

Soaring **AUSTRALIA**



June 2004



**Manilla Paragliding
Open 2004**



**Easter Entrée
for the Dalby Nationals**



**The Rock –
flown again at last!**

- 1 Plugging the Hole in the Bucket
HGFA Editor's Choice
- 2 The Battle for B Grade
- 4 Don't Underestimate the
Potential of Shear Wave!
- 6 Adventure in Middle Earth
- 8 Brokenback Range
- 9 Letters to the Editors
- 10 A Day in the Life...
- 12 Easter Entrée for the Dalby Nationals
- 13 Improving your Gliding Performance
- 14 New Directions – Part 2
- 15 Southern Soaring Launched
at Gliding New Zealand's AGM
- 16 Rotax 582 Rebuild
- 18 NAS The New Airspace System
and What it Means for Trikes
- 19 Mind Games
- 20 Why Microlift Soaring?
- 22 Old-timers' Week – Benalla



Photo: Steve Fawcett (GFA G13403) flying at Coolum Beach, Queensland, in February 2004

- 23 Obituary – Allan Latemore
- 24 Manilla Paragliding Open 2004
- 28 The Better the Pilot
– the Worse the Lookout
- 30 Clio's Wings
- 31 The Stowaway
- 32 HGFA News
- 35 The Rock – flown again at last!
- 36 Additional Aviation Medicine Reports
Clio's Answers
- 37 Soaring Calendar
- 38 Vic's Flight
- 39 GFA Badges & Certificates
Manufacturers and Agents Contacts
- 40 Flying Home to Moree
- 41 Hang Gliding in Reverse
- 42 HGFA General Manager's Report
- 44 Contact Addresses
- 46 Classifieds

Soaring AUSTRALIA



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Articles, advertisements	soaring.australia@hgfa.asn.au	Soaring Australia only content and other content



Plugging the Hole in the Bucket

Mark Thompson, HGFA Board Member

At the HGFA Board meeting in October '03, the topic of attracting new members and how to retain them in the sports administered by the HGFA was discussed. The discussion generated strong views and opinions from all present (including Board members and guests) – to coin a phrase, everyone was in “violent agreement” that both these topics were important to the future of our sport. At that meeting we decided to tackle the issue of retention of membership or “plugging the hole in the bucket” initially, then follow up with looking at attracting new members.

After further discussion at the meeting we decided the best way to proceed was for the Board members to try to contact every club in Australia. This would provide a view from the clubs as to what they saw as local club responsibilities for retaining members, and what they'd like to see the HGFA undertake. These views were presented at the recent Board meeting in April '04, and the Board voted on implementing retention initiatives as identified by the membership.

The Million Dollar Question

Most of the Board members made the observation that when discussing the matter with club members it was a difficult issue to address. Most people we contacted needed to consider what they saw as a local club versus a HGFA responsibility to put the matter into context.

What “You” said was the responsibility of the club in membership retention:

- *Retention of local sites*
- *Communication of local flying events and news via email groups, club meetings, local newsletters and contact with club members*
- *Organisation of “adopt a novice” schemes, where more experienced pilots take new pilots “under their wing”*
- *Organising fly-ins, take off and landing clinics, and local competitions*

What “You” said should be the responsibility of the HGFA in membership retention:

- *Financial assistance for clubs for local site acquisition*
- *Financial assistance for clubs to fund local fly-ins*

- *Provide local clubs with access to local membership database*
- *Financial assistance for remote clubs to fly in instructors to run training locally*
- *Maintain current communication via the Soaring Australia magazine*

What the HGFA has Decided To Do

Following on from feedback from the membership and discussion on that feedback, the HGFA has decided to either continue existing, or implement new programs, to help retain members.

Site Acquisition – The HGFA has an existing program to support clubs in acquiring sites. So far three sites have been acquired by clubs through financial assistance from the HGFA. This program will be continued with all applications being considered. Funding of site acquisition is subject to the approval of application by the Board and availability of funding.

Club Fly-ins – The HGFA will enter into discussions with the State Associations to determine if either program can be developed to assist clubs financially with fly-ins.

Membership Database – The HGFA office will continue to provide local clubs access to the relevant membership information for the purposes of retaining members.

Remote Clubs – The HGFA welcomes applications from remote clubs (or clubs without local instructors) for financial assistance in getting instructors to undertake local courses.

Soaring Australia – The HGFA will continue to support the production of Soaring Australia. Furthermore, as an incentive to the membership to submit quality articles, a prize of \$100 per issue will be made available for the best article, as judged by the editor.

Moving Forward

The HGFA Board will now be considering the matter of attracting new members, with initial discussions being held at the April '04 Board meeting. It's likely we will use a similar process of canvassing views from the clubs and then use this input for the Board to make decisions.



HGFA Editor's Choice

Can you hear that? Yes! There it is! That's the sound of the HGFA Board galloping to the rescue! Here I am, a gaunt, dishevelled editor, standing by life's highway, trying hard to cajole articles out of the depressingly few passers by... Sometimes I sit with legs bound behind my back, begging for mercy and a few small articles to fill these pages... Other times I leap out from the bushes at the unwary, brandishing my sharpest pen and demanding submissions... Is it any wonder I'm shunned? That this dusty highway is empty? That my pitiful company is scorned?

But, no more! The HGFA Board, in their infinite wisdom and mercy – god bless! – have deigned to fill my pockets with gold, so that I may offer, each and every month for the next year, \$100 FOR THE BEST SUBMITTED HGFA ARTICLE OF THE MONTH!

Oh, sweet return! Oh, sweet recompense! How straight and dignified I now stand. How they will now line up before me to claim this worthy bounty.

So, bring me your best, good denizens of the HGFA. Bring to me your yarns of high flights, your tales of tears, your anecdotes of adventure! I will look upon all with a fair and kindly eye. Be it HG, PG or trike, fiction or non-fiction, technical and informative or fun and entertaining – all will be in the running for the prize: \$100 FOR BEST SUBMITTED HGFA ARTICLE OF THE MONTH!

Richard Lockhart, HGFA Sub Editor
<soaring.australia@hgfa.asn.au>

(Well, hop to it! The next deadline, 25th JUNE, is for the AUGUST issue. Who will be our first winner?)

The Battle for B Grade – NSW STATE TITLES 2004

Dustan Hansen

Photos: Dustan Hansen

IT WAS A WEEK OF HIGH TEMPERATURES, HIGH BASES, LONG FLIGHTS AND A DEATH DEFYING BATTLE FOR THE B GRADE CHAMPIONSHIP TITLE! THERE WERE 54 PILOTS IN THE COMPETITION, WITH 36 OF THOSE IN B GRADE. THIS YEAR PROVED TO BE A VERY SUCCESSFUL COMPETITION, WITH SEVEN



A congested setup area, west launch, Alarie Giles

FLYING DAYS OUT OF A POSSIBLE EIGHT, AND A MINIMAL NUMBER OF PILOTS WITH BOMB-OUT POINTS (COMPARED WITH THE BOMB-A-THON OF 1998).

less believable. An out and return task was called: Borah to Cobbadah and return to Godfrey's, a total of 97km. No-one made goal today, not even the A grade pilots. Patrick Lenders won the day for B grade, with a flight of 66km.

Day three and the competition field was starting to get into a routine. People started to find the air conditioning in town and spent a few last minutes cooling down before heading up to the 40°C plus on the mountain. The freezer section of the IGA, the Cloud Nine Lounge at the Royal, and the library in the main street, were seeing greater than normal patronage. In fact, some pilots were hoping for some knowledge to seep into them while loitering in the library. Today's task was a straight line to Warialda Rail, 122km to the north, through Baraba and Bingara. The day turned out to be the best so far, with thermals to over 8,000ft and lift up to 600ft/min. Dustan won the day in B grade, with Trevor Kee, Don, Jason, Ebbs and Rod Flockhard all in goal. There were 18 pilots in goal overall. It was an interesting day as the top guns launched a little later than most, and flew through the field to get to goal first. This meant that some of us got to fly a thermal or two with the likes of Little Jonny, Tony Barton, Al Daniels, Phil Schroder and Bruce Wynne. I found this to be a priceless learning experience, witnessing some very good pilots climb, glide and make the on-course decisions that win competitions.

Most people arrived in Manilla on Friday, although there was a steady stream of arrivals throughout the night, finding a bed wherever they could – balcony, lounges, floors, wherever. Saturday 14 February saw the start of the NSW State Titles for 2004. It was also Valentines Day, and the dawn was broken with contestants sending SMS love messages to their Valentines... which was a lot cheaper than sending flowers...

The morning briefing was at 10-ish and Billo (Meet Head) laid down the ground rules of the comp. The local community representatives welcomed all visitors to town, and then led the group in a prayer for the safety of all concerned. Once the briefing was over there was a flurry of excitement as the vehicles were fuelled, eskies iced, and the procession up the mountain began. Once at the top, there was the standard jockeying for position on launch and the set-up began,

shortly followed by the dithering phase as we all waited for the day's task to be announced.

The first day's task was Borah to Manilla Airstrip to Carrol Towers to Four Ways to Strathfield Sheds and back to goal at the Manilla Airstrip. A total of 116km, with three pilots making goal. Unfortunately no B grade pilots got into goal today. The second leg of the task past Lake Keepit proved too difficult for most. Don Gardner won the day for B grade, with an epic flight of four hours and 40 minutes to land within 11km of turnpoint three, landing after 7:00pm. Third place for the day in B grade was Jason, who was one of the few pilots to pass the sink hole at the second turnpoint.

Day two began much like day one: another hot day with developing thunder storms, the flurry of excitement as the last minute tasks were completed, and then the steady climb up the mountain again. Stories of the previous days woes and wonders told and retold with the details steadily becoming



All teams stopped at the Bingara Pub in the hope that the OzExperience bus was in town full of innocent backpackers. Obviously our luck had run dry for the day and there was not a backpacker to be seen. We did, however, take over the pub, drank them dry and ate our fill, while the talk of high glides, low saves and “if only’s” flowed as freely as the cold beers.

Day four and the aircon’ loitering continued. Teams are leaving town later and later to avoid the oppressive heat on launch. Today’s task is the big “T”: Borah to Four Ways to Strathfield Sheds to Borah and goal at Baraba Airstrip, a total of 90km. The guns launched early and struggled in the light conditions. The rest of the field waited for the day to improve before heading out on track. Most of the day was spent doing the Borah Shuffle, carrying gliders and gear round and round the mountain looking for the launch with any cycles coming up the face.

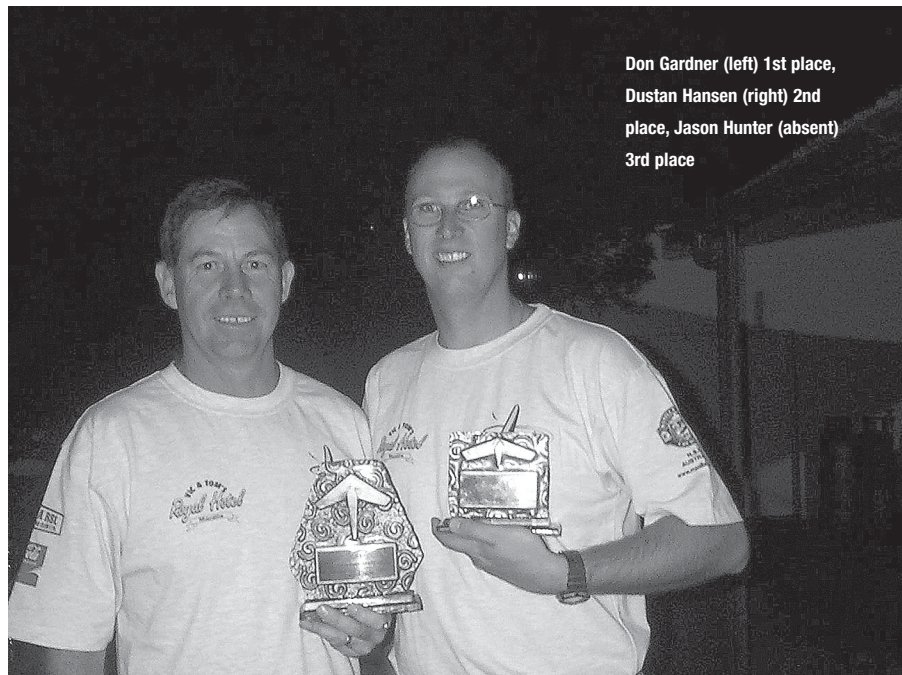
The day proved to be a tough one, with no-one into goal and over half the field with a bomb-out or “did not fly”. The key to the day was to stay high, be patient and stay with the clouds. Turnpoint one was in a blue hole and the trick was to hug the clouds over the high ground before heading to the turnpoint. The rest of the day was spent turning in any lift to stay in the air.

Dustan won the day in the overall comp as well as B grade, with a late glide over Borah and back to Godfrey’s for a dusk landing and a total distance of 60km. Rod Flockhart was second (58km) and Cameron Tunbridge third (57km) for B grade.

So, at the halfway point in the comp, Dustan (2,281 points) led Don (2,144 points) and Jason (2,116 points) for the B grade title.

Day five dawned with a moderate northerly. The wind on the north-east launch was 45 degrees crossed to the left and there was 7/8 cloud cover all the way to Boggabri. No-one setup until after the task was announced, and most pilots opted to setup on the west launch in the hope that the cloud would clear and the cycles come up as the sun heated the face. It was another late blooming day with the optimal launch time between 3:00 and 4:00pm. The task was 75km: Borah to Strathfield Sheds to Halls Creek Church to Borah and goal at Manilla Airstrip.

With the west-north-west wind, it was a fast tailwind run through turnpoint one to turnpoint two at the end of the Halls Creek valley. Then the testing conditions spread out the field in the headwind leg back towards Borah. No-one in B grade made goal today, with Mick Mackender just short of the third turnpoint.



Don Gardner (left) 1st place,
Dustan Hansen (right) 2nd
place, Jason Hunter (absent)
3rd place

Day six, and the northerly wind blew again. The weather was still oppressively hot and the Cloud Nine Lounge at the Royal was packed with pilots and drivers delaying the trek up the mountain. At the top the wind was moderate from the north-west. The task was 77km: Borah to Strathfield Sheds to Stegga Mountain to Borah to Strathfield Sheds again and goal at Manilla Airstrip. Cameron won the day and was the only B grade pilot in goal. It was a slow day for most, with the trick being patience. Don (being the master of patience) was second for the day in B grade, flying for five hours 20 minutes and landing three kilometres short of goal after 7:00pm – a massive effort. Thankfully the task was a couple of laps around town which made for easy retrieves; even the late landers got back to town in time for a beer and a feed.

Day seven started out looking good, but the westerly wind picked up as most of the field were getting set up. The atmosphere was positive on the hill until a free flyer launched in a Fun, had trouble penetrating, then turned tailwind to fly to Godfrey’s. The mood dampened as we all watched him get tossed about through the lee side rotor on the way. No-one was looking forward to flying in the conditions. The wind steadily increased until a gust was recorded at over 60km/h. At this point Billo canned the day. The hill was deserted in a matter of minutes as people quickly chose their favoured cool down option, be it pool, pub or river. Personally, the sound of the esky full of ice cold beer, floating in the Blue Hole under the shade of the willows was too good an idea to pass up.

Day eight (round seven) started out looking like a copy of the previous day, with a stiff breeze in the morning, but it dropped

down by launch time. The westerly made launch easy and allowed the field to ridge soar until the thermals came through to drag us off the hill. The task was 87km from Borah to Halls Creek, back headwind to Stegga Mountain, crosswind to Borah, with a cross tail run into goal at Manilla Airstrip. A full blue day with a thermal ceiling of 10,000ft for most pilots. Most pilots made the downwind first leg to Halls Creek, but the real test was punching into the headwind to get back out of the valley to the second turnpoint. The crosswind leg back to Borah was easier, but you had to stay high. Dustan won the day in B grade, followed by Mick Mackender (both in goal), with Ashley Wilmott and Don landing just short of the third turnpoint.

Overall a very enjoyable competition with seven valid rounds out of a possible eight, which was a great improvement on last year’s rain-a-thon. There were some very memorable flights and great personal improvements by pilots. But now for the final B grade result...

... And the winner is (drum roll) – Don Gardner. First prize consisted of a voucher from Airborne for \$2,000 off a new glider, a free weekend’s accommodation at the Royal Hotel (aircon’, TV, etc) and a spectacular trophy. Dustan came a close second and Jason was third. Both second and third place prizes were accommodation packages at the Royal Hotel.

A big thanks goes out to Billo and his team for organising the competition – a job well done. Also to all the sponsors, the Royal Hotel, Manilla Shire Council, and all the rest, thanks for the support. I’ve booked my room at the Royal for next year – see you all there.



Don't Underestimate the Potential of Shear Wave!

Terry Bellair

PILOTS HOPING TO ACHIEVE THEIR DIAMOND HEIGHT GAIN IN AUSTRALIA GENERALLY PIN THEIR HOPES ON ATTENDING "WAVE CAMPS" WHICH ARE USUALLY HELD DURING THE WINTER/SPRING AT RECOGNISED LEE WAVE SITES. THE SUCCESS RATE IS PRETTY LOW, AS THE PROBABILITY OF STRONG WAVE CONDITIONS COINCIDING WITH THE CAMPS IS LOW, WHILE IT IS OFTEN ASSOCIATED WITH CHALLENGING CONDITIONS WHICH CAN INCLUDE STRONG TURBULENCE, EXTENSIVE CLOUD AND RAIN. HOWEVER, FLYING AROUND THE MOUNTAINS IS LOTS OF FUN, AND SURMOUNTING THE CHALLENGES INCREASES THE PERSONAL SATISFACTION FOR THOSE WHO PERSEVERE AND/OR GET LUCKY.

Shear wave provides another option. I have worked shear wave during six cross-country flights from Bendigo Gliding Club's Raywood site over the past two years in my DG-400 (HDE), and two of these were definitely "Diamond grade".

The most recent example was on 3 January 2004, when I achieved a height gain of 18,140ft (19,180ft by GPS) near Jeparit, without attempting to ride the wave to its peak. I had earlier (in December 2001) contacted shear wave at 8,000ft near Charlton, but elected to abandon a steady five knot climb at 14,000ft, with a well-formed lenticular cloud at least 5,000ft above me (this flight was described in the September 2002 issue of "Soaring Australia").

3 January 2004 Flight

The area briefing for 3 January predicted variable 10 to 15kt winds below 7,000ft, a 260-degree wind increasing from 20kt at 10,000ft to 35kt at 18,500ft and a maximum surface temperature of 37°C at Bendigo. The Melbourne atmospheric sounding for the previous night suggested a surface temperature of 30°C would be required to break a strong inversion at about 3,000ft, and convection should go to about 11,000ft at Raywood with cloudbase around 10,000ft.

I decided to initially head for Ouyen (23km to the north-west) which would place me generally upwind, and provide a range of options for the rest of the flight. I departed Raywood at 1030 hours, and struggled in weak lift between 1,800ft and 3,500ft (QNH) for the next two hours before conditions started to pick up, eventually reaching Ouyen at 1430 hours, at a height of 6,000ft. Analysis of this leg showed an average

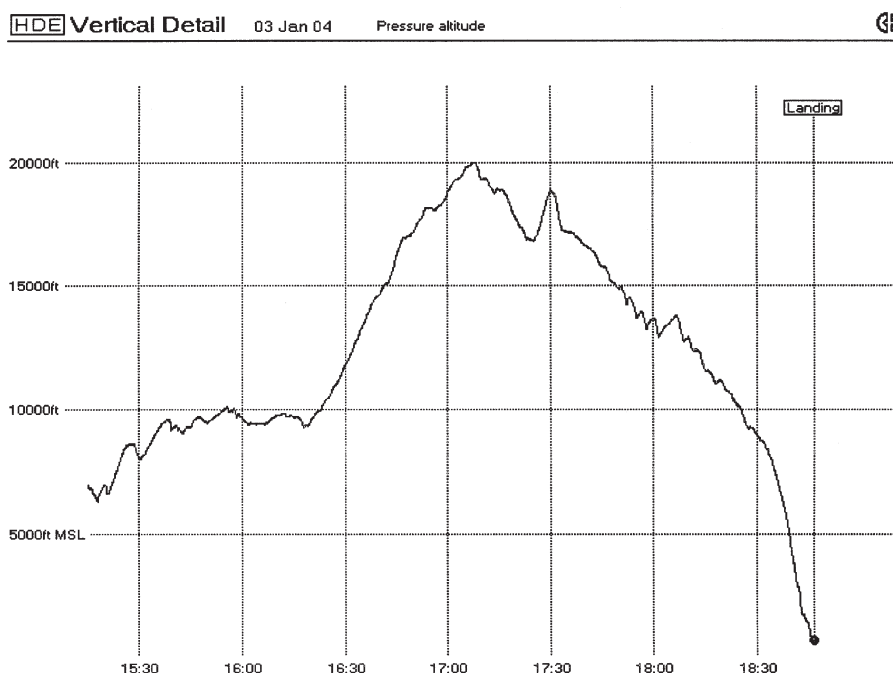


Figure 1: Pressure altitude trace for shear wave section of flight

achieved climb rate of two knots and a mean wind of 187/02. By this time about 20 other gliders were airborne over central and north-western Victoria, operating out of Nyah (Geelong Gliding Club), Horsham (Wimmera and Beaufort Gliding Clubs) and Raywood (Bendigo Gliding Club). Most were reporting equally weak conditions.

It had been blue all the way to Ouyen, but scattered cumulus, some having distinct wave forms, had started to appear to the south-west by about 1200 hours. So I decided to work towards the clouds and focus on trying to contact the shear wave. I found my first decent climb at 4,000ft over the Big Desert, which took me to 6,000ft at four-and-a-half knots. Subsequent thermals

became progressively weaker with height, dropping to half-a-knot at 9,400ft about 90km south-west of Ouyen, where I contacted weak wave at 1550 hours. Cloudbase was around 10,000ft where the wind was 350/13. I would not circle again for the remaining three hours of the flight.

The altitude trace in Figure 1 shows the last few climbs in thermals and the transition to weak wave at 1550 hours. Lift near the bottom of shear wave is usually quite weak and making this transition often requires a fair bit of perseverance. Ingo Renner's chapter on thermal waves in the GFA publication *"Flying Further and Faster – Part 1"* should be essential reading for anyone who is looking for advice on how to recognise and

HDE Detail View 03 Jan 04 09:53-18:47

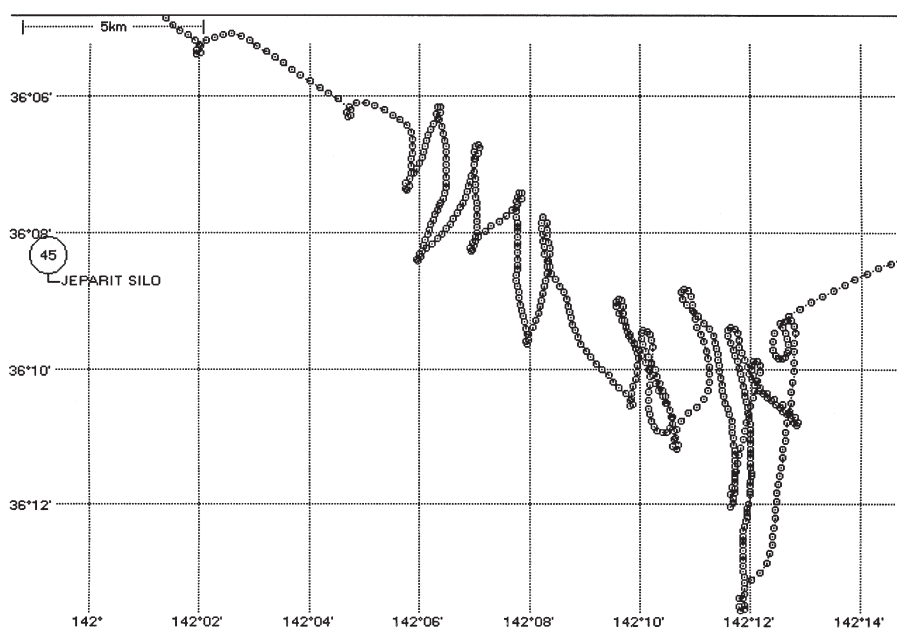


Figure 2: Position at six second intervals between 1615 hours (near top left) and 1710 hours

contact such wave systems (I consider that the terms “shear wave” and “thermal wave” are equally applicable where thermals and wave interact over flat country).

Over the next 30 minutes I worked my way towards the better-looking cumulus/wave clouds to the south. The wave in this area was patchy, with climb rates generally below one knot, so care was required to avoid losing contact with the lift zone.

Around 1620 hours, when I was 10km east north-east of Jeparit at 9,500ft, I found what I was looking for – a steady two knot climb, which progressively improved to peak at five to six knots as I climbed through 16,000ft. The logger trace in Figure 2 shows my position between 1615 (while still searching for good lift) and 1710 hours (after electing to break off the climb at 20,000ft).

The “zig-zag” path in Figure 2 corresponds with the climb from 9,500ft to 20,000ft, made by flying extended “figure-of-eights” upwind from a nice cumulus cloud. The trace indicates that the wave was travelling in a south-easterly (downwind) direction at about seven knots. The aberrant track near 36°10'S, 142°12'E (which also appears as a “shoulder” on the height trace at 18,000ft) resulted from a minute's loss of concentration as I struggled to extract the “ERC low” chart from my flight satchel and unfold it to double-check the lower limit of Class A airspace (FL 240).

