



Soaring AUSTRALIA

February 2004



Everyone's Comp



Killarney Went Off



The Crossing

PUT THE WORLD BELOW YOU...

with an international network
whose quest for technical perfection is top priority.



" 3 record flights, a total of 1200km
just recently in my Litespeed S,
this glider was built to perform "
... Jon Durand Jnr - AUSTRALIA

"omo om om o omo o mo o omo mo o o o
omom o o o om o... Someone - NORWAY

"omomo om om omo omo o,momomo
omo om om om om o mo om o om
omo om omoo " ... Someone - AMERICA



MOYES

WORLDWIDE

www.moyes.com.au

Moyes Delta Gliders 1144 Botany Rd. Botany NSW 2019 Tel - 02 9316 4644 Fax - 02 9316 8488 Email - moyes@moyes.com.au

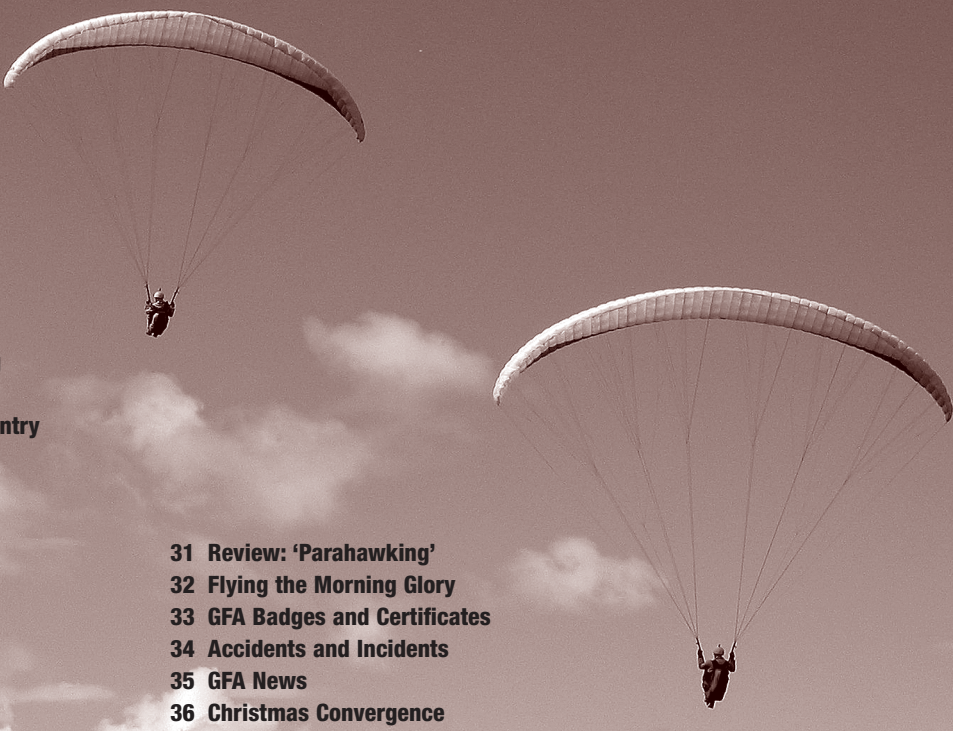
- 
- 2 Four Years of Dreaming
 - 3 High Over the Lakes
 - 4 Hook in Right
 - 6 Ridge Lift and Slope Soaring
– Part 3
 - 8 Uplifting Times 4: Cross-country
 - 10 Killarney Went Off
 - 12 Wind
 - 14 Narromine Cup Week 2003
– National Coaching Course
 - 17 What a Day!
 - 18 The Crossing
 - 20 Solar Impulse
 - 22 GFA Executives Update
 - 23 Clio's Wings
 - 26 'Everyone's Comp'
was for Everyone
 - 27 Comp Myths Dispelled
 - 28 The Absolute Absorption of Getting
Around the Task
 - 30 HGFA News
 - 31 Review: 'Parahawking'
 - 32 Flying the Morning Glory
 - 33 GFA Badges and Certificates
 - 34 Accidents and Incidents
 - 35 GFA News
 - 36 Christmas Convergence
 - 38 Letters to the Editors
 - 38 Clio's Answers
 - 39 Soaring Calendar
 - 40 Contact Addresses
 - 42 HGFA General Manager's Report
 - 45 Classifieds

Photo: Courtesy "Paragliding Centre of SE Queensland"

Soaring AUSTRALIA



Official publication of the Gliding Federation of Australia (GFA) and the Hang Gliding Federation of Australia (HGFA).



EDITORIAL CONTRIBUTIONS

Contributions for the combined magazine should be sent to the appropriate sub-editor:

GLIDING

Editorial contributions to: GFA sub-editor Anne Elliott, PO Box 189, Narromine NSW 2821, ph/fax: 02 6889 1229, email: <annell@hwy.com.au>.

HANG GLIDING, PARAGLIDING & MICROLIGHTS

Editorial contributions and display advertising bookings to: HGFA sub-editor Richard Lockhart, c/o Blackheath Post Office, Blackheath NSW 2785, ph: 0418 130354, email: <soaring.australia@hgfa.asn.au>.

NOTICE TO READERS AND CONTRIBUTORS

Contributions are always needed. Articles, photographs and illustrations are all welcome although the editors and the GFA and HGFA Board reserve the right to edit or delete contributions where necessary. Articles of unknown origin will not be published. All contributions should be accompanied by the contributor's name, address and membership number for verification purposes. Photographs should be printed on glossy paper either in black and white or colour. Captions and photographer's name are needed.

DEADLINE FOR CONTRIBUTIONS:

25th of each month, five weeks prior to publication.
Photos and materials will be returned after publication only if a stamped, self-addressed envelope is supplied.
Otherwise, photographs, whether published or not, will be filed and may be used subsequently in further publications.

Drawings, maps, cartoons, diagrams, etc. should be in black ink on white paper. Lettering may be pencilled lightly but clearly on the drawing, for typesetting.

Views expressed in this magazine are not necessarily those of the GFA, HGFA nor the editors'. They are strictly the views of the contributor. Any GFA officer quoting his title will be responsible for submitting an official article.

Copyright in this publication is vested in the GFA/HGFA. Copyright in articles and other contributions is vested in each of the authors in respect of their contribution.

ALL OTHER MATTERS, SUBSCRIPTIONS, CHANGES OF ADDRESS, ETC

The Gliding Federation of Australia ACN 008 560 263
& GFA Sales: 130 Wirraway Road, Essendon Airport VIC 3041, ph: 03 9379 7411, fax: 03 9379 5519, email: <AdminOfficer@gfa.org.au>, web: [www.gfa.org.au].

Hang Gliding Federation of Australia & HGFA Sales: PO Box 157, Hallidays Point NSW 2430, ph: 02 6559 2713, fax: 02 6559 3830, email: <office@hgfa.asn.au>, web: [www.hgfa.asn.au].



The Gliding Federation of Australia and the Hang Gliding Federation of Australia are members of the Fédération Aéronautique Internationale (FAI) through the Australian Sport Aviation Confederation (ASAC).

CREDITS

Cover: Justine Thompson and Anthony Smith in their Bergfalke IV, VH-GZQ on short final into Khancoban in early November this year

Photo: David Conway

Design: Suzy Gneist

Printing & Mailing: Pirion Printing, Canberra ACT

CLASSIFIEDS AND ADVERTISING

Display advertising rates and specifications are available on request from GFA and HGFA advertising contacts. Advertisements may be submitted in high resolution (300dpi at 100% ad size) digital TIF or EPS formats. Please avoid sending low resolution JPG or GIF files, these do not achieve good printing results.

GLIDING

GFA advertising and classified bookings to: Angel Administration – Fiona Rowe, PO Box 1163, Penrith NSW 2751, ph: 0407 593192, fax: 02 4739 0185, email: <frowe@optusnet.com.au>. All GFA advertisements to be paid prior to publication. GFA classifieds are charged at \$16.50 for the first four lines, \$4.40 for every line thereafter plus GST.

HANG GLIDING, PARAGLIDING & MICROLIGHTS

HGFA advertising bookings and classified bookings to: Richard Lockhart, c/o Blackheath Post Office, Blackheath NSW 2785, ph: 0418 130354, email: <skysail@ozemail.com.au> or fax: 02 6559 3830. HGFA member classifieds are free, rates apply to commercial advertisers.

The publisher cannot ensure that the information/advertisements contained in this publication comply with the Trade Practices Act 1974 (Cth), and the responsibility for such compliance must therefore be upon those who submitted the information/advertisements for publication. The publishers take no responsibility for any product advertised. The publishers reserve the right to refuse or withdraw any advertisement at their discretion. While every care is taken with material published, no liability is accepted for errors or delays in production.

FOR CONTRIBUTIONS TO HGFA WEBSITE USE EMAIL ADDRESS AS FOLLOWS:

CATEGORY	EMAIL ADDRESS	DESCRIPTION
Club News	clubnews@hgfa.asn.au	Information is forwarded to Soaring Australia and the maintainers of the HGFA website.
Competition News	compnews@hgfa.asn.au	Information is forwarded to Soaring Australia and the maintainers of the HGFA website.
Articles, advertisements	skysail@ozemail.com.au	Soaring Australia only content and other content

FOUR YEARS OF DREAMING



Mid-flight

David Humphrey

FINALLY, AFTER YEARS OF DREAMING ABOUT IT, I MANAGED TO GET EVERYTHING TOGETHER AT THE RIGHT TIME. ROTTNEST IS AN ISLAND 18KM OFF THE COAST OF PERTH, AND I HAVE BEEN WANTING TO FLY OVER TO IT FOR WHAT SEEMS LIKE FOREVER.



Approaching Rottnest Island

Photos: David Humphrey

I have flown along the coast so many times over the years and looked over and thought “so close...” A few weeks ago I almost had it all. Support boat, ground crew and great weather. But two kilometres off the coast I had a little engine trouble and sadly had to turn back. I was at 2,000ft so it was easy getting back. Then a consolation prize of finding thermals coming off a sheep carrier. So I played in the sheep farts at 1,000ft for 30 minutes until Tony Croft, my ground crew, turned up.

On my latest attempt, however, I had the boat and Tony once again being ever so

helpful. The weather was so so, but doable (easterlies were the ideal winds but I had south-easterlies).

Halfway across things were looking fine. I was at 3,000ft with the support boat below me, but the wind was now south, so the going was a little slow. I had used a bit of fuel getting up to height and going cross-wind – it ran out as I was just off the island. But I got over land still at 2,000ft and finally the sphincter mussel relaxed. I enjoyed cruising around taking a few pics before landing next to the Dome Xafe as planned and went for a coffee.

I only had to wait thirty minutes for the next ferry and I was back on the mainland before a lot of people were even out of bed. What a great start to the day.

Many thanks to Tony for his support and to the Perth Diving Academy for entertaining the idea of me landing on the back of their boat if it all went wrong.

Live your dreams.



Where's a good spot for a coffee?



Success!

HIGH OVER THE LAKES!

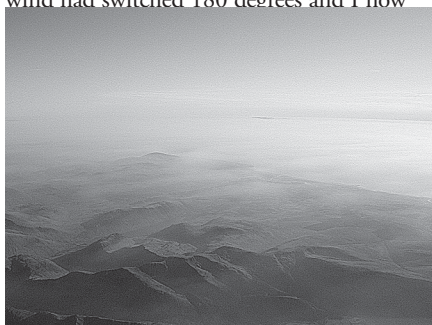
Chris Scammell (Article courtesy 'Skywings')

THE FARMER LEANT IDLY ON HIS GATE, ARMS FOLDED, A PIECE OF STRAW IN HIS MOUTH. HE HAD BEEN IN THIS POSITION FOR OVER HALF AN HOUR WITHOUT MOVING. I, BY CONTRAST, WAS IN A BIT OF A LATHER. MY POWERED HANG GLIDER ENGINE WAS REFUSING TO START AND MY PATIENCE WAS STARTING TO WEAR THIN.



The farmer watched with amusement as I repeatedly dried off the spark plug and kicked it over another two dozen times. After over an hour of kicking, by which time I was totally exhausted, I nearly died of shock when the engine burst into life with a deafening crackle. The usually dour farmer gave me the thumbs up with a smile on his face. I think my persistence won his respect.

Unfortunately, during the two hours it had taken me to rig and start the beast, the wind had switched 180 degrees and I now



had to carry the whole lot to the other end of the field. Linford Christie would have been proud of me as I then legged it up the field on full power.

Just as I thought I could go no faster without tripping, the wing suddenly hoicked me off the ground and I was on my way. I waved to the farmer as I flew 30ft over his head. He seemed to be laughing as he gave me a big wave and turned his attention back to his flock of sheep.

I had filled my fuel tank to brimming whilst rigging. My intention was to beat my personal best altitude of 9,000ft. It was a clear blue day in early March, high pressure with light south-easterly winds. As I climbed up through the inversion at 5,000ft, the choppy, hazy air gave way to crystal clear, silky smooth air of the sort that whispered 'wave' in my ear.

My vario was reading from 400ft/min down to 1,600ft/min up as I explored the cloudless sky above the western Lakes. I settled into a reliable 600ft/min up patch of lift and decided that today was the day. As compensation for my perseverance on the ground, the weather gods were going to give me a ride to remember.

I didn't have much to do other than take in the view as I climbed up through 7,000ft and on towards 10,000ft. The wave would shift about a bit and I'd have to move up or downwind a mile or so to re-establish the climb, but apart from that it was just a case of point into wind, slow it down as much as possible and try and keep warm. Clear of airspace I was free to enjoy maximising my climb in the invisible wave.

Hypoxia (lack of oxygen to the brain) can be recognised as a feeling of well-being

and a lack of concentration. Well, I find that I get a feeling of well being whenever my feet are off the ground, and especially when out playing on a beautiful day like this. So, discounting that, I concentrated on my concentration as an indicator of hypoxia.

My vario was set in metres so I set myself the task of calculating my altitude in feet in my head. When I could no longer do it easily, I decided, I'd start the descent.

Then the engine coughed, then quit. Silence. Gosh, I'm high. What's the vario reading without power? Zeroes to 100ft/min down. I searched for stronger lift for a couple of minutes without success, and decided to make like a brick. I put the old Laminar into a sideslip spiral and corkscrewed down to warmer levels before my nose froze completely.

As I landed back in the sunny field, the farmer strolled over to me and enquired where I'd been on this contraption of mine. After telling him as best I could with a frozen face, he turned and walked away, shaking his head and chuckling quietly to himself.



Photos: Chris Scammell

HOOK IN RIGHT

Bill Degan (Article courtesy 'Airborn NZ')

WHAT YOU SHOULD KNOW ABOUT CARABINERS

A pilot's life depends on the carabiner that attaches their harness to the glider, but not everyone knows how to choose, use and maintain this vital part of their flight gear.

A carabiner is designed to take a load down the long axis and its maximum safe load is stamped on the spine. The other number there is the maximum sideways load with the gate locked. Most steel carabiners are much stronger than required. When loaded correctly they will hold 3,000 to 5,000kg, but loaded wrongly it could be as little as 500kg. Also, an unlocked gate can pull apart with a much lighter load so you need to make sure it is locked and that the webbing loops always load correctly. As well as getting one that is strong enough, you should ensure your carabiner suits your kind of use.



Getting it wrong:

Here is a screwgate carabiner with nothing holding the harness loop in place. You can see in the second picture how the hang loop can catch on the threaded part of the barrel, damaging the hang loop, as well as making it possible for the harness loop to load the carabiner in the weaker axis. Add a parachute bridle and it could load in a third direction as well! Note also how the angled ends of the carabiner compress and strain the edges of the hang loop.



Getting it right:

The stainless steel carabiner above is a three action autolocking type. All parts are smooth and unlikely to catch or damage the webbing which is able to sit fairly flat. The harness and reserve bridle are held in place by a rubber 'O' ring.

DESIGNS

Generally your harness riser and hang loop will be of about 25mm (1 inch) flat webbing. Most carabiners are actually designed for rope and are angled to make the rope sit in the strongest part of the carabiner beside the spine, opposite the gate. To avoid damaging your webbing, choose a carabiner shape that is wide enough and not so angled so that it will stretch the webbing edges. Choose a screw gate without exposed threads as those threads may damage your hang loop as it slides across it during launch. A locking barrel with sharp edges can also catch the hang loop. See photos.

HEAVY METAL RULES

Carabiners come in alloy, steel or stainless steel. Alloy carabiners are used for climbing so are more readily available. Strengths are around 1,800 to 2,800kg and they are very light. Unfortunately aluminium suffers from work hardening; each time they load, they flex until the gate lock engages. Eventually

they become brittle and may break so most climbers throw theirs away after a couple of years. Some pilots use two alloy carabiners. The problem with this system is they can be very hard or impossible to unlock if you need to unhook quickly, say, after landing in strong wind or before a water landing. A better choice is using one good steel carabiner. It's about double the strength at 3,000 to 5,000kg and much more robust. It can handle the knocks it may get if you drop your gear on a hard surface, and if you are worried about coastal air corrosion you can even get a stainless steel one. You may have to shop around but mountaineering and hang glider outlets should be able to supply them.

LOCKING TYPES

Always use a locking carabiner. A non-locking carabiner can open itself when unloaded during launch or turbulence with a simple twist, or a hang loop could catch on and pull the gate apart. Many pilots found this out in



the early days and a pilot died in NZ when his unlocked carabiner gate broke. The most common locking type is the screw gate; it is the simplest but requires you to remember to screw it up, and unlocking can sometimes be awkward. Don't let someone tighten it up while loaded during your hang check as it might be impossible to undo again without tools. Autolocking types have recently become popular, as you can't ever forget to do them up. The twistlock type automatically turns the locking barrel closed. The three action type gives extra security as to open it the gate barrel must be lifted, turned and pushed open. Both these autolocking types can easily be unlocked with one hand.

OTHER TYPES

Many years ago there was an American 'H' type made from a large block of alloy using a bolt at the harness end and a pip pin at the top. Its advantage was that it loaded the webbing loops perfectly, but it took two hands to undo and hang loops could sometimes catch on the pip pin handle; there were some reports of pip pin breakage. There is modern type called a Quickout which is actually designed for paragliding. Its advantage is that it can be easily unhooked in strong winds even when fully loaded by pushing both release buttons at once (there are lock covers too for added security). The disadvantage is it needs a matching fitting on your hang loop. It's also not possible to hook in to another glider unless it has the matching fitting which requires a tool to fit.

CONSIDERATIONS

Steel, though heavier, is stronger and not prone to work hardening or cracking. You don't need to remember to lock an autolocking type and it can be unlocked easier. Sometimes it is important to be able to unlock quickly with one hand, say after landing in strong wind or preparing for a water landing. One steel carabiner is easier to use than two alloy. A screw gate type has less parts to jam or wear out which may be a factor in dusty or sandy conditions.

FIXING THE CARABINER TO THE HARNESS

Fit the carabiner with the gate facing forward and the parachute bridle loop on top. The reason being that if the parachute is deployed, you don't want the bridle catching on the gate because the gate or bridle could be damaged (most parachute deployments result in the parachute deploying to the

rear). The bridle is on top so it will not be worn when you need it. Note that it must have a complete UV cover as this is the highest loaded part of your parachute system. It's not a bad idea to add a quick link to ensure your parachute bridle stays connected to the harness whatever the state of the carabiner, though with a locked steel carabiner this may not be necessary. The carabiner usually gets unloaded during launch and can go weightless in turbulence, so it's important to prevent the harness loop from moving onto the spine or gate of the carabiner or it may load across the short axis or break the gate. I've found the most practical way to secure the harness/bridle is to fit a rubber 'O' ring with a twist in it. They are worth less than a dollar at most hardware stores. See photos. Make sure the 'O' ring, or whatever fixing method you use, cannot interfere with the locking of the carabiner.

USE AND ABUSE

Never connect two carabiners together. If one is unlocked, a quick twist will separate them. A shock load can break them. Webbing or rope is needed to absorb shocks. Never carry an extra carabiner (or any unlocked hook) on your harness. I witnessed a spare carabiner on a harness, clip onto a rear wire in flight. The pilot lost control, crashed, was painfully injured and we waited over an hour for the ambulance. Don't walk about with your harness on. Clip in, then climb into the harness; it's easier once you know how and it's less likely you will launch without being clipped in. It's also easier to check harness lines, etc. Always ensure you are hooked in correctly through both the main and back-up loops. Make sure the gate is locked correctly. Always do a hang check to confirm you are hooked in, at the right height, 'chute secure, leg straps on and no harness lines are caught.

MAINTENANCE

If you need to lubricate a carabiner, use silicone spray, it won't break down internal plastic parts and won't hold dirt like other lubricants. Don't get sand or dirt on the carabiner or the mechanism may jam up. One way to free things up is to spray with silicone, then blow the silicone and dirt out with compressed air. Sand may be extremely difficult to remove and can quickly damage the mechanism. Don't get salt water on it or corrosion will jam it up. Corrosion will of course weaken it too. Don't drop (especially alloy) carabiners on rocks or hard surfaces as



Right again:

The steel carabiner above is a screw gate designed to load the webbing loops evenly.

Note there are no exposed screw threads to catch or damage the webbing. The harness and reserve bridle are held in place by a rubber 'O' ring (twisted once)

they can fracture. Alloy carabiners eventually work harden and become more brittle. This is because each time they are loaded, they flex until stopped by the gate. It's not likely to be a problem with steel, though you could still damage the locking mechanism if hit hard enough.

Carabiners don't cost much, so there's no excuse for not having this vital part of your kit in perfect order. If in doubt, just replace it.



RIDGE LIFT AND SLOPE SOARING



Photo: Bernard Eckey

Part 3

Bernard Eckey

of the ridge is always accompanied by severe downdrafts on the downwind site. As this can constitute a serious hazard we will deal with it again under the heading "Flying tactics".

What ridge soaring glider pilots are faced with is often very different to what is shown in Figure 6a. The vast majority of mountain ridges are not as even as pilots would like and feature steps, ledges or undulations of various shapes and sizes. On top of that, ridges are often overgrown with patches of tall trees. Although that does not affect ridge lift to any great extent, it has a major bearing on the location of thermals. Knowing that a heated pocket of air clings to the surface and requires a trigger to make it leave the ground it is not hard to imagine that any major undulation in the face of the ridge would assume the role of such a thermal trigger. However, once the buoyant air has separated it will continue to rise and never re-attach itself to the surface. (Refer to Figure 6b) Needless to say that under such circumstances the thermals are not found just above the top of the ridge but further upwind where they are more than likely mixed up by the ridge lift.

2.5 RIDGE LIFT AND THERMALS

It is not hard to imagine that thermal activity can be embedded in ridge lift, especially if the ridge is facing the sun and hence experiences some heating during the course of the day. In Australia – or in the entire southern hemisphere for that matter – ridges facing east northeast through to west-north-west would fall into this category.

For pilots only interested in ridge-soaring this is a mixed blessing because thermals will inevitably increase the amount of turbulence and ensure that we get bounced around a bit more. On the other hand ridge thermals will usually allow us to climb significantly higher and that should be enough reason for finding out how we can best contact these ridge-lift embedded thermals.

You never know, this knowledge might come in handy one day.

Although the strongest ridge-lift is found well upwind of the crest the same can't be said for ridge thermals. We already know that the ground below generates thermals and it is not hard to imagine that a warm air pocket originating from the base of the ridge is pushed against the mountain face by the prevailing wind. While rising in close proximity of the mountain it usually receives further warming and when it finally arrives at the top the parcel of hot air has little choice but to separate from the ridge and continue upwards as a strong thermal.

If we want to intercept such ridge thermals our best chances of contacting them is to fly above or slightly downwind of the ridge-top. (Refer to Figure 6a) However, as Figure 2 shows, welcome lift upwind

2.6 KATABATIC AND ANABATIC WINDS

If "Katabatic Wind" doesn't mean anything to you perhaps the term "Gully Wind" rings a bell. People living at the bottom of hills know these shallow layers of rather cool and sometimes very strong down slope winds only too well. They have a tendency of springing up suddenly during the evening

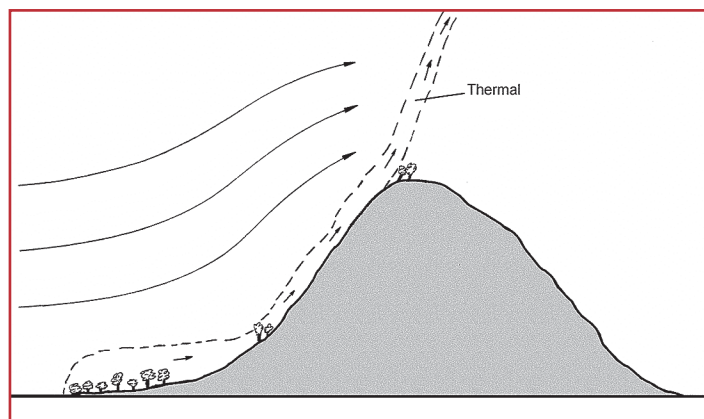


Figure 6a: Ridge thermal

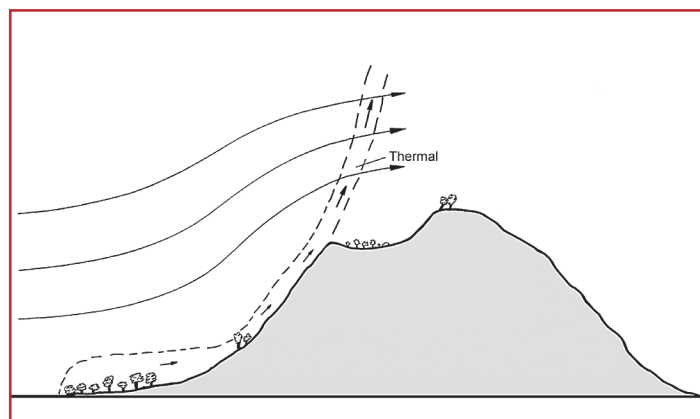


Figure 6b: Thermal triggered by step in mountain face



Photo: Bernard Eckey

as a result of nocturnal radiation. But as katabatic winds have little significance for gliding operations they will not be looked at any closer.

Let's turn our attention to "Anabatic Winds". As might be expected, anabatic winds describe an airflow that is urged up a slope and therefore it deserves a much closer look. The theory behind it is rather straightforward – as soon as the sun has warmed the ground sufficiently, the air closest to the slope becomes less dense and starts moving up the hillside. If you think that it is not dissimilar to the situation illustrated in Figure 6a you are right and it will not come as a surprise to you that the effect is strongest in areas of bare soil or better still over rocky outcrops. According to Wallington, an anabatic airflow is usually confined to a shallow layer of approximately 500ft but it does reinforce any wind generated ridge lift and explains why it is often possible to soar a mountain slope even if the prevailing wind at ground level appears too weak for ridge soaring. In this context it should be mentioned that the wind speed usually picks up significantly with increasing altitudes and although a windsock located at the bottom of a hill might appear lacklustre the ridge can still work remarkably well due to the combination of anabatic winds and the stronger wind at ridge-top level.

Also please don't forget that – due to the Coriolis force – the wind changes direction with increasing altitude. Pilots in the southern hemisphere can usually rely on the fact that the wind backs higher up. (The wind "backs" when it changes in an anticlockwise direction and "veers" when it turns clockwise.) In other words, as we stand at the bottom of a ridge and with our back to the wind we can assume that the wind at

ridge-top level is further to the right. Of course, the opposite holds true in the northern hemisphere.

