



Soaring **AUSTRALIA**



September 2004



Claus-Dieter Zink
A Legend in Soaring Photography



The Paranglider

September 2004

- 2 History: Narramine Aviation Museum's Gliding Stories
- 4 Call me insane if you want!
- 6 1st Asian Paragliding Championships
- 10 How I Got Addicted to XC
Part 3: Running through the Veins
- 11 Heartbeat or Heartbreak...
- 12 Digging up History:
Origin of the yaw string
- 13 GFA News
- 14 Circling the Holighaus Way

- 16 The Paraglider
- 20 How To Not Fly
- 22 Book Review
- 23 Final Glide — Tony English
- 24 Claus-Dieter Zink
— A legend in soaring photography
- 28 HGFA Editor's Choice
HGFA News

- 30 Born to Fly
- 31 Propeller Heads
- 32 Narramine Cup 2004:
All the fun a gliding week should be
- 34 NCC Notes
- 35 GFA Badges & Certificates
- 36 Attention Deficits and Stress
- 38 HGFA General Manager's Report
- 39 Letters to the Editors
- 40 GFA President's Report
- 42 Soaring Calendar
- 44 Contact Addresses
- 46 Classifieds



Photo: Claus-Dieter Zink

Emergency Parachute Systems

Parachutes Australia

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

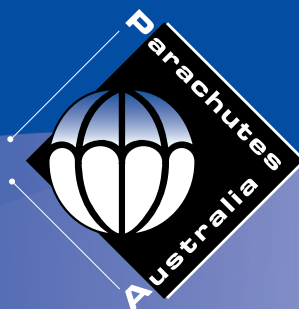
The **Thinback** and **Slimpack** Emergency Parachute Systems

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

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



Slimpack
(Seat Version)



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



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

EDITORIAL CONTRIBUTIONS

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

GLIDING

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

HANG GLIDING, PARAGLIDING & MICROLIGHTS

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

NOTICE TO READERS AND CONTRIBUTORS

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

Photographs should be printed on glossy paper either in black and white or colour. Captions and photographer's name are needed.

DEADLINE FOR CONTRIBUTIONS:

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

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

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

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

ALL OTHER MATTERS, SUBSCRIPTIONS, CHANGES OF ADDRESS, ETC

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



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

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

CREDITS

Cover: Karl Texler in his Nova Radon M at the 2004 Australian Open PG Championships, Bright, Vic.

Photo: Ian Banks (on digital camera whilst flying alongside)

Design: Suzy Gneist

Printing: Pirion Printing, Canberra ACT

Mailing: Pirion Printing, Canberra ACT

CLASSIFIEDS AND ADVERTISING

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

GLIDING

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

HANG GLIDING, PARAGLIDING & MICROLIGHTS

HGFA advertising bookings to: Richard Lockhart, c/o Blackheath Post Office, Blackheath NSW 2785, ph: 0418 130 354, email: <soaring.australia@hgfa.asn.au> or fax: 02 6559 3830. HGFA member classifieds are free, rates apply to commercial advertisers. Classifieds to be delivered to the HGFA office for membership verification/payment by email, fax, post or phone (details see previous column).

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

FOR CONTRIBUTIONS TO HGFA WEBSITE USE EMAIL ADDRESS AS FOLLOWS:

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



Moyes

Order and pay for any model glider in the month of September
and receive a **50% DISCOUNT** on any of the additional glider options!





DON'T MISS OUT! CONTACT YOUR LOCAL DEALER OR MOYES DIRECT ON 02 9316 4644



*Conditions apply 1. Offer must be ordered and payment received in full between 1st and 30th September 2004

Moyes Delta Gliders Pty Ltd 1144 Botany Road Botany NSW 2019 T + 61 2 9316 4644 F + 61 2 9316 8488 Email moyes@moyes.com.au Web www.moyes.com.au

HISTORY

Narromine Aviation Museum's Gliding Stories

Mike Nelmes (Curator)

The uniquely designed museum building (centre) seen from a glider tug during last November's Narromine Cup

Those who have been gliding at Narromine Aerodrome, NSW, during the last few years would be aware of the new museum there. If not, come for a visit! An aviation museum needs a particular theme (no museum could successfully tackle the whole story of aviation), and this one's theme is evident from the name. It presents aviation collections and stories from the Narromine region. So the museum has a focus – but not a narrow one, as the story of flying at Narromine follows an unbroken chain of events from 1919 onwards, encompassing a wide

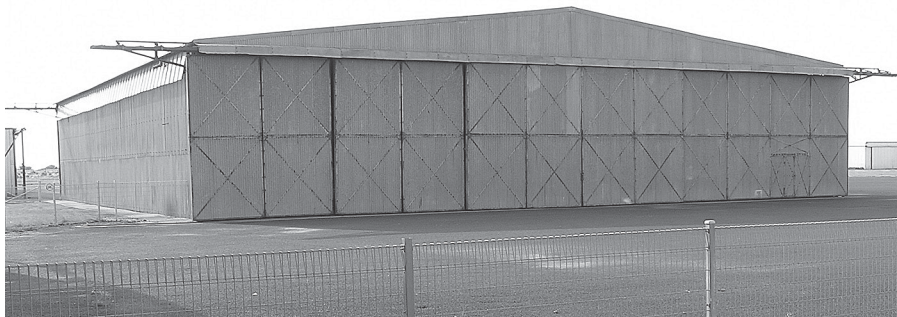
range of aviation topics. It includes the growth of Australia's oldest regional aero club, and regular visits by 'anybody who was anybody' in the days of Australia's barnstormers and the early record-breakers. Back then, a visiting aircraft was a novelty attracting thousands of spectators, and its pilot got a hero's welcome. The story includes the war years, when both training and operational Air Force units flew from here, and two massive runways – one-and-a-half and two kilometres long – were laid in 1942 in the expectation that US heavy bombers would

use them. Post-war, Qantas and later Ansett trained their pilots here, and the aerodrome became an international alternative to Sydney's Mascot Airport.