As usual in shear wave, the view was spectacular as I climbed up above the cumulus (at about 12,500ft) and then passed a filmy band of wave cloud between 13,000 and 14,000ft. After breaking off the climb, I started to head back to Raywood (190km to the east) but as the LNAV indicated that June 2004

we were 8,500ft above final glide, decided to detour via Horsham, about 70km to the south south-west. On the way, I cruised along a section of wave which provided a six to seven knot climb between 17,000ft and 19,000ft (at around 1730 hours).

I turned Horsham at 16,500ft, and headed east for Raywood, encountering a shear wave lift zone at regular intervals (roughly every 10km) for the first 120km, each of which was clearly marked by a crosswind line of cumulus (evident as a series of “blips” on the altitude trace in Figure 1). The descent through the wind-shear zone (between 10,000ft and 9,000ft, about 15km north-east of St Arnaud) was quite bumpy at cruise speed. There were plenty of thermals on the way home, but having had a satisfying flight, just barrelled on at about 100kt, landing at 184 hours for a free distance of 620km. Thermals continued for at least another hour.

Occurrence of Shear Wave

My experience over the past couple of years at Raywood suggests that soarable shear wave (ie: wave which can be contacted via thermals) is quite common. However, it sometimes is relatively localised and/or transient. Reports on the Sportavia web site suggest that a pilot flying from Tocumwal contacts shear wave every week or two during the summer. Of course, shear wave also occurs in the absence of cloud; however, it is much more difficult to stay in the lift zone without cloud to act as a marker.

I can only guess as to how frequently “Diamond grade” shear wave occurs; however, based on my recent experience, I suspect that it is present at least as often as strong lee wave at the Grampians during the winter.

Advantages of Shear Wave

Shear wave has a number of advantages over lee wave:

- Low points of the order of 1,000ft agl in thermals below the wave are realistic (and sometimes unavoidable), so it is quite feasible to achieve diamond gain with a maximum altitude around 18,000ft agl.
- I was warm and comfortable at 20,000ft and minus 15°C during my recent flight, dressed in light summer clothing (the long DG canopy is a big plus for high-altitude flights, as it allows solar heating from head to toe) – in contrast, at 22,000ft and minus 40°C in the Grampians wave in August 2000, I was warm but uncomfortable in four layers of bushwalking gear and fleece-lined boots (feeling like the “Michelin man”).
- I experienced no canopy icing, nor did my drinking water freeze (despite a freezing level of 14,000ft).
- Gel coat is less likely to be damaged by the milder temperatures in shear wave during the summer months.

Oxygen

Many opportunities to explore shear wave have to be passed-up for want of an oxygen system. On 3 January this year, Gary Stevenson, Duncan Robertson and Paul Dिल्s all reported that they had contacted the wave, but were unable to continue their climbs.

Having learned from a couple of similar experiences, now I always take my Mountain High electronic delivery system (EDS) on cross-country flights. For those who are not familiar with this system, a brief description may be useful.

It is designed specifically for aviation applications and is normally used with a nasal cannula. The EDS unit is small (140 x 80 x 40mm), weighs 350g, and automatically delivers an altitude-adjusted pulse of oxygen at the beginning of each inhalation. This is a very efficient system, because each precisely-metered pulse is carried deep into the lungs where gas exchange with the bloodstream occurs, and it uses as little as one-tenth the amount of oxygen consumed by conventional systems. I usually set the unit to start delivering oxygen at 10,000ft, and it is comforting to hear a distinct “pft” with each inhalation, whenever I'm above that height. I use a compact 18 litre capacity cylinder, which provides for a couple of flights lasting eight to nine hours with thermals to around 12,000ft, and proved adequate for a lee wave flight which included four hours between 15,000 and 22,000ft.



ADVENTURE IN MIDDLE EARTH – A Gliding Life Before and After

Ian L Turk

READING “RETURN TO MIDDLE EARTH” (APRIL 2004) BROUGHT BACK WHAT WAS FOR ME ONE OF THE MOST SIGNIFICANT AND EXCITING EXPERIENCES OF MY LONG GLIDING LIFE.

In 1972 I was working for a well-known firm of management consultants in Sydney, when they managed to secure an assignment in New Zealand. I said that I would be keen to go, having some vague idea, but not much hope, that the land of the great white cloud was a diamond mine (I did not tell my wife Sally that I volunteered to go to New Zealand, for what was likely to be at least three months, as with two teenaged boys at home she would not have been too happy with me). My employers negotiated with the client and it was agreed that I would be able to have every second weekend back home, leaving me every second weekend in New Zealand.

Our client, Caxton Paper Mills, had their operations in Kawerau, about 130km from Matamata, and since they also supplied me with a car, I was able to spend every second weekend at Matamata.

By pure chance, one of the members of the Piaco (Matamata) Gliding Club had recently been to Sydney and had visited the Southern Cross Gliding Club of which I was president (1967-1974). He must have liked us, because I was invited to join as honorary member for my time in New Zealand. I was checked out on their ASW 15 in July (and on their tug) and started flying with them.

Matamata was then not as well-known for its wave as some other locations such as Masterton, but every time I attended I was told “the wave will be on next week”.

Since that was always the weekend I was in Sydney, I always missed “next week”.

The weather, except for the lack of wind, was good and I got plenty of flying, so I was a lot luckier than Mitchell on his visit. Once or twice someone thought that the wave might be working and tried to put me into it but with no success. As my assignment with Caxton Paper Mills was expected to be completed by early November, I had nearly given up hope.

I would have liked to get my Diamond Height in New Zealand, because I was never a “hot shot” pilot and I could not see myself getting it in Australia. I got Diamond Goal in 1965 and I thought that a 500km task in the new Libelle, just bought by the club, would be possible (even) for me, at summer camp. In the event, I did not get the distance and my Diamond Badge (No 26 in Australia) until 1975.

On 15 October conditions seemed to be promising. My hosts felt confident and I checked out the ASW 15, oxygen, etc., and about 11:30am we took off. The tug pilot told me that he would put me into wave if it was there and he kept his promise. I had heard horror stories and thus was concerned about turbulence before contacting the wave, but it was dead smooth.

The tug pilot waved me off at about 6,000ft and I turned my nose into the wind (as I was told to do) and tried to keep a constant ground position by adjusting my speed. I went onto oxygen at 10,000ft, but I do not remember feeling cold. With the sun in the north and facing west, my face threw a shadow on the left side of the canopy and the shadow was frosted up, so it must have been cold. At 24,500ft the wave seemed to fade out, or more likely I lost it, so I gently tried the airbrakes, gently in case they were frozen – (they were not) and I got down the whole flight taking just less than two hours. The Diamond Height was in the bag.

I actually started what was then called “Gliding” in 1941 as a member of the ATC (Air Training Corps) in Guildford, Surrey UK. On the few Sundays when it was our turn to go “Gliding”, we were taken to a place called Fair Oaks, about 20 miles from Guildford. Fair Oaks was then an Elementary Flying Training School (EFTS) for RAF pilot training. Fair Oaks provided two open primaries and a winch and we were allowed two ground slides each, to learn how to keep



Ian Turk

the wings level. After a few weeks we progressed to low hops.

That was as far as I got in 1941 as my “gliding training” was rudely interrupted when the RAF decided that it was essential for the war effort to train me as aircrew. After a number of training delays, including a medical problem, (a punctured ear drum), I finally ended up as a pilot, flying Lancasters. I did not get onto “Ops” until very late, in the war (early 1945). With hindsight, this was just as well, because I don’t remember ever being praised as a very good pilot so I would probably not have survived too many “real operations”. The 1945 operations consisted mainly of dropping bags of food over the low countries, usually smashing the Radar Blister (which is underneath on the Lancaster just behind the bomb bay doors), because the bags did not fall away quickly enough. After the end of the war in Europe, a number of the younger pilots, myself included, was sent to USA, for conversion to American aircraft, ultimately to fight the Japanese. Before we really got started the war ended and in August 1945 we returned to the UK. After various postings I ended my RAF service in October 1947, after about six months in Germany with the British Air Force of Occupation (BAFO). This is where my real gliding training commenced. I had married my present, long suffering wife Sally, in March 1947 and she was able to join me for my last two months in Germany.

Gliding training at "Minderheide" near Bad Eilsen (AHQ BAFO) commenced with the then usual ground slides in open primaries. As a power pilot I did not have to do ground slides and so started with high hops, quickly graduating to circuits in the Grunau Baby. Later I flew Olympias at a place called Schafoldendorf near Hannover, where I was also introduced to ridge soaring. Because of the proximity of the Russian Zone, cross-country flying was strictly "verboten".

After my release I joined the RAF reserve and continued flying with the London University Air Squadron flying Tiger Moths and Chipmunks and later, after graduation, with a reserve squadron near Manchester, as I got a job as an engineer with ICI in Manchester. In 1954 my reserve power flying finished and I became a gliding instructor with the Air Training Corps (186 Gliding School) at Woodford, the home of the Vulcan Bomber. I was on duty every second Sunday, and as I was able to take our eldest son who was six-years-old with me, Sally was not too upset. The Air Training Corps used Slingsby T21 and Mk2 two-seaters for cadet training, and I began instructing.

In 1956, my employers, ICI, selected me for a two-year job in Australia (or maybe decided to banish me to the Colonies). I joined a team of engineers who were to construct a new polyethylene plant in Sydney. We loved Sydney.

After the plant was commissioned and on-line, producing saleable polyethylene in record time, we were invited to, and decided to, stay in Australia. I was appointed the plant Instrument and Electrical Engineer. By 1960, life as a maintenance engineer had lost its challenge and I joined PA management consultants, with whom I stayed for about three years. For one thing, there was little chance to do any gliding, for another, I wanted to get into management (where I thought the money was). I got into management all right, but the money took some time to appear.

I joined the Southern Cross Gliding Club in Camden in 1957. Operations at Camden were by winch launch of course and were limited by power activity at Camden, made even more difficult later when the airport was controlled. With luck, one could get one or two five-minute launches per attendance day, which made training progress very slow and the cost per flying hour (requiring five or six days attendance) considerable, if one included travel costs and annual membership fees.

Believing myself to be a "Manager", I was very critical of the way we operated and particularly of the fact that all committee

members were instructors, which I (possibly wrongly) perceived as looking after their interests. Although I did a little instructing initially, I gave this away because I thought that not all committee members should be instructors and I wanted to get onto the committee. Being a new member I kept my mouth firmly shut, (very difficult for me) for about two years and then I started to attend meetings and joined the committee.

I had learned a little about management before becoming Vice-president (to the late and sadly missed Roger Woods) and later President in 1967. We were fortunate to have a wealthy member, Trevor Kyle, and with his help we commenced aerotow operations, using an Auster provided by him. I was quite proud to become the club's first member tug pilot. Later we bought the Auster from Trevor and sold it (it was very underpowered). We expanded operations with first one and then a second Super Cub, which were later replaced by Pawnees.

We started full-time operations run by John Blackwell: our gliders being maintained professionally by George Detto. We started to make real money without increasing our charges as our membership increased and we modernised the fleet. We obtained a bank overdraft and were about to purchase our

own airstrip on Razorback from Cliff Mallam (the local MLC) but we were refused an operating licence by DCA, because of the then Commonwealth (Whitlam) Government plan to build two airstrips in the area, which of course came to nothing.

The club had very good Easter and summer camps, now at various places, on which many long cross-country flights were achieved. I completed my Silver C in 1964, my Gold C in 1969, and my Diamond Distance with an out-and-return flight from Forbes to Coonamble in 1975.

It was not until after I left the Presidency of the Southern Cross Club in 1974 that I started instructing again. In 1977 I left the business rat race and took a senior academic position in Canberra. I joined the Canberra Gliding club as an instructor and tug pilot, retaining my Honorary Life Membership of the Southern Cross Club and attending their summer camps. I failed my aviation medical in 2000 and this stopped in my instructing and tug flying. Now in my 80th year, I still make a point of driving to Camden once or twice a year to see my old friends and have a dual flight at Southern Cross Gliding club. I just can't leave it alone!



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Dustan Hansen



I REMEMBER ABOUT 15 YEARS AGO HEARING STORIES OF A NEW SITE THAT HAD BEEN PIONEERED BY ONE OF OUR CLUB LEGENDS, CHRIS MACDONALD ('CMAC'). A 1,400FT HIGH SANDSTONE RANGE (1,900FT ASL) OVERLOOKING THE VINEYARDS OF THE HUNTER VALLEY, ABOVE POKOLBIN. THE AWE INSPIRING TALES WERE A MIX OF GOOD FLIGHTS AND CLOSE CALLS, BUT THE SITE FELL OUT OF FAVOUR WITH THE CLUB AT THE TIME DUE TO THE LONG GLIDE TO BOMB-OUT. CMAC HAD ALWAYS SAID, "DON'T FLY BROKENBACK IF YOU AREN'T PREPARED TO LAND IN THE TREES."

As the years passed, and glider performance improved, the risk of not making the bomb-out at Brokenback continued to decrease and the site came back into favour. Flights to Denman, or back to the coast, are completed each season, but the most common flight is a bird's eye tour of the lower Hunter Valley.

On a Saturday morning in January this year, the regulars arrived at Freemans Waterhole to pool drivers and cars, and decide on the day's events. We have seven inland sites to choose from within a 40 minute drive of Freemans. With the forecast for light easterly winds on the coast, light westerlies inland, and a late breaking inver-

sion, the decision to launch as far from the coast as possible was the call.

We loaded the gliders, packed the gear, and set off in "The Office" for the Brokenback Range with Brian at the helm. On launch the inversion was obvious; a heavy haze line just above the horizon and no visible cumulus. The view from launch is a spectacular panorama of vineyards and the Singleton Army Base Firing Range, with the Barrington Tops National Park breaking up the horizon. The launch itself is a gap in the trees on top of the cliff. There is not a lot of room between the trees and the cliff edge, but the run is steep and the launches are good if you keep your wings level.

Once the cu's started to form on the mountains to the west, Al Daniels started getting impatient. Obviously he was the first to launch and he slowly climbed out, dragging the rest of us off like lemmings into the abyss. We took the first climb slowly to 3,500ft asl before we hit the inversion. There was a very light westerly drift and the gaggle bounced down the ridge towards Mt Baker.

JOD, Ebbs and Big landed between the Tyrells Long Flat Paddock and the township of Bellbird in the light conditions. Al and I continued to chase the small short lived cu's forming over the high ground, as each climb topped out slightly higher than the last. Out to the west a storm cell had developed, which drifted towards us.

Letters to the Editors

Photo: Dustan Hansen

Al Daniels circles up under interesting cloud formations. The rain front can be seen in the distance, some 40km away

We changed course and headed out into the Quorrobolong Valley to try and outrun the storm, but with the speed the anvil was growing, it was fast overtaking us. When the anvil was above us, the rain front was still about 40km away. With the sun gone the thermals shut down and we milked the most out of the last climb of the day.

By this time the inversion had lifted to 5,000ft asl and the base of the anvil was another 15,000ft above us, with spectacular rolling cloud formations like the underside of a breaking wave in the surf. The beauty of the cloud was well balanced by the sense of awe I have for large dangerous weather formations. This cell delivered torrential rain and hail to Newcastle later that afternoon after travelling over 100km from where we first saw it developing.

From the top of the last thermal we had a very smooth and buoyant glide into the bomb-out of Hunter Lookout in the Watagan Mountains. Two nil wind landings finished off another memorable flight in the Hunter Valley. Launch to landing was a straight line distance of only 26km, but the slow climbs and indirect route we flew meant the flight was the better part of two hours.

Brian did another fantastic job of rounding up the troops and we were soon on our way back to Freemans. The scariest part of the day wasn't the long glide to the bomb-out over the trees, or the huge storm cell bearing down on us during the flight, but the randy bull in the landing paddock that took a liking to Al's bright sail on his new C2.

After twenty years of flying, things like the beauty of the storm cell and the challenge of flying cross-country on a marginal day keep me addicted to the sport. Rest assured, I will be back at Brokenback, to fly this awe inspiring site time and time again.



Author's note: Brokenback is an advanced rated site in the Newcastle Hang Gliding Club area. All visiting pilots need to contact a Newcastle SSO prior to flying the site.

Flying Terms

As a paraglider pilot for some years now I enjoy reading just about anything that relates to flying, BUT I still have problems with some flying terms (or is it flying slang?) and abbreviations (eg: SATS, CTAF, RTO, CFI, AAT, ATC).

Can we please have a glossary of terms incorporated in our magazine, maybe inside the front or rear cover, so we the unlearned can refer to it? Or maybe each article can be edited with explanatory notes so we can fully understand these terms and not be left in the dark?

Remember there are a number of new pilots out there (and even not so new ones) that are willing to learn, that have never heard of some of these abbreviations and terms. Don't forget we are covering multiple disciplines. This is another way we can encourage newcomers to our sport and not confuse them with abbreviations that mean nothing to them.

Michael Haggard

Sub-ed note: Michael, I couldn't agree with you more. Astute readers of this magazine will note that this type of request for a multi-discipline explanatory article pops up fairly regularly... Astute readers of this magazine will note that I have made repeated requests myself for someone with suitable multi-discipline knowledge to submit such an article (or even for various individuals to submit terms for their particular discipline, which I will collate into an overall article)... And astute readers of this magazine will now have read the 'HGFA Editor's Choice' blurb at the beginning of this issue, and will now be thinking to themselves, "Gee, if I submit an article explaining common terms used in the HG/PG/trike/sailplane disciplines by 25 June for the August issue, the HGFA sub-editor, Richard Lockhart, is bound to be so over the moon that he will award me the \$100 for best

article of the month!"... Could I make it any clearer to all those 'astute' readers out there?

You Know You Are Hooked When...

What about each issue inviting readers to submit their humorous thoughts about "You know you are hooked on paragliding/gliding/hang gliding/microlighting/paramotoring when..."

Here is one to start the ball rolling that I realised this morning:

You know you are hooked on hang gliding when, as you are mindlessly chomping on your toast, suddenly you realise that what remains looks just like a hang glider wing.

Michael Thorn

Sub-ed note: Sounds good to me! Anyone who is more flying obsessed than Michael, and has a "You know you are hooked when..." to prove it, please email <soaring.australia@hgfa.asn.au>!

HIGH ADVENTURE COMING UP!

OUR WINTER SCHEDULE:

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**BALI: July 19 - August
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tours
already
half full!**





A DAY IN THE LIFE...

Taff

7:00PM FRIDAY NIGHT

Telephone...

"Good evening, Sky Venture Paragliding."

"Ah yes, Mr Wilberforce, I did speak to the company concerned."

"Yes, I agree. But while they agree with you that your glider was covered for normal wear and tear for the first year, they've declined to replace it."

"Yes... I understand that the fabric didn't stand up to your idea of normal use for it, but the company do not think that giving you an entirely new canopy in exchange for the one you bought six months ago is good policy."

"No, Mr Wilberforce, I don't think they are cheating you. It's just that when you landed in the tree, and had to be cut out of it by the fire brigade, it definitely rendered your warranty void."

"I'm sorry if you think that Mr Wilberforce, and yes I will look forward to hearing from your solicitor."

7:45PM

"Good evening, Sky Venture Paragliding."

"And good evening to you too Brian, let me guess..."

"Ah yes, you do wish to cancel tomorrow's introductory day... again."

"Yes, I realise you're sorry, and yes this is the seventh time you've cancelled."

"Yes, I do know the course wasn't your idea, and that your father paid for you to come in the hope that it would 'make a man of you'. I also realise that it's not your fault you have vertigo, a fear of open spaces, a weak bladder, a fear of sheep, and spots."

"No, not at all Brian, your father's cash is still good for the day's training. Whenever you feel you are up to it, come along."

"I'm sorry too Brian, I only wish I could tell your father for you, but that's not really my job now, is it?"

"No Brian, I have never thought you are gay."

"Good night to you too"

8:50PM

"Good evening, Sky Venture Paragliding."

"Yes Mr Nicol."

"Yes Mr Nicol."

"Yes Mr Nicol."

"Yes Mr Nicol."

"Yes Mr Nicol."

"Yes Mr Nicol."

"Yes Mr Nicol."

"Yes Mr Nicol."

"Yes Mr Nicol."

"Goodnight Mr Nicol."

10:35PM

"Good evening, Sky Venture Paragliding."

"I'm sorry Sue, I didn't catch all of that."

"Can you start from the beginning again please, one question at a time?"

"No Sue, as I have already told you four times, you'll have to find someone to take care of the dog for you. No, it's not appropriate to bring Mr Wuffles with you."

"No Sue, I don't mind what you wear, as long as it's warm and covers you appropriately. I'm sorry I don't know what colour canopy you will be using, and yes there is a chance it may clash with your outfit."

"Sue, paragliding harnesses do not make you look fat."

"You can bring whatever food you wish Sue, as long as you can carry it yourself, and bring sufficient water."

"No Sue, I don't think a wicker hamper is a good idea, even if it is the best David Jones has for sale."

"What make-up to wear is entirely up to you, I'm not really qualified to offer advice on that. But please bring plenty of sun-block."

"No I don't mind if it's the nice jazzy peach coloured sun-block you bought for your yachting trip..."

"Goodnight to you too Sue, and yes I did say 7:30am at the carpark."

SATURDAY

7:30AM, BROKEN TREE HILL CARPARK

"G'day, for those of you who don't know us. My name's Geoff, and I'll be your instructor for the day. My mate here Bill is a trainee instructor, and he'll be lending a hand. The day looks good so we should be getting you up in the air by the end of it. Any questions?"

"Yes Mr Nicol, an occluded front reaching the Tasman Sea would have that effect on the current climatic conditions, but let's not worry about it yet."

"Yes, I do know that the Bureau of Meteorology has posted such a forecast on its website, and thank you for your long and detailed explanation of it, but as I said, no worries eh?"

"No Charlie, you are not going straight to the top, so you can 'jump off', as you so eloquently put it. I'm afraid you have to do some training in the use of the equipment first."

"No need to worry Mrs Williams, I'm sure you'll be able to participate, even without your dentures."

"Okay, so if you all jump in the Land Rover, we'll drive to the foot of the hill."

"Pardon?"

"Yes Mr Nicol, it does have the standard transfer case low-land ratio of - 3.32:1 gearing, and yes, that is good for off road if you use the differential lock. Thank you so much for reminding us."

SATURDAY

8:30AM, THE FOOT OF BROKEN TREE HILL

"Yes Mr Nicol, you may use your own equipment rather than the school's. But, as I said to you when you told me of your intention to purchase these items over the internet, they may have been the best glider, harness, reserve and instruments of their day, but that day is sadly long past."

"Charlie, please could you not try to sneak up the hill with my equipment? You really do need to know how to fly before you take off, not vice versa."

"Mrs Williams, please don't light up a ciggie when you are wearing the harness, it's just that the ash makes such a mess... Oh, and I'd hate to have to charge you for repairs to the glider should you inadvertently burn it."

"What? You burned yourself where?"

"I've got some spray in the Landy for it."

"Yes Mr Nicol, the school's gliders are the mark IV models that have now been superseded by the mark V. Thank you for sharing that bit of knowledge with us. I'm sure the rest of the group are fascinated by your explanation of the changes in wing aspect ratio and the design of the cell openings between the models. But at the moment I'm trying to explain to the group how they get their harnesses on."

"Did that hurt, Mrs Williams? I'm sorry; I know how difficult putting a helmet on can be. Still, it's not bleeding too badly. I'll get you a sticking plaster from the car."

"Bill, could you drive the Land Rover back to the carpark, I think Sue may have arrived."

SATURDAY

11:30AM, HALFWAY UP BROKEN TREE HILL

"No Sue, I will not hold Mr Wuffles for you. I think my attention should be on Charlie and his first flight, don't you?"

"I'm very sorry if Mr Wuffles gets lonely when you aren't holding him."

"Mr Nicol, you may borrow a school harness if you wish. I do think that your having one of your leg loops missing may be slightly dangerous."

"Yes mate, can I help?"

"Yes, that's my Land Rover with the paragliding advertising on it; I own the school and shop."

"Sure, I can sell you a paraglider, and I'll throw in some lessons free if you buy a new one from me."

"Um... around \$5,000-\$7,000 each, depending on type. Oh, you'll need a harness and helmet too - that'll bump it up a bit."



"How much were you thinking of spending then?"

"Um...that would buy you the helmet."

"Gently down on your left control, please Mrs Williams. GENTLY! GENTLY!... Oh, your other left please..."

"Charlie, we're too low on the hill for you to try a spiral dive, and this is your first lesson after all."

"Yes Sue, that is what you think it is, and it is kangaroo as far as I can tell. No, I don't have a portable shower in the Land Rover."

"Yes, I saw you twist it when you landed Mrs Williams, is it swollen?"

"Mr Nicol, tears aren't going to help now are they? If that rip in your glider were any bigger you'd have two gliders."

"Yes, I know that buying over the internet saved you \$200, but it's not really saved you a cent, has it?"

"Yes, you may borrow one of the school's gliders."