In this context another rule of thumb might come handy. It says that the wind at 3,000ft above ground is approximately twice as strong and roughly 30 degrees further back. Of course, in the northern hemisphere the wind would veer approximately 30 degrees in a clockwise direction.

2.7 FLYING TACTICS

Having dealt with the fundamentals of ridge lift we can now turn our attention to flying tactics and safety matters. In the normal course of events, we approach a slope below ridge-top level and therefore I suggest we cover flying tactics while in fairly close proximity of the ground first. According to triple world champion H. Reichmann the

best lift over smooth hills is found closer to the hill whereby rougher slopes tend to form a turbulent layer close to the surface resulting in better climb rates a little further from the ridge. That is very good news indeed, especially in view of the fact that most of the ridges I know in Australia can hardly be described as smooth.

In any case, if we enter ridge lift fairly low, our utmost and undivided concentration is required. As long as we are within a few wingspans of rugged terrain we must expect eddies severe enough to unnerve quite seasoned and even highly experienced glider pilots. Operating close to the rocks means that we must be able to fly with only the occasional glance at the instruments and only for fractions of a second at a time. Glider pilots who find that difficult are well advised not to contact ridge lift below ridge-top level. As we gain altitude and ascend above the summit, we can expect to get into somewhat smoother air which often goes hand in hand with improving climb rates.

The worst is clearly behind us and although we can breathe a sigh of relief it is still a little bit too early to relax. First we want to find the area of the strongest lift, which can be done by comparing the climb rates at different distances from the crest of the ridge. In the process we usually gain further altitude and soon we have a few thousand feet of buffer between us and the top of the ridge. Now we can relax, enjoy the scenery and thank God for giving us gliders and the right conditions for ridge soaring.



To be continued.

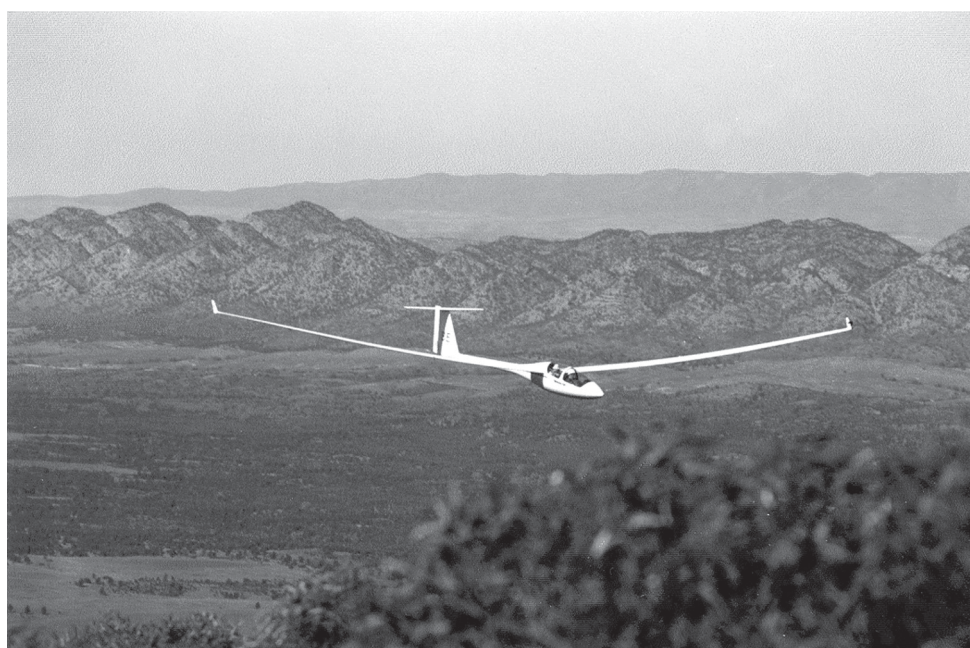
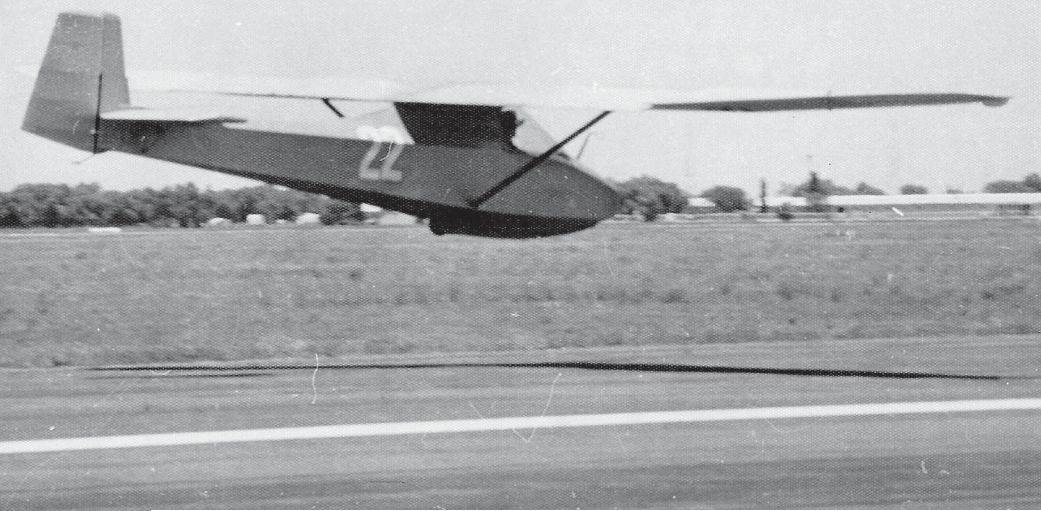


Photo: Grant Hudson

UPLIFTING TIMES – 4

Cross-country



Grunau at Narromine

Photo: Col Vassarotti

My first inkling that there was more to gliding than flying around and having fun within range of the airfield came from Geoff Arlington our CFI. He casually mentioned how he found thermals on overcast days with broken cloud by flying from one sunlit patch of ground to another. I thought this made good sense. The next thing he said really made me prick up my ears. This chasing of sunny patches had helped him to avoid outlanding when flying “cross-country”.

Cross-country... now that was a thought. I could hardly believe it was possible to make gliding even more exciting; but the idea of leaving the home field far behind and actually soaring to parts unknown really captured my imagination.

I had to try it for myself.

Just a few weeks after Geoff's remark Ian Turk, one of the club instructors, outlanded the Kingfisher about two kilometres from Camden aerodrome. I was very impressed with the daring and adventure of it all. Even the retrieve was great fun. Cross-country out of Camden seemed to be frowned upon by the Southern Cross instructors' panel back in the early '60s. Clearly, this didn't inhibit Ian.

Mind you, once I realised such a thing as cross-country gliding existed, I could see that a few of the club pilots were quietly indulging in it. Mostly they owned their own gliders – this didn't free them from club discipline, but it did mean that questions were not asked when they disappeared into the wide blue for hours on end.

Jack Herford was one of my favourite people. Apart from being an excellent instructor, he also gave me many a lift to Camden from Sydney in his big maroon Ford Customline. I loved his car, particularly the altimeter and variometer he had installed on the dashboard; eccentric maybe, but very aeronautical.

Jack owned a beautiful little glider called a 'Joey'. Just about every Saturday he would ease his lanky frame into the tiny cockpit of his bright yellow and white machine and take a winch launch. Usually we didn't see him until sunset. He confided to me that his habit was to thermal his little craft over to the edge of Sydney's beautiful Blue Mountains about 60km west of Camden. Once there, he would settle back to admire the fantastic view while indulging his other passion – listening to the horse races on his transistor radio. That's what I call a pleasant Saturday pastime. It also strikes me as an eminently sensible use of radio (just kidding!).

THE NATIONALS

It was now 1962 and having accumulated 60 hours, 200 launches and a 'C' certificate, I knew I was ready to explore the exciting world of cross-country soaring. The club's annual camp was usually held at Narromine just after Christmas. As luck would have it that year the Australian National Gliding Championships were also scheduled for Narromine during the same period. So our annual camp was cancelled.

Col Vassarotti

“SOARING IS SUBLIME” I
THOUGHT, “WHAT COULD
POSSIBLY BE BETTER?”

My gloom turned to joy when the committee agreed that, along with a couple of other 'junior' club pilots, Peter Simpson and Alan Wakeham, I could fly the Grunau Baby in League 2 of the competition.

The first challenge was mastering the GB on aerotow. All my launches to date had been by winch. I was given an introductory dual aerotow in the Long Wing Kookaburra back at Camden, which was easy enough. My second was at Narromine in the Grunau. To say that glider was lively on aerotow is a gross understatement. Even behind the Tiger Moth travelling at a stately 44kt or so the aircraft, in my inexperienced hands, fairly leapt and darted all over the sky rather like a demented swallow chasing a swarm of airborne insects. By the time I got to the top of the launch I reckoned I had it all sorted out. Unhappily, the club instructors did not agree so I was given more instruction, this time in the Short Wing Kookaburra. After that the Grunau and I were ready for the Nationals.

The competition atmosphere was electrifying. To paraphrase Banjo Paterson: all the tried and noted pilots from the regions near and far had mustered at the airfield over night ⁽¹⁾... We found ourselves in the company of the top guns and outstanding gliding personalities of the era. There was Waghorn of the Sydney Soaring Group, Blackwell of the Southern Cross, Churches of Adelaide, Tuit of the Alice, Sunderland of Victoria, Woods of Badgery's Creek, Patching of VMFG, Howland of the North Coast and Kasak of Camden just to name a few of the more than two hundred competitors “gathered to the fray”. ⁽²⁾

And the aircraft: I had never seen so many exotic gliders. I marvelled at the sleek lines of the Skylark 2, two BG 12As, three Ka 6s, the all new Mucha, the Alice Springs team's Olympia, the very pretty Cherokee, the LO 150 and the Australian Schneider designed and built ES 59 Arrow. These were

hot ships indeed. The more experienced of our club pilots were flying the Long and Short wing Kookaburras and the Kingfisher. Even the Grunau 4 looked pretty racy by comparison to our humble Grunau Baby.

We found out later that the editor of "Australian Gliding", Peter Killmier, had predicted that such outdated types as the Grunau Baby would no longer be flown in the Nationals. With its 17 to 1 (optimistic) best glide ratio at 32.5kt, it was not perhaps the ideal cross-country steed; but for Peter, Alan and me it was our excitement machine.

ADVENTURES AND LEARNING

My turn to fly came on day three. Just like my first solo, my first cross-country flight was in the Grunau Baby. There were several other firsts for me on that flight – first contest, first Nationals, first cross-country and, inevitably, first outlanding. The flight ended in a paddock 68km west, close to Nevertire. It qualified me for Silver C distance and height gain and fourth place on the day. Best of all, it opened up an exhilarating new world of soaring adventures.

Peter, Alan and I learned a lot about gliding at the comps. For example, we discovered that thongs are not really good footwear for cross-country flying. They are cool on the ground in 40°C heat, but not so comfortable at high altitude when the temperature drops below zero. Equally they can be a problem if you land in a thistle paddock and have to pick your painful path from the glider to the nearest gate (about half a mile away!).

For his part, Alan discovered that sharing the cockpit with a large, angry, black and yellow wasp was a sure way to beat the tow plane back to the ground. We watched in amazement as Alan leapt from the Grunau even before it stopped rolling on landing. Somehow, he carried the canopy with him and managed to beat off his persistent stowaway at the same time.

We also learned about the need to ensure all parts of the airframe are secured to the trailer during the retrieve after outlanding. Peter landed in a ploughed paddock near Peak Hill on day four. He came second on the day. Alan and I collected him and the Grunau from the paddock and set off to Narromine with the trailer in tow behind Alan's VW Beetle.

Now the Grunau trailer did have its idiosyncrasies. Naturally, it was an open trailer as well as being aged and dilapidated. It also had wooden spokes in its wheels – a nice touch I always thought. The glider fitted neatly enough on to it and looked

rather imposing in its own way. It certainly drew a lot of attention from passing motorists. There was a bit of a problem with the tail plane. As a kind of afterthought, this sat on top of the fuselage and was held in place by a couple of rubber straps (old tyre inner tubes, I think). The arrangement was, to say the least, precarious.

We used to joke about whether the tail plane might take flight of its own accord if ever the rubber bands let go. Well on our way back from Peak Hill that day, that's exactly what happened.

I noticed it had gone and shouted frantically at the others to stop the car. They thought I was kidding. Eventually, convinced that I was serious Alan pulled over and we clambered out of the VW to inspect the trailer: no tail plane.

We found it 20 miles back. To our great good fortune it had not crashed to the road, been run over or otherwise destroyed. It had finished up in a gum tree alongside the road. The only damage was a couple of small holes in the fabric of the elevator. This was excellent news as it was my turn to fly next day. George Detto, after his customary lecture about taking better care of club aircraft, repaired the fabric that evening. Good old George, we were scared stiff of how he might react but as always his bark was a lot worse than his bite.

Overall, we placed fourth in League 2, mainly thanks to some outstanding performances by Peter. We even got our photos in 'Australian Gliding'.



PROMOTE GLIDING

on the Sunshine Coast,
Queensland, whilst enjoying a life
style, others only dream about,
Fly 300 days per year.
Owner retiring.

FOR SALE

 **Diamond**
in the sky
AVIATION

Operated by:
Byron Gliding Club Inc
CASA Air Operator Certificate No. 536061

SUPER DIMONA HK 36 TC, as
new, only flown by Owner/Pilot
hanged at Sunshine Coast
Airport, Maroochydore.
New Motor Rotax 912 A3, 1070 Hrs
to run, New C.S. Prop. Hydr.
Feathering, 1500 Hrs to run.
IFR equipped Panel Incl. all spares,
equipment & workshop.
Well established operation,
extensive advertising in place.
Featured on TV: Getaway,
Great Outdoors, Great South East.
Only Pilots with impeccable Flying
History to apply.
Ph: (07) 5478 0077
Mob: 0419 022 501
Fax: (07) 5478 0555
www.sunshinecoast.au.nu/flyingtours.htm

(1) and (2) AB Paterson "The Man From
Snowy River."

JAXIDA ALL WEATHER COVERS CONDENSATION FREE

www.jaxida.com




Protects your aircraft
- against sun, rain, and snow
- 2 ply fabric with UV-coating
- Self-polishing action in the wind
- Easy for one person to fit / remove

JAXIDA COVER, Strandmoellevej 144 · DK-4300 Holbaek, Denmark
Tel +45 5944 0725 · Fax + 45 5944 0609 · Email jaxida@jaxida.dk

Design reg. 2062846
Pat. No. 9300546



KILLARNEY WENT OFF!

Mick Mackender

AFTER JOE SCOTT LEFT US, BRIAN BRABY SUGGESTED WE HAVE A FLY-IN IN HONOUR OF THE MAN, OUT AT KILLARNEY WHERE JOE HAD ENJOYED AN ODD WEEKEND AWAY FROM THE BUSINESS SIDE OF FLYING.

We got a few heads out there but unfortunately due to sickness Brabes didn't end up making it – a shame after he'd put the yards in organising it. Get better soon mate and come do some circles.

The roll up was Warren Cole, Geoff Ward, Mark Wood, Col Rushton, Tim Clarke, Scott Howell (birthday boy), James, Cedar Anderson, Che Golus, Gabe Anderson and myself, with Kingsley in the driver's seat. And of course Leigh was already there (living there, working there, giving some friends a hand with a gate, and on call for the Volunteer Fire Fighters).

Joe was definitely looking in on us and organised some good flying, but not without a few pranks.

We got there on Saturday and it was a toss up for Carr's Lookout or, as it was only light, Sunday Plain. We headed up to Sunday Plain to set up camp, and as we went past Andrew Horchner's south-east launch it was coming up lightly with some little cycles. A hint of promise. We set up camp and had a look at the western ramp, and, guess what, it was doing much the same. Plenty of time to let things heat up. Woody and James went over to the eastern side for a look and it was still coming up lightly. Leigh had a west-north-west kicking in down on the floor and it was coming up on both sides of the hill. We figured with the sun coming over to the west and west-north-west on the deck, the western side was gonna' be the go. Geoff and myself carried down and I started setting up. With five battens in the breeze turned south and dribbled over the back; Leigh had an east-north-east in town...

...In the end some flew from Andrew's and some ended up with a couple of hours at Carr's (hard place to get away from, though). Geoff launched then top landed, and the rest of us got off the hill and climbed along the ridge out to the southern point and then out to the flats. We were getting to about 6,000ft. Woody, under the big Climax, headed for town... keg suck...



Geoff launching at Sunday Plain

and the rest of us were thinking of giving it a good shake as Geoff put his hand up for the drive. Scott and myself, in Litespeeds, were getting between 6,000 and 8,000ft and heading for Warwick. Col (Climax), Waz (Shark) and Tim (Combat) were just behind us on a lower level but working hard and pushing on. Tim lost it and hit the deck over half way to Warwick and the rest kept into it. I was over Warwick when (surprise, surprise) I lost transmission and sight of the other's, but could still hear them ("Mick, where are you?... Mick?..."). If only they'd tell me where they were... I was a few kilometres past Warwick on the north-west side when I heard they were on the south-west side, so I headed over that way, got low, then went back to the highway and put it down... or it put me down... a few kilometres out of Warwick. Col and Wazza had done the same on the south-west side and Scott pushed on a bit further down the track with about 50km for the day's effort. Well done, Scott wins the day, Waz gets a

personal best (a good effort in the kingpost) and what a ripper of a day. Joe turned it on for us in the end!

Then it was back to the pub for a feed, a couple of quiet ones and a chat with Leigh, then up the mountain for the night's camp. Nothing like a bit of BS'ing around a camp fire.

Sunday was more obvious with it coming in light from the north-west early. The forecast was ringing true. The early call was to fly west on Saturday and head east for home on Sunday, and it was looking good for just that. The challenge was on!

The punters were keen and Cedar was first off with Che a little after. Their plan was a local XC and back for the cars. Cedar headed to the south spur, climbed out and that was the last we heard from him. Good sign? We later got the story on Cedar and here is his spin:

"Never had such a good response from the locals. Almost on the deck about 13km away from launch. A ute drives past with guys hang-



Scott launching at Sunday Plain

ing out the windows yelling. A hat flies off and they do a U-turn. I'm thinking, beauty a lift, but I didn't expect to be handed a XXXX beer over the fence before I've even unclipped. Twenty minutes later they're shouting me beers in the pub! These guys were wild horse racers on the way back from winning the rodeo. Generally a great response from the locals out here. When I first asked Andrew H where the bomb-out was he said, 'Anywhere you like, they're nice out here'. Now that's different."

Che was getting low and heading for the bomb-out, then crack! Up he goes in a screamer! He was away and headed for Legume. Andrew H launched and chased him and Che landed just short of Legume. Here's a cut from his spin:

"Sunday was great, we flew interstate! A bit of a novelty. Landing was pretty uneventful, except I landed it in a paddock full of dried out dead thistles... not good for the wing! It was a good choice though: Andrew H landed about fifteen minutes later in the same paddock, so at least I had company, and was told he'd already organised a ride back! What service."

Scott was first of the hangies to go and got up in Che's screamer. Tim and Geoff did much the same and they were away. Launch went dead then to the south-west and it was a while before it came launchable again, and by that time they were over the plateau and heading for Woodenbong. I was off, then Col, and Leigh was left there a while on his own. He had a bit of a cruise around then headed for home and landed in town. Woody and Wazza decided to drive, which worked out great for the rest of us as we had

all the cars heading for home except for Cedar, Che and Gabe who had to go back up the hill. We were all across the plateau and Tim, Col and myself were on the next ridge and definitely making Woodenbong.

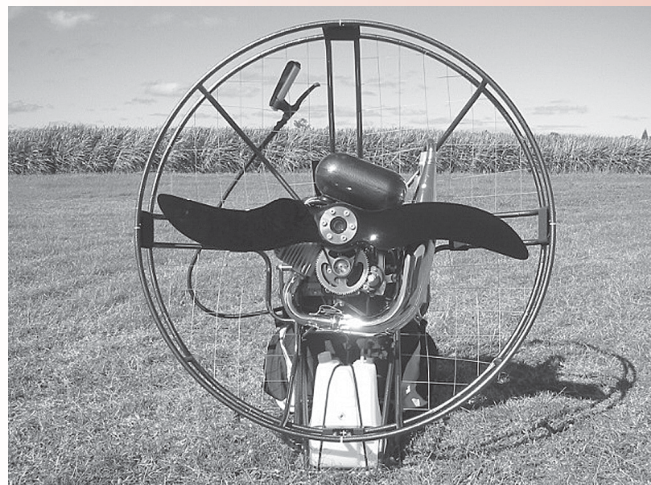
Geoff and Scott were already there, and Scott landed a few kilometres east at the big dam. Tim was having a screaming match with an eagle; the VOX kept us all tuned in. I swear people below would have heard me laugh. Col was planning a landing on the west side of Woodenbong and I was dribbling over town taking everything I could to get to Geoff. Tim was coming in on the west side of town, which meant we'd all made it at least to Woodenbong. I ended up in a good one close to Geoff, but he was high and by the time I got back to 6,000ft he was off across the Tiger. I got to 7,000ft and chased him, but couldn't catch up, then got a cracker just west of Middlemount. I saw Geoff low but lost sight of him when I was

Photos: Mick Mackender

climbing. I got back up to 6,500ft and headed into the nor'easter which we met at Woodenbong but which was getting stronger. I couldn't see Geoff on the deck and thought he must have got one and pressed on. I had to keep into it and I was following the ridge getting sink sink thermal, sink sink thermal. I got another good one in a bowl east of Middlemount and had Wiangaree in glide angle as long as I didn't get too much sink. I didn't spot Geoff, but I made it to Wiangaree picking up dribble not worth a turn, and couldn't see anyone getting much further as little John was probably doing a couple of hundred kilometres somewhere else. I found out Geoff had hit the deck just east of Middlemount when I put it down on the south side of Wiangaree for a total of 70km and thanked Joe for a great weekend of flying, the best we've had in a long time. Sorry to those who had to miss it, but... was this the first Joe Scott Memorial Fly-in? Next year? I'm in!



WANT MORE Airtime?



- **NEW EXPLORER POWERED HARNESS**
- **DISCOVERY PARAMOTORS AND**
- **NEW RADNE MODEL**
- **POWERLITE SOARING TRIKE BASE**

[www.airtimeproducts.com] <info@airtimeproducts.com>

Phone: 07 4945 2851 (BH), 07 4946 6305 (AH)

Mobile: 0427 726 984

AUSSIE MADE & SERVICED – WHY BUY ANYTHING ELSE



Wind

James Freeman

THE INSIGHTFUL JAMES FREEMAN GIVES US A LOOK
AT WIND – WHY IT BLOWS AND WHERE IT GOES...

WHAT EXACTLY IS WIND?

Air is a fluid just like water and much of its behaviour can be explained using analogies to water which is what I intend to do. A mass of moving air is what we feel as wind – stick your head out a car window on a still day if you don't believe me – you feel wind because you are moving relative to the air. This is the same as the wind you feel when air is moving relative to you when you are stationary.



WHY DOES AIR MOVE?

Air, like water will flow from an area of high pressure to an area of low pressure – it flows down its energy gradient in line with the laws of thermodynamics. When a parcel of air is heated it expands and becomes less dense. If the surrounding air is more dense (because it has not been heated as much) then this heated less dense parcel of air will rise. We see this principle in action when we watch a hot air balloon fly.



THE BIG PICTURE

Solar radiation heats the surface of the earth. It also heats the overlying atmosphere both directly through atmospheric absorption and also indirectly due to the fact that the heated surfaces of the earth warm the overlying air mass.

At its simplest, on a global scale, a parcel of air heated at the equator rises, leading to a relative area of low pressure. It then heads towards the poles, cooling as it does so, leading it to fall back to earth in the more polar regions causing an area of relative high pressure. This falling parcel of air then flows along its pressure gradient back towards the low pressure air at the equator where it is again heated, rises, and heads for the poles. The resultant circulation that is set up gives rise to the familiar high and low pressure systems which we see on the nightly synoptic

(barometric pressure) chart on the news. This chart is made by observing the air pressure on the ground at multiple locations around the country. Nowadays a computer then joins the dots to join up areas of equal pressure along what are known as isobar (iso = same, bar = pressure) lines. A glance at the chart shows a complex selection of high and low pressure systems (the above explanation is simplistic) which allow us to predict the big picture winds.

We make this prediction as follows. Air flows from the centre of a high towards the centre of a low. To complicate matters slightly the rotation of the earth leads to a curious effect called the coriolis effect. I will not explain that here but simply draw upon a water analogy. Consider the water in a sink; pull the plug and watch the water going down the plug hole – it is moving from an area of high pressure to an area of low pressure and begins its familiar spin due to the coriolis effect. In the southern hemisphere this spin is anticlockwise when viewed from above. Try it. For all you jetsetters try the same experiment in the northern hemisphere and you will discover that the water rotates clockwise! The same effect happens when air moves from a high pressure system towards a low pressure system. It begins to spin anticlockwise. Air flowing into a low pressure system rotates clockwise. In practice this moving air (wind) almost follows the direction of the isobars on the barometric pressure chart. Thus you can now predict the wind direction from a barometric chart – it will be following the isobar lines. You can also predict wind strength by noting the closer the isobar lines on the chart the greater the pressure differential causing the air to flow. More pressure = more flow = more wind.



A PICTURE OF MEDIUM SIZE

It's cold down in Antarctica. Just as icebergs break off glaciers, head north and slowly dissipate, so to do masses

of icy cold polar air break free and sweep north over southern Australia. We call these masses of cold air cold fronts. These cold fronts bulldoze their way northward putting dents in the pressure systems (bending the isobars) which cause the rapid change in wind direction with the passing of the front.



A LOCAL PICTURE

Consider a beautiful summer's day. The sun heats the land which in turn heats the overlying air

much more than it heats the ocean. Hence as the day goes on air over the land is heated, expands, rises, heads out to sea, cools, falls, and flows back from the sea to the land. The resulting circulation is called a seabreeze, which brings the refreshingly cool ocean air over the coast on those scorching summer's days. The reverse situation occurs at night when the sun goes down and the land cools off. The air over the ocean is now often warmer and a weaker offshore land breeze occurs overnight.

A similar situation occurs in the mountains where the mountain tops are heated before the valley floors because they are first to see the sun. Again circulation is set up with the air flowing up the mountain during the day to fall back into the valleys. This is known as an anabatic (mountain) wind. As evening approaches the situation reverses with the valleys now being hotter and the wind then reverses direction with relatively cooler air flowing down the mountains into the valleys where it is heated, rises, etc. This is known as a katabatic (valley) wind.



A LITTLE PICTURE – OR ACTUALLY THE UNIFYING THEORY

On a localised scale consider that the air over a bitumen road is heated far more than the surrounding land. As a result we get the by now familiar effect of a parcel of relatively



warmer air rising. This rising parcel of air leaves a "hole" which is filled in by the surrounding air rushing in to take its place. This leads to the interesting phenomenon that two people on opposite sides of our theoretical road would feel a wind rushing in towards the bitumen road – ie, they would tell you the wind was blowing in completely different directions. Consider the chicken crossing such a road. First the wind comes from behind; then it goes up; then it blows in our somewhat confused chicken's face. Startled by this discovery our intrepid chicken decides scientific doctrine requires multiple repeats of the experiment to add validity to the results. Could this be the answer to the eternal question?