Gliding came to Narromine in 1940. The first newspaper reference comes from one of the real gems of Australian aviation history: the unique scrapbook put together between 1929 and 1940 by Narromine Aero Club. (You can browse through a copy of it in the museum). In the last few pages is an article from Narromine News dated 29 March 1940, just weeks before the RAAF



The building, constructed between 1998-2002 by Narromine Aero Club members and others, also houses the Aero Club and Narromine Gliding Club rooms



The historic WW2 Belman hangar now houses many of Narromine's gliders

Photos: Mike Nelmes

commandeered the aerodrome and the Tiger Moths of No. 5 Elementary Flying Training School moved in. Entitled *"Glider records broken at Narromine"*, its quaint style was written for a readership largely unfamiliar with the concept of powerless human flight (and unaware that aviation has its roots in gliding). It begins:

Flights of 100 miles – Western conditions proved ideal for sailplane. The most unusual aircraft ever seen at Narromine arrived on the aerodrome last weekend. It had no wheels – and no engine. Yet it covered hundreds of miles. This engine-less aircraft, known as a glider or sailplane, depends on air currents, which lift it to such a height that it can glide for a considerable distance before having to seek upward currents again. These currents are to be found under the cumulus clouds which drift lazily over the western plains. The glider, made in England at a cost of 200 pounds, was brought to Narromine in a trailer by members of the Sydney University Gliding Club. The first flight resulted in the breaking of the distance record, a distance of some 50 miles [80km] from here to the other side of Wellington being covered. The next flight was even more successful. Dr [George] Heydon left Narromine and finished up 25 miles west of Condobolin on Saturday night, the distance in a straight line being 99 miles [160km]. This was bettered by another member of the club, Mr Len Schultz, a wireless engineer, who, on Monday glided 101 miles from Barmedman to Yass, reaching the Australian record height of 11,500ft.

The favourable conditions of the western plains had been beckoning the Sydney club for some years, but this was reportedly their first visit. It was also, apparently, the first cross-country gliding done in NSW. With such conditions, and with Narromine Aero Club and the town council keen to encourage flying in all its forms at Narromine, it was a logical choice – and one which paid off with record flights. The glider concerned was a Slingsby Gull I, recently imported from England by 'Doc' Heydon. A small craft, it was one of Britain's best high-performance gliders of the pre-war era. It sported high-mounted, strut-supported gull wings, and a very '30s-look' with its framed canopy following a bullet-nose profile. The Gull was towed aloft that weekend by Stephen Newbigin in a DH.82 Tiger Moth. For those interested, there is a sequence of film footage in the collection of the Australian War Memorial, Canberra which includes 'Doc' Heydon in his Gull (film ref: F04786).

MARTIN WARNER'S RECORD FLIGHT

Another pilot in the Gull's seat that weekend was Martin Warner, who features in a different Gull and a different Narromine story told in the museum displays. On 30 December 1950, Martin flew the Sydney Soaring Club's Gull IV into the heart of a cumulonimbus cloud – and into the British Commonwealth gliding record books. As he described in the March 1951 issue of the Royal Aero Club of NSW Flying magazine, on entering the cloud at 6,000ft his rate of climb began at over 2,200ft/min. A few minutes later he was at 22,000ft, with no oxygen. It was time to deploy the dive brakes; but in the turbulent, rising air, they only slowed his ascent. He continues:

"During this period my recollections were hazy due to lack of oxygen. But the relief of seeing the altimeter suddenly descend is still remembered, and it was not until 18,000ft that I felt up to doing something about the odd attitudes the Gull IV was assuming in the very turbulent down..."

The descent was made at 61ft/sec. Amid hail and rain and now down to 4,000ft, Martin had the added complication of a fogged-up canopy.

"The next few minutes were most unpleasant. Particularly when trees suddenly appeared ahead, below and very close, leaving no alternative to a landing, at very short notice, in scrub."


The 'arriving place' proved to be in the timbered range country, some 600ft above the take off south-east of Narromine."

The Gull was extensively damaged in the landing, and Martin discovered that a storm



This piece of timber, cut from Martin Warner's broken Gull and now in the museum, gives a fair indication of his intentions – the quote, appropriately enough, coming from Shakespeare's *The Tempest*: "Be't to fly, to swim, to dive into the fire, to ride on the curled clouds, to thy strong bidding task Ariel and all his quality"

had been through in full force, tearing tree branches off and overflowing a nearby creek. The altitude recording chart carried aloft on the flight was removed from its drum, and there was the evidence: 23,500ft. Back at the Narromine Aero Club bar, Martin was congratulated and his nerves were calmed with liquid refreshments. Then he was presented with a memento of his record-breaking flight: a quickly-assembled diorama model depicting the sorry scene of his broken glider! It seems there was some controversy over whether the record was valid considering the fate of the glider; but today, the trophy for best gain of height fittingly bears his name.