"Thank you Sue, very kind of you to offer. But as I'm a vegetarian, 'pate fois gras, on garlic baguette with seared beef strips and Parma ham in blue cheese sauce with fresh parsley and cucumber', isn't really for me..."

"Yes, I realise you had them open the Deli early for you, but I'm still a vegetarian."

"It was good of you to bring enough for the six of us and Mr Wuffles, but that hamper is a bit of a pain to lug about the site, isn't it?"

SATURDAY

3:00PM, TOP OF BROKEN TREE HILL

"Okay guys, this will be your last flights of the day, I hope they are good ones. Watch Bill down in the paddock there, he'll be signalling you in with those paddles. Can everybody mimic what he does now please?"

[On radio] "Go ahead, Bill."

"Mr Nicol, please follow what Bill was doing with the paddles."

"Oh sorry, you were. I thought you'd been attacked by a bee the way you jumped around."

"Mrs Williams, can you actually see Bill?"

"No, I didn't realise you'd forgotten to bring your glasses as well as your dentures."

"Sue, there is no way you are flying down with Mr Wuffles tucked inside your harness like that, sorry."

"Okay, I'll bring him down in the Landy."

"Where's Charlie?"

"Where?"

"Oh yes, up over there... He must have mistaken my telling him to 'mimic Bill' for an instruction to take off... I think he may now hold the height gain record for this site."

"Yes mate, can I help you?"

"No sorry, I don't rent them out by the hour."

"Oh I see, you've watched us training for the past 30 minutes, you've seen what you have to do, June 2004



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and you'd like to borrow a glider to have a go?"

"Sorry, but I can give you my card if you'd like to have some lessons."

"Oh I see, it's a piece of piss, is it? And you know what to do, so I should give you a go? Um, let me think about that - no."

"Okay, so I appreciate you're unemployed and can't afford my prices. But the answer is still no."

"Okay, so you don't like the way I run my school. So take your business elsewhere."

"Same to you too. Oh no, I've lost the business of a deadbeat. Me oh my, how will I survive?"

"Mr Nicol, I do not carry spare batteries for equipment. I have to say though, that seeing as your vario has no needle on the dial, no electronics under the case, and the sensor is missing, it may not be the batteries that are the problem."

"Sue, I don't care if it does smell awful, please don't wipe it off on the Land Rover seats."

[On radio] "Bill, once you've got this lot down can you drive over to Beaconsfield?"

"Yes, I know it's four k away, but apparently Charlie's just landed there, and the farmer wants a hand getting him out of the barn roof."

SATURDAY

5:30PM, BROKEN TREE HILL CARPARK

"Okay folks, that's your introductory day over, and thanks for attending. I hope you enjoyed it as much as I did. It will count towards your

licence, and will be credited to any further training you do. Any questions before I bid you adieu?"

"Yes Mr Nicol, I can get you a quote for some secondhand gear."

"No, I don't want to hear your specifications for it, as the pub shuts in seven hours, and I think I may like to spend those hours there."

"I believe I saw him chasing some roos over that way about 10 minutes ago, Sue. By the way, your neck looks awfully red."

"Ah yes, easy mistake to make. I often mistake peach sorbet for my peach sun-block."

"Yes, that would explain those wasp stings."

"Ah Charlie, so glad you could rejoin us, alive. Would you like to know how much the damage to my equipment is going to cost you, or shall we save that treat for later?"

"Yes Mrs Williams, I think you may have broken it. Is it painful?"

1:00AM SATURDAY NIGHT Telephone...

"Good evening, Sky Venture Paragliding."

"Yes, you have left a number of messages on my answer phone, Mr Wilberforce."

"I didn't answer them as I was down the pub getting drunk, and trying to sell my business."

"No, your solicitor hasn't been in touch."

"To be quite frank, after today I couldn't give a flying..."



EASTER ENTRÉE FOR THE DALBY NATIONALS

Ralph Henderson



THE QUEENSLAND EASTER COMPETITION HELD AT CHINCHILLA WAS AN OUTSTANDING SUCCESS AGAIN THIS YEAR AND HAS GIVEN US A TIMELY REMINDER OF THE THINGS WE NEED TO DO TO HAVE A SUCCESSFUL NATIONALS OF WHICH, OF COURSE, WE ARE PLANNING.

Photo: Greg Kolb

The great variable that we cannot control, the weather, was very much in our favour at Easter, with beautiful autumn days. We flew the practice day, all eight competition days and some competitors flew their gliders to Chinchilla the day before practice day and home on the day after the competition. While some of the competition days gave excellent conditions, others were blue and definitely in the challenging category.

But what were the other factors that contributed to a great competition?

Good organisation by Robert Hart and Brian Wade of the flying side of the competition was obviously very important. We continued our philosophy of keeping prices as low as possible to attract as many pilots as we could and again it seemed to work. The \$100 entry fee, and \$50 for juniors, was well received. More than 50 gliders were entered and 63 pilots were scored in the

Club Class, plus those in the Two-seater Class.

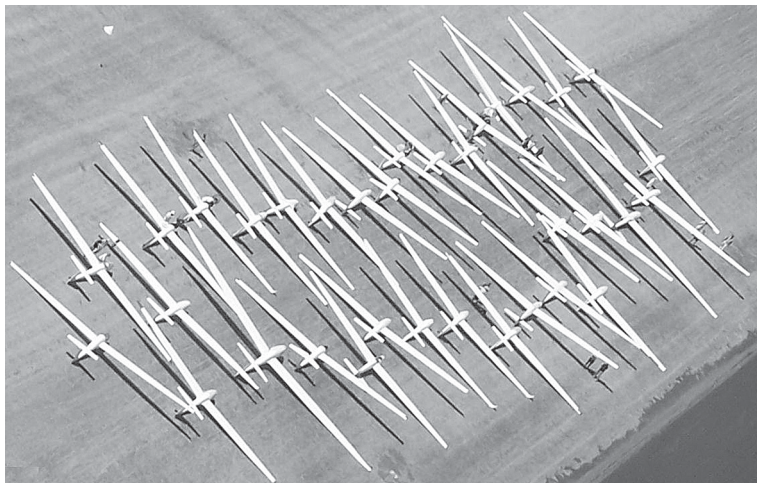
The combination of low entry fees attracting a strong field of competitors will undoubtedly have resulted in a profitable competition and more funds now being available in the Gliding Queensland competition

account to support competition flying and coaching.

The local support for the competition was a major factor in its success. The local council assisted with the competition in a number of ways. The Mayor, Deputy Mayor and Chief Executive all participated in various functions during the competition. The Mayor visited on a number of days and was pleased to learn what a great gliding area he was responsible for. Competitors often commented on how friendly the local people around town were towards all the visitors. The local aero club put in a massive effort running the bar and the kitchen for the competition.

The competition was again safe other than the unfortunate blemishes of two wheels-up landings. After last year's Easter competition there was some concern expressed about the mixture of low hour pilots with a large number of gliders. Those concerns weren't heard this year and shouldn't be an issue at the nationals.

At the nationals' workshop last year, one of the reasons given for the low numbers of competitors was the standard of



An impressive line-up at the Queensland Easter competition

Photo: Rozz Nutting

Left: Kingaroy's new Discus VH-XKD being flown by Brian Allerby on the practice day of the Queensland Easter competition. In the foreground is the winglet of Greg Kolb's Discus 2

competition. This was not a problem at Chinchilla. Current Open Class champion Tony Tabart flew, as did former National champions Bruce Taylor, Shane McCaffrey and a couple of champions from an earlier era, Dennis McCaffrey and Mal Tuit. With many of these competitors planning to fly at Dalby, there will be a suitably high level of competition.

The scoring worked very well thanks to many helpers for the official scorers. It was a pleasant relief on the first morning to hear the contest director say, *"that there were no changes to the published list of turnpoint coordinates."* How often has that not been the case? The idea of having virtual start points that were not connected to ground features was rejected by pilots at the pilots' meeting, which is something we need to learn from.

Once again, we learnt the importance of running an efficient launch operation. On the first day we were one tug short, but this was fixed for the second day. Also by the second day the ground crew were back in the swing of it and an efficient launch ensued. We only hope that by the time everyone gets to Dalby, pilots will be able to be in their cockpits and ready to launch before the tug lines up in front of them!

Otherwise, a friendly co-operative and safe approach to the event seem to carry organisers and competitors through any minor hiccups that occurred.

As to progress with organising Dalby. We are working closely with the local council to organise ground facilities for the competition. Our search for sponsors is being successful which will help keep costs down. Provisional entries are coming in, including some from New Zealand and one from Western Australia.

If you are planning on coming to Dalby, an email advising of your intention would be much appreciated and help us to firm up our expected number of entries. The official entry form will be in the July edition of Soaring Australia.

In the meantime please advise me of your intentions or send any questions you may have to <rhenderson@austarmetro.com.au>.



Improving your Gliding Performance

James Cooper

I WAS READING GEOFF HASTWELL'S ARTICLE ON IMPROVING YOUR GLIDING PERFORMANCE AND TWO POINTS STRUCK ME FOR CLARIFICATION.

Firstly Geoff states that *"You should fly with a little top rudder, indicated by the yawstring a little to the outside of your turn, used by some pilots."*

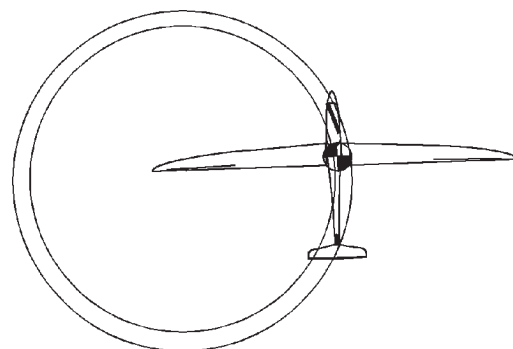
To clarify this point when we fly with the yaw string out to the side, as Geoff mentions, we are in fact flying with the glider straight through the air in the circle. The problem is that the yawstring is giving us false information.

Look at the diagram below. When turning in a circle the glider's centre of gravity rotates around the centre of the circle, and the air will pass parallel with the centre-line of the fuselage, at the centre of gravity.

However, as you can see on the diagram, the streamlines over the nose are to one side. If you choose to study further you will find that as bank increases this effect gets greater. Now, if a pilot flies with the yawstring straight he is in fact flying with the nose pointing down into the centre of the circle. Speed control then becomes very difficult as any change in aircraft attitude will tend to initiate speed build-up and then a battle with the aircraft. Fly with the yawstring as shown and things settle down.

I have had many comments saying that this effect would be only a few degrees. My comment is, sit in the back seat of a twin and look at the front yawstring and the back yawstring and you will see them at quite different angles once you are set up in the turn. Students may learn to fly much quicker if they are given this tip when they first learn, not when they come to a coach.

One further point that Geoff brings up – *"Fly on poorer days."* This was brought to light recently on one Saturday. Here in the West, once a month the three local gliding clubs compete by flying a 300km task with turning points at each of the three clubs. On this occasion the conditions were forecast to be super with 7,000 to 10,000ft climbs.



I set off early to add an extra 300km to the clubs' task in an attempt to win the Australian OLC. Unfortunately, conditions proved to be a little different. About two hours into the flight I was still not getting above 2,300 agl, and 600km was not on, so I had a go at getting around the clubs' task, finally landing at Narrogin having flown 250km.

Only one other pilot managed 99km, the rest flopped back on the field. Why was this? Please understand that I am not trying to blow my own trumpet, but I am noted to be the first to launch and fly away before the inversion has broken. With hours of practice in these conditions the Saturday was quite the norm to me. Others wait for the weather to boom and then are not able to fly when conditions deteriorate or never develop. So the answer is, if you want to fly in all conditions, fly in all conditions.

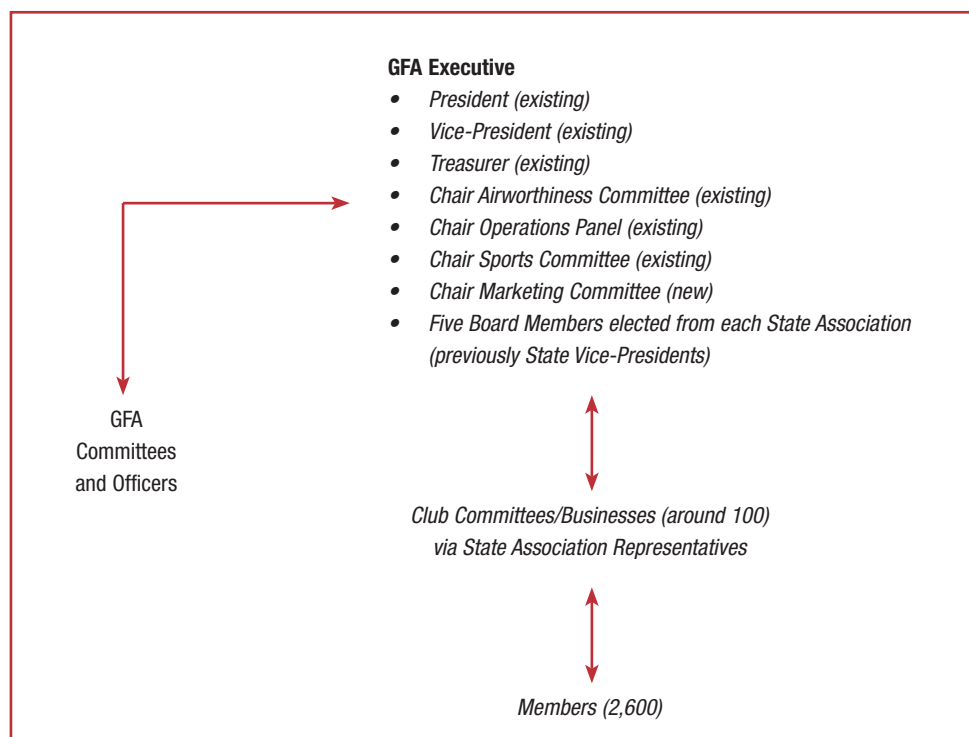
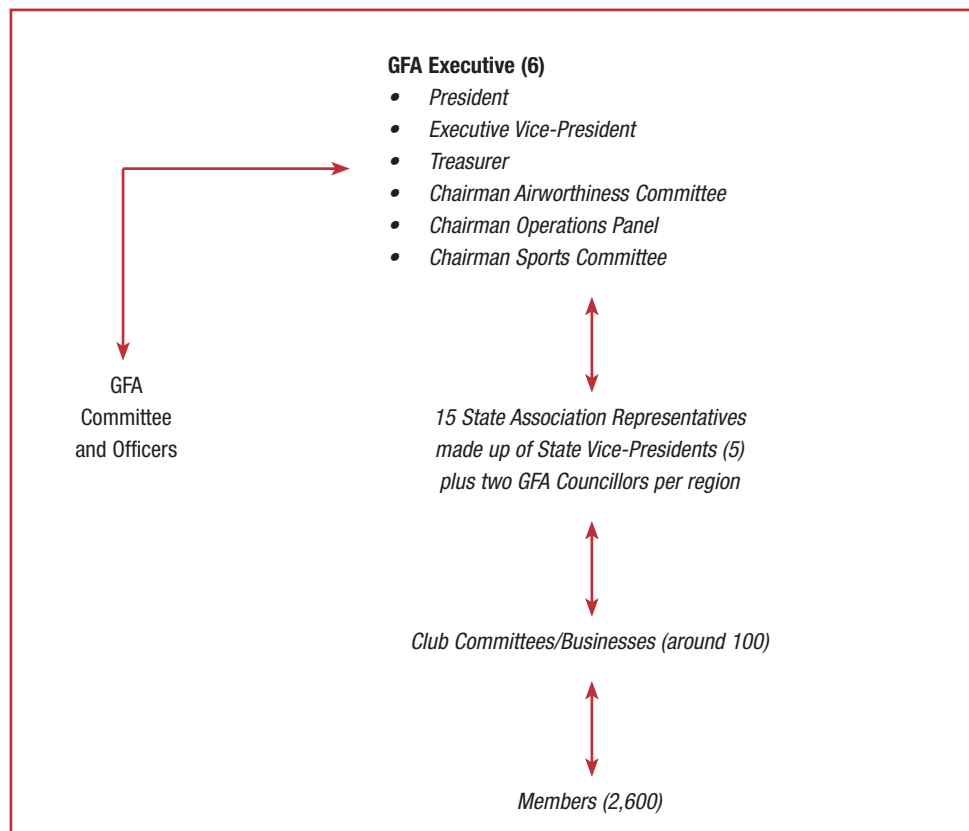
Just a further point, on a day like I mentioned, in a competition there would have been a devaluation of the day because of the low level of starters or finishers, not because the day was unsuitable, but because the pilots could not cope with the conditions. Well, perhaps this is another reason why I don't fly comps but stick to long distance flying.



NEW DIRECTIONS – PART 2

Ralph Henderson

FOLLOWING THE PUBLICATION OF JENNY THOMPSON'S ARTICLE IN THE APRIL 2004 SOARING AUSTRALIA, A NUMBER OF COMMENTS HAVE BEEN RECEIVED AND A FOLLOW UP ARTICLE TO ANSWER SOME OF THE QUESTIONS THAT HAVE BEEN RAISED SEEMS APPROPRIATE.



From the comments I have received, there is undoubtedly strong support for the proposed changes. The need for a well-funded and more aggressive marketing push for gliding has been well received. Equally the comments have shown that there is limited understanding of the current GFA structure amongst the members.

In the April article only the current structure was shown. To help members consider the proposed changes, the current structures is shown again followed by the proposed structure.

The diagram on the left is a simple depiction of the current organisation.

The proposal for a more streamlined organisation is depicted below left.

There is widespread acceptance that the six executive members are overworked while the 15 council members who are not members of the executive are under-utilised.

The proposed structure would see the executive and the council replaced by a board which would have 12 members and which would meet quarterly. This would enable the workload to be spread over twice as many people and give direct state representation at the board level with each of the five state associations directly represented on the board.

Some people have commented on the cost of the new board proposal. The general view is that the saving on the annual cost of the council meeting would pay for most of the additional cost of the larger quarterly board meetings. Most members who have spoken to me seem happy if it costs a bit more so long as it is more effective than it is today.

Regrettably there has been less comment and discussion of the proposals than we would have liked.

Please direct comments to Ralph Henderson <rhenderson@austarmetro.com.au>, Jenny Thompson <libelle@optusnet.com.au>, or your regional council member or State Vice President. The GFA Council email address is <businessplan@gfa.org.au>.





Southern Soaring Launched at Gliding New Zealand's AGM

A new commercial operation will be based at Omarama in New Zealand from September 2004. Southern Soaring will take over the business of Alpine Soaring as well as promoting a wide range of new services.

The company was officially launched at Gliding New Zealand's AGM in Wellington on 12 June.

The new owner, Peter Newport, has returned to New Zealand after working in the UK in the fields of media and technology. Peter enjoyed the experience of learning to fly at Omarama so much that he bought the company.

"We're hoping to make a great commercial success of Southern Soaring, but

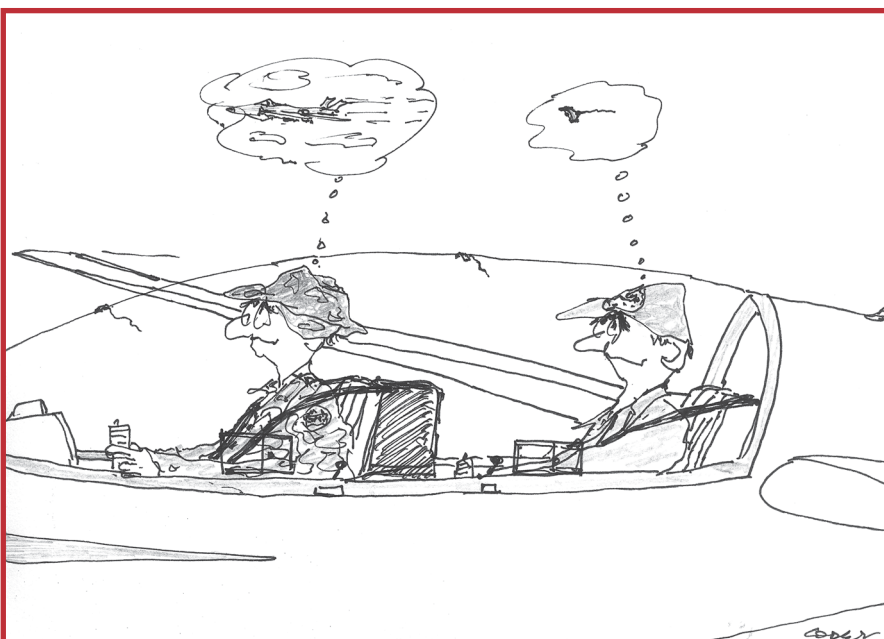
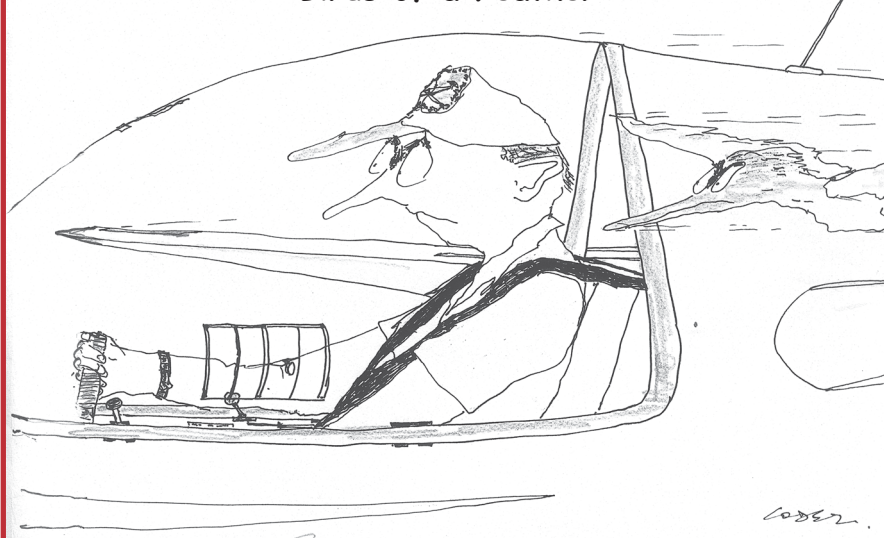
keep the relaxed and professional atmosphere" says Peter. "New Zealand has some of the best gliding conditions in the world – and we're hoping to pioneer many new ways of increasing the profile of gliding and getting new pilots started."

The new business will be built around four different operations including Alpine Soaring, Scenic Soaring, Advanced Soaring and Adventure Soaring. The new operations will be aimed at both the existing gliding community and the growing market for adventure tourism.

The company's new website is at [www.soaring.co.nz] and will be live from 4 June 2004.



Birds of a Feather



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



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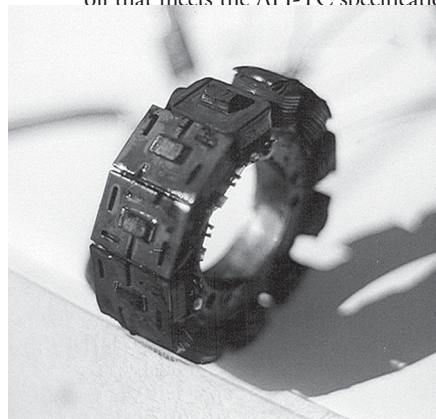


ROTAX 582 REBUILD

Ned McIntosh

IT WAS TIME. AFTER 764 HOURS MY ROTAX 582 “BLUE-TOP” WAS TIRED. WELL, NOT ALL OF IT. THE ALTERNATOR WAS TIRED. TERRIBLY TIRED. TERMINALLY TIRED, EVEN. THE SYMPTOMS HAD BEEN SLOWLY DEVELOPING OVER TIME. HARD STARTING USING THE ELECTRIC STARTER, DECREASED VOLTAGE-REGULATOR OUTPUT WITH THE NOSE-LIGHT SWITCHED ON, GREY DUST BEING DEPOSITED ON THE TOP OF THE FUEL-TANK OF MY EDGE X...

The rest of the engine was in pretty good shape for a high-time unit. Compression on each cylinder (measured cold, at every plug-change) was 105psi and Cyclone bearing checks at the same time were still close to factory new specs (less than 0.04mm each cylinder). I was hoping to make the magic 1,000-hour mark on the donk, but when starting it required a set of brand-new plugs, plus hand-starting, before it would run, I realised the time had come. With a high-time engine a complete mechanical overhaul was wisest, and it also offered the opportunity to fit oil-injection. I was getting tired of doing the rumba with my fuel drums at service stations to mix the Penrite TS40C oil. “Green slime” sure does take some mixing. Actually, this engine did its first 300 hours or so on Castrol Super 2T and Active 2T with another owner before I switched to Penrite. Any oil that meets the API-TC specification (American Petroleum



Alternator Stator coil assembly – note missing metal cap at the 12 o'clock position



Rotor with remains of metal cap adhering to ground-down magnets!

Institute – Two-Cycle) will suffice, but I heard good reports from other Penrite users so I thought I'd give it a try. Now I order it in 20 litre drums. However, any oil that meets the API-TC spec is fine for your Rotax. Regular servicing and correct operating procedures do much to prolong engine life.

