \$2,500 ono. Elite 152 cheap high performance, 100 hrs, EC, approx \$1,200. Ph: Tim 02 4294 8110.





## New South Wales continued

**Moyes Ventura 190** int, blue/white, 50 hrs use only, as new, suit novice pilot, \$1,950. Ph: Tim 02 42948110.

**Moyes SX5** adv, like new, fluoro red/purple US, 70 hrs, \$3,400. Airborne Blade Race 141 adv, good cond., aqua/grey US, flies very well, \$1,400 ono. Ph: Jason 02 9545 1995; 0408 557056.

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**Moyes XT 145** int, white scrim LE, white main, purple/dk blue/sky blue US. Also, black/mauve med. size pod harness with parachute. All in EC. \$2,200 ono. Ph: Lisa 0428 570168; 03 5750 1174 (h); <eagle@netc.net.au>.

**Xtralite 137** adv, 25 hrs on new (Moyes) sail, new wires, VG cond., 3 spare DTs, \$1,400 ono. Ph: 03 9710 1450 (h); 03 9626 7592 (w).

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**Moyes XT 165** int, good intermediate glider, flies beautiful, \$1,000. Ph: 0438 788573; 07 5478 8573.

## Western Australia

**Moyes XT 145** int, with box & spare DT, yellow/blue, Flytec 3005SI, Icom radio, battery/charger & switch box, Xtreme harness, suit 5'8"-6', tow bridle with link knife & three ring. All brand new with less than 5 hrs fly time. \$5,100 neg. Email: <tirfam@iinet.net.au>.

## Paragliders & Equipment

### New South Wales

**APCO Sierra 32** DHV 1-2, 100-120kg hook-in. New 12/99, 40 hrs. Fast wing in EC. More than 2 yrs & 200 hrs left on warranty. Best UV long-wearing fabric. Test fly anywhere. \$2,950. Ph: Lindsay 02 6685 4551; 0427 210993; email <LindsayWootten@bigpond.com.au>.

**Edel Atlas**, new glider M-size, \$1,800 only. Ph: 0414 695581; email <stk4579@hanmail.net>.

## New South Wales continued

**Freex Mission Medium** DHV2, 80-105kg, royal blue, 10 hrs only, demonstrator as new, only \$3,000. Ph: Nigel 02 6457 6452; email <freexoz@snowy.net.au>.

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**For the following equipment contact: Jason Turner, Chief Flight Instructor, ph/fax 02 4963 7070 or email <jasonturner@iprimus.com.au>.**

**Firebird Matrix** DHV1-2, large, suit 80-105kg pilot, red, demo model 5 hrs, excellent glide & handling, suit new buyer, \$2,900. **Firebird "C"** DHV1-2, small, suit 55-70kg pilot, purple, demo model 5 hrs, perfect first wing, \$2,850. **UP Stella** (NCS nov-int) suit 60-75kg pilot, green, make a good dune basher, flies really well, \$300. **UP Harness**, good condition, cheap, \$200. **Apco small full-face helmet**, \$130. **Lazer full-face** (x 2), 1 x new \$240, 1 x scratched \$190. Both XL black. **Flying suit** blue with black, 5'10, new, showerproof, \$200.

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## Tasmania

**Nova Xact 121** DHV1-2. Purchased new from Alpine Paragliding 8/99. GC, no repairs. Violet, 40 hrs. \$2,995. Ph: Rob 0418 146137.

## Tasmania continued

**APCO Fiesta** DHV1, 73-90kg, 4 hrs, Contour harness with airfoam back & side protection, Mayday 18 reserve & ballast bag. Excellent performance with unrivaled safety. Still under warranty. \$4,500. Ph: 03 6234 5740; email <wnuttall@one.net.au>.

## Trikes & Equipment

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## Queensland

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**Airborne Edge Executive 503** T2-2816, electric start, full instruments, training bars, 4-1 gearbox, 4 blade Brolga prop, comms, covers, hangared so as new, \$18,000 ono. Ph: Mike 0429 996742.