In a future issue we will look at the first glider built by the Dubbo Gliding Club, the now-unique Venture, which first took to the air in 1953 and made over 10,000 flights during the years it spent at Dubbo and Narromine. Narromine Aviation Museum is open from 2 to 5pm Thursday through Sunday, or by arrangement on (02) 6889 7131, [www.narromineaviationmuseum.org.au]. 



One of the museum's blown-up wall photographs shows the scene at the 1975 NSW championships (Credit: unknown)

Call me insane if you want! (Or: How early do I have to start preparing for the cross-country season?)

Martin Feeg

NO, YOU ARE NOT ALWAYS LEFT
OUT OF THE BEST WEATHER...
IT'S JUST THAT YOU HAVE
NOT BEEN WELL-PREPARED.

In this article and two in following issues, I offer some advice about preparation. It won't be a failsafe or complete guide, and I refuse any responsibility for shortcomings or missed opportunities! Soaring is as much a sport as a pastime; if it is your sport, than read on.

In my view, there are three stages of preparation. The first is Winter Preparation – the process has to start months (if not years) before the season. The second stage is Medium-term Preparation – weeks to several days before you go collecting kilometres. The last stage is Panic Preparation. (There should of course be no panic – rather, mounting excitement.) This period runs from about five days down to about 12 hours before first flight. If you haven't set your mind at rest by then, wait for the next opportunity and just enjoy the thermals and the picture-book weather.

Long-term preparations are winter work. They start with checking out the gear and getting the pilot into shape. Is it in good order? Is a repair during the season likely? Gear – What is he talking about? Your car, for one thing. When does its registration expire – on a possible cross-country day? Is the vehicle unsuitable for towing a trailer? Do you have to fit a tow bar? Will it let you down if you need to drive further than expected for better weather? Are you the only one who is able to 'tame the beast'? If the answer to any of these or similar questions is yes, then the car needs some attention. You want it serviceable at all times, and driving it should be simple enough for a willing comrade to relieve you. The bottom line is to sit back, think hard, and if you come up with anything, get it sorted out – NOW!

Yes, and the trailer too. Simply ask the same questions as for the car. Make sure all wiring is in good condition. While looking over the glider's rolling garage, don't forget

to practise fitting the glider into it. (A little help from a local welder might turn a dog into a fox.) Every season, I witness at least one hilarious story – maybe I should write a book about them.

At the same time, it's not a bad idea to give the rigging and de-rigging a go. In the middle of nowhere, on a dark night – with the wolves howling, the torch flat and the car too far away to use its headlights – then, yes, then you wish... (So it's never happened? Maybe not to you. But a comrade of mine...) After practicing, don't forget to get the rigging checks done.

There is more to the glider. You haven't been sitting well? Why not hop into the cockpit on a warm non-soaring day and read a book, or play with the instruments. While you're there, try various settings of the seat pan and cushions. Cushioning shouldn't be too soft; ask your CFI for a second opinion. Also ask about safe storage of provisions, tie-down gear and other 'stuff'. You don't want to be worried about such things on the day, do you? You can also wash, wax and improve the glider. If specialist skills are required, ask somebody who knows.

Remember – safety, then enjoyment. Instruments, removable and non-removable: Do you know everything about them? Can you work them without looking? Are you one of my colleagues who comes running when I'm preparing at the flight-line, asking me to summarise the manual? Well, now is the time to catch up. Before the season on a local flight, after doing the homework, perhaps arrange for a club comrade to be your wingman; he or she can stay distant enough while alerting you to other traffic in the vicinity. This is not a green-card for you to never lift your nose higher than the I-panel – it is just an extra safety precaution. Two-seaters are of course the best option, provided they have the same instruments as your personal beauty.

No electronic instrument is good without a battery. Test them now, rather than having to replace them as the season starts. Get things calibrated if necessary. Some glide computers might require up- or downloading. Practice this and changing settings.

Maps: a rather large topic which is best covered in a separate article. There is so much you can learn from a map about an area before you go anywhere near it. Most

importantly, develop a feel for outstanding features, mountains and villages, and their relationships to one another. Try drawing a sketch on a separate paper, and then compare. I'm not asking that you be able to make a copy – but develop a feel, particularly for areas new to you.

Now to the poor b——d called the pilot. (I hope you're not worn out yet!) You aim to sit in your sleek machine for hours, sun blazing down on you, altitude depriving you of oxygen and drying you out. In this respect, together with constant decision-making and watchfulness, we are athletes. Every athlete is in training. In our case, and for a marathon runner or a tri-athlete, endurance is important. Watch what you eat and drink, and get regular exercise: swimming, bicycle riding, power walking, jogging, ball-room dancing... Do something you enjoy which also improves your overall fitness – but don't overdo it, as the season is around the corner. Also, have a chat with your boss – now – about holidays or time off or flexible time. Arrange with your family to allow the best soaring days to be for you.

Now for two more things athletes do. Firstly, they learn as much theory about their sport as they can fit into their brains, and this is equally important in soaring. Read books and articles on cross-country and weather (very good articles can be found in *Soaring Australia* and on the GFA website). Weather is perhaps the most important aspect of our sport, which is in a sense a fight to draw out maximum possible energy and convert it into kilometres.