Removal of the engine took about an hour, and lifting it off the trike base was definitely a two-man job. It went by courier to Bert Flood Imports where Wal gave it the once-over. He rang the next day to say he had no oil-injection pumps and wasn't sure when he'd have any. Since the weather was about to enter the August-September “windy season” in Wollongong, I told him to go ahead with the rebuild and wait for a pump to turn up... a delay wouldn't

cause me much inconvenience.

Wal had stripped the unit down when I next phoned. Mechanically the engine was still pretty good (as I suspected) but the alternator was a different story. Frankly, he was amazed I ever managed to get it started at all. One of the steel caps on an ignition-coil had come off and stuck to the rotor-magnets, becoming cutting-tool in a lathe, as it were (see photos). The grey dust accumulating on top of my fuel tank were my rotor-magnets, being slowly but surely ground away! It certainly explained the progressive loss of alternator output. Wal said it was one of the worst he had ever seen. In spite of this, once that little engine was alight, it ran as sweetly as ever. Tough little engines, the “Blue-Top” 582. Curiously enough, at ignition-system checks, the rev drop per system was still within specifications, right up until the very last flight.

Another consequence of flying in a coastal environment was severe corrosion to both radiators, and Wal recommended they be replaced. That meant a complete cooling system overhaul, resulting in new hoses, radiators and hose-clamps.

With a new alternator, and stator, cooling system rebuild plus the mechanical rebuild, plus the oil-injection pump and oil-tank, this wasn't going to be a cheap job. But I would end up with a zero-hour

Photos: Ned McIntosh



Minor carbon build-up only on piston crown



No visible scuffing marks on lower portion of piston-skirt



Rotax 582 crankshaft assembly is massively strong and pre-assembled to drop into crankcase. This is the old crankshaft

engine in every respect, and several hundred dollars cheaper than a brand-new unit. Additionally, I could wave good bye to pre-mixed fuel. The convenience of oil-injection is a revelation. Neat fuel in the fuel-tank, your choice of oil in the oil-tank... what could be easier?

Ah yes, the oil-tank! Now, on a factory-fitted 582 with oil-injection they mount the oil-tank on the cylinder-head. On an Airborne Edge X trike this results in slight masking of the top half of one radiator, plus restricted access to the forward cylinder spark-plugs. Additionally, the vibration over time results in the tank mounting-brackets cracking, and replacement means removal of cylinder-head bolts. Not major problems, but little niggles which I felt I could do without. So I asked Wal to supply the tank, but not to mount it. I'd tackle that problem myself.

A complication of retro-fitting the oil-tank is the position of the throttle cable mixer assembly. My trike had the assembly in the old position, vertically at the rear of the forward engine-mount on the left-side. I wanted to keep it there, but mounting the oil-tank on the engine precludes that. No problem... I had a cunning plan!

I decided to mount it on the forward engine mount, using a bracket of my own design and construction. Between the starter-cord and the large U-shaped radiator hose there is a space of about 55mm. I designed and built two brackets, attached to the sloping tubes of the engine-mount with stainless U-clamps. From the front bracket, two tall (and springy) aluminium struts rise and converge somewhat to allow the upper tank mounting-bolts to be secured through holes at the ends. At the base of the tank are two shock-mounts with threaded bolts protruding. These fit into short tabs rivetted to the rear bracket. The whole assembly is springy enough to absorb vibration, yet rigid enough to securely hold the tank in position.

The brackets were made of aluminium right-angle stock, and straight strip, etch-primed and sprayed gloss black to harmonise with the rest of the engine-mount. AN-series driven rivets were used to attach the struts to the right-angle pieces – I never miss a chance to practice with my 3X rivet-gun!

The advantages of this mount are as follows: access to the forward spark-plugs is unimpeded; there is a slightly higher head of pressure driving oil from the tank through the inline filter and to the oil-pump, and the throttle mixer assembly can remain where it was previously mounted. Of course, a new cable assembly is required with three upper cables, the third one being for the oil-pump actuation-lever. The two photographs show the general arrangement of the oil-tank and mounting from each side.

Eventually the engine overhaul was finished and it was time to install it. Re-commissioning took a couple of days. First it had to go back on the mounts and be bolted down. The oil-tank bracket had to be fabricated. A new throttle cable assembly was fitted. Carburettors were harmonised and adjusted (having been rebuilt as part of the

overhaul). Electrical connections were re-made, terminals checked. The propeller had to be re-mounted, in the same orientation as before (use of "witness-marks" was handy here). The exhaust system likewise, with new gaskets. Cables, etc, were dressed and secured with cable-ties as necessary. The fuel-lines were replaced and connected to the carbies. The cooling system was filled and checked for leaks. I sprayed each radiator core with RP-7 to prevent any corrosion (very successful, actually). Hose-clamps were tightened and checked. Carburettor float-bowls were filled with fuel for a quick start.

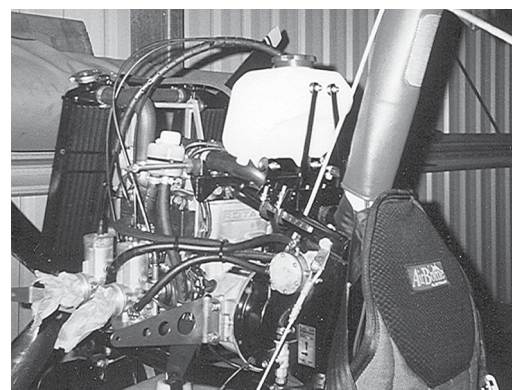
For the first engine start a few litres of 50:1 pre-mix were used, ensuring adequate lubrication until oil reached the injector-tubes just upstream of the rotary disk valve. Three pulls on the hand-starter and it crackled into life. I watched as the "green slime" made its way down the oil delivery-lines to the injectors, taking just a minute or so at idle. Once the delivery lines were filled I shut the engine down and replaced the fuel with several litres of 100:1 mix, as recommended by the Rotax manual.

The break-in was done "by the book" and the new engine has now clocked up over 130 trouble-free hours.

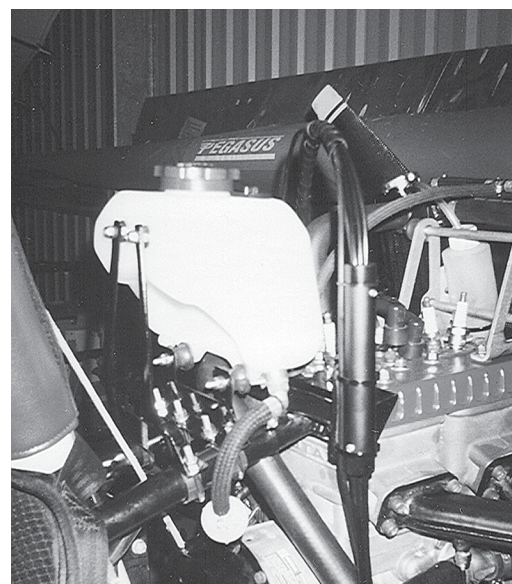
Wal kindly sent back all the old bits, and I examined them with a keen eye. The 582 crankshaft (photo) is massive! Also impressive was the condition of the pistons... as the photos show there was very little carbon on the crown (I use Shell Optimax or an equivalent high-octane mogas and never use 100LL Avgas). There was just the slightest signs of scuffing on the lower portion of the piston-skirt (not visible in the photo) – you really had to look for it. When we removed the exhaust prior to the rebuild, you could

clearly see the cross-hatch hone-marks inside each cylinder. These are a well-built engine. Now, if they can just make a 1000-hour alternator to match the mechanicals, I'll be very pleased.

So, if you fly a trike with a "Blue-Top" 582 and service it regularly, feed it good high-octane fuel, the correct grade of oil and fly it a lot, don't be too surprised if you get seven or eight hundred hours out of it. And be on the lookout for alternator problems because these days, the engines seem to be outliving the electrical systems. Above all, fly your engine with confidence... it's a well-built, solid little piece of kit. Look after it and it will look after you.



Oil-tank mounted on front engine mount



Old style throttle cable mounting position is retained



NAS – The New Airspace System and What it Means for Trikes

Ned McIntosh (Originally written for microlight pilots operating at Wollongong)



Ready to roll

Photo: Peter Lucas

The basic effect of the changes is to allow VFR (Visual Flight Rules) traffic to enter controlled airspace without needing a flight-plan or being under constant radar control. This has upset some of the heavy jet fraternity, because previously almost all this airspace was their exclusive preserve unless the other traffic had filed a flight plan, carried and used a transponder, and was under direct radar control as regards altitude, heading, etc.

From our point of view, almost nothing changes. Since our trikes don't carry transponders (an L-band microwave radio transceiver which allows ATC radar to identify your aircraft) we still won't be able to enter controlled airspace. But in our tiny machines, why would we want to? About the only reasons I can think of would be if the weather deteriorated so rapidly you had to divert and land on a cross-country flight, or if you have an in-flight emergency requiring such a diversion... and in case of an emergency the normal rules are waived anyway.

So, trike pilots, NAS has minimal effect on us – so far. However, we must keep our eyes and ears open, no matter where we fly, because we are very small, very slow and very difficult to see (“a razor-blade with a peanut

under it” is one description). “See and Avoid” is at the heart of the new system. Meanwhile, NAS also has some other changes which have relevance for us. In the near future, MBZ airfields will become CTAF airfields after normal operating hours. From about June 2004, MBZs as we know them will be abolished. Again this has minimal effect on us because we have and use airband radios and we are already familiar with operating within a CTAF.

The other change relates to aeronautical charts. ATC radio frequencies outside controlled airspace will be deleted from Visual Nav charts (VNCs) and Visual Terminal Charts (VTCs). This change is contentious for many pilots (not just microlight pilots) as these charts are very useful for cross-country flight planning. The frequencies for flight service information, control, etc, are published in ERSA (En-Route Supplement Australia), so it pays to keep a current ERSA handy. Frequencies can change, so updating your ERSA on a regular basis is a smart move – once a year should do it. Cost? About \$22.

Now, could a trike pilot take advantage of the new system? In theory, yes. You could install a transponder and antenna on your trike and then request a clearance to enter controlled airspace. The controller would direct you to set your transponder to a specific four-digit code and “squawk” the code whilst in the airspace. That way, he can identify you on his radar screen. As soon as he identified your transponder signal, he'd then give you clearance to operate – in theory.

In practice it's not so simple. First, a transponder costs about \$2,500 for a basic

model (such as the Garmin 320, a solid-state unit which could operate on a trike power supply). Add between \$50 and \$100 for the antenna and cable. Next, transponders operate in two modes; Mode A (in which the transponder only sends the four-digit squawk ident code) and Mode C, where it also transmits altitude. However, to transmit your altitude in Mode C, the transponder needs to be interfaced to an Encoding Altimeter... which can cost \$5,000 or more! So a trike with a transponder would only operate in Mode A. Some receiving equipment requires the transponder to be operating in Mode C irrespective of whether it is transmitting altitude data or not, otherwise it can't correctly decode the transponder information anyway... gets complicated, doesn't it? These issues notwithstanding, in a very busy area (such as Bankstown), a controller probably wouldn't allow you to enter because he couldn't see what height you were, even though he could identify your aircraft amongst all the others. Basically, to equip trikes with transponders and encoding altimeters is way too expensive.

A transponder on its own? Maybe. Would you really want to? \$2,500 buys a lot of fuel!

The new system is a significant change. In an industry as conservative as aviation, change will be resisted as much as possible. Whether it is less safe than the old system remains to be seen. But for us trike pilots it is business as usual. Stay vigilant, keep your head (and the engine) turning, fly safely and don't fly the trike anywhere your brain didn't get to five seconds earlier. I'll see (and hear) you in the air.





MIND GAMES

Glenn Slight

I'M NOT AN ADRENALINE JUNKIE AND DON'T CONSIDER MYSELF A RISK TAKER. THAT'S PROBABLY WHY IT'S TAKEN ME 20 YEARS TO HAVE A GO AT HANG GLIDING.

Although I could never get the notion out of my head that I wanted to be able to fly like a bird, there were a couple of major obstacles: not large enough in the 'under carriage' area, and a fear of heights.

As a 15 year old growing up in Sydney, my mates and I thought nothing of abseiling down 200ft cliffs, and I loved the odd flight in a 727. In recent years, though, my blasé attitude has gone by the wayside somewhat. Getting older and having a young family may well have played a part in this... Either way, my appetite for enjoyment at height diminished quite considerably. To find myself near a cliff edge, fenced or not, say on the observation deck of a tall building or even on a short flight on a 727, now fills me with fear.

Recently my wife, Sonia, and I were lucky enough to spend a week in Queenstown, NZ, skiing and generally enjoying ourselves. (It took me about half the flight to settle down and relax.) They don't call it the extreme capital of the world for nothing: skiing, the Shotover jet and quite a few other ways to play at cheating death. In most of the booking agent type shops there were videos playing, showing some of the exciting things you could do, one of them being hang gliding. Well, I stood there and watched these guys and girls in total awe, swooping and diving over snow capped mountains, until my senses could take no more. There was simply no way I could even contemplate doing that, so I walked away, very discouraged.

For some reason, though, I thought I would be all right going tandem on a paraglider. Hmmmm... Anyway, you can't go to Queenstown and not partake in at least one extreme activity. Sonia on the other hand didn't possess any of my demons and couldn't wait. Gareth and Brendan, two of the many local tandem pilots, met us at the bottom of the Gondola. On the way up Gareth was exulting us with some PG over HG points, most of which were lost on me I might add. A beautiful August morning greeted us at the top; to say it was crisp would not be putting too fine a point on it.

June 2004

Brendan and Sonia launched first, floating up and out silently, then slowly disappearing around the side of the hill. Then, run, run, run... Gareth and I were straight into the lift coming up and over launch. Wow, it was amazing, like floating on a bubble of air.

"Okay, let's move away from the hill now and fly out over the town."

As the slope of the hill dropped away below us my heart rate climbed, and I'm sure even at 0°C I was sweating. There were no heroes that day – until we got down to a couple of hundred feet I was petrified. Of course, we landed safely and had a whole new experience and set of pictures to take home with us.

Back home it was time for me to face my fears again. Sonia and the kids had given me a gift voucher for a tandem hang glide with Brian Rushton from Byron Airwaves... 18 months ago (!) as a birthday present. It was looking a bit mouldy and past its use by date, but arrangements were made. As I sat on the ramp at launch above Tallow Beach I said to Sonia, *"I don't think I can do this."* Her reply was, *"No problem, I'll go instead."*

Well, we couldn't have that now, could we? I got harnessed up, briefed and hooked in. *"Okay Glenn, let's go"*, came the call from Brian. Before I could complain we were out over the beach a 100ft above launch. We didn't really get much higher than that for the rest of the flight and I was in heaven. My first words to Sonia after we landed were, *"I've gotta' do this."* Sonia's reaction was a sigh and rolling of eyes. I already have a few too many hobbies, you see.

My training was completed under the very experienced eye of Brian, and resulted in me being granted a restricted license. The purchase of a very well maintained Sting 166 (yep, even Airborne forgot they made them) made the job complete. My solo flying hours slowly started to mount, as did a few trips to 500 and 600ft asl, which to most pilots seems barely high enough to tuck your feet away, but to me it's where the possibility of panic became very real. A couple of deep breaths, telling myself to relax, and a quick decent was the immediate fix, but I knew

that to continue and progress in my chosen sport there had to be a more permanent way of dispelling my fears. The answer (and I believe

a lot of the problem) relates somewhat to my work as a mechanic, and it was going to take a bit of diagnosis.

I decided I was going to continue flying, so the problem had to be tackled. So, what is fear? It's an emotion, a state of mind, and whether born out in reality is irrelevant. I believe it must be dealt with where it resides, in the mind. A fear of heights, though, is widely thought of as being quite a sane and acceptable reaction to doing something we just weren't supposed to do, fly. I arrived at the realisation (and obviously this took some time and a lot of self analysis) that my fear was bought on by how safe I felt at height, not just being there. Take, for example, the difference between free-flying and, say, rock fishing. I'm sure most people would worry about jumping into mid-air for a flight, but think that going rock fishing was just another day out. Yet we know the statistics tell us the latter is far more dangerous. For me, the paraglider felt like I was sitting on the edge of a cliff and one false move would have me falling over the edge. The hang glider however had me tucked away nicely in a full harness with a control bar just below my eyes to hang on to. Both proven machines, just personal preference, as with fear itself, a very individual thing. This definitely isn't a comparison between the two, only a means by which to make a point. As I was saying earlier, being a mechanic, my mind tends to look at things in a mechanically practical kind of way: I breakdown the HG, PG, plane, cable car, whatever it is I'll be entrusting my life to, into all the different parts that could be the weak link. Is the sail in good nick? I wonder how long it's been since that cable was changed? Is the webbing in the harness up to scratch? I look at all the parts that I can see and picture in my mind the parts I can't (yes, I'm fun to be with). I then go about convincing myself that all those parts are okay, and only then allow myself to relax and enjoy. When it comes to my own wing and harness I do very thorough and regular checks, so that when that familiar feeling of fear starts nagging at me when I'm getting up in altitude, I review the checks I did in pre-flight, which is enough to remind me it's all safe and under control. That literally takes my fear of "height" away and allows me to enjoy this amazing sport.

I hope anyone that shares my fear of "heights" may take some encouragement from my findings and try to reassess their situation. You never know, all may not be what it first appears.



Why Microlift Soaring?

Piero Morelli

Note: Due to size constraints only part of this document is reproduced here. For the full document please refer to the IGC web page [www.fai.org/gliding/meetings] and look through the agenda for the 2004 IGC meeting.

STILL MUCH TO LEARN

The variety of soaring conditions associated with the different kinds of atmospheric motions is fascinating. In a historical perspective, slope soaring, thermalling, cross-country techniques, frontal conditions, standing waves have enriched the soaring possibilities of motor-less flight in a very impressive way, provided the appropriate tool, the sailplane, designed for the purpose, and the launching means are available. In no way can we say that the exploration of the atmosphere by soaring flight is an accomplished job. The complexity and variety of nature offers never-ending challenges. Other atmospheric phenomena are known as potentially usable for soaring flight, but have never been. Others may be still unknown.

Dynamic soaring, is practically one of those possibilities theoretically studied over many years in a variety of ways, but just entering the experimental stage in these recent years, thanks to the efforts of a few pilots/scientists like Gary Osoba in America [1], often inspired by the flight of stationary or migrating birds, or exploiting strong wind gradients over rough terrain. These efforts tend to exploit turbulence at both mesoscale and microscale levels, using different kinds of sailplanes which must be in any case strong enough and highly manoeuvrable in pitch, roll and yaw.

The jet stream, that gigantic river of high altitude high-speed airflow at the border between troposphere and stratosphere, is reported to offer stretches of rising air along the discontinuities at its borderlines [2]. Couldn't a sailplane, possibly equipped with a pressurised cabin, provided the required altitude is attained, fly downwind along the jet stream at ground speeds unimaginable today? Balloons are doing something similar already.

Lift, weak and unsteady, associated with small scale turbulence, typically occurring within the atmospheric boundary layer, has been called microlift by the pilot who allegedly exploited it first [3].

MICROLIFT

In quite frequent meteorological situations, typically those developing into widespread thermal convection, it has been observed that the atmospheric boundary layer, usually extending from ground to a few hundred metres altitude, is animated by a lively form of microscale turbulence or eddying, with weak lift occasionally present, more or less rapidly transient.

This phenomenon is perceived by conventional sailplanes as occasional bumps of no use for gain of altitude. Their rate of sink is low enough but, due to the relatively large wing loading and span, their circling radius is excessive.

Hang gliders have a circling radius small enough to stay inside the mass of rising air, but their rate of sink is too high for gaining altitude.

Capped with a thermal inversion, the boundary layer can be thought of as a sort of laboratory where the conditions are set up for the mesoscale convection to develop upwards, involving air masses at higher altitude where traditional thermal soaring can later take place.

This complicated phenomenon at microscale level has caught the attention of a few meteorologists in the 1980s and 90s, some of them closely associated with soaring flight.

CE "Wally" Wallington [4] is particularly worthy being quoted. A few excerpts from his paper are particularly illuminating:

"We usually describe smaller-scale phenomena such as turbulence or eddying as random motion, and mesoscale features that we cannot explain are still sometimes viewed as anomalies super-imposed on a steadier more explainable flow. But the distinction between coherence and chaos is subjective. As analytical meteorology progresses, more elements of flow patterns have been shifted from the chaotic or anomalous class to the coherent, explainable category. Let us look at some of the pointers to discerning more of the smallscale coherence that we may be able to use at either the high-performance or lightweight ends of modern gliding technology."

"High-speed soaring is not the only path to fresh achievement. There is likely to be a growing body of lightweight-sailplane enthusiasts who, like the hang glider pilots, will also aim to stretch their horizons of achievement by learning and using the fine detail of wind and convection patterns appropriate to their end of the soaring spectrum."

"Modern hang gliders, that can be soared in very narrow thermals and landed on very small patches of ground, may be used to explore the low-level structure more directly." "Advances in sailplane performance and pressure for greater achievements call for more detailed knowledge and understanding of patterns of lift and sink in a sub-mesoscale range".

These are prophetic words, also revealing a deep insight into the natural state of affairs. Other contributions followed, not only related to soaring flight, of course. Being not a meteorologist I must acknowledge that my information cannot presume to be complete nor updated, not even 100% correct here and there. Anyway, reading of [5], [6] and [7], can provide useful insights in the typical meteorologists' approach. At about the same time as these studies appeared, microlift could be recognised, explored and exploited in flight.

Exploration and exploitation of microlift in flight

Jim Maupin, an experienced designer and skilled homebuilder, with the cooperation of a brilliant aerodynamicist, Ilv Culver, having probably in mind a big improvement of the foot launched hang glider (under FAR 103, limiting the empty mass to 70 kg), decided to design and build an ultralight sailplane which was called the Carbon Dragon.

Main data of the Carbon Dragon prototype:

Wing span	13,4m
Wing aspect ratio	12,9°
Wing area	14m ²
Empty mass	66kg
Wing loading	11,8kg/m ²
L/D max (best glide ratio)	25
Minimum rate of sink	0,51m/s
V _{NE} (never exceed airspeed)	112km/h
V _S (stalling speed)	32km/h
CL _{max} (max. lift coefficient – estimated)	2

Although originally intended as a hang glider, foot launching in nil wind conditions proved rather problematic. The Carbon Dragon is currently launched by auto-, winch- and aerotow. The external appearance is that of a traditional sailplane, but with a very small wing loading and a very high max. lift coefficient of the wing. These are good choices, but they would not suffice if not accompanied by an excellent blend of stability and control, gentle stall in all conditions, no tendency to inadvertent spin, spontaneous recovery in any case – exactly what is wanted to fly safely at very low speed and altitude.

Dan Armstrong and Gary Osoba were among the first pilots to fly the machine. Armstrong was able to footlaunch. Osoba was able to fly hundreds of hours before and after buying the prototype. This gave him

the possibility to establish a number of world records in the FAI Ultralight Class. More important, to his amazement he was able to exploit those weak, narrow, often unsteady lift conditions which were denied to conventional sailplanes. He proposed the name microlift for the complicated atmospheric phenomenon as a whole.

An article by Gary Osoba, "More on Microlift Techniques" [3], which I recommend reading in its full length, gives an impressive overall picture of microlift soaring. A few excerpts:

"These gliders are designed to maximise soarability. Racing around with high-speed efficiency, although respected, is not the top design priority. They stay up when nothing else can. They launch way early, sometimes hours before conventional sailplanes are soaring. And they land way late, after using every little bit of lift there is to find. The result is dramatically longer average flight times. And consequently, a significantly reduced number of take-offs, tows and landings per unit of soaring time. When it does come time to return to earth, the number of landing sites is much greater than for conventional sailplanes. Not only can these gliders utilise microlift, but they can perform what we may term microlandings." *"If I contact lift above 200ft during the auto tow, I release early and fly away. If I take the full tow to 800ft or so, it usually takes a few hundred feet to find a small thermal and then begin the afternoon's trek in that fashion".*

Promotion of microlift exploration and exploitation to a larger extent

As in each of the atmospheric conditions exploited for soaring flight, also microlift requires that the basic tool, the sailplane, be designed and equipped accordingly. In this case, the microlift sailplane, under some respects, can be seen as a step backwards to early times, when it was erroneously believed that the exploitation of thermals required a low wing loading. Of course this is only partially true. Most probably none of those old light sailplanes would have been able to exploit microlift efficiently.

Now, as far as I know, the number of microlift sailplane types actually flying here and there in the world is limited to the Carbon Dragon, the German ULF-1 and a few of other prototypes. A particularly interesting prototype (still undergoing flight testing successfully) is the Swiss Archeopteryx [13]. None of these is available or is intended for production in a completed form so far.

The number of Carbon Dragons completed by single homebuilders is roughly estimated to be around 40, over 400 sets of drawings sold. But it can be higher consider-

ing the tendency of homebuilders to be isolated in their activity without reporting anywhere. The number of flying ULF-1 is known to be about 30.

These small numbers do not reflect a lack of interest for this type of glider. They are rather due to the difficulty and cost for getting one. The difficulty and cost, on their turn, are due to the complexity of the structure, the non-availability of kits, and the limited number of homebuilders of adequate skill.