T-T-T-T-T- TURBULENCE

The discussion above has made an implicit assumption of smooth (laminar) flow – this is not

valid in the real world. Consider another water analogy. The flow of water down a stream around rocks may be laminar or turbulent. When the flow is slow the water passes easily around the rocks. As the velocity of the water increases a point is reached that the inertia of the water is such that it ceases to be able to flow smoothly around the rocks. Turbulence sets in. This can be observed at a set of rapids where eddy currents set up behind the rocks, sometimes breaking off to flow downstream. Exactly the same situation occurs when air moves. At low velocity air flows smoothly around obstructions. As the velocity increases so does the magnitude of the turbulent eddies behind that obstruction. Some of these eddies also break off and continue downwind until they have dissipated all their energy and break up. We feel these eddies as changes in wind direction.

The size of the eddy depends on the size of the obstruction. The turbulent eddies behind a mountain may be kilometres across and felt for hundreds or more kilometres behind them. They are of course felt as changes in wind direction. This phenomenon applies on all scales. There is turbulence behind even a blade of grass – important only to butterflies flapping their wings in Brazil.

So there you have it – wind
– why it blows and where it goes.



- ~ Free email address "your_name@OziPilotsOnline.com.au"
- ~ Advanced webmail facilities, get your email from anywhere
- ~ Aviation directory, find the company your looking for
- ~ Discussion forums, share your views with others
- ~ Classified advertisements
- ~ And much more!...

*"A web site for
Australian Pilots
regardless of
when, why,
or what they fly"*

www.ozipilotsonline.com.au
AUSSIE PILOTS CONNECTION



"Ol' Eagle Eyes" Flight Glasses

From North Coast Avionics Pty. Ltd.
ABN 61003732492
PO Box 741 Byron Bay NSW 2481
Phone / Fax (02) 6685 6287
email cummings@nor.com.au

Check out our web page

<http://www.nitroaustralia.com.au/eagleeyes.html>

Frames - Glider, Hangglider, H/g Small and World's Specials
Tints - Original Red 6, Red 4.5, Amber 6 and Purple 6

Australian Dealers

Moyes Delta Gliders - NSW
Steve Blenkinsop - SA

International Dealers

Nixon Beltrao - Brazil
Johnny Carr - England
Hiroshi Mamiya - Japan

Dealer inquiries Welcome



NARROMINE CUP WEEK 2003

– National Coaching Course

Ross McLean

YOU SHOULD HAVE BEEN HERE... “YOU SHOULD HAVE BEEN HERE YESTERDAY...” HOW OFTEN HAVE YOU HEARD THAT SAID WHEN YOU’VE JUST ARRIVED AND IT’S EITHER BLOWING A GALE OR TORRENTIAL RAIN IS DROWNING THE CAT.

But this was different, and you really **should** have been here this week.

It is not often that top competition pilots offer to donate their time and skill and to share hard-won experience to help us lesser mortals. Match this with brilliant soaring conditions, the excellent organisation of the Orana Soaring Club at Narromine Cup Week and you have a recipe from Heaven.

I’m talking specifically about the National Coaching Course initiated by Lisa Trotter and run by Australian National Coach, Paul Matthews, at Narromine Cup Week in November 2003, and it was an exceptional week.

Thinking back on it now I can blame Bernard Eckey. His outstanding series of articles in *Soaring Australia* inspired me to work on my, very basic, cross-country skills and to apply his knowledge to increase my speed around a task, (therefore fly longer distances) and to apply better technique to my cross-country flying generally. So when I heard that Paul Matthews was going to be running the course during Narromine Cup Week it seemed a perfect fit.

And of course, it was.

The course structure consisted of theory sessions for an hour each morning before briefing, followed by task planning, flying the task and a de-brief and more theory or a guest presentation in the evenings. (For example, David Wilson explained to us why little boys who tell lies grow up to be weathermen).

Each day’s flying consisted of a Lead and Follow exercise around a triangular course. Day one was easy, a 109km triangle with instructions to fly around it as many times as you could. More usually the task was 250km to 350km. Course members would alternate one day flying dual with Paul in the Southern Cross DG1000 or the Twin Astir from Orana.

The blessing of the lead and follow exercises meant we got to fly with, and learn from, some of Australia’s top pilots like Paul



Coach Paul Matthews

Matthews (dual), Peter and Lisa Trotter flying their LS8 and ASW20 fleet, Mitchell Turner in his Jantar 3, James Cooper, who came over from Western Australia with his Polish SZD 55 (and showed us all up by winning the Narromine Cup), and Peter Buskens in the best looking ASW24 you will ever see.

It’s the stuff dreams are made of. Fly a series of challenging cross-country tasks with some of Australia’s best cross-country and competition soaring pilots. They are leading by example to show you how they do it, waiting for you if you get behind (they will even pop their brakes and descend to help you back up!), and directly coaching you on task on a discrete coaching frequency. It’s the sort of opportunity you would be prepared to pay a lot of money for and it would be worth it. The whole point is that in this GFA course these top pilots are giving back to the gliding community by donating their time and sharing their hard-won knowledge and experience at no cost to the students. On behalf of all the students on the course, **Thank You.**

The emphasis in the course is to lift your game technically, give you the theory base to apply in the cockpit, stretch you on tasks you may not have attempted otherwise and achieve personal bests.

My personal goals were to achieve a better than 100km/h average around a task,

fly longer tasks and get home, and to improve my thermalling and cross-country skills generally.

So how did it measure up? Well, I exceeded 100km/h on four separate flights, completed my first 500km task, came second on day five of the Cup and 10th overall... It measured up.

Our course had seven students, all at roughly the same stage of proficiency. Jay Anderson, Richard Solomon, Bob Bowler, Rolf Cetinski, Brendan English, Goe Tera-moto (see “Goe’s First Nationals” in April 2003 *Soaring Australia*) and myself. Unfortunately Jay dropped out after the first day due to a re-scheduled work commitment which left two groups of three. Rolf and Bob shared a Pilatus B4 and an LS4 between them and Brendan had a Standard Cirrus, forming one group. Then Goe with his LS8, Richard with a DG400 and me with the ASW19b formed the second group.

The flying worked out like this:

DAY 1

Lead and Follow: Narromine – Trangie – Wyanga Silo – Narromine (109km)

The task was to follow Paul Matthews, James Cooper and Mitch Turner around the task as many times as possible or until we got sick of it.

This was a brilliant strategy by Paul as we were able to concentrate on improving our flying/thermalling/cruising without the nagging worry of a long retrieve home if we bummed out. James was a terrific coach, “...come over here, I’m in the core...”, he would quietly say over the discreet coaching frequency we were using, “...fly on the sunny side of the cloud street...”, “...turn tighter, get 45 degrees!” (he later issued every one with two drinking straws and a lump of blue tack to set a cockpit reference of 45 degrees for thermalling).

The weather turned threatening at Trangie on the third go around so I turned

for home completing a total of 279km. James, being the determined pilot he is, continued all the way around for a third time and set the standard for the rest of the week.

DAY 2

Lead and Follow: Narromine – Collie – Tullamore Silo – Narromine (267km)

This time Goe and I were paired with Peter Buskens flying his ASW24, Rolf and Brendan followed Mitch in the Jantar 3 and Richard went with Paul in the DG1000.

After a delayed start on what was turning out to be quite a difficult day, the three of us got together in a thermal at cloudbase over Narromine at about 6,000ft. The weather had closed in from the north so Peter decided we should go south to Tullamore Silo first. After a quick re-program of the GPS we set off cautiously into the south. Our progress became more and more cautious until we were faced with a very large blue hole in front with no real alternative way around. Peter's calm voice came over the coaching frequency: *"I think we should just tip-toe across here."* Oh yeah..., "famous last words" I thought. But amazingly we did just that, flying slowly at about 70kt and feeling for the best air, all the time moving left or right of track to maintain the lowest height loss as we crossed. We made it across to the Bogan River and found some weak lift under a cloud that was, by this stage, a looong way above us.

This day turned out to be an extremely valuable lesson for me. Later in the week it significantly contributed to my 500km achievement (thanks Peter).

Moving on further we found some stronger lift and climbed back to cloudbase at about 5,500ft. After a discussion between Paul and Peter on the coaching frequency it was decided to abandon the task and head for Narromine as Paul was getting low in the DG1000 and none of us were looking forward to a paddock de-rig of the DG.

DAY 3

Lead and Follow: Narromine – Nyngan – Curban Silo – Narromine (330km)

Goe was flying with Paul in the Twin Astir today and Richard had decided to try for a 750km, so my lead and follow task turned out to be just Lisa Trotter and I. Lisa was flying the LS8 and husband Peter in the ASW20, led Rolf, Bob and Brendan around a slightly shorter task.

After climbing to a 7,000ft cloudbase and switching to the coaching frequency I heard what was to become a very familiar "click, click" signal from Lisa indicating it was time to go. The LS8 led off on track

for Nyngan, and we didn't make a turn until we struck six to eight knots lift about 45km down the track. Boy did I breathe a huge sigh of relief when I saw that LS8 pull up and turn!

This was another singular lesson for me. Despite encountering good lift on track prior to this Lisa would simply pull up in it and slow to about 65kt, we often deviated slightly to the left and right of track to maximise en-route lift, but did not turn.

I would have turned in lift a long time before this and that's just one of the reasons I was always slow around a task.

We cruised around the task between thermals at 85 to 95kt, (the LS8 could have gone much faster but Lisa was kindly flying to a good speed on my ASW19b polar curve), only turning in lift when we struck a good thermal near the bottom of our height band. After turning for home at Curban Silo it wasn't long before we had final glide for Narromine and were headed for the bar. Speed around the track was 105km/h, my best ever and the first time I had cracked the 100km/h barrier.

DAY 4

Dual Cross-country: Narromine – Parkes Silo – Narromine (205km)

Today was my turn to fly with Paul in the Twin Astir, something I had been looking forward to as there is nothing like having someone with Paul's experience sitting in the back coaching you directly. The air was good today and we had big cloud streets to follow. The Twin Astir is so much heavier and more sluggish than the ASW19 it took me a little while to get used to the feel of the aeroplane. Luckily it was a strong day and we managed to find a good launch point thermal and get away.

The lesson for today turned out to be one of cloud selection along the street, and when to make a larger deviation than normal to jump across streets. It was an enjoyable and instructive flight, with Paul giving plenty of feedback. On the way home after taking a couple of turns in lift (for the wife and kids) at Peak Hill we had final glide with height to spare and so I commenced a straight home cruise at 80kt, slowly increasing the speed and checking the angle back to the field. When Paul announced, *"if you can get back home within five minutes we will crack 100km/h,"* I needed no further encouragement and wound the Twin Astir up to 120kt. After crossing the line just in time to make a 102km/h average I guided the Twin gently up into a climb, flew the circuit and landed one happy pilot.



CLIMATE AND DUST COVERS

**Why be afraid of dust, rain sun?
Protect your airplanes
with effective covers!**

From Sweden.

All covers are made of white waterproof web and have very high UV protection.

All sewing is with double thread.

We give you four 4 years guarantee on the materials.

Easy to wash.

I will send product and materials information if you wish.

**For more information
contact Lars-Erik Blom:**

Emfo AB Sweden – Fax: 46 504 15150

Email <emfo@telia.se>,

Internet [www.emfo.se/]



LAKE KEEPIT

TAMWORTH NSW

- ★ Training 365 days a year
- ★ Good glider availability
- ★ Bulk flying discounts
- ★ Private owners welcome
- ★ Extended gliding season
– 300km in July!

Contact Jim Stanley – Manager

P.O. Box S152

TAMWORTH SOUTH 2340

Ph: (02) 6769 7514

Fax: (02) 6769 7640

Email: keepitsoaring@bigpond.com

www.users.bigpond.com/keepitsoaring





Ross McLeod

DAY 5

Today was our day to achieve a personal best and Paul sent me off on a solo 500km task to Coonamble – Tichborne Silo (just south of Parkes) and back to Narromine.

The track takes you directly back over Narromine about halfway through the second leg so it is a good first 500km task, allowing you to come home if either you or the day are not up to it. I found this very comforting as I had never attempted a 500km before. The longest task I had previously flown was 478km and that had taken me seven hours.

Ensuring I had plenty of water and Muesli bars onboard I set off. The day was strong at first and I was getting good streeting until just past Gilgandra where the clouds disappeared and I was faced with a very large patch of blue sky. Although a little daunted, I figured it was such a strong day that there should be good lift in the blue so pushed on, initially a little slower. Indeed there was good lift, still around seven to nine knots in the blue, just no fluffy cumulus to help spot them, so I changed back up into overdrive and pushed on. With the wind behind me

I made good time to Coonamble and turned about 15 minutes ahead of schedule.

The going got tougher though as I now punched into a 15kt headwind. The rather depressing thought occurred to me that this was my lot for the entire 253km second leg. Things got a little easier once I had made it back to the cloudy section of the sky and I was able to push a little faster under the still quite strong streets. I made it back overhead Narromine at about 6,000ft, got a strong climb to cloudbase at 9,500ft and confidently pushed on towards Tichborne. So far so good I remember thinking...

As I reached Peak Hill my heart sank as I could see that the day had died in the south and I was again faced with a huge patch of very dead looking blue sky to the turn-point and back.

I still had some 110km to fly there and back in the blue... This time though the possibility of lift seemed very slight as it was now after 5pm and the day was very definitely going home. It was at that point that my "tip-toeing" lesson from Peter Buskens came to mind and so I made a conscious decision to press on, but very gently. (Prior to attending this course I would have turned tail and headed home at this point.) Changing gear, I now floated along at 70kt, very conscious of flying in good air and avoiding sink whenever possible and thinking positive thoughts (!) about finding a good thermal. After floating for a very long time in fairly stable but descending air, I got into some weak lift. It wasn't much but I figured it might at least get me to the turn point, which it did and there I hit a strong thermal coming from the heat stored in Tichborne Silo during the day.

Now I had a tailwind home and started to "tip-toe" for Peak Hill, at worst I could still get an aerotow home from there. Happily it was not necessary, I hit a strong end of day thermal at Peak Hill and climbed up to my final glide height... Whew! Made

it home a very happy and tired pilot, having averaged 88km/h around my first 500km.

DAY 6

The last day of the course was intended to be a fun race around a 269k task, (Narromine – Tottenham – Mullengudgery – Narromine).

Paul roped in Peter Buskens (ASW24), to fly with us. Paul took Rolf in the Twin Astir, Bob flew the Orana LS4, Goe flew his LS8 and I flew our ASW19b.

The start was a bit of a trial as it was a late starting day and everyone had a struggle to get start height. But it eventually cooked up and once we were all together in the one large gaggle, off we went.

The first leg was strong and the pack cooked along together gaggling with each other in the good thermals and spreading out across the sky in cruise. The second leg from Tottenham to Mullengudgery turned into a real struggle as the lift was few and far between but as usual the sink was very plentiful. I scraped across to Mullengudgery where I somehow managed to fall behind again (great lumps of 10kt sink helped this a little).

Although I managed an average of 99km/h I got home not quite dead last, but close.

It's on flights like this that you get that "...ahhh, yes, ...I will get home after all..." feeling, and ain't it great.

DAY 7

They say "the proof of the pudding is in the eating."

I had broken that magical barrier of 100km/h, but was it really me or did I get towed around by my instructor? The last day of the Narromine Cup week was to provide the answer.

By Saturday the course had finished and a lot of pilots had de-rigged and gone home. The wind was from the north-east, so I set myself a 330km task to Nyngan, Gilgandra and then home.

There was no pressure to get around the task, or even go for that matter. I had dawdled to the launch point and everyone else had long gone. In fact there was more pressure to turn short so not to be late back, or land out, as I still had to de-rig and then there's the presentation dinner...

Well, happily the trusty ASW19 took me around the task at an average speed of almost 110km/h, the fastest I had ever flown around any task, another personal best, ... and that pudding tasted great!



WHAT A DAY!

Mark Morgan

SATURDAY, 15 NOVEMBER – AT 12:00, THREE SMALL CUS WERE SPOTTED 20KM TO THE SOUTH OF WAIKERIE.

These increased slightly in number after half-an-hour. By launch time a significant line running north-west to south-east was plain to see.

Climbs around the airfield were fine but a slow start for some trying to get away. Moving south toward the cu line climbs were average. The first climb under the cu went better than 10kt and we levelled out at 15,500 ft and headed down the line toward Pinnaroo.

Pinnaroo passed underneath in good time, Anders made his turn at Panitya over the border east of Pinnaroo. We continued on to the edge of the Great Sandy Desert

further south-east. As we turned, Peter Robinson was just behind us in the Nimbus, the frontal line that we were turning our backs on continued on to the horizon.

Tracking back towards Waikerie now at good speed, working a height band between 10,000 and 13,000ft most of the time and trying to keep the ASI just on the manoeuvring speed marker! Anders was well ahead making very good time.

Just past Waikerie, Anders went by in the opposite direction after turning The Gums and was on his way back down the front to where – he was still unsure.

Pete Robbo had fallen off the line and landed back at Waikerie. Just on the north

side of Morgan we had to see just how high the cloudbase had risen and at 16,300ft Mike and I turned out from under the cu and headed for The Gums.

We rounded the turn point and headed back to the frontal line as it moved swiftly in a north/easterly direction. Back on the lift line now and rocketing along the 75km back to Waikerie.

Anders, in the meantime, had turned Taldra in the east and was on his way home. We cruised in overhead Waikerie from the north. The windsock was standing out quite well and the computer said we had a 24kt headwind. A nice fast approach, finishing on top of the hill. We cleaned up the ship and put it away as Anders zoomed in overhead.

Anders completed 660km and, according to his flight trace, achieved a 432.9:1 L/D for the 215km leg of Panitya to The Gums. He only stopped once to climb 3,000ft as he felt 9,000ft was getting a bit low!

Mike and I completed 466km in good time. At cloudbase the temperature was -5°C, so we didn't stay up there very long at all!

What a day!



T&J Sailplane Services

Hangar 53 Camden Airport PO Box 324 Camden NSW 2570
Phone 0246 557079 Fax 0246 557078 Mobile 0409 557079
Email: tnjgilbert@bigpond.com Website: www.tjsailplanes.com



Major and minor repairs on FRP and metal gliders.
Tyres, tubes, wheels, brakes, perspex, seals, tapes.
Australian Agents for DG and AMS Sailplanes

The new DG-1000. First example in Australia now flying with Southern Cross Gliding Club.
Take advantage of the strong A\$. Current price ex factory for DG-1000S is approximately A\$130,000.

THE CROSSING

David Holroyd

LET THIS BE A WARNING TO ANYONE WHO FLIES AND BELIEVES THEMSELF CONTENT. IF A TIME COMES WHEN YOU HAVE ROAMED THE LOCAL SKIES FOR SO LONG THAT THE NOVELTY OF SEEING MONOCHROME COWS AND GREY TOWNS FROM THE AIR IS WEARING A LITTLE THIN, THEN BEWARE; YOU MIGHT, LIKE ME, PLAN A SMALL TRIP ACROSS A MOUNTAIN OR SEA AND END UP CHANGING THE WAY YOU SEE YOUR LIFE.

For years I'd been talking about crossing the English Channel. In fact the idea that I could travel to new and exotic places was the real reason I had learned to fly in the first place. And for a British pilot, crossing the channel is a lot like leaving home for the first time; something to be both feared and anticipated. But for years I'd prevaricated; an occupation we humans excel at. At first it was my own fear of the complicated alphabetical world of International Airspace that kept me on this island. Then it was the dreaded knowledge that the only thing holding my wings together and keeping me from the stomach wrenching freefall plummet that could end my life was a single steel bolt. Then it was the need for a radio license...

Suffice to say, it could have gone on forever. France seemed a long way away.

It actually took a friend to call my bluff. Rod Parker, an Aussie mate alarmingly enthusiastic about doing anything that involved life threatening danger, jumped on the idea of a cross channel flight and asked me what was wrong with next weekend? During the war, his dad from Melbourne had flown the same cross channel route in Lancaster bombers in conditions we could barely imagine, so Rod was keen to trace the old man's footsteps.

There is no such thing as making a decision to do something momentous. You just start doing it. Next thing I knew I was on the phone giving my credit card details to a firm that hires out marine safety equipment. Two days later, when the flares, life-jackets and voluminous orange immersion suits turned up, it sent a shiver of excitement and trepidation through me. This cross channel trip, like all big events, had taken on a life of its own – like a large rock rolling down a hill, all you have to do is give it that first little nudge and then you have no choice but to keep up.

That Friday night the weekend weather looked good and suddenly there were no more excuses. It was tomorrow morning or never.

Rod is like an old Ford Escort – not very good at cold starts, but fun to spend time with once he gets warmed up. Consequently, when I picked him up at 5 am on Saturday, he got in the car and immediately showed his solidarity by falling asleep and snoring loudly all the way to the airfield. Fortunately the airstrip was at a farm, so the noises he was making fitted right in.

The first 75 mile leg from our tiny home strip in Aylesbury to Headcorn airfield in Kent, leaping off point for so many cross channel adventures, started at 8 am in the morning. With the pale outlines of horses snorting steam in the nearby fields we rose into the still air, soft mist and dawn light, known for good reason in the film business as magic hour. But ten miles of fog lay thick over the land and as a balloon popped slowly up and down in the whiteness beneath us, like a fugitive bubble from a lava lamp, we turned back home to wait for the fog to clear, unwilling to risk an engine failure over terrain we couldn't see.

Whilst we waited and I paced the field, I had time to consider the dangers of what we were about to do. There is no denying that crossing the channel in a souped-up hang glider powered by the kind of engine more usually found delivering pizzas is still a dangerous business. People have died doing it. If our engine fails, as fickle two strokes so often do, and we ditch, survive the crash and the microlight doesn't sink instantly, we then have to untangle ourselves from the cat's cradle of wires that hold the wing together and hope we can avoid getting steamrollered by container ships the size of Switzerland whilst waiting for a rescue.

To top it all, my 100th hour as a pilot, generally a cause for celebration, would be

mid-crossing, and if ever there was a big fat invitation to fate to drop us right in the middle of the busiest shipping lane in the world, that would be it.

Just then Rod looked over from his bacon sandwich, so I smiled reassuringly.

When finally the fog cleared, the noon sun was prodding thermals up off the dry brown fields, and so we bumped and jerked our way around London to Headcorn.

After a farm strip shared only with a few horses, Headcorn with its skydivers and buzzing air traffic seemed more like Heathrow. When I walked into the reporting point to file my cross borders flight plan I admit I really had no idea what to do. I felt like the new kid in school. The radio controller, Jamie, juggled the circuit traffic, parachutists and my flightplan as easily as to suggest he might also do a bit of plate spinning in the evening if there was nothing good on TV. He exposed the sacred secrets of flight plan jargon in under 30 seconds and said he'd see us tomorrow on the way back.

As I gurgled fuel into the tanks I began to feel better. When someone says 'see you tomorrow' it's reassuring to realise that there is at least one person in the world who doesn't think you'll die on the trip; especially since all my friends had given us up for dead the moment they heard we were planning to cross the channel in a flying lawnmower.

Tanks topped up, the microlight was ready. But were we? Twenty miles in one direction people were banging their shopping into each other on crowded London streets, and 20 miles the other way a vast 360 degree world of blue sky and sea lay waiting to test us.

Thirty minutes later and we were turning out over Dover, the sea and sky opening up before us in a horizonless haze of water-colour blue. Looking straight down I watched the line between the land and the



Leaving England at Folkestone

sea slip beneath the front wheel, towards the back wheels until there was nothing beneath us but the shimmer of water. This was it; if our engine failed we were in big trouble; but it hummed away contentedly behind us, completely oblivious to the momentous journey it was taking us on.

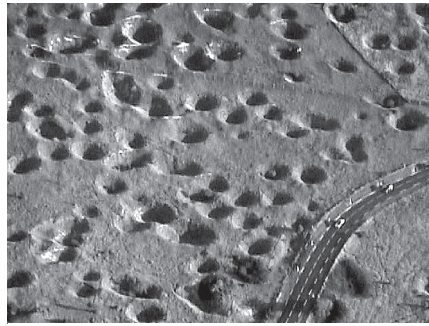
For Rod this was a special moment. During the war his dad, Noel, had led a squadron of bombers across the channel countless times in conditions we could barely imagine. In his 50-second mission his Lancaster had been shot up by a German fighter. Ordering his men to bail out he'd struggled to the back of the aircraft to try and free the trapped rear gunner when the plane exploded mid-air. Three days later he woke up on the ground, naked, with a broken neck and no idea of how he survived. The resistance found him and six months later smuggled him back to England, where, if that wasn't enough of a story, he flew another 60 missions and still survived. He was just 27 years old.

Granted, no one was shooting at us, but at least Noel had four engines. We had just one. I glanced back at it, but it seemed unperturbed by the attention and ignored me.

So as the engine thrummed us gently towards mid-channel I looked around again, this time at Rod. With the sun slanting sidelong through the haze, and behind him the pale blue of a sky that you only get at altitude, I immediately recognised the picture – it was the same as the images you see of mountain climbers on the roof of the world, fighter pilots on the edge of space or



Mid-channel and all is blue...



Bomb craters on Griz Nez

astronauts backlit by the earth. Man in the extremes, and nothing between him and it but a few layers of fabric in a protective suit. No picture, no matter how vast its borders or how vibrant its colours, can ever truly give you the feeling that being suspended in that breathtaking 360 degrees of blue does. You have to feel it for yourself.

And then something happened. Not to the engine, but to me. In an unexpected instant of nirvana I suddenly felt like I had crystal clear air running through my veins.

For a few precious minutes, caught in the heart stopping blue of mid-channel, we were suspended in time and space, only the GPS quietly counting away the miles to remind us that we were actually moving and the world was still turning.

The French coast floated towards us out of the haze and we drifting along it towards Calais airport, a gleaming line of white art deco buildings and green grass being washed slowly gold by the lowering sun. Two winking lights at the end of the runway beckoned us in as we glided down onto the pale asphalt, rolling to a stop right in front of the tower.

We tumbled out of the aircraft hugging each other. We were alive, we had made it, and the world felt somehow different. Just as when you walk from one tube station to another after only ever having travelled underground and are shocked to find the two places aren't little universes of their own but are one, France was no longer just 'over there', it was part of 'here' too.

Next morning before we took off for the return trip, the English pilot of a squat two engined plane looked at the microlight. With an astonished expression on his face he said, "I admire your bravery". But perhaps he should have envied our experience. Racing across the channel in his hermetically sealed cockpit, much like driving a family car across the sky, he won't have felt the same things we felt. Once you're inside an enclosed space, the view of the world is like watching a widescreen TV; a spectacular experience, but somehow lacking the feeling of really being there. In an open cockpit



Skirting the Calais coast

there is nothing between you, the sea, the



Calais



Touchdown in Calais

sky, and the sun.

On the way back, the world seemed somehow smaller. The water was less intimidating, Headcorn was now a quaint Kent airstrip, 80 miles was just a short hop.