The second thing athletes do is mental and emotional training – a fitness exercise for your soul. Can you effectively calm yourself down if panic is reaching out for you? Can you stop yourself from ill-considered decisions when bathing in joy? Can you relax? Practice may be needed.

A lot depends on what you are after. The higher your aim, the more professional you have to be. And, boys and girls, I want to see you and your flights on the OLC (online contest). Go out, fly, practice, show off how little or how much you have achieved. 50km on a day the birds are walking is not only a big achievement, but also a fantastic training day.

The more kilometres we log in, the easier we can claim the airspace.

See you under XC-cloudbase.





a great Queensland

[www.jimbour.com]

43rd Australian National Gliding Championships

Dalby Aerodrome
4-15 October 2004

[www.ddsc.org.au]

<rhenderson@austarmetro.com.au>

phone enquiries: 07 3843 6178

Entry Form

Pilot name	Glider type
Email address	Glider registration
Phone number	Competition markings
Mobile number	Form 2 expiry date
Fax number	Glider class <input type="checkbox"/> Open <input type="checkbox"/> 15m
Mailing address	Logger type
.....	Logger serial number
.....	Crew Chief name
Total hours.....	Crew Chief phone number
1st or 2nd Nationals <input type="checkbox"/> Yes <input type="checkbox"/> No	Emergency contact name
Date of last annual flight review	Emergency contact phone number
Competition Licence number	Accommodation <input type="checkbox"/> Camp on site
Competition Licence valid to date	<input type="checkbox"/> Accommodation off site

Gliders must be insured for third party and public liability in a sum of not less than \$1,000,000. Any policy that does not include the GFA standard competition endorsement must include the following endorsement:

In respect of the use of the Aircraft competing in the 43rd National Gliding Championships at Dalby, 4-15 October 2004, sanctioned by the Gliding Federation of Australia, this insurance is extended to include as jointly insured, the Gliding Federation of Australia, Gliding Queensland Inc. (Queensland Gliding Association Inc), the Darling Downs Soaring Club and any individual organiser or helper acting in connection with such sanctioned gliding competition but limited to the extent of coverage and limit of liability as provided by this policy.

- I hereby certify that the above information is correct and that I will provide the documentation at registration.
- I agree to abide by the competition rules and such variations as are decided by the Darling Downs Soaring Club or the Contest Director.
- I agree to waive all claims against the Gliding Federation of Australia, Gliding Queensland (Queensland Gliding Association Inc), the Darling Downs Soaring Club, the contest director and any person assisting in the organisation or running of the competition (including matters ancillary to the competition) for any property or personal damage whatsoever and I agree to indemnify and hold harmless these entities and persons in respect of their actions and inactions in organising and conducting this competition to the extent that any circumstances relating to any claim have been contributed by me.
- I hereby declare that I meet the minimum pilot requirements of: 100 hours solo in gliders, Silver C and two 300km flights, knowledge of rules of the air, two entries in national, state or NCC approved regional competitions, current flying practice in competition or cross country gliding, GFA member, FAI competition licence, and annual flight review.
- I hereby declare that the aircraft will have a current maintenance release and that the parachute(s) will have a current packing slip at the start of the competition.

Pilot Signature..... Date

Complete the entry form, sign the declaration, and send with a cheque for the \$280 entry fee made out to "Darling Downs Soaring Club" to:
Ralph Henderson

PO Box 322, Brisbane Albert St BC QLD 4002

Entries received after 20 August 2004, will incur a late fee of \$70, ie: a total entry fee of \$350.

1st Asian Paragliding Championships

Hadong, Korea

Report by Godfrey Wenness



PILOTS FROM 15 NATIONS LINED UP FOR THE SLICK OPENING CEREMONY WHICH SHOWED THAT THE KOREANS HAD WHAT IT TAKES TO ORGANISE A WORLD CLASS EVENT. THE AUSSIE INVASION WAS BUOYED BY THE FACT THAT WE WERE THE NUMBER ONE RANKING NATION ON THE WPRS AND HAD THE LOCALS WORRIED. WITH NINE OF OUR TOP PILOTS PRESENT FOR THE WEEK LONG FAI CATEGORY ONE EVENT, WE THOUGHT WE HAD A GOOD SHOT AT THE TITLE.

The host town of Hadong is located in centre of the southern coastal inland area of Korea, a step away from the picturesque Jirisan National Park, but also at the mercy of the seabreeze and with topography not unlike parts of the Kiewa Valley thrown in for variety.

Phil Hystek completes the scene with – *“It’s difficult to find a dry rice paddock anywhere”*, and the region was either that, forested hill sides, river beds, or roads and villages crossed with a frenzy of powerlines.

The pilot procession through downtown Hadong saw multiple low flying paramotors expertly dodge said powerlines and buildings in an effort to show the confused locals what this was all about. The Korean buffet dinner was first class and a traditional drums welcoming had all pilots very impressed.

The event was the first time another FAI Category 1 continental championships has been held apart from the Europeans. Since the 2002 PG competition in the same location, Hadong county had spent mega bucks

on concrete access roads and launch expansion/preparation. If only local Australian Councils and the States would spend as much annually we’d have some epic facilities at our major sites within two years!

As usual for such an event, the organisation had dozens of staff on hand to assist and a fleet of mini buses. The HQ was a lavish wedding centre ballroom, complete with crystal chandeliers and ornate decoration – quite surreal!