THE ROLE OF OSTIV AND FAI

The OSTIV proposed definition for the 'Microlift Sailplane' has been presented to IGC. If introduced in the FAI Sporting Code, Sec.3, this definition would co-exist with that of the 'Ultralight Sailplane' or, in the FAI terminology, 'Ultralight Glider', which would remain unchanged:

Ultralight Glider:

A glider with a maximum take-off mass not exceeding 220kg.

Microlift Glider:

A glider with a maximum take-off mass not exceeding 220kg and a maximum wing loading not exceeding 18 kg/m².

Considering that flying the microlift is flying atmospheric phenomena still largely unknown, soaring with sailplanes specifically designed for this would create once more the conditions for scientific research. Isn't gliding within FAI the only air sport having, through OSTIV, technical and scientific cooperation and support?

GLIDING COMPETITIONS

From the sporting point of view there is another aspect worth mentioning: attempts are on the way within IGC for the introduction of new types of gliding competitions which could appeal to the general public. It seems to me that microlift soaring might offer something of that kind. A limited area so that spectators can see any glider flying over it, but not speed and/or distance taken into account for the scoring: the integral of altitude vs. time instead. A ceiling should be set, which could be at a few hundreds meters agl or more than one thousand, according to the prevailing meteorological conditions. Also a time limit should be set. At the end, the winner would be the pilot achieving the maximum total gain, ie the maximum value of the integral.

The GNSS systems available today should be able to record the necessary data in a relatively easy way.



At McCaffrey Field*

Copyright Robert Hart

Tendrils caress indifferent hooves,
still beside the pool.

Whistling kestrels summon the daily phoenix
glowing pink and grey, to flare –
scattering gulls as ashes
whickering in the sequined grass.
Clashing doors in rippled chrysalids
birth earthbound white winged insects.
The sun burns morning mist to cloud.

Eagles tip wings in hesitant air
then surging, rise, draw
laggard gliders skyward.

*Darling Downs Soaring Club

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OLD-TIMERS' WEEK – Benalla – March 2004

Jim Barton

THE THEME THIS YEAR WAS THE APPROACHING 75TH ANNIVERSARY OF THE GEELONG AND GCV CLUBS WHICH CELEBRATE THE EVENT IN JULY AND SEPTEMBER RESPECTIVELY. A SIGNIFICANT PHOTO AND MEMORABILIA EXHIBITION DEPICTING EVENTS AND PERSONALITIES INVOLVED WITH THE CLUBS WAS ON DISPLAY THANKS TO THE EFFORTS OF JOHN AND JILL TRIBE.

The Australian Gliding Museum had four machines on display: the Primary glider being the only airworthy unit. On Friday, 26 March, it was given the chance to breathe air again after a complete refurbishment by museum members. A number of low hops were carried out, but unfortunately most of the visitors had departed by this time so they missed out on the spectacle. The other machines on display were a very rare, naked Schweizer TG3, the refurbished Flying Plank and the wonderful spectacle of the Lessing Flying Machine. These machines are awaiting the tender caresses of the museum volunteers to bring them fully back to exhibition status.

The Old-timers' Week was a wonderful event yet again, with visiting representatives from Geelong, VMFG, Albury Corowa, Bendigo, Australian Soaring Centre and Sportavia. Many faces from the past were present, including Dick Duckworth, Mervyn Davies, and Rob and Leo Dowling – all active with the GCV in the early 30s and 40s.

A real celebration of the gliding fraternity! Francesco Bruinsma and Eugene Blunt from the Australian Soaring Centre

arrived in style by Duo Discus for the Wednesday dinner with a back-up tug flown by Guetge. A capacity crowd of 100 enjoyed top food with a lot of social activity.

As guests of honour this year we were very pleased to host Rob and Florence Pollock. The aviation community owes a tremendous debt to Rob, who is Chairman of the Point Cook Airfield Preservation Action Group. This group was on the forefront of the campaign to save Point Cook for the benefit of our aviation heritage and Rob played a pivotal role in obtaining the fantastic outcome that was achieved. Rob, an ex-RAAF flight engineer, was a crew member on the delivery flight of the first Hercules acquired by the RAAF and which is now resident at the Point Cook RAAF Museum. He also operated as a flight engineer with Ansett. He sampled the pleasures of gliding for the first time in the Platypus under the supervision of Alan Patching.

The two-seaters were kept busy most days on passenger flying: the Platypus again being very much in demand. We are very thankful to the syndicate, especially Alan, for the regular attendance of this

remarkable machine and it reminds us how much gliding did lose when it was not brought into production back in the 80s. The Vintage Gliders Australia K4 was also present and acted as a reminder to some of the newer members of the sport of what gliding in the 50s and 60s was like.

My personal thanks for helping to make Old-timers' Week 2004 such a success goes to Graham Garlick who conducted the daily briefings and operated the Duo Discus on short cross-country flights, John and Jill Tribe for the photographic display, Ken Boland for his assistance both on and off the field, Rhonda, who maintained her sanity in the office, the tuggies for their very professional towing, Jim Tandy who ran the bar, John King our tour director and our bus driver extraordinaire, Gary Cropley who kept us supplied with cheeses and all the attendees who made the gathering so successful.

Old-timers' Week 2004 was a great demonstration of clubmanship and thank you to all for the spirit of cooperation that prevailed every day.

See you again next year when we do it all again.





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OBITUARY – ALLAN LATEMORE

RUSSELL BENNETT

ALLAN WAS BORN IN ROMA IN MARCH 1929 AND WENT FOR HIS FIRST JOY FLIGHT AT THE AGE OF SEVEN WITH HIS MUM. HE ALSO FLEW WITH SIR CHARLES KINGSFORD SMITH. THESE EARLY FLIGHTS NO DOUBT SOWED THE SEEDS OF HIS LOVE OF FLYING.



His first glider flight was in an ASK 7, on 3 February 1968, at the Darling Downs Soaring Club with John Geddes. He then started a series of training flights with Rex Teakle, Dave Quinn, John Geddes, Jim Wetherspoon and Ingo Renner leading to his first solo flight on 30 March 1968.

Allan then progressed rapidly to his first single-seater flight in an M100 (June 1968), Silver C (November 1968), Gold Distance, to Roma, (November 1968) and his first competition in April 1969. His logbooks contain records of his conversion to 43 different types of glider, 5,137 flights, 3,982 hours and, a fact that he was very proud of, one of the very few people in Australia endorsed for bungy launching! He became an Assistant Instructor in October 1969 and a Qualified Instructor in April 1970. He also attended a number of Performance Courses and became Assistant RTO in June 1975.

As you would expect, his record keeping was meticulous, two examples:

"Joyce's (his wife) first flight after 18 years – her second with me. All her previous flights with Ingo Renner."

"To The Rock with Ingo in IS28 – first to stay up – left with blues to 3,400ft! Got under clouds to east, then okay, eventually 8,500ft. Learned a lot!"

Allan was a member of a disappearing band of people whose lives are dedicated to giving – giving of his time, his knowledge and his enthusiasm, with no thought of reward other than the satisfaction of seeing others enjoy his sport.

He took his role as 'an elder of the tribe' seriously, filling that position in a way that few people, these days, are prepared to do, spending many hours, not only instructing, and helping in the maintenance work around the club, but also recounting the

'folklore' to ensure that newcomers to gliding would share his love of the sport. He had discovered one of the rarely-recognised basic truths of life, that you achieve your own happiness by helping others to achieve theirs.

Allan was a born teacher. On numerous occasions, when teaching a student whose aptitude for gliding, made it clear that they would be far better off taking up another pastime, he would spend hours trying to devise ways to modify his teaching methods to better suit that particular person's abilities. He had flown with experts and world champions, Derek Piggott, Ingo Renner, George Lee and many others in the sport, but never lost the common touch. As one of his club pilots said, *"He made me feel like a friend, but I'm sure he had that effect on all those who flew with him."* The gliding movement, and particularly the Darling Downs Soaring Club, owes a huge debt to Allan for the time and dedication he devoted to teaching students.

In the last three years alone he sent 21 people solo, trained 22 people to Level 1 or Level 2 Instructor, carried out six Operations Status checks on gliding clubs, ran 13 mid-week cross-country courses, and converted 18 pilots to Initial Cross-country and 11 to Open Cross-country categories.

It might be possible to calculate the financial rewards the Darling Downs Soaring Club has reaped from his efforts, but the financial benefits pale into insignificance when measured against the personal growth achieved by people who came under his tutelage. Few people in the gliding movement know just how much time and effort he devoted to supporting his club and other clubs throughout Queensland, helping Cadets to achieve the maturity and self-discipline that will go with them throughout their life, and encouraging other students,

unsure of their own capabilities, to expand their horizons and achieve feats beyond their own expectations. His were the shoulders on which others stood to see far beyond their own, self-imposed boundaries.

Allan's vast experience of, and infectious enthusiasm for, cross-country soaring enabled him to introduce hundreds of students, and experienced pilots, to this most challenging aspect of our sport. He was seen as the cross-country 'guru' of the Darling Downs Soaring Club, not only for its own members but also members of other clubs and visiting overseas pilots. He took particular delight in accompanying budding cross-country pilots to Jimbour or what he called "the thriving metropolis of Ducklo." Having arrived overhead the one building that is Ducklo, he would point out the perils of going further west into the dreaded "tiger country." Allan never failed to complete the round trip, no matter how marginal the weather, which gave rise to his becoming known as 'the engine in the back seat'. His gentle encouragement and wisdom enabled many pilots to achieve skills and goals that they had previously only dreamed of.

Allan was an Honorary Life Member of the Darling Downs Soaring Club, an honour rarely bestowed and, last year, was presented with both of the club's top awards – the Wally Mills Trophy, (club service award), and the Rex Teakle Memorial Trophy for Outstanding Contribution to the Club, indicating the regard in which he was held by all of its members. Allan's leaving creates an emptiness in many hearts, but in time all will be able to feel not sadness at his departure, but happiness that they were privileged to be allowed to share this special part of his life.

May he rest in peace.





Manilla Paragliding Open 2004

Godfrey Wenness

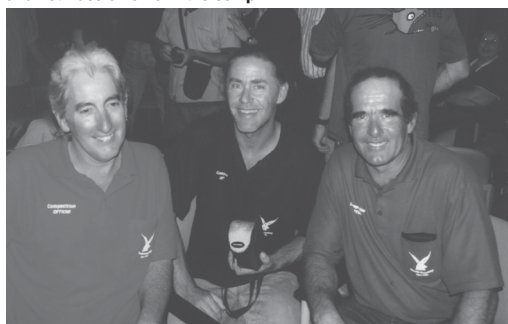
THE 2004 CROSS-COUNTRY SEASON FOR MOST OF AUSTRALIA WAS PRETTY LACK LUSTRE AND CONDITIONS IN MANILLA WERE NO DIFFERENT. DROUGHT AND WIND INTERSPERSED WITH OCCASIONAL MONSOON TROUGHS AND STABLE DAYS RESULTED IN FEW BIG CROSS-COUNTRY FLIGHTS COMPARED TO PREVIOUS YEARS.

The 1st International Women's Open in Manilla was washed out the week before, and pilots were anxious about the cross-country potential for the main comp. Memories of slow conditions in the New Zealand Nationals in 2003 were on everyone's minds.

In what must be a world record for an open FAI paragliding comp, over 150 pilots from 24 countries had registered within the first five days of the online rego opening in October. For the seventh year running the Manilla Paragliding Open was full, indicat-



Andrew Horchner and partner Wendy celebrate 2nd place and 1st Aussie home in the comp



Brian Shepherd (launch marshal), JJ Bastion and Bob Smith (scoring officials) ensured another successful comp

ing its status as one of the most popular annual paragliding comps anywhere. The original maximum entry number of 125 was extended to 140, to allow some Aussie and other pilots to gain a slot due to being too late to register on the first in, best dressed system. Future registration procedures will use Aussie and WPRS rankings to ensure fairness.

The field of 140 pilots presented themselves for the Final Registration at the Manilla RSL Club Headquarters on Friday night, and were eagerly anticipating the next eight days of competition. The weather was looking okay, but not epic for the fourteenth major international paragliding competition to be held in Manilla.

Saturday, 28 February 2004

Day 1, Task 1: 90km Elapsed Time Race to Goal – Bingara.

A blue day with south-east winds in the mid levels and a strong lower inversion caused the day to be delayed until 2:15pm to give pilots a chance to move from the east to the west launch and wait for wind dummies to show that it was ON. The task was called for a straight line to Bingara. Ten pilots made goal, and over half the field made it beyond halfway.

Day maximum points: 990. 1st: Godfrey Wenness (Omega Proto) 2:43:09. 2nd: Andrew Horchner (Boomerang 3) 2:59:48, 3rd: Rhett Rockman (Boomerang 3) 2:57:16.

Sunday, 29 February

Day 2: cancelled at 2pm due to strong winds.

Monday, 1 March

Day 3, Task 2: 90km Elapsed Time Race to Goal – Bingara.

Similar day to Day 1, thus the same goal was set. Multiple inversions and wind shears made climbs broken and tricky to follow. Heights over 2,400m were achieved on what was mainly a blue day. 22 pilots into goal and again more than half the pilots flew past halfway.

Day maximum points: 984. 1st: Steve Cawte (Bagheera) 2:59:20, 2nd: Andrew Horchner (Boomerang 3) 2:57:37, 3rd: Rhett Rockman (Boomerang 3) 2:58:01.

Tuesday, 2 March

Day 4, Task 3: 73km Elapsed Time Race to Goal – Caroda.

The day was delayed due to a free flyer having an accident on the east face, requiring the helicopter to evacuate. The original task of 108km to the north-west of Borah was shortened to 73km in the same direction due to time constraints. Again tricky blue conditions with slow climbs were prevailing. Eight pilots made the GPS virtual goal.

Day maximum points: 1,000. 1st: Godfrey Wenness (Omega Proto) 2:16:18, 2nd: Adie Kumar IND (Boomerang 3) 2:29:52, 3rd: Grant Middendorf NZL (Boomerang 3) 2:29:50.

Wednesday, 3 March

Day 5, Task 4. 106km Elapsed Time Race to Goal via one turnpoint – Kiandool.

A task to Kiandool west of Narrabri was called. Moderate easterly winds prompted



Panorama of the West launch on day 4 of the Manilla Open

Panorama photo: Andrew Grey, stitched by Bob Smith

Other photos: Comp photo CD, various contributors

the task committee to add a safety turnpoint in at the Boggabri Gap to ensure pilots were not forced to fly over the area known as "Fred's Jungle", but rather kept over the safe flatlands. Many pilots bombed out at Borah at least once and re-flew in the broken thermals at launch. 31 pilots got into goal.

1st: James Lawson AUS (Blaster)
2:40:27, 2nd: Grant Middendorf NZL
(Boomerang 3) 2:32:31, 3rd: Fred Gungl
AUS (Boomerang 3) 2:41:51.

Thursday, 4 March

Day 6, Task 5. 106km Elapsed Time Race to Goal via one turnpoint – Kiandool.

Similar conditions to the day before forecast. The task was called identical to the previous one as well. A southerly came through the course while most pilots were 20-30km from goal and decked all but the two in the lead who made goal.

1st: Andrew Horchner AUS –
(Boomerang 3) 3:47:00, 2nd: Fred Gungl
AUS (Boomerang 3) 3:52:00, 3rd: James
Thompson AUS (Sigma 5) 92km.

Friday, 5 March

Day 7: Day cancelled at 3:30pm due to strong winds.

Pilots waited at the Mt Borah east launch from midday as some wind techs flew in increasing wind with bands of mid level stratus passing over and shadowing the region. The task was set to Baan Baa (60km west) but the launch window was on hold until cross-country and safe launch conditions presented themselves. The low pressure system off the Queensland coast was inten-





sifying and the wind did not abate – the day was cancelled at 3:30pm.

Saturday 6 March

Day 8 : Day was cancelled at 12:00pm due to strong winds.



With the scoring so close for the top 10 and all the sub classes, pilots were disappointed to not get the opportunity to race another day, but Mother Nature had the upper hand.

Final Results and Presentation Night

Despite the last two days being cancelled, 120 pilots and 30 extras stayed on for the presentation night at the Manilla RSL Club. They all enjoyed great food by Vic and Tom of the Royal Hotel, with free beer and wine all night. The band played until 2:00am to a large group of party animals who danced the night away on a champagne soaked floor.

Over A\$7,000 in prizes were handed out by Comp Organiser, Godfrey Wenness. There were less than 200 points between the top five and only three points between first and second place! An extra task would have made the last day a very interesting one!

Spanish based comp veteran, Steve Ham (UK), flew consistently every day, and despite only being placed sixth twice, and out of the top 10 for the other three tasks (14th, 15th 20th), won the overall competition.

An attractive goal

In receiving his \$2400 worth of prizes he graciously thanked the other top five pilots for having at least one very bad score each during the week. To their credit it is worth noting that: Andrew Horchner (AUS) won a day and came second twice, Fred Gungl (AUS) and Grant Middendorf (NZL) both had a second and third place, and Godfrey Wenness (AUS) won two days.

The top 10 consisted mainly of the old guard, but also showed great results for two newer pilots – Thomas Rold (NZL) who came sixth, and Craig Donnell (AUS) who was ninth. The Aussie pilot Encouragement award went to Geoff Wong (VIC) who placed a very credible 18th in the large 140 pilot field. Best Female was Manilla comp new-comer Keiko Hiraki (JAP) in 59th.

The Best Intermediate was young Japanese pilot Yuki Terao with an impressive 30th overall, flying a Sigma 5. Best Aussie Intermediate was Peter Rundle of Sydney just a few points behind, also flying a Sigma 5. Yuki's great scores also helped his cutely named Mania Mattress Junior team to win by the narrowest of margins from the local Manilla Madness crew.



Enda Murphy with the Annual Dunny Award
Right: Teaching the Japanese pilots to unwind

Coming Up in Manilla

For 2005 there will be a new format for the Manilla Comp – the FAI Category 2 and HGFA AAA event will be called the Manilla XC Open and feature Open Distance XC racing for 12 days in early January rather than the usual March dates (due to a clash with the Brazil PG Worlds). Details at [www.mss.org.au].

The most exciting news is that 'Paragliding World Championships Manilla 2007' will most likely be a reality. The pre-bid by comp organiser Godfrey Wenness to CIVL meeting in February was the only one presented!

TOP 10

1	Ham, Steve (Boomerang 3) GBR	4,191
2	Horchner, Andrew (Boomerang 3) AUS	4,188
3	Gungl, Fred (Boomerang 3) AUS	4,078
4	Middendorf, Grant (Boomerang 3) NZL	4,031
5	Wenness, Godfrey (Omega Proto) AUS	3,916
6	Rold, Thomas (Magic 3) NZL	3,882
7	Kumar, Adie (Boomerang 3) IND	3,839
8	Rockman, Rhett (Targa) AUS	3,779
9	Donnell, Craig (Radon) AUS	3,684
10	Hamilton, Grey (Ace) NZL	3,680

WOMEN'S CATEGORY

1	Keiko Hiraki JPN (59th)	2,395
2	Anna Rydh SWE (61st)	2,374
3	Harmony Gaw NZL (69th)	2,144

INTERMEDIATE PILOTS

1	Yuki Terao JPN (Sigma 5, 30th)
2	Peter Rundle AUS (Sigma 5, 38th)
3	Yasuko Murkami JPN (Aspen, 71st)

BEST VETERAN

Paul Russell UK	22nd
-----------------	------

TEAMS

1	Mania Mattress Junior JPN
2	Manilla Madness AUS
3	Gin and Tonic AUS



Fred Gungl, top Australian pilot for 2004 –
Congratulations from all of us, you're a legend

Full task results and pilot track logs are available at [www.flymanilla.com].



PRIZES

- 1st Flytec 5030 GPS access, free entry to the next Manilla PG Open (2006?) and XC Mag Sub – Value over A\$2,400: Steve Ham
- 2nd Skyline Flying Suit and Icom IC40s UHF radio, \$250 cash and XC Mag Sub – Value over A\$1,200: Andrew Horchner (Also Best Aussie pilot)
- 3rd Hanwag SuperFly GTX boots, \$100 cash and XC Mag Sub – Value over A\$500: Fred Gungl
- Best Aust. Male Pilot: GME MT310 EPIRB and Ad – Valued at \$400: Andrew Horchner 2nd
- Best Aust. Female Pilot: Adidas sunglasses – Valued at \$170: Alison Cawte 79th
- Best Female (21 pilots): Lazer Jetstream helmet and trophy – Value A\$300: 1st Keiko Hiraki JPN; 2nd Anna Rydh SWE; 3rd Harmony Gaw NZL
- Best Intermediate Pilot (24 pilots): Garmin GPS Geko 201 and trophy – Value A\$350: 1st Yuki Terao JPN; 2nd Peter Rundle AUS; 3rd Yasuko Murkami JPN
- Best Veteran (22 pilots): JDC Windwatch wind-meter – Value A\$110: Paul Russell UK
- Best Team: \$500 cash! – Just 500 points between 1st and 3rd: Mania Mattress Junior JPN, Manilla Madness AUS, Gin and Tonic 1 AUS, Little Black Ducks (x 2)
- Free Entry to Next Manilla PG Open (2006?) – A\$180 x 2: Stuart Banks, Lisa Hauck GER
- Best DHV 2: Trophy + Stubby holder: Steve Cawte
- Best Serial Class: Trophy + Stubby holder: Thomas Rold NZL
- Aussie Pilot Encouragement Award: Male – Weekend for two at Ambleside B & B and Advance Cockpit, \$220: Geoff Wong; Female – Week for two including breakfast at the Royal Hotel with a/c and TV, \$180: Antje Daehler



Mt Borah eagle sunset

THE BETTER THE PILOT – THE WORSE THE LOOKOUT

Harry Medicott

STARTING AN ARTICLE OR DISCUSSION WITH WHAT APPEARS AT FIRST GLANCE TO BE A RIDICULOUS STATEMENT IS ALWAYS A GOOD WAY TO KEEP PEOPLE'S ATTENTION AS THEY WONDER HOW YOU WILL WRIGGLE OUT OF IT!

But first, an insight into my interest into lookout and ways of improving it. It quickly became apparent as a pilot and instructor that the chance of a mid-air collision was the one risk factor in flying which was difficult to entirely eliminate. You can keep well clear of adverse weather or poor out-landing situations – that is a matter of personal choice as is the condition of the glider you fly, aided by a rigorous GFA stance on airworthiness.

I seriously started questioning the adequacy of our training and commenced researching mid-air collisions both in Australia and overseas about five years ago after working on a ground project when instructor re-validation and upgrading was taking place. Low-level aerotow cable breaks were being simulated in a situation which dictated a common return and circuit to the airfield. Their circuits and the faces of the pilots were clearly visible. No one on downwind or base looked out other than at their chosen landing area of the airfield. A subsequent study of Basic Gliding Knowledge (the training manual for students) and the Instructors Manual revealed that in 12 pages on circuits and landings BGK did not mention lookout once and the Instructors Manual was barely better. As about half our mid-air fatalities are in the vicinity of an airfield this became my defining moment in studying the problem.

Just telling pilots to lookout thoroughly is next to useless. They must be convinced of a risk to their safety and be given the means to improve their procedures. The overall statistics are depressing and won't be detailed here. I was a member of the five-person National Competition Safety Committee. Three of us had successfully bailed out after mid-air. In one case, the member had his tail taken off by a following glider and in a second there was a collision between the member entering a thermal

and a following glider. Please don't think it cannot happen to you.

To come up with some answers we must first research the circumstances under which accidents occur and be aware of the physiology of our eyesight.

Australian accident reports show that in virtually every case one pilot had a clear unrestricted view of the other glider. In other words, a pilot flew into a glider which was directly in front of him and which he should have seen. The corollary is that half of the pilots involved in mid-air had limited opportunity to see the other glider. Investigations of overseas accidents revealed a similar scenario. Your safety depends on other pilots as much as yourself. Become proactive in improving standards.

We are generally not aware of how poor our eyesight is in finding objects. When on aerotow try focusing on an object such as a cloud or ground feature 20-degrees to one side of the tug. Firstly were you aware of the time it took to move your eyes, focus, and for your brain to paint and identify a feature in your field of view? It must be at least one second. Any less and you probably won't identify the object you are seeking. Secondly, how well did you see the tug when focused on the other object? Probably very poorly even though it was a large object directly in front of you. What chance would you have of seeing the tugs rear vision mirror which is about the size of a glider we hope to spot?

You can perform this experiment driving a car or whilst reading this article. How much can you see or absorb beyond the actual words you are reading? Not very much at all. Our eyes visual acuity deteriorates very rapidly away from the quite small object on which we are focused. About a 10-degree cone is all we have in which objects are reasonably clearly defined. Now glance at the adjoining page and note how long it takes to actually recognise information. The one second we discussed

earlier to identify objects including moving our gaze is extremely conservative. Two seconds for the total procedure is probably closer to the mark. These factors of a 10-degree cone of visibility and a time scale of about one-and-a-half seconds to move our focus from point to point must be built into any effective lookout.

In devising scan patterns for lookout we must also consider the physical restrictions of neck and eye movement. With our head still, our eyes can regularly, and often do, scan around a 60-degree field of vision. This is normal and not in itself tiring. As you read this article your eyes move from word to word and line to line without head movement. By contrast, any scan which involves us continually moving our head is extremely tiring and you would quickly have a sore neck, indeed, you just would not perform such a function for extended periods.