Landing back at our home strip, Victor, the owner, appeared with a bottle of champagne, the cork ricocheting symbolically off the wing. The world had just been opened up and literally laid beneath our feet. We were voyagers; people



Calais alive!



Last leg home

who had travelled to a different land and felt every metre of the space in between as wind on our faces.

When you plan something momentous it is too easy to be put off by other people's fears - I had had experienced pilots say that they'd only go in a large group, and others on the day look at their watches and shake their heads. There's also a sense that flying to France is extremely difficult. Well, here's the truth - it's easy. In fact it's so easy as to be ridiculous. You just take off from Headcorn after filling in one piece of paper and ninety minutes later you're in France. Sure, there's an element of danger, but we were probably in more danger driving down the M1 back to London that night than we were on the flight.

And as for what's happened since, I can't help feeling that for all I'll return to work, drive my car, spend money and drink in bars, I will never be quite the same again. Something elemental has happened - part of me is now made of the crystal clear air, the sea and the sky, and always will be. And I hunger to go back.

For days afterwards I felt strangely removed from the world; I'd experienced something few people do - a view of the planet only seen by those who stand on top of impossibly high mountains or see the world from space - a sense of seeing the world through wider eyes and of my soul gasping at the sight.



Home in one piece

SOLAR IMPULSE

RECENTLY THE FAI HAS SET IN MOTION A RULE-MAKING PROCESS AIMED AT ALLOWING WORLD RECORDS TO BE CLAIMED SPECIFICALLY FOR SOLAR-POWERED AIRCRAFT. IN DUE COURSE, ONCE THEY HAVE BEEN FORMALLY APPROVED, DETAILS OF THESE RULES WILL BE CIRCULATED. IN THE MEANTIME, READERS MAY BE INTERESTED IN AN AMBITIOUS SOLAR-POWERED AIRCRAFT PROJECT DUBBED 'SOLAR IMPULSE'. DETAILS OF THIS REVOLUTIONARY PROJECT, AS TAKEN FROM THE OFFICIAL WEBSITE [WWW.SOLAR-IMPULSE.COM/EN/INDEX.PHP], ARE AS FOLLOWS.



PIONEERS

In March 1999, Bertrand Piccard and Brian Jones, on board "Breitling Orbiter 3", accomplished what was considered to be the last great aviation adventure of the 20th century: the first ever non-stop round-the-world flight in a balloon. The aim was not to revolutionise air transport but to accomplish a great dream combining, in Jules Verne style, technology, human adventure and respect for the environment. The public understood this symbolism and, having followed their progress hour by hour, acclaimed the pilots as heroes. Entirely sponsored by the Swiss watchmaker Breitling, this expedition was considered by marketing experts as one of the greatest ever successes for private sponsorship. Several countries issued stamps to commemorate the event and the capsule was installed in the grand hall of the Smithsonian Air and Space Museum in Washington alongside the Apollo 11 capsule and the aeroplanes flown by the Wright Brothers, Charles Lindbergh and Chuck Yeager...

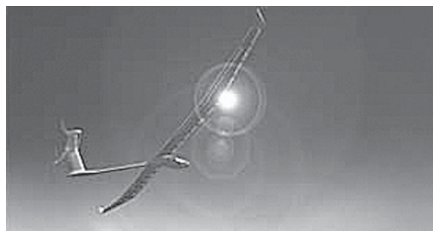
A NEW PROJECT

Today Bertrand Piccard is embarking on a new and even more ambitious project: a round-the-world flight in a solar aircraft. This time, the challenge is to influence the history of air transport by exploiting new technologies that satisfy the demands of our era for sustainable development: to use only renewable forms of energy and remain airborne without generating any polluting emissions.

This adventure aims, step by step, to re-enact the great 'firsts' and record-breaking flights that punctuated the history of 20th century aviation, but this time using only solar energy, with the final objective of a solar-powered round-the-world flight.



The key players in this exciting project with Bertrand Piccard are Brian Jones, co-pilot on the Breitling Orbiter 3, Andre Borschberg, an engineer and pilot, and the Swiss Federal Institute for Technology (EPFL) who will act as scientific partner. At present little has been achieved by solar-powered aeroplanes, which have not yet succeeded in capturing or storing enough



energy to remain airborne for more than a dozen hours. The challenge is to design a machine capable of sustaining long-term flight without using any kind of embarked fuel, whether it be hydrogen or a petroleum derivative.

Impossible, some might say? That's what many thought about the round-the-world balloon flight... before it became reality.

OBJECTIVE



Records will be broken and historic firsts achieved, but these will represent only the spectacular aspect of an adventure that above all is designed to draw the attention of the public to the essential changes that are necessary to ensure future energy resources and the ecological balance of our planet. The aim will be to deliberately use the project as a communication platform for the concept of renewable energy, and so generate public enthusiasm in favour of sustainable development.

All too often, any mention of ecology provokes a lukewarm reaction in a public afraid that its comfortable existence is under threat. It is clear that environmental and energy problems cannot be resolved by reversing the achieved material comforts, but rather by changing attitudes and bringing about major technical innovations. The current state of knowledge shows that it is possible to combine quality of life with development and environmental protection. The solution to the ecological problems we face therefore lies in scientific research, information and dialogue.

PROJECT PHILOSOPHY

The development of solar flight will:

Open up new scientific, ecological, humanistic and economic horizons;
Stimulate scientific research in entirely new areas of composite materials science and methods of producing and storing energy;
Attract sources of private-sector funding for scientific research; Mobilise public support for a meaningful and inspiring endeavour;
Actively promote renewable forms of energy;
Participate in the creation of popular interest in the very idea of sustainable development, a concept that is often misunderstood.

Note: Sustainable development is the ability of present generations to provide for their own needs without jeopardising the ability of future generations to provide for theirs.

STRATEGY

The aim is to assemble the best brains available to develop the necessary technologies to design and build an aircraft capable of staying airborne without any external help, save from the sun. Several specialists of international renown have already agreed to participate in this adventure.

When Bertrand Piccard first presented the idea to Professor Stefan Catsicas, Vice President for Research at the Swiss Federal Institute for Technology (EPFL) in Lausanne, the latter immediately spotted an opportunity to develop a genuine flying energy laboratory. A group of experts was established and tasked with conducting a feasibility study. Several laboratories, bringing together specialists in mechanics, thermodynamics, aerodynamics, electrical systems, composite materials, photovoltaic systems, energy transfer and storage and computer modelling, worked together between March and October 2003 to define the main thrust of the work. Inspired by the revolutionary and challenging high-technology aspects of this undertaking, Stefan Catsicas proposed that the EPFL should become the scientific partner of the project and had very little problem



convincing Professor Patrick Aebischer and the other members of the Board of the EPFL. This represents a logical follow-on for the EPFL, which participated in the success of the Breitling Orbiter 3, for which it carried out thermodynamic research, and of the racing yacht Alinghi, winner of the America's Cup.



PROJECT LENGTH

This is a long-term project, and each stage will provide breakthroughs in technology; a succession of outstanding aviation firsts and extraordinary communication opportunities for sustainable development: Announcement of the project on 28 November 2003; Design and construction of the first prototype in 2004-2005; Flight tests of the first prototype early in 2006; A complete night in the air during the first 36 hour solar flight during 2007; Flight tests of the second prototype from end 2007; Ultra long distance and duration flights from start of 2009.

FAMILY TRADITION

Never before has a single family left a greater mark on the world of exploration than Auguste, Jacques and Bertrand Piccard. In this family, invention and exploration have been the norm for three generations: the pressurised capsule with the first stratospheric flight, the Bathyscaphe with the absolute diving record and the first round-the-world flight in a balloon... The new project is wholly in keeping with this tradition of exploration, adventure and scientific development.



Photos: Courtesy Solar Impulse
[www.solar-impulse.com/en/index.php]

GFA Executive Update

Jenny Thompson

A GFA EXECUTIVE MEETING WAS HELD ON 8 AND 9 NOVEMBER 2003 AND THE PRÉCIS OF SOME IMPORTANT ASPECTS OF THE MEETING FOLLOWS. THE MEETING MINUTES HAVE BEEN POSTED TO THE GFA WEBSITE AND ARE AVAILABLE FROM THE GFA SECRETARY, EMAIL SECRETARY GFA.ORG.AU OR TELEPHONE 03 9379 7411.

- GFA has decided to provide Air Training Cadets concessionary training packages with the GFA fee for one week being \$7 followed by one month at \$24 and three months at \$60. If the student then wants to take up the sport they are offered the standard student membership fee.
- Blanik VH-GTN has been surveyed for works required to get it flying again. GFA agreed to expend the necessary funds to have the work carried out and the paperwork reconstructed to allow the aircraft to be offered for sale. This work will start immediately.
- The regulatory review process is heavily under way and, for the first time, gliding has the opportunity to develop its own regulations without CASA interference or constraints along lines which best suit its business. When complete, GFA will no longer hold CASA delegations. GFA will be the single responsible body for gliding. CASA will retain the right to veto any aspect of the business on safety grounds, should that be necessary. Significant meetings were held during the first week of December to resolve details for gliding in regard to part 103 which will become the new regulations, Part 149 which will be the detail of how gliding will execute its obligations under the regulations and Part 47 which is airworthiness specific.
- GFA is a signatory to WADA (World Anti-Doping Agency – Policy on drugs in sport) – this occurs through GFA membership with ASAC and ASAC's membership with the FAI. Details on what medications are approved are available from the WADA website and special exemptions for gliding participants can be applied for via the IGC [www.wada-ama.org].
- It is becoming clear that GFA is suffering from an unusually high rate of canopy-related accidents and incidents that usually result in canopy loss. This is under investigation but at this stage not enough is known about the causes to take remedial action.
- There have been problems over work carried out for hire or reward in regard to airworthiness matters where the worker or company does not carry insurance for the work and has assumed cover under the GFA insurance scheme.
- GFA is to appoint Al Sim's "Go Soaring" for distribution rights to its merchandising and access to the GFA logo for merchandising use.
- Insurance for Gliding competitors was a significant issue in regard to third party liability since hangar keeper cover ceases outside the environs of the event boundaries (Airfield) Participants who do not carry at least \$1,000,000 are compromising the event organisers and any other voluntary assistant associated with the event, who could become enjoined in any action. Event organisers and workers are to be advised of this insurance gap and the consequences and recommend what action they may seek to take to ensure adequate cover. The matter to be raised at the next Annual Council Meeting.
- There have been significant developments with the next stage of the NAS, which were published in last December's edition of Soaring Australia.
- John Viney is the new appointee to the position of STO(A).
- All GFA Airworthiness Directives are now available on the GFA website. It is expected that Airworthiness Advice Notices will be similarly available in the near future. Feedback from owners, inspectors and RTO(A)s has been highly in favour of availability of documentation over the web and having optionally web delivered ADs has cut down enormously on workloads at the secretariat and RTO(A) level.
- Consultation is in progress regarding standardisation of biennial RTO(A) club/organisation checks.
- An appropriate and most likely main topic for the proposed Airworthiness Seminars proposed at the last ACM would be the new system of maintenance and airworthiness administration post introduction of Parts 47, 103 and 149. Seminars would be an ideal way to promulgate the new system to the general membership and the timing looks like being in the latter half of 2004.
- A meeting is being held in the February, to workshop various matters on GFA direction such as communication, relevance, marketing, training, operating costs and the Annual Council Meeting process. GFA vice-presidents are being invited to participate.



Clio's Wings

Clio, the Muse of History

CLIO, THE ANCIENT GREEK MUSE OF HISTORY, HAS HAD A GREAT INTEREST IN THE HISTORY OF GLIDING AND SOARING EVER SINCE ICARUS AND DÆDALUS FIRST SPREAD THEIR WINGS. IN AN EFFORT TO FOSTER AN APPRECIATION OF THAT HISTORY, SHE HAS INSPIRED THE FOLLOWING QUIZ.

THE SKY OF OZ CLIO'S QUIZ:

1. The first glider designed and built in Australia was:

- a. Yellow Witch
- b. Golden Eagle
- c. Schneider Boomerang
- d. Schneider Kookaburra
- e. Grunau Baby IV

2. Australia's first Gold C climb was done in a Grunau Baby II.

TRUE or FALSE

3. What year did Edmund Schneider emigrate to Australia?

- a. 1946
- b. 1948
- c. 1950
- d. 1952
- e. 1954

4. Schneider's first Australian design, the ES-49B Kangaroo was essentially a re-work of his earlier ES-49, that he designed and was built in Germany by Alexander Schleicher.

TRUE or FALSE

5. In 1964, John Fisher ran an unusual glider operation at Mt Elliot, in Victoria. What was it?

- a. A one-man operation.
- b. Australia's only commercial glider operation
- c. Used a greased slide to launch the gliders.
- d. Shoulder launched gliders into strong ridge lift.
- e. Winched gliders off the top of the hill with a winch located in the valley below.



Golden Eagle

Photo: Paul Blacksten

6. The Schneider ES-60 Boomerang was one of the first gliders in the world to use the then new Wortman FX airfoils.

TRUE or FALSE

7. Rather than using the usual spruce or douglas fir for the Boomerang spars, Schneider used:

- a. Bamboo
- b. Pine
- c. Koa
- d. Mahogany
- e. Beech.

8. In the 1965 World Championships in South Cherney, England, one of the Australian pilots became confused by the location of the sun.

TRUE or FALSE

9. When and where was the first World Championship held in Australia?

- a. Waikerie in 1974
- b. Adelaide in 1950
- c. Benalla in 1987
- d. Essendon in 1949
- e. Port Arthur in 1974

10. The Gliding Federation of Australia was formed in 1935.

TRUE or FALSE



The answers can be found on page 38.





Daniel Streit performs a wingover in a sea of clouds, above the sea, Sellicks Beach, South Australia

Photographer: Kym Fielke, Canon EOS 300, 28-90mm lens, Fuji Sensia 100 slide film



Forty-six gliders competed at lake Keepit

'EVERYMAN'S COMP' WAS FOR EVERYONE

Dave Shorter

THE LAKE KEEPIT "EVERYMAN'S COMP" LIVED UP TO EXPECTATIONS WITH 46 GLIDERS AND 60 PILOTS COMPETING IN THE NEW SOUTH WALES' STATE CHAMPIONSHIPS.

As promised, there were opportunities for all comers to enjoy themselves, whether "hot shots in hot ships" or just average club pilots, they were all there – there were even some average pilots in hot ships and vice versa. From Astir, LS1, Libelle and Twin Astir through to the latest big wings. From club newcomer to world class pilots.

Standard Class and the handicapped Club Class both sported 15 gliders per class providing lots of friendly competition and close rivalry. For the first time in many years there were full contingents in the "big wings" classes, with six competing gliders in both Open and 18m.

Safety, friendly camaraderie, support for newcomers, humour at briefing, good food and good old-fashioned competitive rivalry between peers made the week memorable. The mood was set at briefing every day by a command performance from director Trevor West aided by the light touch of the 'Fairy Godmother', Audrey Markowski, and her apprentice Indi. 'Sammy the Snail' awards provided a new perspective on glider competition.

Lake Keepit's natural beauty and scenic variety makes flying a pleasure. Weather forecasts precluded tasking over some of the attractive higher country to the north, but weather ended up better than forecast most days, with convection ranging 5,000 to

9,000ft. A memorable experience was the day a trough line sat over the mountains running north-west to south-east from Mt Kaputar back to the field. The run home under this line was a screamer with many pilots finishing under time and those running behind able to red-line it home for the last 60-70km in continuous lift.

Notable performances for the week:

- *Malcolm Bruce flew his task backwards on the first day.*
- *Col Turner, in an un-ballasted standard class glider, blitzed the field another day beating all the 15m ballasted gliders home.*
- *Top speed for the week was 146km/h by Bruce Taylor in his ASW22 – 438km in three hours.*
- *Slowest speed for the week – 0km/h (by quite a few pilots).*
- *Peter Trotter was invincible in standard class winning every day – congratulations Peter.*
- *And the impressive GPS trace Robert Bull submitted to the scorer on the last day turned out to be his road retrieve.*

Photos: Colin Turner

2003 NSW STATE COMPETITION RESULTS

STANDARD CLASS – TOP 10

- 1 Peter Trotter
- 2 Tom Claffey
- 3 Ivan Teese
- 4 Miles Gore-Brown
- 5 Matt Anglim
- 6 Luke Dodd
- 7 Nigel Andrews
- 8 Kerrie Claffey
- 9 Phil Jones
- 10 Sidney Nankivel

15M CLASS – TOP 4

- 1 Hank Kauffman
- 2 Lisa Trotter
- 3 Louis Solomons
- 4 David Turner

18M CLASS – TOP 4

- 1 Robert Ward
- 2 Tony Tabart
- 3 Martin Feeg
- 4 Tom Gilbert

OPEN CLASS – TOP 4

- 1 Bruce Taylor
- 2 Dion Weston
- 3 Paul Mander
- 4 Ross Edwards

CLUB CLASS – TOP 10

- 1 Michael O'Brien
- 2 Dave Shorter
- 3 Ian McCallum
- 4 Colin Turner
- 5 Giles Taylor
- 6 Garry Speight
- 7 Bill Hatfield
- 8 Nick Singer
- 9 Harry Medicott
- 10 Glenn McLean



Comps Director Trevor West lays down the law at the initial briefing



18 Metre Class winner Bob Ward



Day winner Peter Trotter receives his trophy from Wendy Medicott. Peter went on to take out Standard class

Comp Myths Dispelled

Dave Shorter

THE FOLLOWING ARE MYTHS COMMONLY HELD ABOUT COMPETITION FLYING. TIMES HAVE CHANGED AND MANY OF THESE IDEAS ARE MISCONCEPTIONS.

Tasks are set to Ensure Pilots Outland

Nowadays Assigned Area Tasking (AAT) is mostly used. Pilots choose how far they fly into an area and select their own turning point. So, you can cut corners, avoid blue holes or rain clouds, and need not struggle home late in the day – just complete the minimum time. AAT has resulted in a significant reduction in outlandings, with many competition days seeing the whole fleet home within half an hour of the prescribed minimum time.

Must Have a Crew

Desirable, but many pilots fly competitions without crew. Join with others to provide mutual support. With fewer outlandings there's not the same need as in the past. Someone will always help.



Nick Singer – “The paparazzi never leave you in peace!”



Hank Kauffman was a popular choice for the ‘Sammy Snail’ trophy

Gliders Must be Competitive

The advent of the handicapped Club Class has given a new lease of life to old gliders. You can compete against an ASW22 with a Bergfalke, and win – ask Macca.

Competition Flying is Unsafe

Recent comps have been characterised by an incident-free record. Mandatory safety briefings, staggered start points, and AAT tasking have all contributed to a high safety consciousness amongst pilots and improved separation of gliders. Safety awareness and safety issues take up a major portion of each day's competition briefing.

For Old Guys and Gals Only

In the UK it's the young fellas who are cleaning up! Young pilots bring club gliders and win. It was good to see a few younger guys at Keepit and, in Queensland, teenager Anne-Marie Deardon flying in competition.

Experienced Pilots Only Fly Comps

You have to start sometime, and experienced pilots are happy to act as mentors for first-time pilots.

Cliquey, Unfriendly, Elitist

The advent of Club Class flown in conjunction with State comps has resulted in many more new pilots joining in. No longer are comps the preserve of an elite competitive group. Everyone is welcome.



Robert Bull gets a ‘Sammy Snail’ for his road retrieve GPS trace



The Fairy Queen, Audrey Markowskei, added a touch of hilarity to briefings



Michael O'Brien (Puck) and the Fairy Queen seem slightly unimpressed with the Comps Director, disguised as ‘Bottom’

One Thing I'll Never do is Fly a Comp

That was Steve Hedley's emphatic statement when asked about flying in the comp. “Too many gliders, too close together,” he said.

A GA pilot, part owner of a Nimbus, and President of the Lake Keepit Club, Steve's main interest has been instructing, cross-country flying and touring on safari.

But the organisers needed his Nimbus to make up the numbers for a full Open Class, and Steve was persuaded to fly the comp with John Hoyer, an experienced competition pilot, in the back seat. And that was all it took.

“I was impressed with the emphasis on safety issues and the disciplined flying of pilots, and I am now reassured about my earlier concerns,” said Steve.

“I enjoyed myself enormously – when's the next comp?”





John Stewart and Jim Stanley buckle up in the Twin Astir

The Absolute Absorption of Getting Around the Task

THAT'S WHAT ATTRACTED ALLAN BUTTENSCHAW BACK TO GLIDING.

Allan, a Qantas 747 pilot who flew the Keepit comp after a 23-year break is renewing a past love affair with the sport. "But I'm having to relearn dormant skills all over again."

"Four hundred tonnes of Boeing is a bit of a slug to get off the ground, but after 45 seconds, potentially, the most critical part of the flight is over. On take-off the glider has more options, but both require accurate control."

"Most of the rest of a commercial flight is a management task covering weather, ATC clearances and potential en route problems. The flying is performed by the autopilot and we never bank at 45° as gliders do in a thermal."

"However, a glider on task requires constant pilot manipulation of the controls, an endless search for lift, no time to sit back and monitor and an ongoing awareness of potential landing areas. Determination to get there is a necessary ingredient of flying gliders."

"Enduring hours of concentration on the flight deck to then really perform in the last 30 minutes of an airline flight challenges my professional abilities, but the absolute absorption of getting the glider around a task, the demands on manipulative skill and the belief you can do it allows these same abilities to help me enjoy an outstanding pastime."



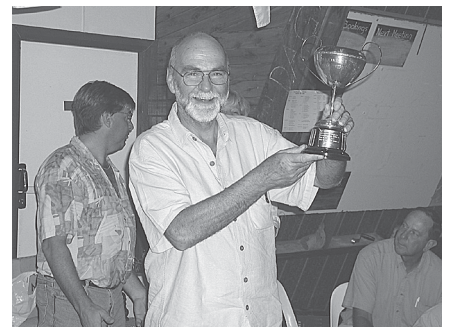
Tuggies Phil Lamb, Tom Payne, Janina Galliani, Ian Barraclough and Richard Wilson



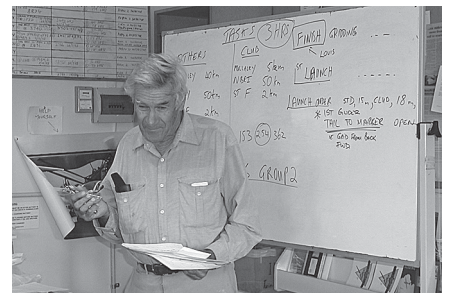
Peter and Lisa Trotter are presented with a guitar for their mentoring and coaching assistance from up-and-coming pilots Brett Sutcliffe, Robert Bull and Nick Gilbert



Keith Gately in GEM



New South Wales wins, by public acclamation, the teams' trophy, in a close call from Queensland. The trophy was collected by Dave Shorter



Weather guru Harry Medicott



Hank and Lorraine Kauffman



Lake Keepit Soaring Club president Steve Hedley, Barbara Hyslop with Open Class champion Bruce Taylor



Ivan and Catherine Teese



Apprentice fairy Indea collecting a tug ticket from Paul Mander



Apprentice fairy, Indea, assisted Audrey collecting tug tickets



Jim Kent, Ian McCallum, Carol Shorter and Colin Turner



Tom Gilbert



It's nice to be relaxed when you launch



Hank Kauffman, Ivan and Catherine Teese, and Michelle and Nigel Andrews at the presentation dinner

A Visitor's Viewpoint

Andrew Wright

A friend and I attended the NSW State Championships at Lake Keepit. I was there strictly as crew for Sid Nankervill but as a long time competition pilot and competition director I have to say it was one of the best comps I have ever attended.

Forty-six gliders and 60 pilots, wow, that's better than the Nationals these days. Whatever you NSW people are doing, keep doing it!

It was a week of very safe flying and not one stupid thing did I see nor hear of. Safety was stressed at these comps and all pilots put on a great display of airmanship.

Great fun too! The fairy godmother ensured a fun time was had by everyone – you had to be there to know what I mean. And well done to the comps director, Trevor West, as well. He found the right mix of seriousness and fun with good-natured fun awards like the “Sammy the Snail” award, won by some pretty good pilots.

Great food and people also. Everyone was friendly and welcoming. I feel as though I have made some friends and I hope they feel the same way.

I wish we here in South Australia could generate the same interest and enthusiasm: I have been trying my hardest to do that for many years now. Perhaps some of the NSW magic will rub off – I certainly hope so.



Change of HGFA Sub-editor Email Address

Richard Lockhart, the HGFA sub-editor for Soaring Australia, can now be contacted by email on <soaring.australia@hgfa.asn.au>. This change is being made to bring our contact email address for the magazine into line with other HGFA email addresses. Please delete <skysail@ozemail.com.au> from your records, effective immediately.

CMAC XC League

The Summer CMAC XC League is now up and running. Visit [www.iqpc.net.au/wshgc] to view results or submit flights.

Mark Thompson

NEW PRODUCTS



Finesse Top

Just released - our newest addition to the Finesse range of harnesses.

Finesse Top is based on the Finesse Plus and has the same webbing system as Finesse (DHV certified), but with a number of modifications for comfort, aerodynamics and esthetics of the harness.

- Lower cut side profile - making harness slimmer and giving a more aerodynamic shape
- Emergency parachute is located at the bottom of the harness with deployment handle on the side – a perfect spot, easily accessible
- The harness can be equipped with foot stirrup for supine flying and added comfort (optional)
- Front neoprene fairing for improved aerodynamics and comfort (optional)
- All other options and protectors available for Finesse range can also be used on Finesse Top
- Sizes – available in L/XL, S/M and also XS



- Colors – black body with yellow and silver stripe
- Finesse Top is in full production now.
- Finesse Top will accept any APCO emergency parachute; special attention was given to insure secure and safe chute deployment under any circumstances and in any deployment direction.

We believe the harness is among the finest on the market, pleasing to the eye and back comfort, making flying even more enjoyable than before.

APCO Aviation Ltd
[www.apcoaviation.com]



FAI NEWS

World Rankings

PARAGLIDING

The top 10 remain the same, with Alex Hofer (SUI) leading, Norman Lausch (GER) 2nd and Helmut Eicholzer (AUT) 3rd.

In the nations rankings Switzerland maintains their lead, France stays 2nd, Austria moves up a place to 3rd deposing Japan to 4th. Germany and the UK remain 5th and 6th while Italy, the Czech Republic and Norway gain a place to be 7th, 8th, and 9th. South Africa rebounds down three places to 10th. More details are on: [www.fai.org/paragliding/rankings/].

PARAGLIDING ACCURACY

There are no changes to the top 10. Matjaz Feraric (SLO) retains his lead, Andy Shaw (GBR) is 2nd, Matjaz Sluga (SLO) 3rd.

In the nations, Slovenia lead, GBR is 2nd and Serbia and Montenegro in 3rd.

Full details of the PG Accuracy rankings can be found on: [www.fai.org/paragliding/rankings/precision/].

HANG GLIDING (Class 1)

There is no change to the top 10 individuals or nations rankings. Manfred Ruhmer (AUT) leads, Antoine Boisselier (FRA) is 2nd, Oleg Bondarchuk (UKR) 3rd.