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**Airborne Edge** 95 mod T2-2625, 270 hrs total time. 70 hrs on sail. Trailer, helmets, trainer bars, com gear not included. Flies well, GC, \$8,900. Located Darwin. Ph: 0418 362 783; email <walks0@hotmail.com>.

## Other

### Free Web Site:

**Free website: 300 hang gliders for sale on the net. Free site, no catches. List your gear and see your ad immediately appear, for everyone to see. Change your ad at anytime. Check it out at [www.technet2000.com.au/~mikerose/cgi-bin/Ultimate.cgi].**

**Go to [www.highadventure.com.au/SkyShop] to buy and sell new and second-hand gear. This is a free Service supplied by High Adventure Airpark for all pilots. Advertise your gear online for FREE!!!**

## Cross Country Magazine

**For subscriptions ph: Carol Binder 0417 311360.**



# NCC News

MILES GORE-BROWN

**In this month's NCC News I would like to advise of two changes to the FAI Nationals Rules. I will also detail those issues that have been addressed since the FAI Nationals pilots' meeting at Benalla.**

In addition I would like to suggest the FAI Nationals pilots consider their preferences for the nationals following Gulgong. I will be distributing a survey at the Gulgong nationals to try and determine what the priorities are for pilots competing at FAI nationals.

The main aim of this survey will be to try and reverse the current downward trend of pilot entries. I would also like address issues such as the costs involved in flying FAI Nationals and also the time period for the competition.

## FAI National Rules

The previous issue of NCC News covered changes to the FAI National Rules. In addition, a detailed explanation of all the rule changes has been placed on the GFA web page.

As a result of detailed discussion at the October Sports Committee meeting, the following two changes have been made to the FAI Rules. These changes have been included in Version 10/00 of the "Rules". Version 10/00 of the "Rules" has been posted on the GFA web page.

### 1. Take Off Weight Limits

GFA Airworthiness mentioned in the annual report that "Experimental Certificates" for weight increases, above those weights allowed by the Type Data Sheet, will no longer be granted. It was stated that *"no pure glider can be certificated higher than 750kg and no powered sailplane can be certified at higher than 850kg"*. There is no avenue for an increase of the certified weights over and above those specified in the JAR22 requirements.

Open Class weight issues have been discussed within the NCC since the May NCC meeting. It was decided that the previous wording of the Open Class Weight Rules (version 09/00) was unjustifiably restrictive. The rule has been re-worded as follows:

*8.2 The maximum allowable weight in any class is as recorded in that aircraft's Certificate of Airworthiness (C of A) or Permit to Fly. Pilots should be aware that either tug or operational limitations may restrict the organisers' ability to approve launching. The maximum aerotow weight limit in Australia is 750kg.*

Sections 8.2.1 and 8.2.2 have been changed as the original 8.2.1 (version 09/00) has been deleted.

In addition it has been clarified within the rules that there is a 750kg take-off weight limit for all aerotow operations within Australia. This limit has been placed on aerotow operations by CASA.

The reason for this aerotow limit is being investigated with the expectation (at some time in the future) that this take-off weight limit will be removed and replaced with a limit more applicable to the operation of the glider/tug combination. However relaxation of this limitation will not affect single seat conventional gliders as their maximum take off weight is determined by JAR22 glider design requirements.

### 2. Minimum Class Numbers:

The issue of minimum class numbers was raised at the Benalla FAI Nationals pilots' meeting. At that meeting it was voted to keep the minimum numbers in each class currently in the rules at that time. Since that time there has been detailed discussions both within the NCC and also on the NCC chat page on this issue.

The FAI rules (section 9.4) up to version 09/00 had required *"a minimum of eight (8) gliders registered as competing in the class and at least six (6) gliders in the class accepting a competition launch on every competition day"*.

The minimum class numbers are a prerequisite for the award of National Champion in that class. In addition international team/squad selection is based on the League 1 results (section 7.1.2).