Unless aided by peripheral vision (not of much help as gliders, unless turning, on a collision course are stationary on the canopy) how long does it take to scan the sky looking for a glider when standing on the ground? In a glider it is not much better – it is a practical impossibility to regularly scan large chunks of the airspace. It becomes a matter of identifying major risk areas and prioritising our time.

So where does all this leave us? For starters, in most mid-air accidents one pilot is not looking where he is going. How long is it safe to look away from in front of us? By looking in front of us, I mean continuously scanning the 60-degree arc available to us without head movements. Statistics also indicate collisions occur between gliders that are no more than 10-degrees above or below each other so we are looking at a 60-degree arc above and below the horizon centred on where we are going. In straight flight this would be directly in front and when turning in the direction of travel. My

personal view is that the maximum time we should look away from this frontal search is five seconds and that if all pilots did this there would be few collisions.

You wouldn't dream of looking away from where the car you are driving was heading for more than five seconds so why do it in an aircraft which is travelling at about twice the speed.

The British Gliding Association recommended scan reads:

*"...The recommended scan cycle can be summarised as *Lookout *Attitude *Instruments. If you are flying straight, check your attitude whilst you are looking ahead at, and then above and below the horizon. Then, look out to one side or the other, stopping every 45-degrees to look along the horizon and then above and below it. At the 90-degree point you must remember to look as far back as you can. Next, look directly overhead, then go back to straight ahead, check your attitude and confirm it by checking the instruments. Repeat the cycle the other side of the aircraft."*

Try it from where you are sitting now, remembering that you see nothing worthwhile while your eyes are moving, that you must chop the sky up into 10-degree sections to accommodate your field of useable vision and the need to focus your eyes each time they stop. Did it take about 10 seconds to thoroughly perform to only one side? This is far too long and it is doubtful whether many pilots perform it regularly.

A scan should take into account the visual appearance of gliders on a collision course from different directions. In a head-on situation a glider, say 10 seconds from a collision, appears very small indeed and only "blooms" a couple of seconds from impact when a collision is unavoidable, hence the need to regularly and thoroughly scan this area. As the angle of approach moves rearward, at 10 seconds separation the visual size of the converging glider becomes many times greater and easier to detect. My personal view and not to be taken as an official recommendation, is that assuming the 60-degree frontal scan is clear we can turn our heads and scan the area to the side and rearward which, bearing in mind the much larger target size, should take no more than our five second limit, and then look forward again.

I recently gave an annual check to a highly experienced instructor whom I greatly respect. He spent over 12 seconds continuously studying the airfield on downwind. When asked about it he spoke of the necessity of having a correct angle to avoid an undershoot. I don't know one pilot who has

been killed on undershooting an airfield but know six who have been killed in the vicinity of the airfield, so maybe we should change our priorities a little. A pilot can study the airfield for five seconds and then look forward again and scan for other aircraft. You will remember what you saw in the five seconds looking at the airfield, consider it, and check again after looking at your airspace.

To get back to the title of this article. I frequently have observed experienced pilots studying clouds, other gliders or airfields for extended periods of time without looking forward. They are able to do this as their flying skills allow them to maintain attitude and level flight without looking directly ahead. The less experienced pilot needs to continually monitor what is happening in front of him and is thus spending most of his time looking forward to where he is going. The experienced pilot when looking away from where he is going for more than a few seconds is the greater risk.

Your survival instincts and training mean you would be most uncomfortable looking at your gliders instruments other than by a quick scan. It is nearly as risky to spend more than a few seconds studying clouds, airfields or gliders in the distance (if you are so near to another glider that you can't look elsewhere then you are much too close and flying blind). Learn to look at these objects briefly and remember the picture when you return to looking where you are going. World War II training clearly demonstrated that with practice we can greatly improve our performance in this respect. Encourage others to do likewise.

This article does not recommend a specific scan procedure and is not intended to criticise or replace GFA training and readers are strongly advised to study current recommendations which have recently been amended.



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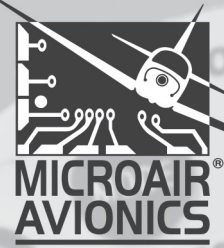
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CLIO'S WINGS

by 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 prototype Schleicher Ka-1

Photo: Raul Blacksten

THIS MONTH'S SUBJECT: EUROGLIDE

Clio's Quiz

- Rudolf Kaiser built the first Ka-1 in his:*
 - Garage
 - Bedroom
 - Living Room
 - Attic
 - Cellar
- The World War II British GAL Hamilcar is the largest glider ever built and flown.*
TRUE or FALSE
- Built by engineering school graduates from the Akaflieg Zürich, the prototype Diamant had an unusual name. Was it:*
 - The Bluebird
 - The KaBiVo
 - The Whatzit
 - The HBV
 - The Schweizer SGS 1-34
- There are no pre-World War II Polish gliders left.*
TRUE or FALSE
- What was the first production fibreglass sailplane:*
 - Bolkow Phoebus A
 - Glasflügel H-301 Libelle
 - FFA Diamant HBV
 - Akaflieg Stuttgart FS-24 Phönix
 - Slingsby T-51 Dart 15
- The LET L-13 Blanik was named for its designer.*
TRUE or FALSE
- The Darmstadt D-28 Windspiel, one of the smallest and lightest gliders ever built, was destroyed:*
 - By being run over by a US Army tank after World War II.
 - Taken as a prize of war, it was taken to Canada strapped to the deck of a destroyer and was washed overboard in the North Atlantic.
 - Beaten to pieces by loose light standards in a box car on its way to Southern California.
 - Burned by the Royal Air Force after being taken back to Farnborough for evaluation.
 - Crashed by an unqualified Darmstadt student pilot in 1941.
- Despite the paranoia of Josef Stalin, there were gliders built in the USSR prior to World War II.*
TRUE or FALSE
- The Hütter brothers are probably the only glider designers responsible for the production of wooden gliders like the H-17 in the 1930s and fibreglass sailplanes like the H-301 Libelle in the 1960s. What was the last glider designed with Wolfgang Hütter's assistance?*
 - Glasflügel H-301 Libelle
 - FFA Diamant HBV
 - Glasflügel H-201 Libelle
 - Glasflügel H-30TS
 - Start + Flug H-101 Salto
- Friederich Wenk's Weltensegler crashed at the 1921 Rhön Competition because it used wing warping and the glider literally twisted itself apart.*
TRUE or FALSE



The answers can be found on page 36.

PILOTS

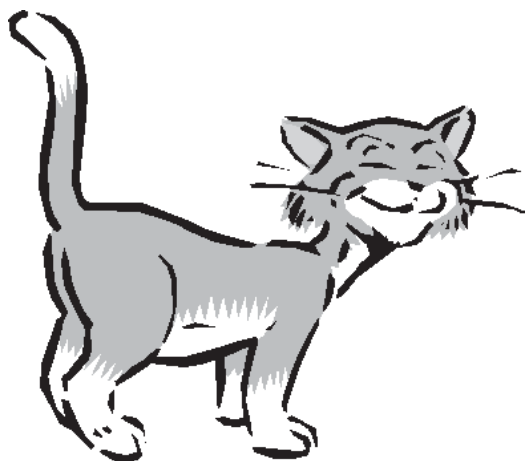
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THE STOWAWAY

– a tale by Geoff Vincent



FOR SOME WEEKS BEFORE THE 2003 QUEEN'S BIRTHDAY WAVE CAMP AT NOELHURST NEAR THE GRAMPIANS I HAD BEEN PLANNING TO RELOCATE MY PIK 20B (GAX) FROM ITS SUMMER HOME AT LOCKSLEY TO ARARAT AIRFIELD TO GET INTO THE FAMOUS GRAMPIANS WAVE DURING THE WINTER.

The GSC committee had confirmed the availability of hangar space so it was just a question of trailering the glider over.

GAX was de-rigged at Locksley late in May and placed in the trailer that was left airing, with all doors open, in Walter's hangar for a few days. Then on Thursday, 5 June, she was boxed up and I drove to Ararat airfield where I'd planned to spend the afternoon doing a bit of cockpit maintenance. o far, so good.

It was a bit breezy that day so I pulled up and parked on the lee side of the main hangar, so as to keep out of the wind, and then went about opening the rear door of the trailer. I'd got the winglets and tailplane stand out when I heard a faint noise from inside the trailer but couldn't find the source and proceeded to pull out the fuselage. With the fuselage halfway out the source of the noise became somewhat obvious – a small grey and white cat poking its head out from the spar cavity, obviously pleased to see daylight and stop being bounced around!

Yes, one of the two resident felines from Locksley had found her way into Walter's hangar, explored the open trailer and glider and in turn made herself comfortable on the parachute in the cockpit. The two cats are females from the same litter, one black (B – Bravo) and the other grey (G – Golf), the latter now rather a long way from home. Knowing her tendency to roam I coaxed her out of the trailer and put her in the back of the car for safekeeping. She had other ideas

however and when I opened the back of the wagon to get a toolbox she sprang out and was off up the paddock like lightning. Finally, I tracked her down near Kevin Olerhead's hangar and got her back in the car. I could see this weekend turning from wave flying to cat-sitting all too easily!

The first task was obviously to get cat food and search out a place to keep her for a few days, so I locked her in the clubhouse, raided Bi-Lo and settled down to some serious thinking over a bottle of red. The bottle-shop lady looked at me sideways and seriously advised not to eat Whiskas Tuna and Turkey dinner with Wolf Blass Yellow Label! The workshop seemed the best place for Golf's boudoir so that's where she spent night number one. It took about half an hour on Friday morning to find her – fast asleep under some papers on the grinder workbench. Then I phoned the Leschen twins, and also Les Webster at Locksley, to let them know what had happened – judging from the laughter it was clearly a big hoot!

After some brainstorming the local Ararat radio station was contacted to ask if they could appeal on air to anyone driving in Locksley direction to carry a feline passenger – but to no avail. It looked like we were stuck with her for the weekend. Taking Golf to Noelhurst and Bastin Park (overnight accommodation) for the wave camp didn't seem a particularly flash idea and I was immensely relieved when Henry Leschen offered to feed her at the airfield when he returned home from Noelhurst

each evening. By Saturday she was getting used to him and the environs and was out and about during the day and being fed at night – really making herself at home. I had visions that she might not want to leave!

The long weekend passed quickly enough and late on Monday afternoon I returned to the Ararat airfield with the trailer, planning to leave the PIK and return the stowaway to Locksley the next morning. The plans were okay but the execution was something else. I fed Golf and kept her in the workshop overnight then let her out for a stretch about 7:30am, later to find she'd gone walkabout! The sound of a rattling food plate eventually brought her back, over an hour later. A blanket on the back seat substituted for a cat-basket and once en route she seemed quite content to roam around looking out at the scenery before finally settling on the front passenger seat and falling asleep. The highlight of the trip was a woman in Maryborough who almost fell off her bike in surprise when Golf's face suddenly appeared inches from hers, looking out of the window. There was also a temporary heart-stopping moment when getting under way after a petrol stop at Nagambie and Golf was nowhere to be seen – finally located lurking beneath the front seat.

Anyway, all ended well when we finally pulled into Locksley and I let her out, to be greeted by sister Bravo who doubtless will be the next one to demand a five-star holiday in the Western District.



Tasmanian HG & PG Association

From this Hobart paraglider pilot's point of view, what started off and then continued until the end of January to be a pretty miserable flying season, was saved very nicely by heaps of flying during February through to Easter. Our most popular ridge-soaring site, "Winton", just north of Hobart, relies on seabreezes from a south-south-east direction to work nicely, but these conditions didn't settle in reliably until February.

This season has seen four experienced PG pilots move to Hobart to live. Three of the new pilots are female versions. Although one of these ladies is known to like it both ways, she is yet to fly her hang glider here. Hobart now has 11 active pilots. On one arvo in late Feb there were nine PG pilots flying, along with some hang gliders.

Now that our numbers and levels of experience are increasing, we are confident that the next season is going to be a beauty. Some new sites in various parts of the island and serious cross-country flying are on the agenda. How hard could it be to beat the existing Tassie PG best distance of five kilometres? Well, even Ted couldn't do it recently when he toured Tassie, but why don't you come and give it a go!

This winter may see some of us zipping to Queensland for some flying, and in May/June two Hobart pilots are joining up with the locals in Cuba for a PG road trip of their country!

During late November 2003, three of us spent six perfect flying days at Bright with the Alpine Paragliding crew on a XC skills course. As always, the atmosphere during day and night was fantastic! Refining skills, some rough-air flying, thermalling in gaggles, topping out at 10,000ft asl on the way to the Bogong pub, catching up with people, meeting Claude, watching Team Strap-on play together, BBQs on the balcony at Bright Hikers, eating at the restaurants, guzzling Gapsted wines, buying new gear... Wow!

Rob Steane <paraglide.info@thpa.net>

Hang Gliding National Ladder

The Hang Gliding National Ladders have been published on the HGFA website [www.hgfa.asn.au].

Please check the results and give me <zupy@ozemail.com.au> a yell if there are any errors or omissions!

The Paragliding Ladder should also be published by the time this magazine goes to print. Any problems there should be reported to Stewart Dennis <std20@telstra.com>.

HG LADDER TOP 10

1	1,250.1	Durand, Jon Jnr	450.0 BOG04, 440.1 PRE04, 360.0 HAY04
2	1,102.4	Coomber, Kraig	390.7 PRE04, 360.0 NAT03, 351.7 HAY04
3	1,072.6	Moyes, Steve	388.0 PRE04, 352.8 A0003, 331.8 HAY04
4	1,043.5	Holtkamp, Rohan	401.1 PRE04, 342.3 HAY04, 300.1 NAT03
5	1,029.6	Pritchard, Phil	366.0 PRE04, 348.8 A0003, 314.8 BOG04
6	1,016.7	Paton, Len	377.1 BOG04, 336.0 A0003, 303.6 PRE04
7	976.6	Durand, Jon Snr	396.9 PRE04, 302.3 A0003, 277.4 BOG04
8	952.8	Seib, David	387.4 BOG04, 291.9 HAY04, 273.5 PRE04
9	796.9	Loten, Conrad	298.2 A0003, 264.6 NAT03, 234.1 CAN03
10	757.1	Schroder, Phil	302.9 BOG04, 230.4 HAY04, 223.8 PRE04

Michael Zupanc

NEW PRODUCTS

First Aid Kit from High Adventure

These first aid packs, made for all free-flying pilots, are compact and can easily fit in your harness. The pack is light and compact, about the size of a large wallet by about 50mm wide.



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Lee Scott, High Adventure Airpark

Icaro – 4Fight Jet Helmets



As most of you already know, Manfred, besides being a great pilot and World Champion, also develops our hang gliders. But Icaro is not only a synonym of "hang gliders", we are as well getting in first place with the developments and sales of our helmets.

Here at Icaro there is a bet going on between Manfred and the Icaro boss, Gianni, who takes care of the helmets: Gianni is affirming that within two years the sales figures of helmets will surpass the sales figures of hang gliders. The prize on offer is a Magnum of Champagne.

We will see who wins...

For the development of the new helmet models, Gianni is using the precious collaboration of Ignazio, who by now has become the designer of all the Icaro products. For this year there are foreseen big novelties in the helmet range. First of all, the 4fight integral is having an incredible success, its awesome design makes it unique on the market. Also, a lot of competition pilots asked for the JET model without chin protection. The result has even surprised us! The look is even more awesome and aggressive. The pictures speak for themselves.

The 4Fight Jet is already in production and sales have started. The two colours available are: Carbon Optic and Titanium.

Like the 4Fight Integral model, also the Jet has a removable internal padding. There are four sizes: S, M, L and XL (unfortunately the size XXL is not available).

And as you know, the Icaro helmets, including the 4Fight Jet, have the European certification E.N. 966.

The helmet has been presented at the most important free-flight fair, at Garmisch in Germany, and has roused a lot of interest.

Icaro

Icaro – Laminar Zero 7

New: stiffer carbon battens, especially designed by Robert Reisinger for competition gliders.

The new carbon batten profile of the Laminar Zero7 is aimed to increase the performance and at the same time to improve the safety of the new competition glider of Icaro 2000. These targets have both been



achieved thanks to the major rigidity of the wing profile.

This new batten profile, together with the new frame geometry and the improvements of the already optimal sail, make the Laminar Zero7 a top efficient hang glider as well as a Work of Art.

Our old carbon battens had only one advantage: they were lighter than the aluminium battens. The new carbon battens have a different function: they are much stiffer, still weighing as the aluminium battens.

The first six battens from the keel are made in carbon tubes with an outside diameter of 12 mm. The battens seven to 11 are in carbon with an outside diameter of 10 mm.

The advantages of these battens on a competition hang glider become evident with a very low sprog setting at full VG:

- *The glider is more pitch stable*
- *The bar pressure remains positive at high speed with full VG*

For example, with aluminium battens + full VG + a low sprog setting, the bar pressure goes light to "0" (Zero) at $\pm 80\text{km/h}$, which is the absolute limit.

Using the new carbon battens, in the same configuration, the bar pressure goes light, close to "0" (Zero) at $\pm 110\text{km/h}$.

It is the first time ever that carbon battens of these dimensions (12mm!) are used in production on a flex wing but, in our opinion, the advantages are so evident they will soon become an industry standard.

The new battens plus the new frame geometry and the fine tuning of the already good sail, makes this glider hard to beat... Icaro

FAI NEWS

8TH European Paragliding Championship Postponed

We regret to advise that the 8th European Paragliding Championship at Kalavrita cannot be held at the originally designated dates due to NATO forces forbidding flying. NATO is responsible for the safety of the Olympic Games in Athens and security has been increased after the Madrid bombings.

According to NATO the area that the tasks will take place will be patrolled by aircrafts for security reasons and thus no other flying activity is permitted in the area.

The Greek Airports Federation took every possible action in order to alter NATO's decision, but without result. They are ready to host the event, but cannot change either NATO's decision nor the security committee's will for forbiddance of any flying activity in the area more than a month before the Olympiad.

The organisers have suggested that the competition be re-scheduled to 1-12 October. This proposal and other alternatives are being considered by a CIVL PG sub-committee and a decision will be made by early May.

CIVL regret that this championship has had to be postponed, but realises it is out of the control of the organisers of the event. It is hoped a suitable alternative can be arranged. CIVL look forward to welcoming pilots to an enjoyable and satisfying championship.

More information will be circulated as soon as it is available.

Paula Howitt, CIVL Co-ordinator

World Pilot Rankings Update Paragliding Accuracy

The top 10 remain the same, Andy Shaw (GBR) maintains his lead, Matjaz Feraric (SLO) 2nd, Matjaz Sluga (SLO) 3rd.

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

Paragliding

Scotty Marion (USA) is still in 1st and Alex Hofer (SUI) 2nd. Nikolay Shorokhov (RUS) rises to 3rd and Tomas Brauner (CZE rep) ties in 4th with Grant Middendorf who jumps 15 places. Oystein Walle (NOR) gains 6th, Steve Ham (UK) jumps a remarkable 18 places to 7th while Jean-Marc Caron (FRA) slides to 8th. Norman Lausch (GER) rises to 9th and there is a three-way tie for 10th with all three pilots gaining a place, Stephen Morgenthaler (SUI), Tor Eric Stranna (NOR) and another Brit, Mark Watts (UK).

In the nations rankings Switzerland maintain their lead, South Africa gain 2nd and Australia leap to 3rd. Norway rise to 4th, swapping places with Japan in 5th. UK remains 6th while Austria drop to 7th. France

stay 8th, Germany drop to 9th and New Zealand complete the top 10.

Hang Gliding (Class 1)

This is the last update using the current WPRS system. At the 2004 Plenary meeting in Croatia it was voted to change to the new system developed in Australia. This can be viewed at [https://rankings.fai.org/hanggliding/wprs/index.php].

Pilots are urged to check their rankings and competition results and send any amendments to <paula@fai.org>. There are several pilots without countries and there may be some different spelling of names.

No competitions were added, but the Brasilia (test Worlds) were deleted. Results in 2004 not received, so not added, were the 15th Tanzawa HG Sky Grand Prix.

Manfred Ruhmer (AUT) leads, Oleg Bondarchuk (UKR) swaps places with Betinho Schmitz (BRA). From 4th to 7th, the following all move up a place: Antoine Boisselier (FRA), Kraig Coomber (AUS), Mario Alonzi (ITA) and Brett Hazlett (CAN). In equal 8th are Bruno Guillen (FRA) and Nene Rotor (BRA) (down 4). There are three pilots in 10th, Attila Bertok (HUN) Raymond Caux (FRA) and Gerolf Heinrichs (AUT).

In the nations rankings, Australia takes the lead from France. Italy and Austria gain a place to 3rd and 4th while the USA drop to 5th. The rest of the top 10 stay the same.

Class 5

No change to the ranking: Avid Chaumet (FRA) stays top, with Christian Ciech (ITA) 2nd and Johann Posch (AUT) 3rd.

USA leads the nations rankings, Switzerland is 2nd and Austria 3rd.

Class 2

The rankings remain the same with Brian Porter (USA) leading Mark Mulholland (USA), Junko Nakamura (JPN) ahead of 4th placed Manfred Ruhmer (AUT).

USA is in the nations top spot, Japan is 2nd, Austria 3rd.

Full WPRS details: [www.fai.org/].

FAI Sporting Code, 2004 Edition

The 2004 edition of Section 7 of the FAI Sporting Code, covering hang gliding and paragliding competitions, records and badges, has now been published on the FAI website: [www.fai.org/hang_gliding/documents/sc7.asp].

Section 7 is to be used together with the General Section of the FAI Sporting Code, the 2004 edition of which is also available on the FAI website: [www.fai.org/sporting_code/scg-download.asp].



Heading east from Apollo Bay to Skenes Creek. Hans van Santen leading the way

Photo: Paul Ryan

8th European Microlight Championship

The Organisers of the 8th FAI European Microlight Championships, Castelo Branco (POR), have updated their web pages: Weight Policy and Official Competition Maps have been published. Please see [www.fai.org/] for more details.

International Cyber Air Sports

Initiated by the Wuhan Administration of Sports and the Wuhan Administration Committee of East Lake Development Zone (Optics Valley of China), the first International Cyber Air Sports Competition was held from 26 to 28 March 2004 at Wuhan, the capital of Hubei Province (China). Intended to develop cyber air sports in China, the competition consisted of dogfight matches flown on personal computers, simulating fighter models manufactured in 1944; each match opposed two teams of two competitors each. Teams originating from eight different countries attended the competition.

During the official ceremony, Mr Alvaro de Orleans-Borbon, Member of the FAI Executive Board, thanked the Organiser for associating FAI with this event, and pointed out that simulated flying was a challenging and fascinating discipline, opening the door to the practice of many other aviation disciplines.

World Record Claims

The FAI has received the following World Record claims:

Class R: Microlights, Sub-class: RPL2 (Microlights – PG Control/Landplane/ Flown with two persons)

Claim number: 9171

Type of record: Speed over a closed circuit of 100km without landing

Course/location: Gorica (Slovenia)

Performance: 52.93 km/h

Pilot: Zoran Zelko (Slovenia)

Co-pilot: Vojko PRAH

Powered PG: V. Prah & team BWP 2003

Date: 4/4/2004

Current record : new

Sub-class 0-5 (HG with a rigid primary structure/movable control surface(s) without pilot surrounding structures and fairings.) – Feminine Category

Claim number: 9214

Type of record: Straight distance

Course/location: Groveland, FL (USA)

Performance: 201.2 km

Pilot: Jamie Shelden (USA)

Hang glider: Air Atos

Date: 22/4/2004

Current record: none

Claim number: 9215

Type of record: Straight distance to a declared

goal

Course/location: Groveland, FL (USA)

Performance: 201.2km

Pilot: Jamie Shelden (USA)

Hang glider: Air Atos

Date: 22/4/2004

Current record: none

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

The Rock – flown again, at last!

Peter Bolton

ON BOXING DAY 2003, I WAS LUCKY ENOUGH TO FLY FROM TOWNSVILLE'S PREMIER HANG GLIDING SITE. IT'S KNOWN AS "THE ROCK", FOR REASONS WHICH WILL BECOME APPARENT.

I was spending Christmas with former Townsville Hang Gliding Club Secretary/Treasurer, Brad Cooper, and his partner, Rhonda Smith. Another guest at Christmas Lunch was former hang glider pilot Graeme "Ethel" Etherton. There, at lunch, the plot was hatched for me to fly from The Rock, and between us we were able to "make it happen" the next day, with arrangements made for gate key access and wire assistance. We were also helped out on the day by Clint Smith, a recent past-President of the THGA who had fallen foul of the authorities for building a "non-engineered" launch ramp at The Rock. He had been forced to remove it by the powers that be, "in the interests of safety". This made getting up onto launch ("The Rock" itself) while strapped into a glider a three-man operation, one probably more dangerous than actually flying the place!