In the nations rankings, France leads Germany with Austria 3rd.

Full details of the HG rankings can be found on: [www.fai.org/hang_gliding/rankings/class1/].

CLASS 5

There is no change to the top 10. David Chaumet (FRA) stays top, with Christian Ciech (ITA) 2nd and Alessandro Ploner (ITA) 3rd.

USA still lead but Germany takes 2nd from Switzerland.

Full details of the Class 5 rankings can be found on: [www.fai.org/hang_gliding/rankings/class5/].

CLASS 2

No change to either the individual or nations rankings. Brian Porter (USA) leads, Manfred Ruhmer

(AUT) with Robin Hamilton (UK) in 3rd.

USA is in the nations top spot, GBR is 2nd, Germany 3rd.

Full details at [www.fai.org/hang_gliding/rankings/class2/].



Review: 'PARAHAWKING'

- VIDEO/DVD BY HIMALAYAN FRONTIERS

Richard Lockhart

Guaranteed to appeal, 'Parahawking' melds two fascinating topics: human free-flight and birds of prey. Adam Hill, Rajesh Bomjan and Scott Mason join forces, combining their respective areas of expertise (paragliding and falconry) in a bid to train raptors to actively find thermals for paraglider pilots during cross-country flights. Do they succeed? You'll have to judge for yourself. Either way, the 42 minute film journey is more than worth it as we watch parallel flight training journeys: remarkable footage shows the two Pariah Kite chicks slowly finding their wings alongside their trainer Scott as he learns how to paraglide. And all against a stunning Nepalese backdrop.



The film is a very professional production, and was winner of Best Debut Film at the St Hilaire International Film Festival 2003.

The DVD or VHS can be ordered at [www.hhc-nepal.org/parahawkingfilm.html].



Look your best with the NEW HGFA Merchandise!

Available from HGFA sales

E: office@hgfa.asn.au W: www.hgfa.asn.au

P: 02 6559 2713 F: 02 6559 3830



**The New HGFA
car sticker**
\$3.30 incl. postage

"Surf the Sky"

Short & Long Sleeve T's

Colours	Sizes
Royal Blue	Small (16)
Jade Green	Medium (18)
Taupe (lt. Beige)	Large (20)
Lt. Grey Marle	X-Large (22)
Mulberry	XX-Large (24)

Short Sleeve T \$25ea

Long Sleeve T \$30ea

Postage \$5.50



Peak Hat



Slouch Hat



Soaring Australia Peak & Slouch Hats

Peak Hat \$16.50 ea

Slouch Hat \$17.50 ea



Long Sleeve T-Shirt



T-Shirt

Available in a range of sizes and colours. Contact HGFA for an order form on 02 6559 2713

FLYING THE MORNING GLORY

Bill Tugnett



The Morning Glory

Photo: Rob Thompson

IN SEPTEMBER 2002, I HAD THE GOOD FORTUNE TO FLY FROM SYDNEY TO BURKETOWN AND EXPERIENCE THE MORNING GLORY, WITH DIETER STUMPFL, IN HIS GROB 109, VH-ZAK.

The Morning Glory is a pressure wave phenomenon which is triggered over Cape York peninsular during the night and travels at 30km/h in a south-west direction across the Gulf of Carpentaria, arriving in the vicinity of Burketown at day-break. As it travels a distinctive roll cloud often forms, providing a visual indication of the phenomenon. It has the appearance of being wind driven, but it's not. The air preceding and behind the morning glory is quite still, although the rolling motion of the wave creates wind turbulence as it passes over.

This was to be Dieter's fourth trip to the gulf and his advice before we left was to enjoy the experience and, if we were fortunate enough to encounter the morning glory, to treat it as a bonus.

Well, my luck was in. Of the six mornings we spent in Burketown we flew the morning glory on five of those days.

Our best flight was on Wednesday, 25 September and the following is an account of that extraordinary and memorable flight.

At 6:12am, official first light, Dieter opens the throttle and ZAK accelerates down the all-weather runway 22 at Burketown,

into the pitch black western sky. Climbing out, as we turn left, the reddish tinge on the eastern horizon throws a faint light into the cockpit. At 800ft Dieter throttles back momentarily, pulls the prop into coarse pitch and we continue a 75kt cruise/climb toward the north east.

Five knots out, as we're passing 1,500ft, we glimpse a shadowy line below the horizon of what could be a morning glory roll cloud. After 30 seconds of squinting into the hazy gloom, we're confident. We have a well-established morning glory cloud, 10km ahead, rolling in towards us!

Immediately Dieter is on the radio calling the others back at Burketown (a Pik 20F, Moni and three powered hang gliders) to "get airborne" immediately.

We can now see the continuous line of a beautiful morning glory cloud, top 2,200ft, bottom 1,700ft and disappearing into the darkness of the north-west and south-east. A "classic" MG!

The excitement and exhilaration of this confrontation is incredible. Two hundred metres from the leading edge of the cloud we encounter smooth lift, Dieter turns left

45 degrees, brings the power back to idle and we're climbing up the face of the cloud at two to three knots. I've been snapping photos, even though the exposure meter in my SLR is telling me it's too dim.

At 2,300ft Dieter has swung the Grob round so that we're now tracking north-west, along the top of the rolling cloud, which disappears into the darkness ahead. Ignition "off", prop "feathered" and suddenly we're cruising silently along the top of the cloud at 65kt.

The light is improving and Dieter wants some video, so I take over. I push the nose down and descend for a few hundred feet along the face of the cloud, then ease back and surf up. Smooth laminar lift, two to three knots, all the way. Magnificent!

We're still three kilometres short of the coast, but as the light improves we can see the glory cloud continues for another 30 to 40km at least. Occasionally we turn 360 degrees and marvel at the view behind us to the south-east. The radio is alive with chatter as our colleagues back at Burketown have made contact and are also enjoying the ride.

We continue north-west and we still can't see the end of this cloud! We're still over

land, which is featureless and uninhabited. We cruise along, monitoring our distance and bearing from Burketown by GPS. How far can we go?

As we cruise silently along, we experiment. We fly out 100 to 200m in front of the cloud. We fly down the face and back up. We climb 50 to 100ft above the top of the cloud. The lift is consistent and reliable. But we don't allow ourselves to get into the sink behind the cloud.

Finally, after one hour 40 minutes we see the cloud ahead starting to appear scraggy and break up. One hundred and ninety kilometres out from Burketown we start the engine and turn back. With the engine idling we continue to fly through remnants of "glory" cloud on our reciprocal heading. With the sun on the ground and the temperature rising, the morning glory finally runs out of steam.

We set cruise power and head back to Burketown for "brunch" and to share our experience with the others.



(We had two more morning glory flights of one-and-a-half hours each on Friday and Saturday mornings. The Morning Glories were not as long, but the ride was equally impressive. We'd packed our bags into the aircraft before Saturday's flight, so after flying the morning glory, we fired up and set off on the first leg of the 14-hour trip home.)

Forecast your own weather !

Our new

Vantage Pro

weather stations let you monitor temperature, wind, rain, barometric pressure, UV, humidity, and more. Quick view icons show the forecast at a glance while a moving ticker tape display gives more details. Mostly clear with little temperature change? Increasing clouds and cooler? Whatever the forecast, Vantage Pro will let you know. Wireless or cabled.



GOT WIND ??

- Weather Stations
- Windsocks
- Hand Held Weather Meters
- Australian Agent for Davis Instruments.

E-mail:
davis@ecowatch.com.au

Order now, or ask for your FREE catalog

ECO WATCH

Unit 5, 17 SOUTHFORK DRIVE
KILSYTH, VIC 3137

Ph (03) 9761 7040 Fx (03) 9761 7050

GFA Badges & Certificates

FAI List – January 2003

A CERTIFICATE

STREITNER, Erhart F 10913 Lake Keepit SC

A AND B CERTIFICATE

MURRAY, Shaun T 10915 Narrogin GC

B CERTIFICATE

BOTT, Geoffrey Peter 10725 Bathurst SC

B AND C CERTIFICATE

EDKINS, Peter John 10656 Bathurst GC

C CERTIFICATE

TAYLOR, Peter N 10795 Beverley SC

A B AND C CERTIFICATE

LEO, Paulette Louise 10911 Harden GC

LEE, Russell James 10912 Grampians

DELEN, Hendrik 10914 Adelaide SC

RIGBY, Andrew 10916 VMFG

FOX, Thomas R O 10917 VMFG

DOWNES, Ian A 10918 VMFG

COUP, David Robert 10919 GCV

McLENNAN, Timothy D 10920 Beverley SC

SILVER C

FOX, Peter Julian N 4508 Canberra GC

WHARINGTON, John M 4509 GCV

ALLEN, Keith 4510 Darling Downs SC

RIGGS, Michael 4511 Gympie SC

MIDWOOD, Alan R 4512 Darling Downs SC

GOLD C

BUSHER, Peter G 1576 Beverley SC

WILSON, Timothy X 1577 Narrogin GC

DIAMOND GOAL

FIALKA, Francis J GCV

NING, Frances A Darling Downs SC

WARINGTON, John M GCV

PERKINS, Ian Frederick Caboolture GC

BUSHER, Peter Gerard Beverley SC

WILSON, Timothy Xavier Narrogin GC

DIAMOND DISTANCE

BUSHER, Peter Gerard Beverley SC

MATUSEWICZ, Wieslaw Hunter Valley GC

HOLDING, Simon Edward Alice Springs GC

DIAMOND HEIGHT

BUSHER, Peter Gerard Beverley SC

O'REILLY, Damien Marian Beverley SC

DIAMOND C

MATUSEWICZ, Wieslaw 210 Hunter Valley GC

600KM DISTANCE

WILLIAMSON, Peter C 88 Bathurst GC

700KM DISTANCE

BLAND, Mark Ward 20 Mt Beauty GC

JOHNSON, Grant L G 21 Wagga Wagga

Claims for all badges and certificates to:

FAI Certificates Officer Beryl Hartley

PO Box 275, Narromine NSW 2821

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

Fax: 02 6889 2933,

Email <hartley@avionics.com.au>.

Decentralised Competition entries to:

Chris Stephens

PO Box W48 Wanniasa ACT 2903

Ph: 02 6231 4121,

Email <poboxw48@dynamite.com.au>.

ACCIDENTS AND INCIDENTS

1 April to 30 September 2003

Kevin Olerhead, Chief Technical Officer – Operations

Listed below are accidents/incidents reported to have occurred in the period 1 April 2003 to 30 September 2003.

There were no fatal accidents in this period, continuing a prolonged period of fatality-free GFA operations.

In recent years there has been a high level of incidences of gliders losing or having canopies open in flight. This trend has continued, with another two such events in this period. Whilst there can be several reasons for a canopy becoming unsecured after the flight has commenced, by far the most common cause is that the pilot did not latch it, or correctly latch it, prior to the launch proceeding. These events have the potential to lead to more serious accidents (and have done so) and all pilots must take adequate

care to ensure that canopies are correctly secured prior to every launch.

Also, a significant number of heavy landings have been reported in recent years. They have taken place under varying circumstances and with the resulting damage ranging from minor to severe. A good landing technique is one basic flying skill we always, after take-off, intend to later employ, so we should make sure that we are able to get it right each and every time we fly.

INCIDENT

5 May 2003 NT Winch cable – Twin engine charter aircraft

Near miss when the charter aircraft landed downwind while the winch cable was falling following the launch of a L13 Blanik.
Damage: Nil
Injury: Nil

ACCIDENTS

5 April 2003 VIC DG-100

Canopy lost at low level during aerotow launch. The glider landed safely back on the airfield.
Damage: Substantial
Injuries: Nil

6 April 2003 NSW SF 25B (MotorFalke)

The glider was observed to suddenly dive steeply into trees while on final approach.
Damage: Total loss
Injuries: Serious

19 April 2003 NSW DG-400

Outlanding
Damage: Minor
Injury: Nil

10 May 2003 NSW L13 Blanik

Heavy landing.
Damage: Minor
Injuries: Nil

17 May 2003 WA Standard Jantar 1

Canopy lost when the glider was on final approach to land. The glider safely landed on the airfield.
Damage: Minor
Injury: Nil

13 June 2003 NSW LS6-B

Undercarriage collapsed on touchdown when outlanding. The undercarriage was possibly not in the fully locked down position.
Damage: Minor
Injury: Nil

12 July 2003 WA ASW-17

Wheel-up landing.
Damage: Minor
Injuries: Nil

26 July 2003 NSW Standard Jantar 2

Very heavy landing when the glider stalled at approximately 20ft agl.
Damage: Substantial
Injury: Minor

13 August 2003 NSW Puchatek

Glider struck a fence after landing long with a light tailwind.
Damage: Minor (broken canopy)
Injury: Minor

12 September 2003 VIC PIK-20B

Very heavy landing – outlanding.
Damage: Substantial
Injuries: Nil

15 September 2003 NSW Discus CS

The glider struck a tree 800m short of the runway threshold.
Damage: Substantial (possible write-off)
Injury: Nil

21 September 2003 QLD Glasflugel Kestrel

Glider struck runway end fence after landing.
Damage: Substantial
Injuries: Nil



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

Chamberlain Knights – OAMPS Insurance Brokers Ltd

Chamberlain
Knights – OAMPS
Australia's Aviation
Insurance Specialist
ACN 005 543 920
PO Box 2481

North Parramatta
NSW 1750

Fax: (02) 8838 5770

OAMPS

Email: kevinc@oamps.com.au

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

Call Kevin Chamberlain now*

(02) 8838 5760

* and swap flight stories with a pilot of over 25 years experience!

A PROFESSIONAL REGISTERED INSURANCE BROKER

GFA News

New Australian National Records

Record Claimed: Australian National Standard Class: DSF

750km Out and Return Speed

The following records were also homologated:

D0F

Out and Return Distance 771.7km

Speed Out and Return 750km

100.13km/h

D15F

Out and Return Distance 771.7km

Speed Out and Return 750km

100.13km/h

DSF

Free Out and Return Distance 774.7km

Free 3 TP Distance 779.8km

Out and Return Distance 771.7km

Pilot: Kerrie Claffey

Date of Flight: 26 November 2003

Aircraft: Discus

Details of Task: GNSS Start Narromine

GNSS TP Fords

GNSS Finish Narromine

Total Distance Flown: 771.7km

Elapsed Time: 7 hours 56 minutes

36 seconds

Achieved Speed: 100.13km/h

David Jansen, FAI Records Officer



Kerrie Claffey

OVERSEAS NEWS

New Open Class World Record

The world record for a 100km FAI triangle now stands at 235km/h. This almost incredible speed was set by Tom Serkowsky in an ASH 26E. The flight was performed in November 2003 and originated from Fremont County airport in Colorado USA.

ETA now with ASH 25 Tail Feathers

After ETA No 2 was lost during spin testing for type certification, flying now continues with the tail section of the two seat ASH 25 open class glider. A new tail boom, including fin and tail plane, was fabricated by Schleicher and spliced onto the eta fuselage. First reports from Germany indicate that the handling of the world's biggest sailplane has improved. A final report on the reasons for the failure of Eta No 2 is still outstanding.

GFA AIRWORTHINESS DIRECTIVE

GFA AD 604 (Issue 1)

Type affected: DG-500MB. All serial numbers up to 5E220 B15; serial numbers 5E236 B16 and 5E 237 B17

– optional; serial number 5E241 B18

– during production.j

Subject: Electrical system, extension/retraction of spindle drive.



Release

Photo: Courtesy Mal [www.mals.net], Southern Cross Gliding Club

M760 TRANSCEIVER

T2000 TRANSPONDER

MICROAIR AVIONICS

**Airport Drive
Bundaberg QLD 4670
AUSTRALIA**

**Ph + 61 7 4155 3048
Fax + 61 7 4155 3049
sales@microair.com.au**

www.microair.com.au

CHRISTMAS CONVERGENCE

Dave 'MilMan' Phillips

ANOTHER CHRISTMAS HAS COME AND GONE, AND ALTHOUGH THE NUMBER OF HOURS I'VE BEEN ABLE TO RECORD IN MY LOGBOOK THIS YEAR IS NOT AS MANY AS I WOULD'VE LIKED, THE FESTIVE SEASON HAS BROUGHT BACK MEMORIES OF A PARTICULARLY GREAT FLIGHT I HAD LAST SEASON.

It was the second day of '03 and a gentle breeze wafted in from the south, holding a few paragliders aloft, but squeezing them into the narrow confines of the southerly face at Stanwell. By the time I had rigged the Millennium, the breeze wafted still from the south and a queue of gliders had formed on the hill, all waiting for a Sign. This came in the form of a tandem glider launching and maintaining for several passes as he threaded between the gaggle of paragliders. Two more hang gliders followed and also maintained. With as much haste as one can muster when manoeuvring a Mill, I readied myself and launched, hoping that we could work up enough height to all fit into a pretty tight lift band. After two passes, it was apparent that we could not, so gathering the altitude that remained, I headed over to the unoccupied valley. There I found enough lift to work up to a comfortable 1,100ft. After a short while I was joined by an Airborne Blade, who obligingly stayed out of the way a 100ft or so below me. We watched as those still clustered around launch slid slowly down the face and several went out to land.

Over in our neck of the woods, however, things were improving, a couple of gentle thermals taking me to a little over 1,300ft. In the light conditions, this offered an easy cruise out to Mitchell's. A couple of passes and I was off around Coalcliff and cruising down the coast. I've heard it said many times by many pilots that flying Stanwell is boring – but I find every flight offers something interesting. This day was no exception – the earlier south westerly was being replaced by onshore flow and setting up some classic convergence conditions. The battle-line between the conflicting flows was clearly

visible as a dark wind line about a kilometre out to sea. The sky was largely blue, save for a couple of cumulus clouds behind the escarpment near Mt Keira.

It was smooth going to Bulli where I encountered a small, energetic thermal that took me to around 2,300ft. Above me there was just a wisp of cumulus forming, and another wisp a little way further south. As I tracked towards it, the sky changed very quickly and cloud began to materialise all around me. In a matter of moments, I was surrounded by growing cumulus, above, on each side, and even below me. The afternoon sun was low, lighting the western sides of the clouds brilliant white, while the bottoms and eastern sides grew steadily darker. Spectacular stuff. Belatedly I fumbled for my camera and began taking photos, leaving the Millennium to fly itself while I snapped away. I was now over that clearing filled with powerlines, about halfway between Bulli and Broker's. The lift had been good, extending smoothly up the easterly sides of the clouds; I was still at 1,800ft and continued south, threading a path through the clouds. At Broker's I circled the antennae a couple of times, looking at a solid wall of cloud to the south. There was a gap behind Mt Keira and I could see Mt Ousley. I set off towards the gap, but as I approached, it abruptly filled with cloud. Perhaps pushing on wasn't such a wise move, given the volatility of the conditions, even though the lift was very consistent. I turned back, encountering the first significant sink on the trip on the way back to Broker's. Fortunately, lift was light but widespread on the ridge north of Broker's, which gave me

a buffer of height as I pushed out around the convoluted gullies just south of Bulli.

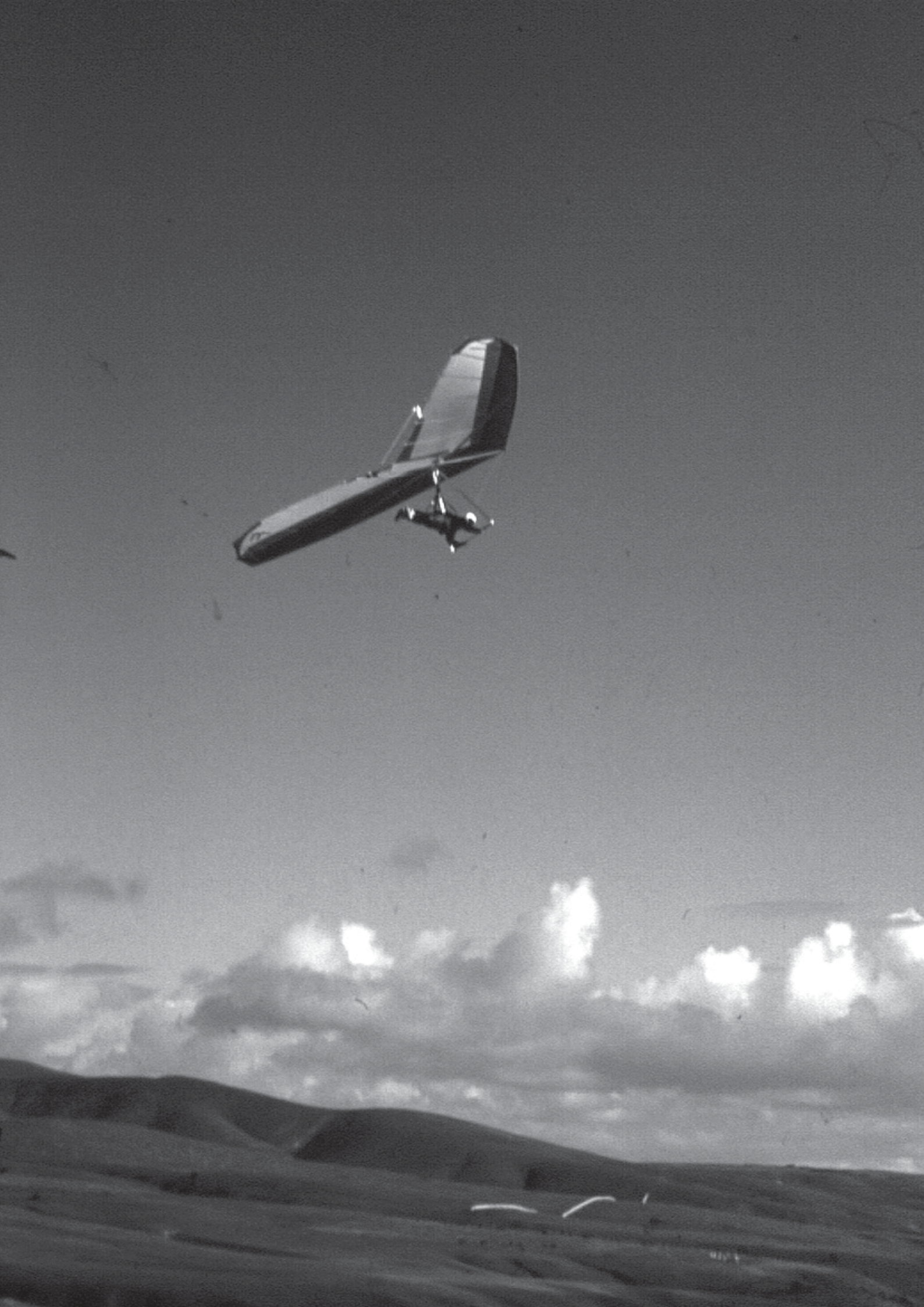
To the north, the convergence line had moved closer to the coast and conditions had much improved. I met the first glider since leaving Stanwell as I headed north from Bulli. By the time I reached Coalcliff, I was cruising in silky smooth air at 2,000ft, while below me, a steady stream of gliders were trekking south. The lift continued, smooth and consistent, all the way to Garie Beach. I was able to cruise up the length of the beach at 1,600ft, looking down on the cliffs that extend all the way to Cronulla. Certainly the best conditions I'd experienced at Stanwell in a long time.

Back at Stanwell, I was expecting light conditions on the ground and an early onset of katabatic flow. I watched a glider land and nose-in sharply, followed by a paraglider, whose collapsing canopy indicated a very light onshore breeze. I came in low over the Park with undercarriage down and brakes out, and still glided almost the full length of the chute before running out a landing in basically nil wind. By the time I had carried the glider back to the Park, the wind was just beginning to drift in from the west, leading to a few interesting approaches and a bit of sand eating by a couple of unfortunates who were caught out.

The Stanwell Gods had smiled on me for once. Convergence cruising – I love it.



Right: Garry Fimeri on a leisurely Sunday coastal flight, Sellicks Beach, South Australia
Photo: Kym Fielke, Canon EOS 300, 28-90mm lens, Fuji Sensia 100 slide film



Letters to the Editors

Articles on Lift

I was surprised and pleased to see that three readers have put pen to paper and suggested to have my articles collated in a booklet for new glider pilots. Over the last 12 months many fellow pilots have sent e-mails indicating their appreciation or simply phoned to say that my articles helped greatly to achieve their gliding goals and ambitions.

Considerable interest has also been shown by overseas glider pilots. For example, instructors in Canada and UK asked for permission to include some of my material in various training manuals. Earlier this year permission was granted for translation into Japanese and just recently interest was expressed to publish the

articles in the New Zealand "Gliding Kiwi" magazine.

Such totally unexpected response is simply overwhelming and humbling. What began as a modest attempt to improve my fellow club members' ratio of circuits to soaring flights now seems to have picked up momentum even though readers of this magazine have so far only seen a small portion of my work. All I was trying to do was to make a little contribution as coach of the gliding movement in my chosen country and at the same time repay the many favours I have received over two decades of gliding in Australia.

Also, I felt that as the agent of a sailplane manufacturer I was in a somewhat privileged position and therefore wanted to put something back into the sport I love

so much. Going by your response it seems to have worked and today I would like to take this opportunity to thank all glider pilots in Australia for their feedback and encouragement. Rest assured the extremely positive comments received to date will result in further contributions to "Soaring Australia".

I'm currently in the process of collating my work and publishing a book. If there are any Australian glider pilots with access to good printing facilities I would appreciate to hear from them.

Bernard Eckey (eckey@internode.on.net)



GLIDING FEDERATION OF AUSTRALIA Airworthiness Inspection

FORM 2 AND C OF A NOTICE

- ☐ A form 2 inspection is due and a cheque for \$143* is enclosed
 - ☐ The C of A requires renewal. A cheque for \$33* is enclosed for renewal and the existing C of A document is returned
 - ☐ Initial registration package is required and a cheque for \$363* is enclosed
- * Fees include GST

A) DOCUMENTATION REQUEST

- ☐ Please send me a change of certificate and owner document
- ☐ Please send me an application to register an aircraft form

Aircraft Type

Registration marks VH –

Address to which documents are to be sent is:

Name

Address

State..... Postcode

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

Clio's Answers:

- 1b. After reading about German gliders in magazines, the Golden Eagle was designed and built by Geoff Richardson in 1937, using homemade casein glue. With slight modifications to the front fuselage, the Golden Eagle is still airworthy and even flew at the IVSM 2000, in Elmira, New York after having been shipped to Los Angeles, California and then towed (in its trailer) 2,500 miles across the country.
2. TRUE. In January 1949, flying a 12 year old Schneider-built Grunau Baby #767, and just hoping to complete the five hour leg for his Silver C, Keith Chamberlin managed to get trapped in a thundercloud. After landing safely, badly bruised and suffering from exposure, Chamberlin's barograph trace indicated a climb of 350f/sec (106m/sec) to an altitude of 15,300ft. His descent was just as fast until he saw the ground again 1,000ft below him.
- 3c. The Schneider family's immigration was sponsored by the Gliding Federation of Australia in 1950.
4. FALSE. The Kangaroo was an entirely new, more elegant glider. After moving to Australia, Schneider did, however, sell plans for the ES-49, which was now called the Wallaby.
- 5a. He would anchor his homebuilt Schneider ES-57 Kingfisher by the tail before attaching a bungee rope to the glider which he then stretched with his four-wheel-drive vehicle. He would then climb into the glider, release the tail rope from inside the cockpit, and soar the ridges, sometimes landing back on top of the hill and sometimes in the valley below.
6. TRUE. Using the FX61-184 airfoil at the root, FX61-140 at the taper break, and FX60-126 at the tip, the prototype was first flown by Harry Schneider in November 1964.
- 7e. Schneider used laminated beech spars.
8. TRUE. Never having flown in the Northern Hemisphere, one pilot became confused by the fact that at noon, the sun in England is in the south and flew 180 degrees in the wrong direction.
- 9a. They were held in Waikerie in 1974, and they gave soaring in Australia a big shot in the arm.
10. FALSE. The GFA was formed in 1949 as the controlling glider authority, independent from the Australian Department of Civil Aviation (DCA)

Thanks to:

Simons, Martin. *Sailplanes, 1920-1945*, EQIP Werbung & Verlag, Königswinter, Germany, 2001.