At the October Sports Committee meeting a proposal was put forward, with substantial justification, that there should be serious consideration to the reduction of the required minimum number of gliders in each class. This was discussed at length, taking due consideration of the fact that this issue was addressed at the Benalla pilots' meeting. The Sports Committee along with representatives of the NCC agreed that in light of the reducing pilot numbers in our current nationals, every reasonable means should be considered to try and improve the current status of the FAI Nationals. It was also strongly suggested that as 18M Class is a developing class the reduction of the required number of gliders in each class would help support this new class. It was agreed taking into consideration all the previous discussion that the minimum numbers should be reduced to:

*"Six (6) gliders registered as competing in the class and at least five (5) gliders in the class accepting a competition launch on every competition day."*

This is the same criterion as used for the PW 5 Class.

## Benalla Pilots' Meeting

The pilots' meeting at the Benalla Nationals raised many important issues. The majority of these issues have been carried forward into changes in the FAI Nationals Rules. The major issues that have been actioned are detailed

as follows:

### 1. Communication

With respect to communication, many pilots complained that the NCC did not keep them "in the loop". I think that all those who have been interested in NCC issues over the last six months would agree that communication has improved. Peter Trotter has implemented the NCC chat page. The chat page has been very active with several of the issues that were discussed at the Benalla Pilots meeting, along with many other issues of interest, being discussed. In addition to the NCC chat page there has been regular NCC news placed on the GFA web page along with the articles appearing in AG/SS. I am confident that the NCC is progressing well with respect to improving communication.

### 2. Starting Procedure

It has been agreed to keep the current start procedure in place. The number and distribution of start points will remain the same.

An acceptable start will be achieved by having a data point within the "beercan" around the allocated start point. The beercan will be 0.5km radius centred on the allocated start point.

### 3. Minimum Class Numbers

As detailed above it was decided at the Sport Committee meeting to reduce the minimum class numbers in the best interest of the FAI Nationals and also to encourage development of the 18M Class.

### 4. Assigned Area Tasks (AAT)

Pilots at the Benalla meeting voted 13 for and six against the use of AAT at the next FAI Nationals.

The NCC supported this and, as such, AAT and Fixed Task will be the only two types of task flown at the next FAI Nationals. There is no intention that AATs will be flown every day and there will be no minimum or maximum number of AATs set within the contest period. However, pilots should be reminded that it is up to the Contest Director to decide when and if AAT-type tasks will be set.

In addition, it should also be clarified that AAT will only be set where GPS dataloggers are used for verification. It is not intended, nor was it designed, to run AAT with cameras. It is only required to log one data point within the assigned area. A combination of turnpoints within the assigned area will not be used.

### 5. Team Flying

Some pilots mentioned that "team flying" was a concern. The NCC discussed this issue and decided that it should be made clear in the FAI Rules to "encourage individual competition and eliminate team flying".

Defining team flying is very difficult which makes it very difficult to write rules to completely eliminating "team flying". As such it was decided to amend the preamble, making it clear that "team flying" was not in the interest of individual competition.





## 6. Radio Frequencies

The number of radio frequencies will be reduced. It was suggested that there should be one chatter frequency and one safety frequency. This will be implemented in the local rules for the nationals.

In the FAI rules it has been stated that the traditional gliding frequencies of 122.5, 122.7 and 122.9 may not be available as chatter frequencies due to congestion. As such the frequencies to be used will be advised, but only one frequency will be allocated for chatter.

## 7. Electronic Turnpoints

The FAI rules now require FDR or GPS track log for turnpoint verification. Cameras will no longer be supported.

Turnpoints (for fixed tasks) will be identified by latitude and longitude, along with the closest physical feature. Organisers will endeavour to ensure that the latitude and longitude match the physical location as close as possible. However, it must be understood that latitude and longitude will be the definitive turnpoint; the use of the physical location is only to help with navigation but will not be used for turnpoint verification (section A1.3).

The loading/downloading and checking of turnpoint latitude and longitude provided in the competition entry/rules package is the responsibility of the pilot.