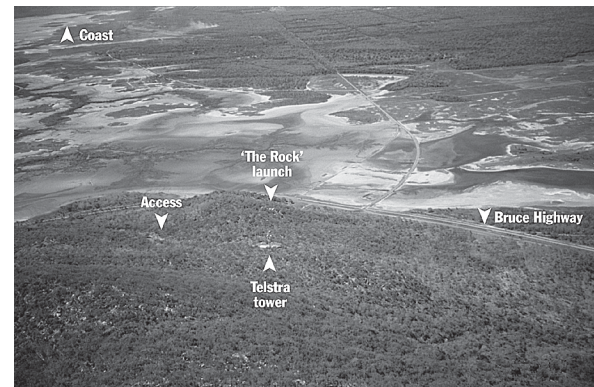
I had lived in Townsville 10 years ago and had to drive past this site twice each day, to and from work. At the time the site was

closed because access was "Verboten" by the authorities (National Parks and Telstra). Shortly after I left Townsville – and after a concerted effort by Brad Cooper and others from the THGA – the site was opened as a sanctioned hang gliding site. It took one and a half years of a paperwork blizzard with National Parks who were simply worn down, because the THGA adopted the approach of meeting each and every one of their demands until it got to the stage where they couldn't think of any more. Good flights were had by a chosen few and Gary Rogers negotiated an increase to the airspace ceiling over Mt Elliott.

Mt Elliott is situated about 30km south of Townsville and is seen by many thousands of travellers, as the Bruce Highway runs just to the east of it. Virtually all of Mt Elliott is National Park. The eastern ridge and the western ridge are of similar height, but of quite different character. The eastern ridge features Mt Elliott (1,240m) and Sharp Elliot (1,198m) and is clothed by dense rainforest.



Perched on top of The Rock – just getting into launch position is a three-man operation
Photo: Rhonda Smith



This picture was taken from well above launch, but way below the top of Mt Elliott (about 4,000ft)
Photo: Peter Bolton

Launch is from Saddle Mountain, a 600ft peak adjacent to Mt Elliott (approximately 4,000ft asl) and is about two kilometres inland and about 30km south of Townsville. Ethel and others have had good flights from here – I believe the site distance record is to near Charters Towers, about 150km away. In days gone by, many Townsville pilots (eg: Graham and Justin Beplate) clocked up big hours flying the place, which was consistently "on", as it faced the prevailing winds in the dry season.

In recent years, the Townsville Hang Gliding Club has become completely inactive, for a combination of reasons: pilots moving away, no active school to replace them, pilots turning to other interests, etc. I don't know of any paragliding activity (past or present) near Townsville, but The Rock wasn't a suitable launch for paragliders anyway. Although Ethel used to instruct hang gliding, it became more difficult for the likes of him to operate as part-time instructors, under the new regulations. Such a fate has also hit hang gliding in other regional cities, such as Gladstone, in recent years – very disappointing.

Thanks again to Brad, Rhonda, Ethel and Clint, and anyone else who played a part in getting this great site opened and getting me off it at last.



Once off, there's more room to move around!

Photo: Rhonda Smith

Additional Aviation Medicine Reports and Notes on Gliding

Graeme Barton

THE NOVEMBER 2003 EDITION OF SOARING AUSTRALIA INCLUDED A LIST OF ARTICLES PREPARED BY DR ANTONY SEGAL, A HIGHLY RESPECTED MEDICAL PRACTITIONER IN THE UNITED KINGDOM WITH WIDESPREAD EXPERIENCE IN AVIATION MEDICINE, COPIES OF WHICH WERE AVAILABLE FROM THE AUSTRALIAN GLIDING MUSEUM.

The following additional articles are also available:

"Medical Standards for Instructors Aged 65-70 Years and Over". Not published. Presented to the BGA Medical Adviser and the CFI of the Lasham Gliding Centre, May 1996.

"Glider Airbrake Operating Forces". Not published. Presented to the OSTIV Sailplane Development Panel, Helsinki, Finland, September 1996.

"Making Accidents Survivable" – Sailplane and Gliding Oct/Nov 1998.

"Surviving Mid-air Accidents" – Sailplane and Gliding Feb/Mar 1999.


"Four and Five Point Glider Seat Harness, Static and Dynamic Tests" – Technical Soaring Vol 14, No 3, 2000.

"Six Point Belt on Test" – Sailplane and Gliding April/May 2000.

"Survivable Loads on the Pilot"/"Spinal Injury in Gliding Accidents" – Gliding and Motorgliding International (online magazine). Six Parts: Issues 12/2000-4/2001-6/2001-7/2001-9/2001-10/2001.

"Drop-Testing a Two-seater" – Sailplane and Gliding April/May 2002.

"A Study on the Use of Energy Absorbing Seating Foam". Not published. Presented to the OSTIV Sailplane Development Panel, Tehachapi, California, August 2002.

Copies of these articles are available by request to Graeme Barton, Secretary of the Australian Gliding Museum, 2 Bicton Street, Mount Waverley, Vic, 3149, or phone 03 9802 1098. It will be necessary for recipients to cover the cost of duplication (at Officeworks rates) and postage. 

CLIO'S ANSWERS

1. D. Kaiser built the first of what would become the Schleicher "Ka" series of gliders in his attic. The glider is currently part of a private collection in South Carolina.
2. FALSE. With a span of 61.7 meters and a 25,390 kg payload, the Junkers JU-322 Mammut was the largest glider ever built. The first and only flight took place in April 1941. Due to the poor handling it was forced to land in a field and the project was abandoned a month later.
3. B. Although the HBV was a later FFA Diamant model, the name of the prototype is a contraction of the students' names who built it at the Akaflieg Zürich: "Ka" for Rudolf Kaiser, "Bi" for Tom Bircher, and "Vo" for Jürg von Voornveld ("HBV" stood for Hütter, Bircher, and van Voornveld).
4. FALSE. The sole survivor is the Orlik II. It was saved from destruction during the war because it was on display at the New York World's Fair when Germany invaded

Poland. It still exists and was airworthy as late as 2000.

5. D. Although all of these are early glass ships, with 8 having been built, the Phönix was the first production fibreglass sailplane.
6. FALSE. It was named for a mountain near Prague. The chief designer was Karel Dlouhý.
7. C. Taken as a prize of war by the US Army after the war, the Windspiel was taken back to the US where the Army Air Forces asked members of the Southern California Soaring Association to evaluate it. It was shipped west in a box car along with a Mü-13 and several unsecured light poles. Before the train arrived in Los Angeles, the light standards rolled around loose in the box car and smashed both gliders to pieces.
8. TRUE. Oleg Antonov built the YS-4 as early as 1929 and in fact built 400 of the A-7 which first flew in 1938. There were at least 3 or 4 other glider manufacturers between the founding of the Soviet Union and the end World War II.
9. E. Ursula Hänle loved the Wolfgang Hütter designed H-30GFK (that she and husband, Eugen, had built in 1960) so much that she convinced Hütter to help develop the H-101 Salto, in 1970. She


then started a new company, Start + Flug, and built 57 of them. The Salto very much resembles the H-30.

10. FALSE. While the complicated wing control system (similar to wing warping) may have contributed to the pilot's inability to regain control, it is today considered that the lightly built, diaphanous glider may have flown through a thermal, for which it was not designed to compensate.

Thanks to:

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

Wood, Alan. History of the World's Glider Forces, Patrick Stephens Ltd., Wellingborough, Northamptonshire, England, 1990

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

The Great Flight North II

Mid-September – mid-October 2004

Sydney to Cape York. About 10 years ago my wife and I organised a large group flight of trikes from Sydney International Airport to Cape York, travelling up the East Coast while raising money for "Kids with Cancer". It was a great success. Afterwards we wrote a series of articles for "Skysailor". We are planning to do it all again and are inviting those interested the opportunity to join us. Applicants would require about four to five weeks of free time (from approximately mid-September through to mid-October). The main aim of the flight is to raise money for young kids with cancer, so you must be willing and able to do this. Numbers will be limited, so first in best dressed. It will be called "The Great Flight North II" and will truly be an adventure of a lifetime, not to be missed. For further details please contact: Luke Carmody, CFI Skywise Microlights, email <skywise_microlights@yahoo.com>, ph: 02 98734770 (between 10am and 4pm).

Queensland State Gliding Championships

26 September – 2 October 2004

Kingaroy, QLD. Practice day: Saturday 25 September. Contact: Doug Flockhart <doug@ozgroup.com.au>.

Mackay Tour

25 September – 3 October 2004

Mackay, Queensland. Due to last September's outstanding success of the flight tour at Mackay, we are planning another week long trip at Eungella (Mackay, North Queensland). We need to book early to ensure the cheap flights with Virgin. The itinerary will be based on the same format as last year, with a mixture of coastal flying and thermal training. Also, with enough numbers this year (pre-arranged), we intend to book a yacht for at least four to five days to sail around the Whitsunday Islands. For more info, email Lee Scott <Fly@HighAdventure.com.au>.

Australian Multi-Class National Championships

6-15 October

Dalby, QLD. Practice days: Monday 4 October and Tuesday 5 October. Contact: Ralph Henderson <rhenderson@austarmetro.com.au>.

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.

Sunraysia GC – 50 Years

30 October to 2 November 2004

To celebrate 50 years from its formation in 1954, the club is running a back-to event over the Melbourne Cup weekend. We invite past members and others who may like to re-visit the past and help celebrate the future. A low-key competition is being planned, vintage gliders welcome. Social activities, dinner, novelty prizes for the most outrageous retrieve story and so on. Contact David Nugent for further information on 03 5024 5865 or visit the website [www.vicnet.net.au/~gliding].

Narromine Cup Week

20-27 November 2004

Enquiries to Beryl Hartley, ph: 02 6889 2733; email <hartley@avionics.com.au>.

Gulgong Classic 2004

22-27 November 2004

Gulgong, NSW. Comp to be held in the same format as previous two years. This year will be a six day event. Your \$350 entry fee includes competition entry, T-shirt, presentation dinner, airstrip usage fees and hangarage and all tows on competition days (pay per tow on practice day). Strictly limited to 50 aerotow rated entrants. (The NHGC will be holding an aerotow weekend on the Queen's Birthday at Gulgong, so if you need to get a rating come along.) Due to the complexity and cost of organising tugs, a late fee of \$50 will be imposed for entries received after 30 September. Enquiries to <fly@gulgongclassic.com> or phone 02 49423131 or 0412 423133. Comp details, on line info and rego available at [www.gulgongclassic.com]. Comp factors are: AA or A grade (AA applied for but not yet allocated), 5km, 70km, 10% GPS mandatory, virtual starts and goals.

Australian Junior Gliding Championships

28 November – 4 December 2004

Temora, NSW. A handicapped, single-seater event, water ballast is permitted. Pilot pairs are encouraged. To be eligible you must be a junior pilot under the age of 26 with a Silver C and current cross-country rating. Two-seater coaching will also be available for juniors below this standard. For further information please contact Mitchell Turner on 0413 444614 or email <Executive.director@telstra.com>.

Corryong Cup 2005

9-15 January 2005

Corryong, VIC. Registration and practice day 8th, comp start 9th with registration in the morning. Come to the best FUN comp of the year. Mt Elliot, Corryong, is one of the most reliable and spectacular flying sights in the Eastern highlands. It's a hill launch set at the base of the Australian Alps on the border between Vic and NSW. Tasks are generally between 50-100km, with up to four turnpoints set to make pickups easy. This year the comp will again be scored on a handicap basis according to glider type and flying experience, so everyone who enters has a chance of taking out the top prizes. This year prizes will be awarded for the first three positions as well as a prize for the best placed veteran and most improved new comer to competitions. Also, the first placed team will receive the Corryong mugs. Day prizes given out each day. You must have an intermediate rating (preferably with inland experience), UHF radio and parachute. Camera optional (data back not required); this year scoring will be with GPS or camera, whichever you prefer. This is still the cheapest comp in the HG calendar at only \$100 if you register before 30 Nov 2004 (\$130 thereafter). Cheques made out to Blue Mountains Hang Gliding Club. Included in this fee is comp entry, T-shirt, film for turnpoints, colour topo map of the area and a presentation dinner. Places are limited so don't miss out. Register now with: The Blue Mountains Hang Gliding Club, Steve Bell, PO Box 110 Woonona, NSW 2517. Ph: 0412 686812 or email <spbell@1earth.net>.

OVERSEAS

Brazil Tour

August 2004

Brazil. Come and fly the Brazilian Nationals! Jonny Durand Jnr and Phil Pritchard had such an awesome time flying there in the 2003 Worlds, they're going back and are taking anyone who wants to have the flying safari of a lifetime. This is an opportunity to fly with some of the world's best, honing your cross-country skills, leaving you with memories that will last forever. For more details contact Phil Pritchard on 0418 761193 or <Pritch@winshop.com.au>, or visit [www.ecn.net.au/~jay/jj] for full details and pictures!

Red Bull Vertigo

20-22 August 2004

Villeneuve. The world's best PG and HG pilots will meet in Villeneuve to compete in the 7th edition of the Red Bull Vertigo, an event of the Acrobatics World Cup. The first edition was held in 1998 and today, the Red Bull Vertigo is considered to be the ultimate event for HG and PG pilots. From the very beginning, the Organisation Committee has focused on offering the world's best pilots the best and safest conditions to demonstrate their skills. Their main objective was also to gain the recognition of acrobatics in PG and HG as an official discipline by the World's Air Sports Federation (FAI). This goal has been reached: the International Freeglide Committee granted the Red Bull Vertigo Organisation Committee, led by Alain Zoller, permission to hold the 1st FAI World Acrobatics Championships in 2006. And there is one last detail: see you this year in Villeneuve for the 7th edition – it will be the second-to-the-last meeting before the official World Championship in 2006. Visit [www.redbull-vertigo.com].

De Aar Team Open Distance Challenge

30 September – 2 October 2004

De Aar, South Africa. De Aar is at it again... a team challenge is on offer... three days open distance... highest total team score wins! What's on offer: A team consists of four pilots: One DHV 2-3, comp or prototype glider, pilot must have 500+ flights, one DHV 2-3 or SAHPA serial or Afnor performance wing, one DHV 1-2 or 2, one DHV 1 or 1-2 with a novice pilot (ie: no more than 150 logged flights). Entry includes: One item of clothing (T-shirt or something different), winching facilities (drivers, winches, etc provided), GPS co-ordinates plus colour map of the area, three free dinners, trophies to each member of the winning team, full recovery along suggested routes. Entry fee: R1,000 p/team (R250 each) BUT... the first seven teams to enter get free entry! Dates were suggested in order to coincide with Hanover 150th Birthday Festival! For more info visit: [www.pottiesbnb.co.za].

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 – 15m/18m/Open, Bid selection 2005
2008 WGC – Std/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 – 15m/18m/Open, Bid selection 2007
2010 WGC – Std/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 – 15m/18m/Open, Bid selection 2009
2012 WGC – Std/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 – 15m/18m/Open, Bid selection 2011
2014 WGC – Std/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).

Vic's Flight

Bill Johnston

IT WAS MY TURN TO MAN THE BAR AT HORSHAM WEEK 2004. THINGS WERE QUIET AND THOSE WHO WERE THERE WERE SOMEWHAT LISTLESS BECAUSE THIS WAS THE YEAR THAT WE ONLY GOT ONE TASK IN STANDARD CLASS AND THE HUMIDITY WAS UNPLEASANT.

Up on the dusty shelf I noticed a box and when I opened it I found inside a trophy that hadn't seen the light of day for many a year. It was the Jack Foster Memorial trophy and under that title it said 'Record of Meritory Flights'.

I opened the box and read the story of Vic Maddern's flight in 1972/73. What struck me was the beautiful old-fashioned crafting of the language used by an old-timer. This was his story...

A day to be remembered, the eighth serious attempt to gain Gold C distance and the only one to qualify. Although one

flight of 295km with proof and the only one of 300km without it had pushed it close. A fast-moving front and the father-of-all thunderstorms had put paid to two other attempts.

The forecast promised good things for a sailplane with an ambitious pilot but a brisk 15kt breeze from the north-east tempered optimism. Having declared a Horsham-Boort-Ouyen-Horsham 500km triangle, take-off was at 1201 daylight saving time. As it turned out, a start 20 minutes or so earlier may have been worth the risk of an ignominious landing a few miles out.

The first leg proved to be a long struggle to cover distance under weak conditions. Why does this particular stretch always seem to treat the Boom and I with disrespect? Not until past Donald did the big ones put in an appearance to boost height and speed.

Just beyond Charlton we ran into a wild one, a 1,000ft per minute with a kick like a mule, both of us glad enough to leave it at 8,000ft.

Except for a deviation around a patch of blue sky, there was no difficulty in reaching and turning Boort at 7,000ft, but by now the clock stood at 1600 hours, and 500km had become an impossible dream.

Pre-flight planning had produced a flight path that was spot on, a good omen for the

second leg which covered previously unexplored territory. This run was copy-book, strong thermals under well-developed cu's necessitating, for the most part, high McCready ring settings which gathered in Sea Lake in two hours.

The aircraft being at this point three or four miles off course it was obvious the wind had swung a few points to the north, a happy circumstance if Ouyen could be turned, as a shorter retrieve would result. Flying on a corrected bearing the 300km point marked on the map was reached at 1830 hours, bringing a sense of satisfaction not lessened by being delayed so long.

Had the rest of the flight been according to plan a significantly greater distance may have been covered. However, the turning point not being where expected, some 15 or 20 valuable minutes were lost in arriving at a decision whether to turn back, head south for the benefit of the crew, or press on into an area of poor visibility which conjured visions of salt pans and 'last hope tank'.

In the end it was decided to press on and there in a hollow, right on track lay Ouyen. A quick turn at 3,000ft and back to the previous thermal only to find it dissipated and all its fellows with it: the sky now holding only a few thin and emaciated cloud remnants.

Nothing remained but a carefully flown final glide to a farmhouse near the Gypsum Road. Time of landing, 1927 hours, flight time seven hours 26 minutes. Distance, 340 kilometres.

Retrieve crew Steve McFarlane and Geoff Champlin got the Boom and I home in the wee small hours. I thank them for a tedious job, cheerfully done.



Vic is now aged 90.

Airborne Avionics Super Special Sale



Yaseu VXA150
VHF Handheld Transceiver
\$475

Garmin GPS Pilot III \$675

Includes:
Pacific Database
FREE Beanbag Mount
FREE Power Data Cable



ATL 88/90 Short Pack \$1830
ATL 88/92 Long Pack \$1830



Airborne Avionics Pty Ltd

Ph: 02 6889 2733 Fax: 02 6889 2933

hartley@avionics.com.au www.avionics.com.au

GFA Badges & Certificates

FAI List – May 2004

A CERTIFICATE

Jowett, Peter Richard 10975 Boonah
Kalkbrenner, G S E 10976 Lake Keepit

A AND B CERTIFICATE

Hamilton, Damien T 10970 Hunter Valley
Clarke, Caroline Nicole 10978 Qld Air TC

B AND C CERTIFICATE

McLarnon, David 10648 Lake Keepit

C CERTIFICATE

Hellings, Michael J 10968 Beverley

A B AND C CERTIFICATE

Bignell, Robert John 10969 GC of WA
Dhuiege, Jean Baptiste 10971 Byron Bay
Beggs-French, R C 10972 Geelong
Kuffel, Christopher 10973 Sportavia
Stingel, Kelvin Paul 10974 Sportavia
Dillenbeck, Alexander 10976 Bathurst

SILVER C

Bitossi, Bradley Anthony 4539 Hunter Valley
Heaney, Grant Murray 4540 Sportavia

DIAMOND DISTANCE

Bitossi, Bradley Anthony Hunter Valley

DIAMOND GOAL

Bitossi, Bradley Anthony Hunter Valley
Heaney, Grant Murray Sportavia

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>.



Manufacturers and Agents Contacts

– Courtesy GFA Website

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PO Box 60, 36161 Poppenhausen, Germany;
Ph: +49 6658 8940, Fax: +49 6658 8923,
<AS-Sailplanes@fulda.net>.
Contacts: Gerhard Waibel, Martin Heide
Types: All Schleicher types
Australian Representative: Chris Eckey, 10
Antigua Grove, West Lakes SA 5021, Ph: 08
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Schempp-Hirth Flugzeugbau GmbH

PO Box 1443, 73222 Kirchheim unter Teck,
Germany; Ph: +49 7021 2441
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Contacts: Helmut Treiber, Joachim Krauter
Australian Representative: Chris Kiehn, PO
Box 287, Port Macquarie NSW 2444, Ph: 02
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hotmail.com>.

DG Flugzeugbau GmbH

PO Box 4120, 76625 Bruchsal, Germany; Ph:
+49 7257 89-0, Fax: +49 7257 8935,
<weber@dg-flugzeugbau.de>.
Contacts: Wilhelm Dirks
Australian Representative: DG – T&J
Sailplanes, PO Box 324, Camden NSW 2570;
Ph: 02 4655 7079, Fax: 02 4655 7078, Mob:
0409 55 7079, <tnjgilbert@
bigpond.com>.
LS – Peter Holmes, 261 London Road,
Belmont QLD 4153; Ph: 07 3890 2799,
<peter@lsgliders.com>.

Stemme GmbH & CoKG

PO Box 15344, Strausberg Germany; Ph:
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Glasfaser-Flugzeugservice GmbH

Hofener Weg, 72582 Grabenstetten
Germany; Ph: +49 7382 1032, Fax: +49
7382 1629, <streiff@aol.com>.

Contacts: Hans-Jörg "Hanko" Streifeneder
Types: All Glasflügel gliders except "Salto"

Grob Werke GmbH & CoKG Aerospace Division

Lettenbachstrasse 9, 86874 Tussenhausen-
Mattisies, Germany; Ph: +49

8268 998-0, Fax: +49 8268 998114, <grob.
aerospace.info@t-online.de>.

Contacts: Heinz Micheler, Rudolf Vodermeier

PIK RY

Dipoli 02150 Espoo Finland.
Types: PIK 20, PIK 20 B, PIK 20 D

Volar Plastic

Tiilitie 15560 Nastola Finland; Ph: +358 18
624 211, Fax: +358 18 624 606.

Contacts: Olli Walden

Types: PIK 20 E

Pilatus Aircraft

CH-6371 Stans, Switzerland; Ph: +41 41
619 6580, Fax: +41 41 610 3351,
<foedermatt@pilatus-aircraft.com>.
Types: B-4PC11 series

Allstar PZL Glider Ltd

43-300 Bielsko Biala ul. Cieszyńska 325
Poland; Ph: +48 33 8125021, Fax: +48 33
8123739, <sزد@sزد.com.pl>, [www.sزد.
com.pl].

Types: Puchacz, Jantar, Junior, SZD-55,
SZD-59 Acro
Australian agent: Amys Aviation (Wes
Myszak); Ph: 02 9894 7784, Mob: 0408
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PZL Swidnik

Spolka Akcyjna Al. Lotnikow Polskich
1 21-045 Swidnik Poland; Ph: +48 81 46 80
901, 81 75 12 071, Fax: +48 81 46 80 919,
81 75 12 173, <glider@pzl.
swidnik.pl>, [www.bielsko1.com].
Contacts: Marek Mikosz
Types: PW-5, PW-6

Barry Aviation LLC

Attn: Customer Services, 11600 Aviation
Boulevard, Suite 16, West Palm Beach,
Florida 33412, USA; Ph: +1 561624 3000,
Fax: +1 561624 3995, <peregrine
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com].

Types: KR-03A Puchatek

Evektor (LET)

Letiste 686 04 Kunovice Czech Republic; Ph:
+42 0572 537 428, Fax: +42 0572 537 901,
<evektor@evektor.cz>, [www.evektor.cz].
Types: Blanik, L33 Solo, Vivat
Australian Representative: Bill Riley (spare
parts only).

IAR S.A.

PO Box 198 198 2200 Brasov Romania; Ph: +40
68 150015, Fax: +40 68 151304, <iar.@
deuroconsult.ro>.

Contacts: Traian Tomescu
Types: IS-28B2, IS-28M2, IS-29, IS-30, IS-32
Australian Representative: Bill Riley, PO Box
95, Tocumwal NSW 2714; Ph: 03 5874
2702, Fax: 03 5874 2808.

Slingsby Aviation LTD

Kirkbymoorside, York TO6 6EZ, Great Britain;
Ph: +44 1751 432474, Fax: +44 1751
431173.

Contacts: Michael Rutter
Types: Skylark, Dart, T-59 Kestrel, T-61
Falke, T-21 Sedburgh

Scheibe-Flugzeugbau GmbH

August-Pfalz Strasse 23, 85221 Dachau,
Germany; Ph: +49 0 8131 72083 or 72084,
Fax: +49 0 8131 736985,
<SFFlugzeug@t-online.de>, [www.Scheibe-
Flugzeugbau.de]

Contact: Mr Haferkorn
Types: Bergfalke, SF-25 Falke series, SF-26,
SF-27 and SF-27MA

Aeromot Industria

Caixa Postal 8031 90201-970 Porto Alegre,
Brazil; Ph: +55 51 3371 1644,
Fax: +55 51 3371 1655, <tech_support
@aeromot.com.br>.

Contacts: Luis Castilho <castilho@
aeromot.com.br>

Types: AMT-200, AMT-200S Super Ximango
Australian Representative: Chris Kiehn, PO
Box 287, Port Macquarie NSW 2444; Ph: 02
6584 1022, Fax: 06 2584 2822, <ventus2@
hotmail.com>.

Rotax

4623 Gunkirchen, Austria; Ph: +43 7246
271-0, Fax: +43 7246 271 422
Contacts: "Wal" Flood, see phone and fax:
numbers below.

Types: Bombardier-Rotax engines and
accessories.