Simons, Martin. *Sailplanes, 1945-1965*, EQIP Werbung & Verlag, Königswinter, Germany, 2002.

Clio's conduit for this quiz is Raul Blacksten, the Archivist for the Vintage Sailplane Association (VSA) as well as the Editor of the VSA's quarterly newsletter/magazine Bungee Cord. Raul encourages every glider pilot to do their oral history or memoir. He can be contacted at either PO Box 307, Maywood, CA 90270, or at <raulb@earthlink.net>. Visit the VSA website at <www.vintagesailplane.org>



Soaring Calendar

AUSTRALIA

Apollo Bay Fly-in 7-8 February 2003

Apollo Bay, VIC. Presented by Sky High PG Club the goals of this event are to introduce new pilots to the fun of coastal flying while allowing experienced pilots to do greater distances at the coast. Costs: SkyHigh members \$15 or one day \$10; non-members \$20 or one day \$15. For More information visit [www.skyhighparagliding.org/]. Ph: Leanne 0408 344095 or Georgia 0412 126517.

Horsham Week 7-14 February 2004

Horsham Week is again being organised by the regulars and will include the VSA State Comps. All classes. Camping on site. Clubhouse meals. Please let us know if you'll be flying – phone Noel Vagg (Snake), Contest Director, on 03 9743 6830 or email <noeljanvagg@primus.com.au>.

Hang Gliding State Titles 14-21 February 2004

Manilla, NSW. Comp is A grade, GAP parameters are 5km, 50km, 90 minutes, 10%. Entry fee: \$120 (includes site fee). Entrants from last year \$60. Details, registration and payment online at [www.nshwgstatetitles.com].

Australian Open Paragliding Championships 14-21 February 2004

Bright, VIC. With what promises to be an amazing flying season, the renowned flying venues of Bright and the surrounding areas will bear witness to a what is becoming a regular pilgrimage for many PG pilots, both Australian and international. As in years past, this is an HGFA AAA and FAI Category 2 sanction event. The entry fee includes a competition T-shirt, pilot pack, presentation dinner and site fees for the duration of the event. A limited number of places are available on a complete retrieve package for those of you who can't organise your own transport – book early if you don't want to miss out. Carnivorous pilots are again invited to "eat the National Emblem", as well as other activities, courtesy of local businesses, and the central location of the competition (within the town) gives pilots, their partners and friends many opportunities to enjoy the evenings "Après Flight". For more information, visit our website [www.brightadulthoodeducation.org.au/BAE/BrightPGComp] or contact Karl Texler on 0428 385144 or <brightvt@netc.net.au>.

WA State Soaring Competition 21-29 February 2004

Wyalkatchem, WA. Hang gliding and paragliding pilots are invited to compete in this event. Scoring using GPS and GAP 2000. Entry fee: \$105 before 1 Feb and a \$10 late fee will apply thereafter. Entry fee includes T-shirt and presentation dinner. HGFA membership, parachute, helmet and appropriate tow endorsement are mandatory. For more information visit our website [www.wshgc.com.au] and click on (comps), or phone/email Paul Blachford: 0419 413119, <paulblachford@bigpond.com.au>.

2004 International Women's PG Open 23-26 February 2004

A four day competition taking place in the week prior to the 2004 Manilla PG Open. It is organised by Godfrey Wenness and intended to act

as a unique competition for women to promote increased participation levels in the main PG Open and other competitions. Manilla is a safe and easy to fly region and thus will serve as the perfect location for this event. The competition will be run only if a minimum of 20 entries are received by 31 Jan 2004. Entry cost is A\$100 and is via [www.flymanilla.com]. Organiser: Godfrey Wenness ph 02 6785 6545; email <skygodfrey@aol.com>.

Manilla PG Open 2004 28 February – 6 March

Manilla, NSW. Final rego on Friday 27 Feb at Manilla RSL Club HQ. Entry fee is \$160 before 1 Jan (\$180 after). CIVL Cat 2, HGFA AAA. Over A\$5000 worth of prizes in various categories. Max entry of 120 + 5 wild cards. Min pilot level is Intermediate level of inland experience. Entry: from 1 Oct 2003 online via [www.flymanilla.com]. Credit cards accepted. Organiser: Godfrey Wenness ph: 02 6785 6545; <skygodfrey@aol.com>.

National Trike Gathering 3-4 April 2004

Wangaratta, VIC. The Southern Microlight Club is holding this HGFA sanctioned event a little earlier than previous years, so mark it on your "must not miss" calendar, then set to and make the appropriate bookings. Last year was our most successful event to date with more than 50 trikes attending, including a large group flying in from South Australia. We are negotiating with our previous caterers to provide breakfast and lunch on the Saturday and Sunday, and we intend holding a dinner at a local hotel on the Saturday evening. A great camping ground is located at the airport or alternatively Wangaratta has numerous motels/hotels a short drive from the airport. We intend distributing registration information closer to the date. To enable us to have your correct contact details, could you register your interest with our secretary Jeanette Walker on (03) 5941 2721, mobile 0438 418 808 or email <jesta@wingdriver.com.au>. And of course, you are most welcome to spread the word far and wide.

Flatter Than The Flatlands 9-12 April 2004

Birchip, VIC. HG pilots are invited to the 11th annual Flatter Than The Flatlands cross-country towing competition. The event will be conducted over the four day Easter long weekend. Entry fee is \$70 and incl. maps, daily prizes, presentation dinner, scoring, goal beers and lots of fun. After the flying each day, social events including a Red Faces competition (mandatory event per team), movies and much more will be held with prizes awarded. Cameras not required, GPS recommended, parachute compulsory, lots of fun guaranteed. Entries will only be accepted from teams of five pilots. Entries open Wednesday 11 February 2004 at 8pm. Entries will accepted on a first come basis. Places will be confirmed on the competition website after the full team payment is received. Following the success of previous years' events, get organised early. There will be approximately 12 tow strips, two of which will be held in reserve for South Australian teams until 10 March. To enter, phone Ian Rees on 03 9762 1364.

Alice Springs Masters' Games 16-23 October 2004

A low key and social competition for anyone over the age of 35. To register or for any enquiries contact Darren Edwards, ph: 08 89550014, or Simon Holding, ph: 08 89534100.

OVERSEAS

2004 Flytec Championship at Quest Air 16-24 April 2004

Quest Air Soaring Center, Florida USA. The Flytec Championship meet purpose is to have a safe, fun and fair competition. Our focus is to have a relaxing and affordable meet that is a great time for everyone involved. Registration begins 15 Dec, 9am East Coast Time, online at [www.flytec.com] or for help phone (352) 429-0213 or fax (352) 429-4846. Register early, last year the meet filled up in just a few days! May limit size to just 90 pilots. Sanction: USHGA Class A and applying for CIVL/WPRS points meet. Flex, Rigid and Swift class. Location: at the end Sun'n'Fun Air Expo, Quest Air Soaring Center, 6548 Groveland Airport Road, Groveland, Florida, 34736. Fees: only \$375 (add \$100 within 30 days of meet). Tow fee separate. Meet Organiser: Steve Kroop and the Quest Air Family. Meet Director: David Glover. Awards and Prizes. Mandatory Pilot Briefing: 7pm, Thursday, 15 April. Pilots must have flown in a USHGA aerotow competition previously or have written prior meet director or safety director approval. Pilots must have successfully aerotowed the glider model in competition conditions at least ten times. USHGA intermediate rating and membership with aerotow sign-off required minimum 7 days prior to start of meet. Pilots must have specific Garmin or approved GPS units. Meet format is cross-country race to goal with or without turn points. USHGA rule book along with local meet specific rules will be used. Scoring Race – GAP/ GAP modified. See online registration form for requirements and restrictions.

IGC World Gliding Championships Calendar

2007 and beyond

2007 WGC – Juniors, Bid selection = 2005*
2007 WGC – Women's, Bid selection = 2005*
2007 Alternative Events, Bid selection = 2005*
2008 WGC – 15 Metre, 18 Metre, Open, Bid selection = 2005
2008 WGC – Standard, Club, World, Bid selection = 2005
2009 WGC – Juniors, Bid selection = 2006
2009 WGC – Women's, Bid selection = 2006
2009 Alternative Events, Bid selection = 2006
2010 WGC – 15 Metre, 18 Metre, Open, Bid selection = 2007
2010 WGC – Standard, Club, World, Bid selection = 2007
* Sites for these WGC's will be selected in 2005. After 2005 sites for all WGC's will be selected three years prior to competition.
2011 WGC – Juniors, Bid selection = 2008
2011 WGC – Women's, Bid selection = 2008
2011 Alternative Events, Bid selection = 2008
2012 WGC – 15 Metre, 18 Metre, Open, Bid selection = 2009
2012 WGC – Standard, Club, World, Bid selection = 2009
2013 WGC – Juniors, Bid selection = 2010
2013 WGC – Women's, Bid Selection = 2010
2013 Alternative Events, Bid Selection = 2010
2014 WGC – 15 Metre, 18 Metre, Open, Bid selection = 2011
2014 WGC – Standard, Club, World, Bid selection = 2011

NOTE: This calendar is shown as running through 2014 for illustrative purposes only. The calendar and structure of the World Gliding Championships will continue on as shown after 2014 (until changed or modified by the IGC Plenum).

Contact Addresses

GLIDING

GFA

NSW Gliding Association (NSWGA)

Australian Air League

NSW Gliding Wing, 1 Perry St, Kings Langley NSW 2147.

Australian Soaring Centre

PO Box 1315, Byron Bay NSW 2481.

Bathurst Soaring Club

PO Box 1682, Bathurst NSW 2795.

Byron Power Gliding Club

PO Box 815, Byron Bay NSW 2481,
02 66847627, 0428 847642.

Byron Soaring Centre & Aeroclub

PO Box 549, Byron Bay NSW 2481
02 66844244.

Canberra Gliding Club

PO Box 1130, Canberra City ACT 2601,
02 64523994, 0428 523994.

Central Coast Soaring Club

PO Box 1323, Gosford South NSW 2250, 02
49772740.

Cudgegong Soaring Pty Ltd

PO Box 352, Frenchs Forest NSW 1640,
02 94522777, 02 94530777.

Forbes Soaring & Aero Club

PO Box 267, Forbes NSW 2871,
02 68523845.

Goulburn Gliding Group

57 Munro Rd, Queanbeyan NSW 2620.

Grafton Gliding Club

16 Fuller St, Mullaway NSW 2456,
Sec: Bob King, 02 66541638 (h), 040
388551, <kingb@coffscs.nsw.edu.au>.

Greenethorpe Gliding Club

Weerona Young Rd, Grenfell NSW 2810,
02 63431375, 02 63431375.

Harden Gliding Club

78 Badenoch Crs., Evatt ACT 2617, 02
62585554, 02 62578280, 0418 670291,
<users.bigpond.com/richard.hart/hgc/default.
html>, Sec: Richard Hart 02 62585554.

Hunter Valley Gliding Club

PO Box 9, Newcastle NSW 2300.

Kentucky Flying Club

The Hill, Kentucky NSW 2354.

Lake Keepit Soaring Club

PO Box 152S, South Tamworth NSW 2340,
02 67697514, 02 67697640.

Leeton Gliding Club

PO Box 607, Leeton NSW 2705, 02 69536970.

NSW AIRTC Gliding Club

41 Simpson Ave, Forest Hill NSW 2651,
02 69227526.

NSW Police Gliding Club

27 Bourne St, Wentworth Falls NSW 2782,
0427 592744.

Orana Soaring Club

PO Box 240, Narromine NSW 2821,
02 68892733, 02 68891229.

RAAF Richmond Gliding Club

RAAF Base, Richmond NSW 2755.

RAAF Williamtown Gliding Club

c/o Mr AJ Lee, 10 Federation Dr., Medowie
NSW 2318.

Royal Australian Naval Gliding Association

PO Box A37, Naval Air Base, Nowra NSW 2540.

Scout Association NSW Gliding

Dr Reg Mitchell, 15 Harrison Ave, Eastwood
NSW 2122, 02 93519660, 02 93519540.

Soar Narromine Pty Ltd

PO Box 56, Narromine NSW 2821,
02 68891856, 02 68892488.

Southern Cross Gliding Club

PO Box 132, Camden NSW 2570,
02 46558882.

Sportavia Soaring

PO Box 78, Tocumwal NSW 2714, 03 58742063.

Summerland Gliding Club

PO Box 820, Lismore NSW 2480, Sec: David
Wright, 02 6621 6495 (w), <wrights@norcom.au>

Sydney Gliding Inc. (Concordia GC)

PO Box 633, Camden NSW 2570, 0412 145144.

Temora Gliding Club

PO Box 206, Temora NSW 2666, 02 69772733.

Wagga Wagga Gliding Club

25 Beauty Point Ave, Wagga Wagga NSW
2650, 0427 205624.

Wee Waa Gliding Club

(formerly Warrumbungle Gliding Club)
PO Box 586, Wee Waa NSW 2388,
02 67954333.

Queensland Soaring Association (QSA)

Boonah Gliding Club

PO Box 107, Boonah QLD 4310, 07 54632630.

Bundaberg Soaring Club

PO Box 211, Bundaberg QLD 4670,
07 41553158.

Caboolture Gliding Club

PO Box 920, Caboolture QLD 4510,
0418 713903.

Central Queensland Gliding Club

PO Box 953, Rockhampton QLD 4700,
07 49371381.

Darling Downs Soaring Club

PO Box 584, Toowoomba QLD 4350,
07 46637140.

Gympie Gliding Club

PO Box 103, Gympie QLD 4570, 07 54867247.

Kingaroy Soaring Club

PO Box 91, Kingaroy QLD 4610, 07 41622191.

Moura Gliding Club

PO Box 92, Moura QLD 4718, 07 49973265.

North Queensland Soaring Centre

PO Box 5790 Townsville Mail Centre
QLD 4810, 0500 811011.

No. 229 Squadron Australian

Air Force Cadets
3 Hedlow Court, Carindale QLD 4152,
07 33989745, 0148 984752.

Southern Downs Aero & Soaring Club

PO Box 144, Warwick QLD 4370,
07 38923473.

Tarwan Soaring

PO Box 34, Wandoo QLD 4419, 07 46274080.

SA Gliding Association (SAGA)

Adelaide Hills Soaring Group

PO Box 1, Bridgewater SA 5155.

Adelaide Soaring Club

PO Box 94, Gawler SA 5118, 08 85221877,
08 85223177.

Adelaide Uni Gliding Club Inc., Adelaide

Uni Sports Association

The University of Adelaide, SA 5005,
08 88262203.

Alice Springs Gliding Club

PO Box 356, Alice Springs NT 0871,
08 89526384.

Balaklava Gliding Club

PO Box 257, Balaklava SA 5461,
08 88645062.

Barossa Valley Gliding Club

PO Box 123, Stonefield via Truro SA 5356,
08 85640240.

Blanchetown Gliding Club

c/o 12 Altola Rd, Modbury SA 5092.

Bordertown Keith Gliding Club

PO Box 377, Bordertown SA 5268.

Gawler Gliding Club

PO Box 135, Cockatoo Valley SA 5351.

Millicent Gliding Club

PO Box 194, Millicent SA 5280.

Murray Bridge Gliding Club

PO Box 1277, Victor Harbor SA 5211.

Northern Australian Gliding Club

PO Box 38889, Winnellie NT 0821.

Port Augusta Gliding Club

PO Box 272, Port Augusta SA 5700,
08 86436228.

Renmark Gliding Club

PO Box 450, Renmark SA 5341,
ph/fax 08 85951422, mob 0417890215.

SA AIRTC Gliding Club

PO Box 2000, Salisbury SA 5108.

Waikerie Gliding Club

PO Box 320, Waikerie SA 5330, 08 8541
2644, 08 85412761.

Whyalla Gliding Club

PO Box 556, Whyalla SA 5600, 08 8640
4432, 0413 127825.

Victorian Soaring Association (VSA)

Albury Corowa Gliding Club

PO Box 620, Wodonga VIC 3689.

Beaufort Gliding Club

116 Tennyson St, Elwood VIC 3184.

Bendigo Gliding Club

62 Lawson St, Bendigo VIC 3550.

Corangamite Soaring Club

Kurweeton, Derrinallum VIC 3325.

Geelong Gliding Club

PO Box 197, Bacchus Marsh VIC 3340.

Gliding Club of Northern Tasmania

58 Hales Street, Wynyard TAS 7325,
03 64422108.

Gliding Club of Victoria

PO Box 46, Benalla VIC 3672, 03 5762
1058, 03 57625599.

Grampians Soaring Club

PO Box 468, Ararat VIC 3377, 0417 514438.

Latrobe Valley Gliding Club

PO Box 625, Morwell VIC 3840.

Mangalore Gliding Club

PO Box 80, Avenel VIC 3664.

Mount Beauty Gliding Club

44 Roper St, Mount Beauty VIC 3699.

Murray Valley Soaring Club Ltd

PO Box 403, Corowa NSW 2646.

RAAF East Sale Gliding Club

c/o Gary Mason, 9 Weir St, Sale VIC 3850.

Soaring Club of Tasmania

c/o Bruce Thompson, 34 Clinton Rd, Geilston
Bay TAS 7015, 03 62552191 (h), 03
62252561 (CFI).

South Gippsland Gliding Club

PO Box 475, Leongatha VIC 3953.

Southern Riverina Gliding Club

PO Box 78, Tocumwal NSW 2714,
03 58742063, 03 58742705.

Stawell Gliding Club

20 Jones St, Stawell VIC 3380, 03 53582713.

Sunraysia Gliding Club

PO Box 647, Mildura VIC 3500.

Swan Hill Gliding Club

PO Box 160, Nyah VIC 3594.

Tumbarumba Gliding Club

Mundaroo, Tumbarumba NSW 2653.

Victorian Motorless Flight Group

GPO Box 1096J, Melbourne VIC 3001, 0402
281928, 03 98486473.

Wimmera Soaring Club

PO Box 158, Horsham VIC 3402.

WA Gliding Association (WAGA)

Beverley Soaring Society

PO Box 136, Beverley WA 6304, 0407 385361.

Gliding Club of Western Australia

356 Abernethy Rd, Cloverdale WA 6105,
08 92774148, 0409 683159, 08 96351023.

Morawa Flying Club

PO Box 276, Morawa WA 6623.

Narrogin Gliding Club

PO Box 232, Narrogin WA 6312, 0407
088314 or 08 98811795 (weekends).

Stirlings Gliding Club

c/o Post Office, Lower King WA 6330.

WA Squadron Australian Air Force Cadets

Headquarters, RAAF Base, Pearce,
Bullsbrook WA 6084, 08 95717800,
08 95717877.



HGFA

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

HGFA National Office

PO Box 157, Hallidays Point NSW 2430. Ph:
02 6559 2713, fax: 02 6559 3830, <office@
hgfa.asn.au>.

HGFA General Manager's Office

Damien Gates, PO Box 130, Underwood QLD
4119, ph: 07 32198516, 0417 766
356, fax: 07 32199560, Email <general.
manager@hgfa.asn.au>.

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

Board Members

Keith Lush (President)

Unit 1/35 Coode St, South Perth WA 6151,
08 93673479, 0405 476857, <keith.lush@
inet.net.au>.

Rohan Grant (Vice President)

188 Bathurst St, Hobart TAS 7000,
03 62334405 (h), fax: 03 62243598,
<President@hgfa.asn.au>.

Rohan Holtkamp (Secretary)

RMB 236B Western Highway, Trarwala VIC
3373, ph/fax: 03 53492845, 0409 678
734, <Rohan_Holtkamp@hgfa.asn.au>.

Rob Woodward (Treasurer)

38 Addison Rd, Black Forest SA 5035,
08 82325405, 0408 808436, fax: 08
82237345, <rob_woodward@ultimate
positioning.com.au>.

**Stewart Dennis PO Box 118, Dickson ACT
2602, ph/fax 02 62470008, 0429 158721,
<sdd20@telstra.com>.**

Nigel LeLean 11 Mullaway Rd, Lake

**Cathie NSW 2445, ph/fax 02 65854723,
0419 442597 (m).**

**Bill Moyes 173 Bronte St, Waverley NSW
2024, 02 93875114, fax: 02 93693342,**

<Bill_Moyes@hgfa.asn.au>.

**John Reynoldson 68 Teddington St, Hampton
VIC 3188, 03 95970527, fax: 03 9553**

6405, <John_Reynoldson@hgfa.asn.au>.

**Mark Thompson 40 Hovia Terrace,
Kensington WA 6151, 08 94912417 (w),
0428 729028, <mark.thompson@team.
telstra.com>.**

Microflight Public Relations

Paul Haines ph/fax: 02 42941031.

GFA MEMBERSHIP FEES 2003-2004

||
||
||

States & Regions

ACTHGA

PO Box 3496, Manuka ACT 2603; Pres: Steve Foggett 0417 313589, <sfoggett@hotmail.com.au>; Sec: Mark Elston 0428 480820, <mark.elston@defence.gov.au>; Trs: Tony Davidson 0500 883322, <td@silktel.com>; Committee members: Michael Porter, Sascha Moroney, Craig Donnell, Tim Grabovszky; SSO: Peter Bowyer 0412 486114. Meetings 3rd Mon/month 7:30pm Yamba Sports Club, Phillip.

Hang Gliding Association of WA

PO Box 82, South Perth WA 6151; <hang_gliding_association_wa@hotmail.com>. Admin: Rick Williams, <hang_gliding@dodo.com.au>; HG Rep: Gavin Nichols, <gknichol@tpg.com.au>; PG Rep: Mike Duffy, <MikeDuffy@graduate.uwa.edu.au>; Trike/HGFA Rep: Keith Lush, <keith.lush@inet.net.au>

NSW Hang Gliding Association

Sec: Steve Hocking, 19 Gladswood Gardens, Double Bay NSW 2028, ph/fax: 02 9327 4025, <nswhga@s054.aone.net.au>.

North Queensland HG Association

12 Van Eldik Ave, Andergrove QLD 4740; Pres: Graeme Beplate 07 49552913, fax: 07 49555122, <sitework@mackay.net.au>; Sec: Ron Huxhagen 07 49552913.

South East Queensland HG Association

Pres: Greg Hollands <greg.s.hollands@transport.qld.gov.au>, PO Box 61, Canungra Qld 4275 07 38448566.

South Australian HG Association

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

Tasmanian HG & PG Association

19 Christella Rd, Kingston TAS 7050, [www.thga.net]; Pres: Anthony Mountain (Sth HG pilot) 0407 299011, <president@thpa.net>; Sec/Trs: Mico Skoklevski (Sth HG pilot) 0418 398624, <secretary@thpa.net>; PG contact: Rob Steane (Sth PG pilot) 0418 146137, <paraglide.info@thpa.net>; Bill Brookes (Nth PG pilot & HG info) 0409 411791, <northern@thpa.net>.

Victorian HG and PG Association

PO Box 157 Northcote VIC 3070, [www.vhpa.org.au]. Pres: Carolyn Dennis; Sec: Steve Norman; Trs: Lisa Charleston; SSO: Rob Van Der Klooster 03 52223019 (h). Site weather-boxes: Three Sisters 0409 864700, Buck-land Ridge 0407 356295, Mt Buffalo 03 57501515, Ben More 0417 112062.

Clubs

New South Wales

Blue Mountains HG Club Inc.

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

Byron Bay HG Club – see Northern Rivers Hang Gliding and Paragliding Club

Dusty Demons Hang Gliding Club

PO Box 1003, Fyshwick ACT 2609. Pres: Lee Patterson 0427 220764, <leeroy@dustydemons.com>; V-Pres: Tove Heaney 02 48494516, 0419 681212, <tove@dustydemons.com>; Sec: Scott Hannaford 0417 272498, <scott@dustydemons.com>; Trs: Dan Watters 0410 347801, <daniel.watters@csiro.au>; SSO: Grant Heaney 02 48494516, 0419 681212, <grant@dustydemons.com>; Editor: Kath Kelly 02 6456 1590, 0427 220764, <phase9@snowy.net.au>.

Hunter Skysailors

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

Illawarra Hang Gliding Club Inc.

27a Paterson Rd, Coalcliff NSW 2508. Pres: Frank Chetcuti 0418 252221 <chetcuti1@bigpond.com>; Sec: John Parsons; SSO: Tim Causer 0418 433665 <timcau@ozemail.com.au>.

Kosciusko Alpine Paragliding Club

[www.homestead.com/kapc]; Pres: James Rylie 02 62359120, <rymicalago@netspeed.com.au>; Sec: Alex Johnson 0411 748713.

Manilla SkySailors Club Inc.

[www.FlyManilla.com]. Pres: Kevin Chisholm 0404 944395; V-Pres: Suzy Smith 02 6785 6545; Sec: Paul Cox 0417 355897; Trs: JJ Bastion 0427 161504; SSO (HG): Patrick Lenders 02 67783484; SSO (PG): Godfrey Wenness 02 67856545, SSO (Towing): Rhett Rockman 0428 428962; Trikes: Will Ewig 02 67697771.

Mid North Coast HG Association

HG contact: Trevor Kee 02 65871213 or 0418 569 660; PG/MM contact: Lee Scott 02 65598655, 0429 844961.

Newcastle Hang Gliding Club

PO Box 64 Broadmeadow NSW 2292; [www.nhgc.asn.au], <fly@nhgc.asn.au>.

Pres: Mick Walmsley 0425 273407; V-Pres: Glen Selmes 0418 471353; Sec: Matt Olive 02 49423131; Trs: Tash McLellan 0428 278867; SSOs: Al Giles 02 49430674, John O'Donohue 02 49549084, Tony Barton 0412 607815. Meetings: Last Wed/month 7:30pm Souths Leagues Club.

Northern Beaches HG Club Inc.

Pres: Sandy Thomson 02 99812019, 0419 205220, <planky@bigpond.com.au>; V-Pres: Steve Phillips 0413 108091, <stephenphillips@optusnet.com.au>; Trs: Jim Gaal 0414 799 822, <jimg@acay.com.au>; Sec: Owen Pearce 02 99133547; SSO (HG): Glen Salmon 02 99180091; Wayne Fitzgerald 02 99827094; SSO (PG): Wayne Fitzgerald 02 99827094. Meetings: 1st Tue/month, 7pm, Mona Vale Bowling Club.