Brian Webb comments on the transport – *“the driving was questionable”* – and that was putting it mildly! Some of the mini buses couldn’t cope with a bunch of big caucasians on the steep slopes which resulted in a few walks to launch and some hairy reversing.

Being in the heart of Gin-land no one was surprised to see most of the 85 pilots arrive with Boomerang 3’s ready to go – the glider list brought a contented smile to the Korean hero as did his well deserved “merit” award from the local Governor. There was also a sprinkling of Omega’s, Avax and

Targa’s along with some intermediates just to add some extra colour to the Gin soaked sky.

The “Big Three” nations – Japan, Korea and China – sent large (20 plus) teams. Due to a recent PG federation split in Japan, however, the Aerotact crew (Tadano, Tsuji, Ogi, etc) did not attend, which was a shame.

The HQ and pilots’ hotels were all five to 10km out of town, meaning the nightlife was restricted to room and HQ drinking games. Not the usual party atmosphere, but then again the Asians were pretty serious about their comp. Even the well attended and fun Japanese night finished at 9pm, just like the opening ceremony – with free beer for only two hours the Aussies were barely in first gear when the buses hurried them back to the hotels!

The first two days were cancelled due to strong winds, but still allowed some controversy to develop. The small three-slot west launch, built from scaffolding on a sharp spine, was to be run PWC style with a Race task, top 15 priority and then a free for all.



Over the back on the west launch

With memories of the Chaves disaster at the 2003 Portugal Worlds, the organisation was quickly told by some team leaders this was not on and that an ordered launch system and Elapsed Time tasks should be used when conditions don't allow Race starts.

The canned days also provided good entertainment, as some of the more desperate pilots launched from a dodgy road slot over the back. Well known and liked Russian pilot, Nikolay, (WPRS #1 ranked!) managed to put on a show for all and promptly did the koala bear hug routine with a nearby tree. This was the start of the tree landings derby, which, by the end of the week, claimed nearly one in seven pilots. By Day 3 the punters were getting nervous – a Cat 1 comp must have four valid days to be counted for WPRS (unlike Cat 2's which use a sliding percentage value scale from two to four days), and with typhoon Nina marching up the east coast of Japan the winds looked bad on the forecast. This was also a "short" seven day Cat 1 comp – the usual is for 12 days. The odds were stacked against us.

Being on the east launch, with 10 to 15km/h of westerly, seemed wrong again. The opposite happened on the west launch on Day 1, which was an epic XC day with the highest bases of the week. Some of the Koreans presented a pig's head to the weather gods with various offerings placed around and a special ceremony was performed. Even some of the foreign pilots, including assistant meet director Xavier Murillo, got on all fours to ask the pig for forgiveness of past sins (took quite a while for him) and let the wind change for the better. To the astonishment of all, the Hadong Pig Head Wind Miracle occurred a few minutes later as the tailwind abated enough to allow thermals to cycle up the face. The location should now become a

shrine and "National Treasure", in keeping with the thousands of others throughout Korea.

The first task was a 43km elapsed time race using a three turnpoint ridge race, then 20km to goal down the main valley via many ridges and spines. Despite a funnelling strong seabreeze kicking in and TP2 in a very dodgy location, 32 pilots made goal and many got past halfway. Strong wind in the valleys and gullies made for pretty interesting parking on occasion with no glides out. At one point on the goal route, pilots were two to three thermals from a glide to a landing! Cloudbase was between 1,200 and 1,400m amongst the hills, which also happened to be that high. The Asian pilots showed how to do it: don't worry be happy – keep flying – trees ARE a landing option! German Norman Lausch, the most Korea-experienced non-Asian, won. Gin landed just short as did 20 or so others who were late as the wind got stronger.

The Aussies on the other hand, aside from Andrew who got to goal, didn't fare well at all, with most bombing in front of launch after the first TP. They needed some serious Korea-flying re-adjustment.

Say it 20 times before going to sleep: Trees are a safe landing option... strong wind and lee-side are okay... you can do a whole task in the mountains by just ridge soaring. This was crazy, but unfortunately true! (Novices note: this is not normal practise unless you are Asian, trying to win the Asian Champs!).

Day 4 saw a repeat of over the back conditions on the big east launch. The Pig Head goodwill lasted for another day luckily, and, with cloudbase at launch height, the puffs started up the face as a light seabreeze arrived. The second task was changed a few times to finally be 48km elapsed time along the ridge to a start TP, then down the main valley for a similar route as Task 1 with goal



The Pig Head Wind Miracle

further on. Launch was fluffy light lee-side but most got off okay. Light conditions on course early and not as much wind as Task 1. Lots of cloud flying again as well as up-the-side of cloud flying to gain the all important few extra metres to make the ridge line crossings easier. Visibility was less than five kilometres in the heavy maritime

LIGHTEN YOUR LOAD

HANG GLIDER CROSS COUNTRY BAGS

Light weight
Very compact
Full length zip
Tailored fit for all wings.
Frosted silver Nylon
Tail flag

\$140

(incl GST and post)

ph/fax **0249-449222**
wingtech@idl.com.au



Hazy low base flying

haze, making it hard to pick out clouds and ridges until they hit you in the face. Thirteen into goal – Norman wins again showing his

were ordering in take-away pizza and fried chicken from

previous experience in Korea is really counting! Only pilots electing to risk flights into places with no glide out or “real” landing options made goal or the last section just like in Task 1.