For fixed tasks, the turnpoint will incorporate the "beercan" and the "thistle" sector. The "beercan" will be 500m radius centred on the latitude and longitude of the turnpoint. The "thistle" will extend behind the turnpoint allowing the pilot to fly behind the turnpoint with no outer limit. As such there is no penalty sector behind the turnpoint (outside the 500m 'beercan') as long as the pilot records a data point within the 90-degree FAI sector behind the "beercan".

## The Next Nationals after Gulgong

There has been some discussion amongst the pilot group about the next nationals following Gulgong. The issues at hand are:

1. *When should they be held.*
2. *Where should they be held.*
3. *Do we need to address the cost issues.*
4. *Should we consider combining the Nationals with other events?*

I intend to run a survey at the Gulgong nationals to obtain ideas on the above issues and more. I would be interested to hear from pilots with their ideas on the above issues.

There has already been some discussion on the NCC chat page in relation to entry fees, etc at the Nationals. If you have some ideas or suggestions then please let me know, or just write them down and bring them along to Gulgong.

This is the last NCC news prior to the Gulgong Nationals so until then, have a rewarding and safe gliding season.



## NEW SOUTH WALES

### Australian Air League

1 Perry St, Kings Langley NSW 2147, ph: 02 9674 2551.

### Bathurst Soaring Club

GPO Box 3110, Sydney NSW 2001, ph: 02 9750 0209, email <pbowring@bigfoot.com>.

### Byron Bay Gliding Club

PO Box 815, Byron Bay NSW 2481, ph: 02 6684 4244.

### Central Coast Soaring

PO Box 1323, Gosford South NSW 2250, ph: 02 4977 2740.

### Concordia Gliding Club

231 Stanmore, Stanmore NSW 2048, ph: 0412 145 144.

### Cudgegong Soaring

199 Stucco, Gulgong NSW 2852, ph: 02 6374 2444.

### Forbes Soaring Club

PO Box 267, Forbes NSW 2871, ph: 02 6852 2329.

### Goulburn Gliding Group

PO Box 69, Goulburn NSW 2580, ph: 02 4821 4271.

### Grafton Gliding

11 Lighthouse Cres., Emerald Beach NSW, ph: 02 6654 1779.

### Harden Gliding Club

PO Box 24, Harden NSW 2587, ph: 02 6886 2275.

### Hunter Valley Gliding

PO Box 9, Newcastle NSW 2300, ph: 02 9534 2884.

### Kentucky Flying Club

PO Box 43, Newport Beach NSW 2106, ph: 02 6778 7345.

### Lake Keepit Soaring

PO Box 152, South Tamworth NSW 2340, ph: 02 6769 7514.

### Leeton Gliding Club

PO Box 607, Leeton NSW 2705, ph: 02 6962 7210.

### Orana Soaring Club

PO Box 240, Narromine NSW 2821, ph: 02 6889 2733.

### RAAF Richmond Gliding Club

RAAF Base Richmond NSW 2755, ph: 02 4579 1165.

### RAAF Williamtown

RAAF Base Williamtown NSW 2314, ph: 02 4964 5062

### R.A.N.G.C.

PO Box A37, Naval Air Base Nowra NSW 2540, ph: 02 4421 1333.

### Soar Narromine

PO Box 56, Narromine NSW 2821, ph: 02 6889 1856.

### Southern Cross Gliding Club

PO Box 132, Camden NSW 2570, ph: 02 4655 8882.

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### Turnut Gliding Club

PO Box 112, Turnut NSW 2720, ph: 02 6947 1148.

### Wagga/Lockhart Gliding Club

PO Box 68, Lockhart NSW 2656, ph: 02 6925 2276.

### Warrumbungle Gliding Club

Kirriwa Gilgandra NSW 2827, ph: 02 6795 4333.

## ACT

### Canberra Gliding Club

PO 1130, Canberra City ACT 2601, ph: 02 6231 1995.

## QUEENSLAND

### Boonah Gliding Club

PO Box 107, Boonah QLD 4310, ph: 07 5463 0190.