Northern Rivers HG and PG Club

PO Box 1903, Byron Bay NSW 2481, [http://bbhg.tripod.com/]. Pres: Eddie Gray 02 66841795, <edgrey@linknet.com.au>; Sec: Ward Gunn 0414 356588; SSO (HG): Ashley Willmott 0428 560248, <ashley@lis.net.au>; SSO (PG): Lindsay Wootten 0427 210993, <lindsaywootten@bigpond.com>.

Stanwell Park HG and PG Club

PO Box 258 Helensburgh NSW 2508; Pres: Chris Fogg 0412 904800, <fogg@idx.com.au>; Trs: Adrian Le Gras; Sec: Scott Zwanenbeek <scottz@internode.on.net>; SSO: Tony Armstrong <tony@hangglideoz.com.au>, 02 42949999.

Victoria

Dynasoarers Hang Gliding Club

Pres: Darren Brown 03 93971233 (w), fax: 03 93974566, <dbrown@bmlegal.com.au>; Sec: Dale Appleton 0408 382635; Trs: Greg Holt 0418 516058; SSO: Rob Van Der Klooster 03 52223019, 0408 335559; Publicity Officer: Harry Buckle 03 52214544, <monument@pipeline.com.au>. Meetings: 1st Fri/month, venue see: [vhpa.org.au/dynal].

Melbourne Hang Gliding Club Inc.

PO Box 8057, Camberwell North VIC 3124; [www.vhpa.org.au/melbourne/], <melbourne@vhpa.org.au>. Pres: Andrew Medew 0425 702957; Sec: Vanessa Sparke 03 9458 3780; SSO: Geoff Tozer 03 97583250, Kevin Grosser 0419 022225. Meetings: 3rd Wed/month at 6:30pm at the Palace Hotel, 893 Burke Rd, Camberwell.

North East Victoria HG Club Inc.

[www.hgfa.asn.au]. Pres: Paul Harrison 0428 356239; Sec: Garrit Verway 0427 551074; Trs: Jill Borst 0438 328636; Web: Barb Scott 0408 844224; Meetings: Check [www.home.aone.net.au/gilbert/nevhc.htm].

ALL CLUBS PLEASE CHECK DETAILS IN THIS SECTION CAREFULLY

Could all Clubs please ensure they maintain the correct and current details of their Executive Committees and contacts here in the magazine. Specific attention is directed to the listing of SSOs and SOs for the Clubs. Please ALL CLUBS and nominated Senior SOs and SOs confirm ALL SSO and SO appointments with the HGFA Office <office@hgfa.asn.au> to ensure that those holding these appointments have it listed on the Membership Database and can receive notices and correspondence as required. Appointment of these officers is required to be endorsed by Clubs in writing on the appropriate forms. Sometime in the future if confirmation is not received, those listed in the Database where no current forms or confirmation is held, the appointment will be taken as having expired.

Damien Gates General Manager, HGFA

Sky High Paragliding Club

[www.skyhighparagliding.org]; Pres: Colin Page 0411 555128; V-Pres: John Styles <jdstyles@hotmail.com>; Trs: Clinton Arnall 0415 229315, [membership@www.skyhighparagliding.org]; Sec: Georgia Buckingham <secretary@www.skyhighparagliding.org>; Web: Tony Tidswell <webmaster@www.skyhighparagliding.org>; APN Editor: Julie Sheard 0425 717944 <editor@www.skyhighparagliding.org>; SSOs: Kevin Gingell-Kent, Alistair Johnson, Adam Neinkemper. Meetings: 1st Wed/mth 8pm, Retreat Hotel, 226 Nicholson St, Abbotsford.

Southern Microlight Club

Pres: Kel Glare 03 94395920 (h), 0421 060706; V-Pres: Ben DeJong 03 97898970; Sec: Jeanette Walker 0438 418808, 03 59412721; Trs: Dianne Pierpoint; Newsletter: Barry Wood <jbwood@bigpond.net.au>, Michael Rose <mrose3@bigpond.net.au>. Meetings: 2nd Tue/month 8pm, The Manningham Club, 1 Thompsons Rd, Bulleen.

Western Victorian Hang Gliding Club

PO Box 92, Beaufort VIC 3373, [www.vhpa.org.au/vwhgc]. Pres: Glenn Bachelor 0419 324730, <GlennB@pocketmail.com.au>; V-Pres: Mark O'Keefe 0412 473724, <mokeefe@bigpond.net.au>; Sec: Andrew Edney 0438 571445, <andrew.edney@edag.com.au>; Trs: Phillip Campbell 0419 302850, <campbell.p@giant.net.au>; Web/Database: Damian Georgiou 0413 677090, <damiand@bachomp.net>; SSO: Rohan Holtkamp 0409 678734, <dynamic@netconnect.com.au>. Meetings: Last Sat/month, The Golden Age Hotel, Beaufort.

Queensland

Cairns Hang Gliding Club

Pres: Russell Krautz <krautrz@yahoo.com.au>; V-Pres: Joe Reyes 07 40555553, <reyes@ledanet.com.au>; Sec: Lance Keough 07 40912117, 31 Holm St, Atherton QLD 4883; Trs: Nev Akers

07 40532586, <nevjoy@ozemail.com.au>.

Canungra Hang Gliding Club Inc.

PO Box 41, Canungra QLD 4275; [www.chgc.asn.au]. Pres: Brandon O'Donnell 07 33999850 (h), 0416 089889, <olofly@hotmail.com>; V-Pres: Raphael Mackay 07 55345190; Sec: Col Hjortshoj 07 55437248 (h), 0429 312067, <col61@gil.com.au>; SSO (PG): Rob Wilton 0418 732325, <robertmarie.wilton@bigpond.com>; SSO (HG): Ken Hill 07 55435631, 0418 188655, <kenhill@iprimus.com.au>.

Central Queensland Skyriders Inc.

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

Conondale Cross-Country Flyers Inc.

Pres: Peter Buch 07 54949615, <buchy9@bigpond.com>; V-Pres/SSO (PG): Graham Sutherland 07 54935882, <grahamsu@mail.cth.com.au>; Sec: Sue Buch, 343 Commissioners Flat Rd, Peachester QLD 4519, 07 54949579; Trs: Kim Hodson, 16 Gizeh St, Enoggera QLD 4051, 07 33541910; SSO (HG): Russell Groves 07 54450084.

Dalby Hang Gliding Club Inc.

27 Van Gogh Pl, Mackenzie QLD 4152; Pres: Daron Hodder 0413 515160, <daron@powerup.com.au>; Sec: Rod Flockhart 07 32193442, 0412 882639, <rflockhartrod@hotmail.com>; SSO: Damien Gates 07 3901

7401; Trs: Cameron McNeill 07 38913457.

Mount Isa Soarers

John Ennis 07 47494834, 07 47433847 (w), 0409 591701, <ennisfamily@bigpond.com>. Visitors must contact John before flying local site.

Sunshine Coast Hang Gliding Club

PO Box 227, Rainbow Beach QLD 4581; <intheair@ozemail.com.au>. Pres: Mark Savage 07 54416423, <marksavage@dart.net.au>; Sec/SSO (PG): Jean-Luc Lejaille, 0418 754157, <rainbow_flyer@hotmail.com.au>; Trs: Michael Powell, 07 54425568 SSO (HG): David Cookman 07 54498573.

Townsville HG Association Inc.

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

Whitsundays HG Club

Pres: Graham Lee 07 49546726, <gdsrlee@hotmail.com>; Sec/Trs: Ron Huxhagen 07 49552913, fax: 07 49555122, <sitework@mackay.net.au>

Northern Territory

Alice Springs HG and PG Club

Pres: Brett Lewis 0411 677705.

Western Australia

Albany Hang Gliding Club

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

Cloobase Paragliding Club Inc.

334 Belmont Ave Kewdale WA 6105. Mes-sagebank 08 94875253; Pres: Wieslaw Zdanowicz, 08 92493707, <spoton@starwon.com.au>; V-Pres: Robin Rankin, 0407 441 463; Sec: Mike Duffy, 16/3-5 Geddes St, Vic Park, WA 6100, 08 92771906, <MikeDuffy@graduate.uwa.edu.au>. Trs: Colin Brown 08 94594594, <cobrown@bigpond.com>. Meetings: 2nd Wed/month 8pm, Rosie O'Grady's Pub, South Perth.

Goldfields Dust Devils Inc.

9 Broadarrow Rd, Kalgoorlie WA 6430. Pres: Murray Wood 08 90215771, <dustdevils@hgfa.asn.au>; Sec: Peter Cepuritis 08 9022 2084, <pcepuritis@kal.snowdenau.com>; Trs: Richard Breyley 08 90227684, <Richard.Breyley@harmonygold.com.au>; SSO: Mark Stokoe 08 90911297, <Mark.Stokoe@health.wa.gov.au>.

Hill Flyers Club Inc.

<hillflyers@dodo.com.au>; Pres/SSO: Rick Williams 08 92943962, 0427 057961; Sec/Trs: Dave Longman 08 93859469. Meetings: Last Tues/Month, 7:30pm, Venue: Rosie O'Grady's Pub, South Perth.

South West Microlight Club

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

Western Soarers Hang Gliding Club

<wshgc@hotmail.com>, PO Box 483, Mt Hawthorn WA 6915, [www.iinet.net.au/~navi]; Pres: Mark Thompson 08 93684497, <mark.thompson@team.telstra.com>; V-Pres: Paul Blachford, <pblachford@bigpond.com.au>; Sec: Phil Wainwright, <phil@iqpc.net.au>; Trs: Graeme Sharp 08 94457044, <GSharp@stothoare.com.au>; SSO: Mark Stokoe 08 9581 3572; Events & Promotion: Krista Gaunt <kristagary@wn.com.au>. Meetings: 1st Wed/month 7:30pm, The Irish Club, 61 Townshend Rd, Subiaco.



HGFA General Manager's Report

Damien Gates

CASR (Civil Aviation Safety Regulations) Update

As you are aware from previous mention here, the CASA and industry representatives are in a consultative process drafting the new CASR's that will relate to our sports. CASR's are replacing the old Civil Aviation Orders. Pt 103 is the main operational CASR that affects Sport and Recreational Aviation, including the HGFA, GFA and AUF among others. At the last Sub Committee meeting of the Standards Consultative Committee held in Canberra on 2-3 December 2003, progress was made into the writing of this Pt 103 as well as Pt 149, which deals with the Sporting Administration bodies themselves.

Much of the operational rules and details have been now removed from Pt 103 with the view that these will then be contained within our own Procedures Manual (Operations Manual) as specified by a document referred to as the Manual of Standards. Essentially the Manual of standards (MoS) will outline the content and requirements for our Procedures Manual, the Procedures Manual being the primary document that we are required to refer to for our operations. This appears to be the best approach to regulation of our sports; in this fashion we have a vested interest in and control of our operations for which we ourselves, as an organisation and individuals, are best equipped to deal with under our specialised circumstances.

Pt 103 will still contain many things which affect our operations, though these will be more inclined towards elements which are enforceable under CASA's charter.

CASA will have a power of veto over changes which we make to our Procedures Manual to the extent that it is a matter which may affect aviation safety.

Weak Links

Attending recent events has highlighted (through some intelligent observation and investigation by Don Gardner and Dustan Hansen) the need to treat weak links as an integral part of any towing operation, giving the same amount of thought and preparation to them as any other piece of equipment. All weak link line is different. As we use material which really has no qualities specifically for use by us in our sports it is necessary, at the least, to perform a minimal amount of quality control. This involves TESTING a sample of the weak link material for its breaking strength, and may be

performed simply by hanging weights (or yourself, safely of course) from a weak link, set up as you would use in towing.

Using the material you intend to use for your weak links, hang a sample weak link (four strands for most) from a hook on a rafter or suitable support, and using a suitable piece of round wood (broom handle) through the weak link as a handle, hang (with your feet just off the ground). The weak link SHOULD NOT BREAK under these circumstances (unless of course you are a big unit like me, I use five strands as a standard). If you were to "bounce" once hanging from the weak link, and it breaks, this would be acceptable. The object being that the weak link should break under a simulated 1g all up weight. (Pilot and glider in flight config). For a true comparison it would be best to use weights, added up to the point of the equivalent 1g weight, and just past that weight the weak link should break.

If the weak link breaks without any further weight applied then the material is not suitable for use. Fluoro coloured material has in the past shown at times to be weaker than uncoloured material. No quality control goes into this material and so all new line needs to be tested and old line should also be regularly tested for deterioration, which will occur due to age and UV exposure.

Always use a new weak link for each tow. Using more strands than is required IS NOT RECOMMENDED. If you are having persistent weak link breaks then check the material used and throw the old stuff away forever to prevent others using it. Never think the weak link will work, they often do not. A lockout may never (and often does not) apply more than 1g to the weak link.

I myself find the Kinnears brand Tradeline 50 "880 Tex" to have excellent qualities for the purpose (funny that).

The Pines (VIC)

The following comes from David Harris regarding "The Pines" site, Victoria:

The landowner of the Pines site (both take off and bomb-out) has requested that I communicate with you on his behalf. The landowner closed the site on Melbourne Cup weekend. He has now re-opened the site with some conditions which I will communicate to you.

The landowner has expressed particular concern regarding fire risk. No fire sources such as lighters or matches must be taken onto his property. Vehicles must not be driven onto his property either in the bomb-out or launch. Vehicles must also avoid

being driven in any long grass adjacent to his property. He has also expressed his perception that city based pilots are a particular risk in this regard, and has requested that all mention of the Pines site be removed from all site guides relating to hang gliding/paragliding activities. At this stage, the site owner sees the site as an "unofficial" site, primarily for use by "locals" and the Alpine Paragliding School. He understands that others from further afield will sometimes use the site, but does not wish to encourage that. We must remember that the Pines is not "our" site, but in fact the landowners site, and we are only suffered as his guests. We must respect his perception. Accordingly, I ask that you assist in retaining use of the site by promptly acceding to his wishes. Please pass this request to the relevant bodies and ensure that the Pines site is removed from all site guides including websites.

The usual conditions of keeping gates clear for access and a gate left as found of course also applies.

The landowner has asked that all negotiations relating to the Pines site be through me. He has indicated that he does not wish to be "hassled" on this matter.

The Alpine Paragliding School kindly donated the landowners' gift (through me) this year.

David Harris, PO Box 794,
Milawa VIC 3678, Member 63406.

Listen!

A recent paragliding fatality has highlighted one of the main reasons we operate as we do, with peer support and supervision. Briefly (and pending any findings from the Coronial Investigation) the fatal accident involved a recently certified intermediate pilot. Conditions at the particular launch site were suitable for a flight, earlier than the fatal flight. All pilots flew and landed safely and returned to fly again. At this time conditions had deteriorated with a change in wind direction. The wind direction change was such that it caused mechanical turbulence around and out from launch even though at times the wind would cycle up the face. It was common knowledge that this occurred and all bar the pilot involved decided it was unsuitable. Hang glider pilots will not fly in these conditions. The pilot was advised of this on a number of occasions by more experienced pilots and STILL chose to fly, believing the newly acquired glider he had was up to the task, being more (if not totally) focused and concerned with being

able to make the LZ rather than the flight progress before that stage.

The pilot Launched well and had good penetration out from launch, at the point where one would expect to meet to prevailing wind direction and associated turbulence the glider suffered an asymmetrical collapse (left) which quickly developed into a spiral dive. Due to the lack of altitude the pilot could not recover the glider before impact.

The particular glider had a riser set up suitable for PPG Ops and so was fitted with trimmer tabs. Inspection of the equipment revealed that the left trimmer tab was fully open with the right fully closed. IF (and I say if, as it is unsure whether this configuration was as a result of the accident/rescue or other actions post accident) the effect would be that the left side would be flying faster than the right, increasing instability on the left side. Add the fact that the chest strap width was also at its widest allowed limits, allowing the pilot to drop into the collapsed side, and recovery from the collapse would have been all the more difficult, with perhaps an aggravating effect on the collapse and spiral. PRE-FLIGHT!

Heed the better advice of others. The pilot in question had a history of ignoring such advice. If conditions are questionable than defer to the safer choice: DO NOT FLY. Listen to your peers and mentors, use their experience to your advantage, stay safe and fly (or not) to fly another day.

As a foot note, the use/inclusion of trimmer tabs on paragliders has diminished, if not totally, except for the use in PPG (powered) set ups. It is recommended by an experienced Pilot Examiner that where a glider has trimmer tabs and is used solely for free flights that the trimmer tabs are sewn immovably in an appropriate configuration. Cases have been recorded where extreme G's have caused the trimmer tabs to move in flight. The use of trimmer tabs is also deemed unnecessary/unsuitable for restricted to low hour intermediate pilots.

Thanks to all who have assisted throughout this tragic event and my deepest sympathies to those affected most – friends and families.

Airworthiness Directive – Airborne Microlights Part 1, dated 21 November 2003:

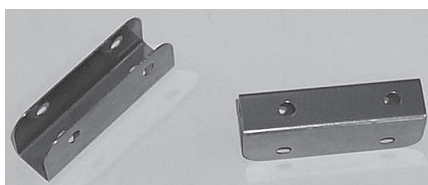
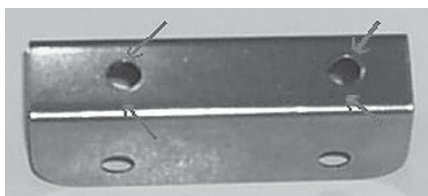
We (Airborne) are currently investigating cracking in the area of the stainless steel nose channel on some Airborne wings. Until we have fully investigated this issue, we recommend that owners/pilots of all Airborne



microlight/trike wings inspect the nose channel before flying. It is necessary to remove the nose channel from the wing to enable proper inspection. This is a simple job and can be done by removing the two bolts that attach the nose channel to the keel through the nose plates. A tip for removal: once the Nylok nuts are removed the bolts can be pushed through using same diameter bolts; this will help to keep the keel and plates lined up for re-attaching the channel later. Simply push the bolts back through the other way when reinstalling the channel. Once the nose channel has been removed check for any cracking around the holes on the back side where the channel attaches to the wing. If any cracking is found do not fly the wing until the part has been replaced. Replacement nose channels are available from the factory. Please state the serial number of the wing when ordering parts. The number is located between the top of the control frame. Please pass on this information to any other Airborne pilots that you know of. An update of this advisory will be published on the website once the investigation is complete.

Part 2, dated 25 November 2003:

Our engineers have been studying the reports of cracking that we have received. Analysis and tests have confirmed that this cracking is caused by fatigue due to local stress concentration in the region adjacent to the front mounting bolt. We have simulated, by test, the complete failure of the nose catch in this region. This testing



shows that, even if the front bolt hole failed, the rear bolt and the nose catch channel alone are capable of supporting a load of at least 8g. We believe that fatigue cracks in this area are not acceptable and our engineers are evaluating alternative designs to eliminate this problem. Another update will be published as part of this AD when this evaluation has been completed. In the meantime an inspection of the nose catch channel is essential and any cracking should render the aircraft unusable until such time as the part is replaced.

Accident Reports

No 1

Pilot: Intermediate HG

Experience: 65 hrs total, two hours last 90 days

Glider: Novice HG

Pilot injury: Bruising and contusions

Glider damage: Write off

Location: Inland soaring site

Conditions: 1-2kt headwind, light turbulence

Description:

The pilot launched into light lift, entered prone and was turned left by light turbulence while still pronating. Glider was unresponsive to attempt to correct turn; pilot considered 360 but thought he was too close, pulled in to improve glider response but hit trees before roll control was restored. Glider then fell around twenty metres to the rocks below launch. Pilot was winded and had chest and back pain, so the rescue chopper was called and lifted him out and to hospital; examined by A&E doctors and X-rayed, no fractures and only minor soft tissue injuries (bruising and contusions). Discharged same day into care of friends from A&E. Upon questioning the pilot, it seems that the glider was trimmed at stall, something which was not a major problem for tow launches or coastal flying. He also reports difficulty entering his harness cleanly (ie: can't go prone without pushing on the basebar).

SSO comment:

Sounds like he stalled a tip after a slow launch and went round the corner whilst going prone and pushing out on the basebar.

Action taken:

Pilot advised to trim next glider at L/D max and advised to hang up in garage in his harness to practice entering prone without pushing on the basebar. Also, to ensure safe airspeed at all times to pull in, and to fly the glider not the harness. If any difficulty entering harness, stay upright until well clear of the hill and other gliders. Other

HGFA General Manager's Report

junior pilots in the club also advised to assess their glider's trim speed on the coast and to move their hang points forward if their gliders trim too slowly.

No 2.

Pilot: Restricted PG
Experience: 35hrs total, 8hrs last 90 days
Glider: DHV 1
Pilot injury: Nil
Glider damage: 16 broken lines, 2 holes in canopy
Location: Coastal site
Conditions: 15-20kt headwind, nil turbulence

Description:

The pilot had been soaring for about 30 minutes when noticed an increase in wind speed with no indication by looking out to sea. Applied speedbar trying to move forward slowly. Obviously landing ASAP was only option. Applied "Big Ears" and just made the landing area and landed, though got caught in the compression zone and got picked up and was dragged with glider blowing back onto powerlines. Exited harness unharmed, wind blew glider from powerlines.

Comments:

Maintain constant observations on weather conditions and have a good analysis of the forecast and any idiosyncrasies of specific weather phenomena for the area being flown. Any area involving powerlines needs to be given extra and particular care, increasing separation and safe flying limits for the site and conditions, including POSSIBLE conditions. Practice efficient canopy deflation procedures on landing to get the glider out of the air and on the ground as safely and efficiently as possible.

No. 3

Pilot: Advanced HG
Experience: 150+ hrs total, 15 hrs last 90 days
Glider: Advanced HG
Pilot injury: Bruising and contusions, fractured left ulna.
Glider damage: RHS LE, upright and small tear in sail
Location: Inland aerotow soaring site
Conditions: 3-5kt cross-headwind, light turbulence

Description:

On second tow for the day, attempting a foot launch as first foot launch (about an hour earlier) went well in the conditions. Wind had progressively dropped off between first and second launches, but proceeded to foot launch rather than use the dolly. Wind direction was straight down the strip three to five knots. After taking up tension and confirming wind direction, I called go go go, held back to increase line tension and then eased into a run. Unfortunately, I do not think I ran hard enough and also I popped the nose slightly. As a result I had low airspeed on take off and along with an initial reduction in the line tension, the glider sank out slightly with the left wing dropping slightly. As the tug picked up speed and tow tension increased again, I felt a sudden acceleration and surge of speed. This resulted in the glider travelling hard to the left as a result of the left wing dropping earlier, and very quickly developed into a lockout. Despite shifting hard to the right and pulling in, the glider did not change line. I immediately looked for the release line but at that instant the weak link broke. The glider pitched up, stalled, and in its recovery slipped left and speared towards the ground. I attempted an aggressive flair. The left tip touched the ground first and the glider cart wheeled on its nose and landed on the right tip (breaking it) and it all came to a rest on its lid. I believe my body broke the right upright as I was flung around. I am unsure how my left arm was broken.

Pilot Comments:

I did not take heed of changed conditions on launch and despite noticing drop in wind speed still elected foot launch. I did not

compensate for drop in wind speed by mentally committing to a "good run" on launch nor did I have glider at proper angle of attack or airspeed when transitioning from foot to flight. Essentially I executed poor launch technique. I was also a bit tired from the previous flight, and heat and humidity of the day. Lessons learnt: don't ignore your inner voice – the one telling you what's not quite right. The drop in wind speed was a concern and I had waited for it to increase. Always wait until launch conditions are optimal and choose the most appropriate method and technique for those conditions, e.g. run harder or use the dolly and don't blow it!

GM Comments:

Just like dolly launching in aerotow, it is necessary to ensure that the transition of the launch from the run (dolly) to flight is a positive separation from the ground with more than sufficient airspeed for the launch. I will let the pilot's description and comments speak for themselves, except to say that when foot launching the object is to have the glider LIFT YOU from the ground. Keep running hard, taking ever longer strides, maintain a good AoA until flight occurs. "Jumping" into the glider as soon as it wants to fly never helps, resulting in a shock loading and loss of speed. Myself: I run as hard as possible and more, MAINTAINING my AoA until such time as it becomes too difficult to keep running with the glider wanting to fly. Knowing I have had the strongest run possible, it must be the case that I have sufficient airspeed. Take care during the transition of your hands and fly the glider first when entering prone.

General Manager's Office

Damien Gates

Ph: (07) 3219 8516

Fax: (07) 3219 9560

Mobile: 0417 766 356

Email: <general.manager@hgfa.asn.au>

General Manager's postal address:

PO Box 130, Underwood QLD 4119

HGFA office postal address:

PO Box 157, Hallidays Point NSW 2430

Classifieds

NOTICE TO ALL GFA ADVERTISERS

All advertisements and payments can be sent to Angel Administration at the following:
The Gliding Federation of Australia/Advertising
130 Wirraway Road, Essendon Airport VIC 3041,
Ph: 0407 593 192 Fax: 03 9379 5519.
Email: <frowe@optusnet.com.au>

Advertisements may be emailed in high resolution (300dpi at 100% size) using TIF or EPS formats. Photographs may be provided in either photo print or slides. Disk photographs are not suitable. Photographs, slides or disks may be returned. Please include a self-addressed and stamped envelope for the return of any promotional material. All GFA advertisements must be paid for prior to publication. (Payment by cheque, money order or credit card). Don't forget Classifieds deadline is the 25th of the month, for publication five weeks hence.

GFA

Single-Seater Sailplanes

STD JANTAR 15M, IIT, Sn. NB994. Low 750 hrs TT, Fresh C of A. Enclosed trailer wing dolly & dust covers. Excellent cond. Ricoh Vario, Edo Aire 720, \$28,000 ono. Ph: 03 94371155.

STD CIRRUSS, GYZ. Excellent cond, original faultless gelcoat, overcoated in quality 2-pack paint system. Basic instruments include. good road trailer. \$20,000 ono. Wimmera Soaring Club. Ph: 03 53825735 (h) or <comcom@wimmera.com.au>.

K6e based in Gulgong NSW, enclosed trailer, \$8,500 ono. For details ph: John 07 49756613 (evenings).

STD JANTAR 41A, KYX. 1,800 hrs, winglets, 1-piece canopy, perfect cond, complete with Slimpack, Trailer, tow-out gear, \$ 18,900. Ph: Graeme Stewart 03 98261930.

NEW PW5, \$30,000. Ex. container Temora Gliding Club. Ph: Alan 0400 496467.

MOSQUITO. One owner, no damage history, template profiled wings, good competition record. Aircraft with basic instruments \$31,000. Ph: Bruce Tuncks 08 82527905.

DISCUS 2b "76". This glider has absolutely everything. Factory prepared for the WGC in Bayreuth. In immaculate cond. As new Cobra trailer with all extras. This glider has achieved three national records. Unique purchase arrangements to suite buyer, term payments over 12 mths possible. Vendor finance available. Extras to suit buyers budget. Buyers in NZ this glider was originally on the NZ register. Shipping to NZ is possible. For further details contact Miles Gore-Brown 07 55789904 or <mgbasia@pacific.net.sg>.

STD JANTAR 2, GEE. Ex cond, low hrs, great cockpit ventilation, winglets, oxy, full panel, near new chute, spare canopy, ELT, dust covers. Ex trailer – disc brakes, 2-person rig, ground handling gear, maintenance gear. \$29,000. Ph: Malcolm Ferguson 0427 825500 or <malferg@bordnet.com.au>.