The Aussies went a whole lot better, but Adam was heard repeating himself to sleep with “*I wanna’ get above launch...*”, after two extended sleddie style shockers in a row.

A few more pilots also had to pay the US\$100 tree landing rescue fee – cheap considering the situation involved five to eight hour extraction times through the dense Korean forests.

Day 5 had predicted Nina’s clearing strong west winds to ease – they didn’t: Day cancelled at 4pm after five hours of para-waiting. By now most of the ANZAC pilots had had enough of the spicy Korean food and seaweed lunch rolls and

Hadong to the HQ for dinner. The hard drinkers were at it as usual, but there is one word of warning from the most seasoned of them all – Enda says, “*never skull Soju*”, the traditional wine (like Sake)... Why? Better ask him the next comp for a very graphic reproduction of what your face will look like after doing so!

Day 6 with the same forecast resulted in an early one-and-a-half-hour drive to a different west launch in the beautiful Jirisan National Park. It obviously wasn’t on at the high launch with 30km/h+ and the troops made a quick retreat back via the tourist drive route to the small west launch for more parawaiting a few hours later. Some good weather intel wouldn’t have gone astray for most of the week – it made our Aussie forecasting look 100%!

Desperate times with unrealistic FAI rules made for a pressured task decision to get the four days in. A short 27km multiple lap, to and fro, ridge race with a tailwind glide to Hadong was called. The wind dropped momentarily with blocking thermals to allow the window open and the top 15 promptly launched with assistance in a launch open/closed sequence. Speed bar ridge soaring was the name of the game, but after the wind picked up again (as expected by those who can read conditions) and three pilots out of the 15 were in the trees (no glides out), the day was cancelled.

As the comp now scores zero for WPRS, moves were made by CIVL president, Olivier Brugalle, to change the rules to bring Cat 1’s into line with Cat 2’s for validity. In a gutsy effort he used his casting vote within the CIVL Bureau to secure the change that night

STOP PRESS
We are now dealers for
A-I-R. Ask us about the
amazing ATOS-V and VX
rigid wings.




raptor designs pty ltd
www.aerialpursuits.com

GME UHF CB Radios



TX6200 \$420
TX3200 \$320
TX610 with charger +NIMh Batteries \$100



Lazer Downhill \$245
Icaro SR/Pro \$280 with visor
Icaro 4-fight \$CALL
Sonik Jet \$633
Sonik Integral \$600
Microlight comms

Some of our other products:

- ☉ Trike VHF antenna/Leads \$140
- ☉ Trike UHF antenna/Leads \$45
- ☉ Visor for trike helmet w. Lock \$43
- ☉ Mike windsocks \$3.50ea
- ☉ Flight Planner: \$50
- ☉ Peltor Gel seals \$45
- ☉ HG/PG Headset: \$38.50
- ☉ HG/PG finger switch assy \$55

Phone: 03-9553-6445 FAX: 03-9553-6405 email: aerial@ozemail.com.au



Paramotor powerline dogems

and save the face of the first ever Asian PG Champs in Korea. One would think that this should also now prevent the more regular occurrence of so called Mickey Mouse tasks to validate a comp, but keen organisers will still be desperate to pull extra days to increase the WPRS percentage value.

After the excellent farewell night at HQ the reserve day was a bit of an anti-climax. An anxious early trip up to the scaffolding launch, to watch some beginners ridge soaring happily while the task was set. With increasing winds forecast, an even shorter race was called – a 29km multi leg ridge run then to the river beach goal below. But the turnpoints had two kilometre cylinders for “safety”, which meant the actual distance needed to be flown was only 12km! Now that is Mickey Mouse! Most serious comp pilots were glad to see the wind kick in after a few of the top 15 launched and the day cancelled.

The extended prizegiving ceremony had the big three teams (Japan, Korea and China) on the podium twice (Asian and overall) and quite happy with themselves to have beaten off the challenge from their non-Asian counterparts. Gin pronounced that the overall winner and his number one pilot, Norman, was really now Korean and seeking a local girlfriend to consummate his love affair with his new homeland.

Despite the lack of tasks the mood was fine. The hospitality was great – everyone felt very welcome and the Koreans were doing everything to help out. The flying could have been okay with the usual weather (according to Gin) – not much we can do



Above: Asian triad – Below: The glorious headquarters



Open winners



Female trophy recipients

about that – it's been bizarre everywhere the last few years. The organisation did the job well, and CIVL now has a few more things to sort out before the whole system turns into a joke.

For those who ventured to Korea just for the comp week it was a pretty expensive trip on a dollars per flight (or hours) basis – one factor that PG comp pilots must take in their stride though if they are to take their passion into the realm of competition. One of the Aussies (guess who?) also proved that you can't go to Korea to get lucky with the very friendly ladies when the flying is not on, despite the best attempts – drunk and sober.

In the pipeline to promote flying in this part of the world, and not just Europe, is an Asia-Pacific Champs (ASPAC) and ranking system taken from the WPRS including just ASPAC pilots and comps.

One thing is for sure – just to our north there exists a flood of rising stars. The next PG Worlds will be very interesting indeed – expect to see pilots from China, Korea and Japan in the top 20 for sure, based on the skill, determination and “risks” displayed in Hadong.