### Bundaberg Gliding Club

PO Box 211, Bundaberg QLD 4670, ph: 07 4155 3158.

### Caboolture Gliding Club

PO Box 920, Caboolture QLD 4510, ph: 0418 713 903.

### Central Queensland Gliding Club

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### Darling Downs Gliding Club

PO Box 584, Toowoomba QLD 4350, ph: 07 4663 7140.

### Gympie Soaring

PO Box 103, Gympie QLD 4570, ph: 07 5486 7247.

### Kingaroy Soaring

PO Box 91, Kingaroy QLD 4610, ph: 07 4162 2191.

### Moura Gliding Club

PO Box 92, Moura QLD 4718, ph: 07 4773 3542.

### North Queensland Soaring

PO Box 5790, Townsville 4810, ph: 07 4773 3542.

### QAIR Training Corp

PO Box 698, Booval QLD 4304, ph: 014 984 752.

### Southern Downs Soaring

PO Box 144, Warwick QLD 4370, ph: 07 3378 1717.

### Tarwan Soaring

PO Box 34, Wandoan QLD 4419, ph: 07 4627 4080.

## VICTORIA

### Albury Corowa Gliding Club

PO Box 620, Wodonga VIC 3689, ph: 018 691 611.

### Beauford Gliding Club

7 Chapman St, Footscray VIC 3011, ph: 03 9687 6691.

### Bendigo Gliding Club

62 Lawson St, Bendigo VIC, ph: 03 5443 9169.

## Corangamite Soaring

Kurweeton, Derrinallum VIC 3325, ph: 03 5593 9277.

### Geelong Gliding Club

PO Box 197, Bacchus Marsh VIC 3340, ph: 03 5369 5125.

### Gliding Club of Victoria

PO Box 46, Benalla VIC 3672, ph: 03 5762 1058.

### Grampian Soaring

PO Box 468, Ararat VIC 3377, ph: 03 5352 4240.

### Latrobe Valley Gliding Club

PO Box 625, Morwell VIC 3840.

### Mangalore Gliding Club

PO Box 80, Avenel VIC 3664, ph: 03 5798 5512.

### Mt Beauty Gliding Club

44 Roper St, Mount Beauty VIC 3699, ph: 03 5754 4096.

### RAAF East Sale Gliding Club

9 Weir St, Sale VIC 3851, ph: 03 5144 2362.

### South Gippsland Gliding Club

PO Box 475, Leongatha VIC 3953, ph: 03 5664 2300.

### Stawell Gliding Club

20 Jones St, Stawell VIC 3380, ph: 03 5358 2713.

### Sportavia Soaring

PO Box 78, Tocumwal NSW 2714, ph: 03 5874 2063.

### Sunraysia Gliding Club

PO Box 647, Mildura. Vic 3500, ph: 03 5025 7335.

### Swan Hill Gliding Club

PO Box 160, Nyah Vic 3594, ph: 03 5037 6688.

### Victorian Motorless Flight Group

GPO Box 1096J, Melbourne 3001, ph: 03 5369 5125.

### Wimmera Soaring

PO Box 158, Horsham. Vic 3402, ph: 03 5382 3491.

## SOUTH AUSTRALIA

### Adelaide Hills Soaring

PO Box 1, Bridgewater SA 5155, ph: 08 8534 4011.

### Adelaide Soaring

PO Box 94, Gawler SA 5118, ph: 08 8522 1877.

### Adelaide University Gliding Club

Sports Assoc. Uni of Adelaide SA 5005, ph: 08 8826 2203.

### Balaklava Gliding Club

PO Box 257, Balaklava SA 5461, ph: 08 8864 5062.

### Barossa Valley Gliding Club

PO Box 123, Stonefield via Truro, SA 5356, ph: 08 8564 0240, email <brynw@senet.com.au>.

### Blanchtown Gliding Club

12 Altona Road, Modbury SA 5092, ph: 08 8556 2240.

### Bordertown-Keith Gliding Club

PO Box 377, Bordertown SA 5268, ph: 08 8752 1321.