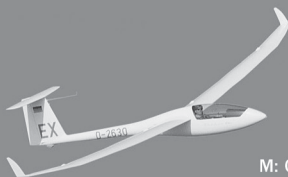
PW-5 WORLD CLASS GLIDER. TT 90 hrs, as new, fully equipped incl. parachute. Custom-built fully enclosed trailer. Ph: 02 6290 1338.

STD JANTAR 2, UKT. Full Borgelt panel, GPS, logger, oxygen, Winter mech vario, slimpack chute, approved winglets. Includes excellent trailer & all ground handling gear. Always privately owned, hangared & carefully maintained. \$28,000 ono. Ph/ fax: 08 98814283.

Could you buy that new ship at home loan interest rates?

Fly Further with the dollars you could save on your mortgage.

For **FREE & INDEPENDENT** service call Matthew Atkinson. Access to over 20 lenders.



Integrity in all we do

INTEGRITY MORTGAGE BROKERS

M: 0428 99 77 10 • E: loaninfo@bigpond.net.au • 1300 737 808

LS1D CTG. 2,900 hrs. 3,000 hrs life extension completed, new Form 2. This glider was always privately owned, never pranged, delight to fly, excellent cond, competition tuned, c/w basic instruments, radio, closed fibreglass trailer, tow-out gear & parachute. \$23,500. Ph: Tobie Geiger 03 54286991 or <tobi1@hotmail.net.au>.

PW5, excellent cond, 400 hrs TT, parachute, lcom, Flytec, never damaged, superb clamshell trailer, well set up, twice Nationals winner, AU\$ 25,000 ex NZ. Email: <bartley@reap.org.nz>.

DUE TO FLEET RESTRUCTURING, Waikerie Gliding Club now offers the following aircraft for sale: Hornet VH-GMU. 1-piece canopy mod. Borgelt B20, 21, 24 & 25 vario/glide computer system, Microair radio & basic instruments. Enclosed trailer, tow-out gear, 4,100 hrs, \$24,000. LS1F VH-GEB Wing fairing mod. Borgelt B20, 21, 24 & 25 vario/glide computer system, radio & basic instruments. Schroder clamshell fibreglass trailer. Wings, Stabiliser & Rudder refinished professionally, tow-out gear, 2,636 hrs, \$23,000. Ph: 08 85412644, fax 08 85412761, <wisc@riverland.net.au>.

ASW 15B Sailplane. 1/2 share. Full instruments plus: Will Schumann 20kt vario with av, turn/bank 1min, Schanz SK 80 compass, Aerograf barograph 39,000 ft, FSG50 Dittel radio, Genave alpha 100 ground station, Puritan-Bennett auto mix/100% 40,000ft oxygen system with mic, oxygen decant system, parachute, single handling tow, pin bushes, gel coat done. Base SA & need a club. 1/2 share \$12,000 ono. Would consider full sale. Ph: Ray 08 83420214, fax: 08 83420634.

Two-Seater Sailplanes

FOR SALE. Located at Boonah Gliding Club. Slingsby T53b & K7 together or separately. Both are flying currently & are complete with trailers. The 53 is in good cond. & has 12 mths Form 2. K7 is in good cond. Ph: Secretary Rob Izatt 07 54632630 or 07 32558499 (w). Best offer over \$10,000 for each will be considered. See [www.boonahgliding.com.au].

K13 based in Gulgong NSW, \$25,000 ono. For details ph: John 07 49756613 (evenings).

K7 racing sailplane, VH-GFR. Excellent cond, paint & fabric both well maintained. Recent Form 2, incl. wing & fuselage covers, good trailer. \$25,000. Ph: Jim or Anne 02 98768176.

K7, IUU. Ex Leeton. Open trailer. \$10,000. Offers: 02 66888144.

Self Launching/Motor Gliders

MOTORFALKE, GIK. 1700 Limbach. B fuse & C wings make it the best soaring model. Very good cond. throughout. Transponder, Strobe, VOR, GPS, ELT, New Jaxida cover. Located Darwin.

Fly away or will deliver. Email: <gavinwr@hotmail.com> or ph: 08 89855330.

DG400, XJD. Tinted canopy, Slimpack chute, good trailer & ground handling gear. Just been fully refinished by Roger Bond. Immaculate cond. Ph: 02 44717223.

DG400 Based at Camden, own T-hangar complete with all ground handling equipment, trailer & parachute. Well equipped with low engine & airframe hrs. Rare opportunity to buy a 1/4 share in a good syndicate. \$29,000 ono. Ph: Terry 02 46556212, 0417 239332, <terryoxborough1@optusnet.com.au>. MUST BE SOLD! - SHARE REDUCED TO \$25,000.

DG500M. VH-XQA. Excellent cond, 560 hrs, 42 engine hrs. "Compact" enclosed trailer, tow-out gear, steerable nose wheel, tinted canopy, water ballast, automatic engine retraction. Ph: John Moore 07 32636618.

Powered Aircraft/Tugs

PAWNEE PA25-235 A1, VH-FAL. Two-seater Pawnee available February 2004. Engine run "On Inspection" near end of recommended TBO \$36,000. Ph: 08 85412644, fax: 08 85412761 or <wisc@riverland.net.au>.

Instruments & Equipment:

NEW PARACHUTES: Short pack ATL M88/90 \$1,925. Slim line long pack ATL 88/92-S \$1925 incl. GST. Airborne Avionics P/L Ph: 02 6889 2733. Fax: 02 68892933. Email: <hartley@avionics.com.au>

SAVE! SAVE! ICOM IC-A23 VHF/VOR Handheld Comm incl. GA headset adaptor. Special price: \$630. IC-A5 \$530. Affordable VHF handheld. Incl GST. Airborne Avionics – Ph: 02 68892733. Fax: 02 68892933. Email: <hartley@avionics.com.au>

GPS!! GPS!! GPS!! GARMIN GPS II Plus \$528. GPS III Pilot \$975. GPS 12XL \$525. New GPS 196 \$1,685. Prices incl. GST. Airborne Avionics P/L – Ph: 02 68892733. Fax: 02 68892933. Email: <hartley@avionics.com.au>.

NEW CANOPIES: Dimona H36 \$2970, Grob twin rear \$1,650, Std. Libelle \$1650, LS \$1,980. GST incl. Windows & vents available. Aviation Acrylic Mouldings Pty Ltd email: <aarmoulds@senet.com.au>. Ph Ian or Cecilia Linke 08 82513780.

CAMBRIDGE 302 – Take a test fly with the next generation vario plus Microair radios & much more: <iankmcphee@bigpond.com>, ph: 0428 847642, PO Box 657, Byron Bay NSW 2481 [www.mrsoaring.com].

Classifieds

General

AVTEC AVIATION Repairs & Maintenance F.R.P. Ph: Roger Bond 07 33894843.

GERMAN SOARING CALENDAR 2004 now available from Mike Cleaver 9 Treharne PI MELBA ACT 2615. Price \$43 NSW/VIC, \$44 AD/SQ/TAS, \$45 others per calendar plus \$8 postage per parcel. Bonus 35th anniversary "Junior" desk calendar available at \$15 extra. Ph: 0412 980886 for details.

Gliding Publications

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

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

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

NZ GLIDING KIWI: Official magazine of Gliding New Zealand. Edited by John Roake. Read world-wide with a great reputation for being first with the news. A\$52 pa. Personal cheques or credit cards accepted. Write: NZ Gliding Kiwi, 79 Fifth Avenue, Tauranga, New Zealand. Email: <gk@johnroake.com>.

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

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

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

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



Advertising Index

Airtime Products	11
Aussie Pilots Connection	13
Chamberlain Knights	34
Craggy Aero	IBC
Diamond in the Sky Aviation	9
Eco Watch	23
Emfo A/B	15
GFA Form 2	38
HGFA Merchandise	21
Integrity Mortgage Brokers	IBC
Jaxida Covers	9
Lake Keepit Gliding Club	15
Microair Avionics	35
Moyes Gliders	BC
North Coast Avionics	13
Parachutes Australia	BC
T&J Sailplane Service	17

HGFA

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

Classifieds are to be delivered to the HGFA office for membership verification/payment by email, fax, post or phone (see club page for details). 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 prospective buyers), your HGFA membership number (for verification) and the State under which you would like the classified placed. (Note that the above does not apply to commercial operators. Instructors may place multiple classified entries, but will be charged at usual advertising rates.)

Hang Gliders & Equipment

NEW SOUTH WALES

AIRBORNE CLIMAX 14 adv, red dart with white/grey, 120 hrs, some C2 mods, climbs & cruises sweetly, \$5,500 ono with spare DT. Contact: <alaricgiles@yahoo.com> or 0427 430674.

AIRBORNE STING XC2 int, EC, white/blue US, spare DT, original + XC bags, batten profile, \$2,500 ono. Ph: Adam 0408 287952.

ATOS Rigid wing HG. GC, great XC performance, 19:1 glide & good sink rate. Easy to fly & lands like a floater. About same set-up time & weight as topless flex wings. Now incl. factory tail (>\$1,000 to buy). Selling to help fund a sailplane. Save many thousands off new price. \$9,200 ono.

Ph: Paul 0404 851876; 02 96997720 (h); 02 82323853 (w) or <hntp@ozemail.com.au>.

EXPLORER HARNESS almost new, one year old, 7 hrs, royal blue, electric starter motor with the pull start option incl, foldable carbon fibre prop, dual fuel tank, manual, \$5,800 ono (parachute optional, add \$450). This is savings of \$1,125 to \$1,400 from new. Upgrading to nano-trike as it's difficult to run with arthritis in knee. Also, Xact Moyes harness in ok cond. with recently packed chute (will separate), \$400. Ph: "Evan" on 0409 660716; 02 93692967.

FOIL 152C adv, white TS, yellow/purple US, two spare DTs, batten profile, \$500 ono. Also, D Scott Racer harness, suit 5ft10-6ft1, yellow/green, right side chute mount, sturdy & strong, heaps room, \$300. GPS/Vario mount, \$70. Full-face helmet, blue, \$60 (all equipment upgraded). Ph: Ian 0422 320992; <lobbsters@comcen.com.au>.

MOYES CSX5 topless adv, blue on white, GC, \$900 just spent on Moyes overhaul & lengthened & thicker bottom wires to reduce yaw tendency. Can be inspected at Moyes factory in Sydney. Only \$1,200 for quick sale. Ph: 0418 223694.

MOYES SONIC 190 int, fluoro yellow/dark blue, one year old, 25 hrs, \$2,800. I'm upgrading to another glider. Glider is in VGC. Ph: Norbert 0439 763194.

MOYES SX4 adv, black/purple US, just tuned up at the factory, looks good & flies great, 2 spare DTs plus basebar, 100 hrs only, \$2,000. Ph: Luc 0404 499514; 02 91301076 (h).

MOYES SX4 adv, blue/white US, 60 hrs airtime, EC, \$2,500. Ph: Bill 0412 229181.

For the below classifieds please contact Jason Turner: 0419 997196 or <jasonfly@hotmail.com>:

DYNAMIC FLIGHT HARNESSSES. 1 x Stealth, suit 175cm pilot, black with blue pockets & sidemount chute (chute not incl.), comfortable backframe harness with dual sliders for easy landings, plenty of storage. Brand new, \$650. 1 x Skorpio, suit 180cm pilot, black with sidemount chute (chute not incl.), hands free head adjust with single slider riser. Good cond, \$600. ASSORTED EQUIPMENT: Icaro trike helmet with visor, medium, new in box, \$150. Icaro 4 fight racing helmet with visor, not certified, \$100. Round reserve chute, small, \$250. "Performance Flying" by Pagen, new, \$40. "Beginning Hang Gliding" by Cheney, new, \$40. Moyes cable release x 2, new, \$100 each.

VICTORIA

AIRBORNE CLIMAX C2 13 adv, light with streamline A-frame, well tuned, great cond, \$5,800. Consider swap & \$ for Fun 220 or 190. Ph: Sam 04283 36870; 03 93991444.

AIRBORNE STING 154 int, in VGC, low hrs, incl. Moyes harness. An ideal set-up for new pilot looking for a good quality int glider, \$1,700. Ph: 0411 127335.

MOYES XT165 PRO int/adv, speedbar, faired kingpost & DTs, EC, very well maintained, 160 hrs, manual, batten profile, spare DT, XC bag, mylar LE, purple/light blue US, \$2,000. MOYES Tracer harness to suit -6ft, EC, colours match glider, \$400. Ph: 03 93833933.

QUEENSLAND

MOYES SONIC 190 int, two yrs old, owned from new, about 100 hrs, dark blue US, never crashed, original DTs, GC, spare (lucky!) DT incl., \$2,500 ono. Ph: 0413 450080 (Brisbane).

WESTERN AUSTRALIA

MOYES XTRALITE 147 power rib yellow/black US white TS flies & lands well with spare DT & wheels, very good cond. \$1,500. Ph: Ken 0402 249014 or 08 94582021.

Paragliders & Equipment

NEW SOUTH WALES

NOVA X-ACT DHV 1-2, 85-110kg, red/white, only around 30 hrs in the air in the hands of a novice. C/w Sky Systems Probe (UK Brand) harness, reserve & back protection. Also, Charly Insider helmet & Nova Pack. Great first kit ready to go & genuinely well looked after. Funds needed for non-PG world tour! \$2,500. Ph: Jeremy 02 98561375 or 0414 871375; <jhall006@student.mq.edu.au>.

For the below classifieds please contact Jason Turner 0419 997196 or <jasonfly@hotmail.com>:

FIREBIRD HORNET SP DHV 2, medium, suit pilot 65-80kg. VGC, only 50 hrs use, no acros or tree landings. Royal blue with white US & black logo. Split "A" low drag colour coded risers. 56km/h top speed. This is the perfect wing for an experienced int or adv pilot seeking performance with safety. Owner selling due to weight gain. \$2,800.

TANDEM PG EDEL PRIME DHV 1-2, EC, only 30 hrs use, white with black & red prime logo. Incl. spreader bars with steel carabiners split "A" risers with trimmers. Excellent sink rate & handling, only \$2,800. FIREBIRD AT DHV 1-2, small, suit pilot 55-70kg. VGC, only 60 hrs use. Royal blue with white logo on tip. Split 'A' low drag risers. Perfect 1st wing for beginners or 2nd wing for heavier pilot wanting something to fang around on the coast in. Bargain price, \$1,200.



Lachy Fletcher (Aerodyne Jumbo)

Photo: Peter Hardin

WINDTECH QUARX 27 DHV 2, red/white, clip-in weight 85-105kg, pilot weight 65-85kg, approx. 200 hrs, in GC with new set of lines still in packaging (paid \$650 for lines), will sell complete for \$2,000. Also, WINDTECH SILEX 27 Afnor Comp, yellow/white, clip-in weight 90-110kg, pilot weight 70-90kg, approx. 50 hrs, as good as new, one cell damaged by wedge-tailed eagle, tape repaired. Would expect to pay around \$5,000 new, will sell for \$2,000 ono. Will only sell to adv pilot! Ph: Scott 0418 270696.

QUEENSLAND

"DOGNUTS NEW YEAR SALE": Radne Racket 110cc electric start engine, suit Airtime Explorer, powered paraglider or trike, brand new, cost \$1,650, sell \$1,200. Bolly solid carbon prop, suit Airtime Explorer or trike, GC, cost \$450, sell \$350. Moyes XT 165 int, VGC, \$1,800. Moyes HG release overhead breaklever type, cost \$250, sell \$150. Moyes training wheels split type, \$50. Moyes training helmet half size, \$50. Garmin GPS 2, cost \$590, sell \$350. Flytec Vario 3005, \$350. IPAQ PDA H3970 brand new, cost \$1250, sell \$650. Ph: Don (Dognut) Cramer 0409 699115; <don@cramer.com.au>.

REFLEX WING suit paramotor, trike or ppchute, 370kg wing loading, 30m², fast & stable, EC, \$1,200. Ph: 07 49480032.

SOUTH AUSTRALIA

For the following equipment please contact: Franz Wallner, ph: 08 83393983 or email <wallner@chariot.net.au>.

NEW FLIGHT Design STREAM, 80-100kg, \$3,600.

Flight Design B4 30 large, 100-125kg, 80 hrs, \$1,000.

Flight Design C5 Proto medium, 80-100kg, 80 hrs, \$500.

Complete Set Airwave Samba 29 large, 100-125kg, 60 hrs, Flytec vario, NEW harness, NEW reserve and NEW helmet, \$2,299.

UP Soul Medium, 80-100kg, 60 hrs, \$899

1x NEW full-face helmet, \$150.

Back Pack F2 Adventure Engine, 80 hrs, 4-blade & spare blade, \$4,000.

NEW 10 litre water ballast bag, \$40.

Trikes & Equipment

NEW SOUTH WALES

AIRBORNE 582 with Wizard 2 wing, c/w the works, has 52 truly logged hrs just run in, covers, trailer with ramps, full instruments, built in VHF radio worth \$3,000 with headsets, training bars, dual steering, like new, always in a hangar, aerotow system. To buy new would cost \$39,000, will sell for \$29,500. Ph: 0429 844961 anytime.

QUEENSLAND

AIRBORNE EDGE 582 T2-2632, Edge wing in GC. EGT, ASI, ALT, tacho & water temp. Radio, intercom, helmets, headsets, training bars, tow system, covers, trailer, larger radiator and rear wheel brakes. Always hangered and well maintained, \$15000. Ph: Russell 07 54450084; 0407 966260.

SOUTH AUSTRALIA

PEGASUS Q 462cc water cooled. Only done 118 hrs. New wizard wing. Very light, easy to fly & economical. Red pod with red & white wing.

Full instruments, helmets, intercom, GPS aircraft radio, full trike covers. Quick sale required to buy new trike. Only \$11,950. Ph: 0408 812555.

General

BUY & SELL YOUR GEAR ONLINE FOR FREE!

A free service, we have over 600 pilots per month buying & selling their used flight gear on our website [www.highadventure.com.au]. No mailing list, no commissions. Go to the Market Place link & join the other happy pilots that sell their gear on our website.

"SKYOUT"... NEED A LAUGH?

Jules Makk's delectable, collectable cartoon compilation. 50 pages of 150 loony cartoons & two A3 sized board games... "XC Circles" & "Thermals & Sinkholes"... too much like the real thing & heaps of laughs... \$15 to anywhere in Australia... post \$ to: Jules Makk, 61 Anakie Drive, Cornubia QLD 4130 <sky_out@optushome.com.au> — "it's a Hoot!"



HGFA Schools

ACT/NEW SOUTH WALES



Learn to Fly in Canberra!

The Paragliding Capital of Australia and only 3 hours drive from Sydney.

At Australian Paragliding Centre we fly all year round & are open 7 days a week.

Learn to fly in a friendly, caring environment with first class tuition & equipment.

- License & Introductory Courses
- Tandem Flights
- Gift Vouchers & Group Discounts
- Pilot Development Clinics for Novice, Intermediate & Advanced pilots.
- International Flying Tours
- Cross-Country & Towing Tours
- Pro-Design Paragliders, Harnesses, Reserves, Flying suits & Para-Kites.
- Paramotor sales & tuition
- Sales & Service of all major brands.

Contact: Peter Bowyer on

02 6226 8400

<pete@australianparagliding.com>

Check out our new homepage!

[www.australianparagliding.com]

NEW SOUTH WALES

get your XC off to a flying start



Hang Glider Aerotowing

in Manilla by one of the most experienced tugmasters in the world

- Set up your glider in a cool hangar
- 3 x-runways, for every wind direction
- Cheapest Aerotows in Australia
- Aerotow Endorsements



Microlights/Ultralights

- Latest modern Training Aircrafts
- Full or Part Time Courses
- Trial Instructional Flights
- Aircraft Sales and Service

Phone Willi Ewig: 02-67 69 7771

e-mail: fly@manillaskyranch.com

www.manillaskyranch.com

BYRON AIRWAVES Hang Gliding School

- Lessons & full instruction available in Byron Bay.
- Over 25 years hang gliding experience with training all year round.
- Learn to fly safely & accurately with all skill levels catered for.

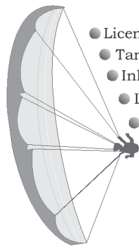
Phone Brian and Anne on

02 6629 0354 or 0427 615950,

email: <byronair@optusnet.com.au>



Paragliding @ Sydney Northern Beaches & Blue Mountains



- License and Introductory Courses
- Tandem Flights
- Inland Clinics
- Latest quality gear from Europe
- Glider test and Service center

Contact Patrick Roser on
02 9913 9086 or email
proser@tig.com.au



Importer of :

www.windworks.com.au



- Manilla has more flyable days per year than anywhere else in Australia! (300+ in fact!)
- Mt Borah is one of the world's most consistent all year round sites with 4 large launches catering for nearly every wind direction.
- Paragliding license courses – Autumn & Spring only: a week of quality tuition using the latest techniques & equipment for only \$1,320 (including GST & accommodation)
- Your CFI is Godfrey Wenness: World Record Holder 1998-2002, 5,000+hrs experience, Australian Team Member, HGFA Safety & Operations Committee Member for Paragliding
- Thermalling, Cross-Country and Basic Acro lessons, Oct-April.
- HG to PG conversion courses – it's easier than you think!
- Importer of ADVANCE paragliders, FLYTEC instruments, HANWAG footwear & most accessories – we sell only the best quality European made equipment. So come flying with Manilla Paragliding, where the person who shows you the mountain, owns the mountain!

Phone Godfrey Wenness on:

02 6785 6545 or fax: 02 6785 6546

email: <SkyGodfrey@aol.com>

"The Mountain", Manilla, NSW 2346.

High Adventures

on the Holiday coast of Australia offers:



- Hang Gliding Beginner Instruction by Tandem Aerotowing
- Paragliding Instruction by Tandem, Winch, Coastal & Inland Thermal Skills

- Microlite Instruction Onsite
- Onsite Modern Accommodation for Individual or Family



- CSIRO rated best all year round climate
- Instruction all year round & flight sites for all year round soaring

ALL Your Paragliding and Hang Gliding Needs Online:

[www.highadventure.com.au]

02 65598655

Call for a full information pack or just visit our website.

SOUTH AUSTRALIA

Adelaide Airsports

Microlight Aircraft Specialist

All microlight flight training and endorsements available from beginner to instructor level and beyond.

Sales of new and used microlights, hang gliders, skyfloaters, powered hang gliders and all associated equipment.

CFI & EXAMINER – Larry Jones

Ph: 08 8556 3030 Fax: 08 8557 4113

Mobile: 0408 815 094

Email: <fly@airsports.com.au>

[www.airsports.com.au]

VICTORIA



Little over an hour from Melbourne

Australia's Largest School

Virtual Reality Hang Gliding Simulator

Introductory & Full Licence Courses

Tandem Introductory Flights

Ground & Aero Tow Endorsements

Cross Country Tours

Equipment Sales, Hire & Trade In



Ph/FAX: 03 53492845

email: dynamic@netconnect.com.au

Rohan: 0409 678734 Paul: 0418 348948

Jim: 0417 366766 James: 0419 129234

DISCOVER THE FREEDOM!

WINGSPO RTS

- ◇ Paragliding & Hang Gliding Courses
 - ◇ Coastal, Inland & Towing Courses
 - ◇ Tandem & Cross-Country Tuition
 - ◇ Accommodation Students & Visitors
- Fantastic Location for Pilots and Family

EDEL Australia

- ◇ Paraglider Sales/Distribution
- ◇ Accessories, Varios, Reserves



www.wingsports.com.au

hans@wingsports.com.au 0419 378 616

Apollo Bay VIC 3233 Fax: 03 5237 6486

Alpine Paragliding

- Complete training in
 - Paragliding ◦ Paramotoring
 - Hang gliding
- Introductory days
- Tandem instructional flights
- Advanced skills coaching
- Hill launch and towing
- Thermalling and XC
- Flying holiday tours
 - Domestic & overseas
- Shop
- Equipment sales
- Gift vouchers
- Team building activities
- Film and TV



P0 Box 3, Bright VIC 3741

ph: 03 57551753, 0428 352048

<enquiries@alpineparagliding.com>

[www.alpineparagliding.com]

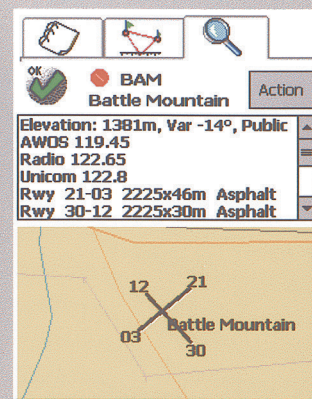
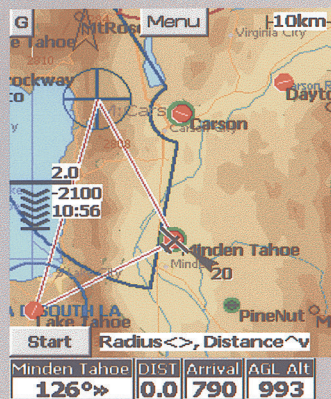
WinPilot

www.winpilot.com

The Choice of Champions

POLAND 2003
LESZNO
28th WORLD GLIDING CHAMPIONSHIPS

Gold Medal - 18M
Silver Medal - OPEN
Silver Medal - STD
Silver Medal - OPEN



Over 70% of competitors were flying with WinPilot

Aero Database and Color Terrain Maps of Australia and New Zealand



WinPilot Sales & Support
Volkslogger
Mountain High Oxygen
Transplant & Emtac GPS
PDA Mounts
Standard & Custom GPS Cables
Power Converters

www.craggyaero.com
530-905-0062



Emergency Parachute Systems

Parachutes Australia

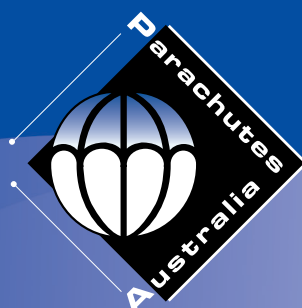
has been supplying the world with emergency parachute systems for Civilian and Military applications for over 30 years.

The **Thinback** and **Slimpack** Emergency Parachute Systems

manufactured by Parachutes Australia are designed, tested and manufactured beyond regulatory requirements and provide the maximum safety, performance and comfort.

- Certified under FAA TSO C23(b) with Certificate of Type Approval issued by CASA.
- Long 20 year Service Life*, an important point to consider when comparing prices.
- Manufactured from durable Cordura fabric.
- Military specification harness webbing for reliable strength and durability.
- Stainless Steel closing grommets and ripcord assembly.
- Thin, soft pack for pilot comfort.
- Now available: **Sheepskin Accessory Option** for improved comfort and hygiene.
- **Static Line Deployment Option**

Slimpack (Seat Version)



22 Bosci Road Ingleburn NSW 2565
Ph 61 2 9829 5355 Fax 61 2 9829 1300
Email: sales@parachutesaustralia.com
www.parachutesaustralia.com

Thinback Emergency Parachute System

* Refer Parachutes Australia Service Bulletin SB9502 Rev.2 15/8/03

Airborne

fly@airborne.com.au

full page full colour ad

Collage trike/hang glider

Same as January issue