OVERALL RESULTS (2 TASKS)

1	Norman Lausch (GER) Boomerang 3	1,755
2	Nikolay Shorokov (RUS) Boomerang 3	1,635
3	Kawachi Masaka (JAP) UP Targa	1,621

AUSSIE RESULTS

Andrew was a credible 11th overall. Stewie, Brian, Enda, Fred, Craig, Godfrey, Phil and Adam all were evenly placed in that order from 34th to 82nd, each with their own little task disaster stories...

NATIONS

1	Korea	4,708
2	Japan	4,669
3	China	4,090
4	Australia	3,656
5	Germany	3,256

PROTECT YOUR WING



Rain/Dust/UV HANG GLIDER COVER BAGS

- * Total rain, dust & UV protection
- * Full length zip
- * Tail flag
- * Gold PVC material

\$150

(incl GST and post)

ph/fax **0249-449222**
wingtech@idl.com.au

HOW I GOT ADDICTED TO XC

Part 3: Running through the Veins

Jillian Georgiou

I WONDERED IF I WAS A 'ONE HIT WONDER DUMMY' WITH MY FIRST XC FLIGHT, ON MY FIRST ATTEMPT. THE BIRCHIP XC TOUR HAD BEEN A GREAT LEARNING EXPERIENCE, BUT I'D ONLY HAD UNSUCCESSFUL ATTEMPTS SINCE. IT WAS LIKE A FREE TASTE OF SOMETHING TO GET YOU HOOKED, AND FROM NOW ON YOU HAD TO PAY FOR IT. I COULDN'T BELIEVE IT WHEN I WAS ON MY WAY AGAIN, THIS TIME ON "HOME TURF" AT THE DYNAMIC FLIGHT PARK IN TRAWALLA. I'D HAD AN EXCELLENT TOW AND HAD MADE IT OUT OF THE TOW PADDOCK, ACROSS THE HIGHWAY, AND HAD BEEN JOINED BY ANOTHER PILOT INTRODUCED TO ME AS STEVE "BLENKIE". HE'D AGREED TO WATCH OVER ME AND ASSIST IN GETTING ME VALUE FOR MONEY. I COULD FEEL THE BUZZ RETURNING, THAT THRILL THAT CAME WITH XC FLYING.

Straight away Steve was encouraging. *"That's the way Jilly, keep circling. We'll head towards those hills."* So I kept circling, going with his instructions and my instincts. If it works, then keep doing it. We headed off in a north-east direction. My husband Damian was notified that we were on the move. Damian was already on the road doing another pick up. Steve gave him updates as we went, and tips to me as we circled together. Sometimes Steve was directly above me in my thermal. If I caught a glimpse of his glider above me, but more to one side, I'd sneak over his way as he probably had the better lift. Sometimes he'd be in his own thermal well away from mine, so I usually stayed in what I had, particularly if it was working well. It was like having your own guardian angel, except in an advanced glider... When I ran out of lift, I'd glide straight. *"Am I heading in the right direction, Steve?"* I didn't want to wander off what he had in mind. We were heading towards the region where the little town of Talbot is located. *"You're right, that's it, glide straight. Glide, glide."*

We jumped a few thermals and glided straight when there wasn't much to find. Steve would sometimes head off to search for lift, but I would often find something by

myself anyway, so we kept making progress. The familiar feeling of motion sickness crept up, trying to make advancements. This time I made sure I looked out towards the horizon more and really looked about the landscape. I avoided being mesmerised from looking down my wing while turning, other than to check for other gliders. Surprisingly enough this seemed to work. Perhaps I'd keep my lunch this trip!

The landscape is much busier in this part of Victoria. A lot more trees, some hills, more farms and powerlines. There are meandering creeks, bodies of water, dry lakebeds. As we got further towards Talbot, I saw ridges of rocky outcrops projecting out from what I guessed were some hills. Things tend to look a lot more flat up here. I also saw a dam wall, but at the time couldn't think of what it could be in that area. Studying the map later I found out it was probably the Talbot Reservoir. I was trying to keep an eye out for the bluestone quarry at Talbot too, where my father had worked many years ago, but didn't spot it. My hometown of Maryborough was a few kilometres along the bitumen road from Talbot. I never thought I'd see the place from up here, in a glider! I realised how much forest surrounded the

town; it never seems that dense when you're on the ground.

"Head between those two forests ahead, Jilly." Steve had the co-ordinates of the towns in his GPS – Carisbrook was next, west of Maryborough. He informed Damian, who responded that he knew the area well. We'd both grown up in this district. Flying home, perhaps? The lift was getting sketchy now. It was quite bumpy at times and I even abandoned some lift as it wasn't worth sticking with. At least I wasn't being distracted by motion sickness. We spent more time on glide towards Carisbrook. Steve went out ahead again searching, but I had that sinking feeling. The trip was coming to an end. I was losing altitude fast, and started picking a landing paddock. Below 1,000ft the air really got rough. I picked a long paddock on the Red Lion-Carisbrook Road. Pulling the bar in hard, it didn't take much to be over the chosen land, but it was rough going. There was rotor off trees and the wind had increased also. The paddock had a dam, so I checked the wind lines (handy things these dams) and lined up for a landing. I touched down and realised the slight undulation of the paddock was actually a small hill, and I'd landed right on it. (Yeah, try to make it harder for yourself next time, Jill...) Steve came down shortly afterwards and congratulated me on my efforts. It was nice to meet him face to face. I thanked him for his hospitality, and agreed with his suggestion: perhaps landing across the road on a flatter patch might have been better... Okay, next time!