### Gawler Gliding Club

PO Box 274, Lyndoch SA 5351, ph: 08 8524 4595.

### Lake Bonney Gliding Club

PO Box 243, Barmera SA 5345, ph: 08 8588 2758.

### Millicent Gliding Club

PO Box 194, Millicent SA 5280, ph: 08 8739 3235.

### Murray Bridge Gliding Club

PO Box 1277, Victor Harbour SA 5211, ph: 08 8554 3543.

### Port Augusta Gliding Club

PO Box 272, Port Augusta SA 5700, ph: 08 8643 6228.

### Renmark Gliding Club

PO Box 450, Renmark SA 5341, ph: 08 8585 1422.

## SA AIR TC

PO Box 2000, Salisbury SA 5108, ph: 08 8258 8026.

### Waikerie Gliding Club

PO Box 320, Waikerie SA 5330, ph: 08 8541 2644.

### Whyalla Gliding Club

PO Box 556, Whyalla SA 5600, ph: 08 8645 0355.

## TASMANIA

### Tasmania Soaring

PO Box 24, Ross TAS 7209, ph: 03 6255 2191.

## NORTHERN TERRITORY

### Alice Springs Gliding Club

PO Box 356, Alice Springs NT 0871, ph: 08 8952 6384.

### North Australia Gliding Club

PO Box 38889, Winnellie NT 0821, ph: 08 8985 5330.

## WESTERN AUSTRALIA

### Beverley Soaring

PO Box 136, Beverley WA 6304, ph: 08 9646 1015.

### Gliding Club of Western Australia

356 Abernethy, Cloverdale WA 6105, ph: 08 9635 1023.

### Morawa Flying Club

PO Box 276, Morawa WA 6623, ph: 08 9972 3022.

### Mt Newman Gliding Club

PO Box 119, Newman WA 6753, ph: 08 9175 2434.

### Narrogin Gliding Club

PO Box 232, Narrogin WA 6312, ph: 0407 088 314.

### Stirlings Gliding Club

Post Office, Lower King WA 6330, ph: 08 9828 2119.

### WA Air Training Corp

300 Vincent St, Leederville WA 6007, ph: 08 9444 0522.



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Ads for AUSTRALIAN GLIDING can be placed with the GFA Advertising Contact  
Henk Meertens, PO Box 352, Frenchs Forest  
NSW 1640, Fax: 02 9453 0777,  
Email: <hkmxor@msn.com.au>.

All GFA Classifieds can be viewed on the official GFA web site [www.gfa.org.au].

## Sailplanes

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### Wanted

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### General

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### General continued

**SKY HI**, NSW Custom Plates for sale – Offers. Ph: Phil 0414 722 800.

**The Gympie Soaring Club** is shipping a new ASK 21 two-seat trainer from Germany to Brisbane in April 2001. Parties interested in sharing container space should make contact with Chris Eckey on 08 8449 2871.

## Gliding 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 1 year, \$47 for 2 years, \$65 for 3 years. 107-1025 Richmond Road Ottawa, Ontario K2B 8G8 Canada. email: <sac@sac.ca>.

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

**SAILPLANE AND 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 6 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 A\$25 for 12 months back issues). New Zealand Gliding Kiwi, Private Bag, Tauranga, New Zealand.

**AIRBORNE MAGAZINE:** Covering all facets of Australian & New Zealand modelling. The best value modelling magazine. Now \$21/pa for 6 issues. Plans & other special books available. PO Box 30, Tullamarine, VIC 3043.

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JUNE/JULY 2001

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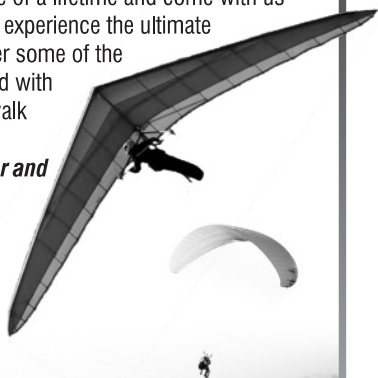
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