Australian Representative: Bert Flood
Imports, Factory 14, 101-155 Beresford
Road, Lilydale VIC 3140; Ph: 03 9735 5655,
Fax: 03 9735 5699.

Limbach Flugmotoren GmbH & CoKG

Kothausener Strasse 5, 53639 Königs-
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9201-0, Fax: +49 2244 920130.

Hoffmann Propeller

Küpferlingstrasse 9, 83022 Rosenheim,
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8031 187878.

Contacts: Eric Weston, see phone number
below.

Australian Representative: Australian Air
Props, Bankstown Airport, NSW, 02 9790
5295.

MT-Propeller GmbH & CoKG

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Atting, Germany; Ph: +49 9429 8433, Fax:
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marganski@pro.onet.pl>, [www.marganski.
com.pl].

Contacts: Tadeusz Zbos

Types: MDM-1 Fox
Australian Representative: Amys Aviation
(Wes Myszak); Ph: 02 9894 7784, Mob:
0408 155215, <amysavia@hotmail.com>.

Diamond Aircraft Industries GmbH

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stadt, Austria; Ph: +43 (0) 2622 26700, Fax:
+43 (0) 2622 26780, <office@
diamond-air.at>, [www.diamondair.com].
Contacts: Thomas Krassnitzer, Airworthiness
Office

Types: H-36 Dimona, HK-36 Super Dimona
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Tost Flugzeuggerätebau GmbH

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544 599-70, <info@tost.
de>, [www.tost.de].

Contacts: Barbara Doerflein, Michael
Doerflein

Australian Representative: Tost release
spares (springs, etc), sole Australian agent is
GFA. Other Tost spares (weak links, wheels,
brakes, etc), contact Ian McPhee, PO Box
657, Byron Bay NSW 2481; Ph: 02 6684
7642, <iankmcphee
@bigpond.com>.



Flying Home to Moree

Don Gardner

Don tries to land on an esky lid at Bingara airstrip

Photos: Dustan Hansen

ON A PARTICULAR
SUNDAY THIS
SUMMER GONE BY,
DUSTAN HANSEN
AND MYSELF
HEADED UP TO
MANILLA. IT WAS
DRIZZLING AS WE
LEFT NEWCASTLE

AND WE HOPED IT WOULD CLEAR AT MURRURUNDI...

IT DID, AND IT WAS STARTING TO LOOK PRETTY GOOD.

We had been to Manilla the previous year and had flown to Wee Waa, after which I told Dustan that we should have flown to Moree to land at my dad's property. It was something I had been wanting to do since learning to fly, eight years ago. When we got to Manilla the sky was looking pretty good, and there was a fair crowd of Newcastle pilots there: Dr Death, JOD, Ebles, Big, Rick Evans, and even Ozzie was there.

After seeing Dustan climb out I decided to change launches and went up to the paraglider launch and followed Big off. When I got to cloudbase there was Dustan, Ozzie, Big and myself. Ozzie decided that his house at Split Rock was his goal and flew off on track. Dustan, Big and myself headed for Moree. Two thermals later we were still together with Dustan leading out, followed by myself, then Big. I lost track of Dustan and Big after being in a cloud longer than I had planned. I popped out near the top, but still on course... well, "roughly". From there I flew over the next cloud, then around

another, and soon found myself low at Bunoon. I had to turn in zeros for about half an hour till finally I got to about 3,000ft. I then watched Big come in to land below me. When I got to 6,000ft I decided to fly across the southern end of Mt Kaputar. It paid off. At one stage I came up the side of a cloud and could see a wave formation in the cloud. Dustan had told me about this when we were in Bogong two years ago. So I turned and flew along the upward edge – it was amazing.

The next thermal I had two eagles come and join me. I was a bit nervous, as I had been attacked two weeks earlier, but they behaved themselves. I could hear Dustan on the radio; he was higher and further along course – either he was going very fast, or I was going too "slow". I got to the towers on Kaputar at 7,000ft and commented to Dustan about the lack of landing options. Dustan said, "Landing is not an option", which wasn't very comforting. Thankfully I found a thermal and it was a good one, taking me to 9,000ft. As I flew over the next ridge I heard Dustan say that he was landing 60km short of Moree, so I radioed to Anna and told her where he was. I decided to stay high and fly from one cloud to the next. At Bellata I noticed that the thermals were getting a lot weaker, but also smoother, and there weren't as many clouds. I radioed that I was going over Gurley, and could hear the chuckles in the background. On the outskirts of Moree I was down to 3,000ft, and

told Anna that I would probably land short, but then I found a little thermal and worked it as best I could. Half an hour later I radioed to Anna that I should be able to make it to my dad's property. As I flew over town I looked for the school I went to, the house I grew up in, the main bridge in town, the house that my wife grew up in. It was just amazing.

When I got to my dad's property I still had 4,500ft. It had taken six hours and 40 minutes. I started yelling, but nobody came out. So I flew further north over an airstrip to check the wind direction with the wind sock, then flew back again yelling out some more. My dad said the dogs were going mad and came out to see what was going on, just in time to see me land. He could not believe it. He kept saying, "You flew from where?", "How long did it take you?", or he would just hug me and say "You're mad". Next thing he had a beer in my hand and he was taking photos. I managed to get the glider packed up and a hot meal almost finished when Anna, Al, Dustan and Big arrived. I got everyone a beer (thanks dad), had a quick chat, then loaded the glider on the car and off we went, getting back to Manilla about midnight. A big thanks to all my crew, and especially to Anna Price, driver extraordinaire.

(We flew to Wee Waa and Bingara in the next two days, but I will let someone else tell you about those flights...)



Dad was pleased to see me!



HANG GLIDING IN REVERSE

Nigel Leigh (Printed courtesy of Airborn Mag NZ)

"THEY'RE FORECASTING INCREASING NOR'WEST FOR TOMORROW. HOW ABOUT WE GET UP MAGIC EARLY?" "YEAH, GOOD IDEA! READY BY 9?" "YIP"

9am comes and goes, so does 10 – finally by 10:30am wheels start rolling. And, what-do-you-know, it's already blowing at the base of the hill and the streamer on lower launch is horizontal (but flyable). Those in the know rig with haste. Others ask "why?" and soon follow suit. By midday the first are ready to fly, but the tussocks are now lying flat. The DFC (Dunedin Flying Circus, a bunch of piss-head pilots from another city) appears on the scene, after a long hard night of noisy merriment in camp. Most might as well have stayed in bed, as that wind just keeps building.

Sure, the launch conditions are intimidating (had better learn Bill's holding-the-basebar launch technique), but in the air the lift is widespread and incredibly smooth. And it keeps on coming! This is WAVE! 6,000ft, 7,000ft... Guy pushes out in front and finds an even better patch and is sucked up to 8,600ft and away.

Warren and I find the same elevator, but hold our ground against the rising westerly. It's a fine balance between flying too slowly and getting blown over the back, or flying too fast and cancelling the lift. Warren drifts back a bit and is spat out at 10,000ft (glider pilots have activated the flying area to well over the normal 9,500ft limit). I manage to eek it out even more – who needs a topless? The Shark is doing fine!

As the lift drops to zero I make my first turn of the flight and head downwind. Wow, what a panorama! The view from Magic's typical 8,000ft base is already great, but the extra couple of thousand really makes it amazing: Lakes Wanaka and Hawea to the south, Ohau and Pukaki to the north, Benmore to the east, and the (rather low looking) mountains in all directions.

I glance at the GPS – huh? 122km/h groundspeed! Smokin'! The glide is kind too, with no serious sink and even some gentle lift bands (zeros really). I arrive at the Buscot at 9,800ft. You got that? Have just completed a 23km glide and am arriving at the next mountain at nearly 10 grand! Guy arrived earlier, but found no lift; he radios up from 4,000ft, "Nigel, got a couple of thousand you could lend me?"

Just then Bill switches to our radio
June 2004



In wave, over Cuthbert – Buscot and Benmore in lower center and right, Lakes Ohau and Tekapo in the background

Photo: Bill Degan

channel and brags that he's in wave above Cuthbert at a very impressive height. Despite its massive bulk and the strong wind, neither the Buscot nor Benmore yield any worthwhile lift for me either. Oh well, just keep going then...

...The backside does yield some impressive sustained sink however. The thousands unwind frighteningly fast, and just as my trajectory drops to aim at Lake Benmore, the sink eases and the vario starts beeping. One half of my brain is saying, "Huh, lift here!", while the other half is instinctively banking over into the core. No, you twit! This is wave, not thermal, so I park up facing into wind again. The lift is not very strong; flying fast enough to hold my position kills it. The best option seems to be a max L/D sort of glide, giving a speed of 10-20km/h on the GPS, going backwards...

I un-focus from the instruments and lift, and realise what a bizarre situation I'm in. Aimed at the lee side of a big mountain, on a high wind (no thermals) day, it's as if I'm trying to fly into the rotor sink! But instead I'm climbing. And even stranger, despite pointing straight at the mountain, it's gradually getting further away! Looking down I see that I'm reversing out over Lake Benmore.

I imagine a boy in one of the boats on the calm water way below, "Daddy, daddy look! There's a hang glider flying backwards!"

"Don't be silly son, hang gliders can't... What the heck?"

By the middle of the lake that wave band is milked dry and its time to run again (and un-confuse the boaters). Crossing Haldon and Greys Hills the GPS gradually clicks down from 100 to 50km/h and the altimeter follows suit. A big fear on north-west days is that you land like a leaf going backwards. But there's no turbulence or bad sink, just a huge wind assisted glide, ending with a single 180 degree turn into a nice 10km/h breeze.

Yahoo! After 15 years hang gliding, my first real wave flight. Excellent! There is just time to de-rig, eat lunch and start this article when my lovely wife Desiree arrives on retrieve. Now its time to play tag: I get the two young boys to look after and Desiree gets her mountain bike. The boys and I drive a full circuit of the Mackenzie Basin to get back, while she bikes a 2.5 hour, 40km shortcut through the hills beside lake Benmore. So, hang gliding and family life can mix – all it takes is a positive attitude and a friendly wave!



HGFA General Manager's Report

Damian Gates

General Manager Hand Over

As advised last month, Craig Worth will now be back as General Manager. For all contact and correspondence, please use the below:

Use the HGFA Office for contact with Craig on (02) 6559 2713, and the General Manager's mobile will remain the same as that which I use now, 0417 766 356. Postal address is PO Box 157, Hallidays Point, NSW 2430.

Board Meeting

The last HGFA Board Meeting was held 17-18 April at Tullamarine Motor Lodge. The meeting went very well, with the new board members being eased into their new roles and getting a feel for how things work at an executive level within the HGFA. Specific items worthy of note (full minutes should be available on the HGFA website at this time):

With the change in insurance one might expect (as did I initially) that we would have a budget surplus to play with from here on in. This is far from the case unfortunately. Our previous insurance premium was such that, with Instructor and Passenger carrying insurance and the levee charged on those, our Third Party Public Liability insurance component was estimated in the 03/04 FY as costing the entire general membership approximately \$130k; we now pay a premium for that cover just over twice that amount. With the lack of subsidised income for the extra cover we used to provide on a cost recovery basis to Instructors and Passenger carrying pilots we now have a forecast deficit of approximately \$30k to meet the new 100+% increase on Third Party Public Liability. As I write, the 04/05 FY budget is being worked out with Board consultation, with options discussed on how we can "tighten up" in particular and generate more income to meet the shortfall.

Member retention and female participation were also well discussed, and submissions to the Safety and Operations Committee will be made this month regarding our training systems and how we can increase participation and access to our sports in more userfriendly ways without compromising the safety of our sports for new members.

The Active Australia project was revisited for the second time at a Board meeting to address ongoing questions from the general membership as to where the money was spent. The Board resolved that the final expenditure report be made

available on request, but that no further breakdown be provided if requested as the time and work required to do that would be better spent, as a priority, elsewhere rather than on revisiting in depth, a project that is complete. The final report, and during the whole project, all elements of expenditure were accepted and finalised through the Active Australia project co-ordinator with the government. It is very interesting however to see that more interest was shown in this project after it was finished than was ever shown during its operation through participation in it. It was observed that it took a while for many areas to see what was on offer and what could be gained, as there were indeed significant benefits to be had from the project (as a few areas enjoyed), but by the time many areas realised it (not for want of available information) the boat had sailed.

A great deal of discussion was had on Aircraft Airworthiness and Check Flights for pilots upgrading to a new and more advanced aircraft. In the end it was resolved that this needed to be specifically addressed by the Safety and Operations Committee, but in the meantime it's necessary to reinforce the following points.

Section 9 of the Operations Manual outlines specific maintenance requirements for all of our aircraft. It is time that these were amended and rationalised, but until that time they still have full effect and MUST be followed. This responsibility placed on individual pilots for their aircraft CAN NOT be abrogated in any way. On renewal of membership there is a tick box which acknowledges that the Maintenance requirements have been met. If the box is not ticked then you will be liable should you have an accident of any kind, as questions as to the "cause" may then be focused on the airworthiness of the aircraft which may mean individuals being excluded under our new Insurance Policy, which is quite specific on such issues. If the box is ticked and the maintenance requirements have not actually been met then you could expect as a matter of course to be specifically excluded from insurance cover, irrespective of the cause of any accident, as our policy is specific on that matter.

Concerns were raised regarding the secondhand market and the quality of some of the aircraft being sold. It is unethical and also legally volatile to sell or provide equipment or aircraft which is not suitable for its intended use, either in terms of the skill level required and/or the airworthiness

of the aircraft. It was identified that these items now require attention and will be topics of major discussion at the next Safety and Operations Committee meeting this month.

Maintenance requirements MUST be adhered to.

Seek advice FROM AN INSTRUCTOR on upgrading equipment and carry out a check flight under supervision.

If you have any concerns seek independent advice from an Instructor, SSO or other third party before purchasing new or secondhand equipment.

Airworthiness advisory: Paraglider Mistral 2.22

A further case of a Mistral 2.22 going into a deep stall has been noted, after this glider had been subjected to recall testing due to the airworthiness safety notice from 26/02/03. Due to construction parameters, flying characteristics of the Mistral 2.22 may permanently deteriorate, either through use or storage.

All affected canopies show the following non-typical behaviour: poor inflation and start properties; entering a deep or parachutal stall, particularly when using "big ears"; delayed trimspeed recovery after exiting from a B-Stall; reduced brake-input range.

Together with Swing Flugsportgeräte GmbH, the DHV is now issuing the following preventative Safety Warning:

1. All Mistral 2.22 gliders must be re-checked by the manufacturer.
2. Mistral 2.22 gliders should not be flown until they have been re-checked.
3. Should deteriorated flying characteristics be determined, Swing offers Mistral 2.22 pilots either a repair or an exchange.
4. In addition to this, Swing makes all Mistral 2.22 owners, irrespective of re-check results, a part-exchange offer for an alternative glider, as a part of its customer care program.

Further details may be found at [www.dhv.de/typo/Safety.21.0.html].

Accident Reports

I must stress that all accident reports received and published here (and even those not published here) are not and have never been meant to apportion any blame or fault upon any person; they are reproduced only in the interests of safety and to ensure that we may all become better pilots and find more satisfaction, less grief and frustration in pursuit of our flying passions.

No 1

Pilot: CFI PG
Experience: 4,000 hours+, 20 hours last 90 days
Glider: DHV 2
Pilot injury: strained pulled muscle
Glider damage: nil
Location: coastal site
Conditions: 15kt headwind, strong turbulence

Description:

Pilot noticed boats at anchor changing direction and some swirling wind patterns on the water and decided to land quickly. On straight in approach encountered some turbulence which spun the glider 90 degrees and caused it to go cross/tail, stalling the glider quickly. Glider fell behind and pilot fell to ground on back and was transported to hospital but released same day.

Comments:

It seems this site is notorious for such turbulence caused when the prevailing winds, which make the site soarable during the day, change with a conflicting seabreeze. Other pilots have encountered similar problems. Predicting and maintaining awareness of wind and conditions is very important at all sites. Where the conditions can infiltrate the flying area with little notice, extra care and caution is required with contingencies for landing in "better" areas required with any change.

No 2

Pilot: intermediate HG
Experience: 70 hours total, nine hours last 90 days
Glider: advanced HG
Pilot injury: nil
Glider damage: upright and basebar corner knuckle, bent heart bolt
Location: inland soaring site
Conditions: 12kt mod turbulence

Description:

Pilot had landed out from the aerotow pad-dock and was attempting a foot launch for retrieve on aerotow. Got off the ground well, but at about 10ft during transition the left wing picked up and the glider locked out. HG and tug pilot both released at the same time. Glider was then crosswind and by the time wings were level was downwind and landed heavily with a high groundspeed.

Comments:

The pilot suggests that mechanical turbulence from trees ahead caused the accident, but the basic problem, as is common with foot launch aerotow accidents, is that the pilot failed to maintain control during the transition to the basebar. The tendency when foot launching aerotow is for the glider to want to pitch nose up and if positive pressure is not maintained to keep the nose down a lockout is highly probable if the wings are not also kept level. Practice of foot launching and maintenance of this skill is required to perform it safely and effectively.



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Contact Addresses

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NSW Gliding Association (NSWGA)

Australian Air League

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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 1525, 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 Williamstown 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

(Operates out of Baccus Marsh aerodrome)
GPO Box 1096J, Melbourne VIC 3001, 0402 281928, 03 98486473.

Wimmera Soaring Club

PO Box 158, Horsham VIC 3402.

WA Gliding Association (WAGA)

Beverly 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 9881795 (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

Craig Worth, PO Box 157, Hallidays Point NSW 2430. Ph: 02 65592713 or 0417 766356, 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

Pres: Rohan Holtkamp RMB 236B Western Highway, Trawalla VIC 3373, ph/fax: 03 53492845, 0409 678734, <President@hgfa.asn.au>.

Vice-Pres: Rohan Grant 188 Bathurst St, Hobart TAS 7000, 03 62334405 (h), fax: 03 62243598, <Rohan.Grant@hgfa.asn.au>.

Sec: Carla Pierce 33 Edmonds St, Diamond Creek VIC 3089 Ph: 03 94381667 (h), 0407 788710, <Secretary@hgfa.asn.au>.

Trs: Stewart Dennis PO Box 118, Dickson ACT 2602, ph/fax: 02 62470008, 0429 158721, <Treasurer@hgfa.asn.au>.

Board Members:

Hakim Mentès 16/59 Riversdale Rd, Hawthorn VIC 3122, 0412 617216, <Hakim.Mentes@hgfa.asn.au>.

Bill Moyes 173 Bronte St, Waverley NSW 2024, 02 93875114, fax: 02 93693342, <Bill.Moyes@hgfa.asn.au>.

Andrew Polidano PO Box 1903, Byron Bay NSW 2481, 0428 666843, <Andrew.Polidano@hgfa.asn.au>.

Kathy Robinson Lot 108, Pinjarra Rd, Ravenswood WA 6208, 0438 054072, <Kathy.Robinson@hgfa.asn.au>.

Mark Thompson 40 Hovia Terrace, Kensington WA 6151, 08 94912417 (w), 0428 729028, <Mark.Thompson@hgfa.asn.au>.

Microflight Public Relations

Paul Haines ph/fax: 02 42941031.

GFA MEMBERSHIP FEES 2003-2004

Membership:	Normal	Family
NSW/WA/QLD	\$175	\$139
Victoria	\$176	\$140
South Australia	\$179	\$143

Student membership:	Full	Family
NSW/WA/QLD	\$108	\$72
Victoria	\$109	\$73
South Australia	\$112	\$76

Short-term membership:	1 Month*	3 Month*
NSW/WA/QLD/VIC	\$48	\$60
South Australia	\$57	\$69

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@iinet.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.

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.thpa.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 Brooks (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 Ryrrie 02 62359120, <ryrimalago@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: Jason Turner (HG SSO) 0419 997196; PG/WM 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 126, Byron Bay NSW 2481, [http://bbhg.tripod.com/]. Pres: Eddie Gray 02 66841795, <edgrey@linknet.com.au>; Vice-Pres: Maggie Clark 0404 263524; Sec: Mick Mackender 0414 867820.

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@bmlgal.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/dyna].

Melbourne Hang Gliding Club Inc.

PO Box 8057, Camberwell North VIC 3124; [www.hgfa.asn.au/~melbourne], <melbourne@hgfa.asn.au>. Pres: Vanessa Sparke 03 94583780; Sec: Steven Ross 0410 600 595; SSO: Peter Batchelor 0417 379069. 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/nevch.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.

Craig Worth, HGFA General Manager

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, Alister 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/vwhgcl]. 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 33998850 (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 Yeeppoon Rd Iron Pot Qld 4701. Pres: Bob Pizzey 07 49387607; Sec: Grant Suthers 07 49361790; SSO: Alister Dixon 49861984; Towing Bilola: 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, <flockhartrod@hotmail.com>; SSO: Damien Gates 07 3901 7401; Trs: Cameron McNeill 07 38913457.

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.

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; CfI: Brendan Watts 0408 949004.

Western Soarers Hang Gliding Club

<wshgc@hgfa.asn.au>, PO Box 483, Mt Hawthorn WA 6915, [www.iinet.net.au/wshgc/]. Pres: Paul Blachford 08 93977565, <paul.blachford@bigpond.com.au>; V-Pres: Mirek Generowicz 08 93821804, <mgenerow@bigpond.net.au>; Sec: Phil Wainwright 08 92455974, <phil@iqpc.net.au>; Trs: Sun Nickerson 0401 135042, <sunny@iinet.net.au>; SSO: Sam Blight 08 93363738. Meetings: Last Tues/month, 7.30pm, Rosie O'Grady's Pub, South Perth.

Classifieds

GFA

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IS28B2 GVV, good cond, basic instruments, 5,376 hrs. Open trailer. \$25,000 ono. Ph: Peter Warburton 08 86452619, <petwarbt@mbox.com.au>.

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K7 RACING SAILPLANE, GFR. Excellent cond, paint & fabric both well maintained. Recent Form 2, incl. wing

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Advertising Index – June 2004

Airborne Avionics	38
Aventura II	46
Chamberlain Knights	7
Diamond in the Sky Aviation	29
Eco Watch	IBC
GFA Form 2	15
Glider Salew WA	IBC
Go Soaring	22
HGFA Merchandise	BC
High Adventure Tour Dates	9
Lake Keepit Gliding Club	15
Microair Avionics	29
Moyes Gliders	43
Noel Callow – Pilots	30
North Coast Avionics – Ol' Eagle Eyes	11
T&J Sailplane Service	BC

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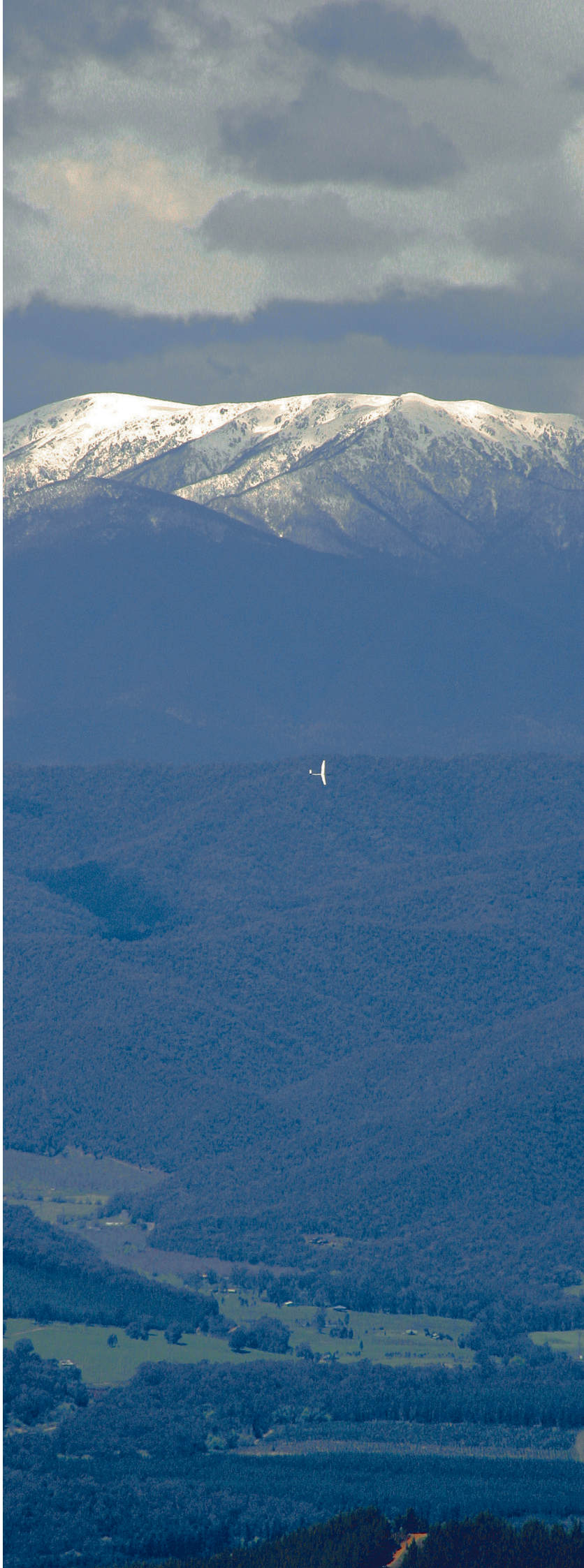
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