Steve was very kind in helping me carry the glider closer to the fence and road. He said he'd actually planned on landing at the Flight Park, but had enjoyed the extra leg. I thanked him for the tips and for watching over me. I'd really had a sublime flight and couldn't believe how far we'd come. Today's effort got me a 43km flight and a nice 6,900ft in height. It wasn't long afterwards that Damian arrived, and while we packed up he chatted to a local (whom we knew, coincidentally) who'd arrived to check on a friend's property.

So there you go, XC virgins. Hope that inspires you to "get away" and break that tie with the tow paddock one day. The feeling of accomplishment may not hit you immediately (usually fatigue comes first) but once it does, it's so addictive – you have to do it again!





Heartbeat or Heartbreak...

...it all depends upon the heart bolt

Rodney Lynn

Flying a microlight aircraft is somewhat of a love affair between pilot and aircraft. Certain matters must be carefully managed, particularly matters of the heart bolt.

Thousands of songs have been composed about broken hearts and the heartbeats of love. Crooners moan over their damaged feelings and their loneliness of heart because of a long lost lover.

Their lyric writers join rhymes with music to lament about things like: *"Your cheating heart will pine some day..."* *"My heart is aching, but what care I?..."* *"Well, I've got heartaches by the number, troubles by the score..."*

And so, they produce the stories of love and heartbreak.

But they have nothing to compare with the heartache of the microlight pilot, who may have troubles with his heart bolt whilst in flight. This poor soul will have his heart in his mouth and not much time left to rectify the situation, if the heart bolt should fail.

Fortunately, the heart bolt on a microlight takes a lot more to break than a set of infatuated feelings or romantic notions. The heart bolt is the essential connection of the microlight base to the wing above. It is the bolt that attaches the microlight mast to the universal junction on the keel of the wing.

My first introduction to this tough little object, essential for the safety and wellbeing of both body and soul for microlight pilots, was at that unforgettable initial Trial Instructional Flight all would-be pilots undertake as they enter the portals of aviation.

The instructor and I were walking around the aircraft. My eyes and ears were wide open, drinking in all the new information and sensations associated with learning about a machine that would be carrying me to places in the sky I had never visited before. Then there was a pause.

The instructor pointed to a bolt high up at the top of the mast, where the microlight base connected to the wing. He said, *"See that bolt, that's called the heart bolt. It is called the heart bolt because, if it breaks, you will have your heart in your mouth and you will feel it pumping like you have never thought*

it could ever pump. That bolt is what your life hangs on."

Sincerely, I have seen plenty of bolts before. But this bolt now had my full attention. As the instructor continued his explanation, my respect for this simple looking piece of metal grew and grew.

Behold this little bolt. He held up one taken from his toolbox, to show me what it looked like all on its own. I held it in my hand. It was a bit longer than my biggest finger, but not quite as fat. It had a golden colour and some plastic netting stretched along the shank, which I later learned was to protect the bolt while it was new.

When you know your life depends upon something, you tend to take extra pains to be attentive to that matter. I paid attention to this bolt.

The instructor spoke on, *"This bolt is so strong it can hold up almost two Holden utilities. (Nearly two tonnes.) Consequently, it is far stronger than is necessary for it to act as the hanging point for a microlight aircraft and its passengers. We can feel safe with this margin of strength in our favour."* Well, that was indeed reassuring!

It is amazing how conversations like that stay in your mind forever. This little bolt is a special part of every microlight pilot's experience of flight.

Break that bolt and you will more than break your heart. It is aptly named the heart bolt.

The good news is that microlights are so designed that should the unlikely event happen, where this intriguingly strong bolt should malfunction, there is a back up safety strap that also connects the trike base to the wing keel.

Like rebound love affairs after a romantic heartbreak, the safety strap is not as strong as the original. It is there to get you through a time of disaster without too many catastrophic results. It will get you down, but the let down may not be easy.

I am always conscious of the heart bolt in my microlight. Like true love, it cannot be taken for granted. It has to be kept in peak condition. That takes commitment and you must check on the condition regularly and often. Only then can you be sure that a heartbreak is

not about to happen upon you from out of nowhere.

At Midcoast Microlights, where I fly with some heroes of aviation in the Port Macquarie district of NSW, we change our heart bolts approximately every 50 hours. That keeps them in peak condition. (We try to make our love affairs last much longer than 50 hours! Mine has lasted over 30 years.)

How is your heart bolt? Don't let it become a heartbreaker. Keep a happy heartbeat happening with a peak condition heart bolt.

Perhaps then, you may not be flying through the sky singing, *"Love is in the air..."*, but you should feel that your microlight is safely in the air.



**Look
after your
wing
and your
wallet**

**Order an XC bag
and a UV/RAIN
bag together and
save \$40 off the
usual total**

**That's only \$250 for
\$290 worth of
protection!**

ph/fax **0249-449222**
wingtech@idl.com.au



DIGGING UP HISTORY: Origin of the Yaw String

Martin Feeg

HAVE YOU EVER WONDERED WHY THERE IS A STRING ATTACHED TO THE CANOPY? IT IS SAID TO BE THE MOST IMPORTANT INSTRUMENT – THAT RUGGED LITTLE PIECE OF STRING! INSTRUCTORS SHOUT THEMSELVES HOARSE ABOUT THIS THING NOT BEING STRAIGHT.

In a recent issue, and in this one, are articles about the importance of this piece of wool – but we are not told how it got there. (To maintenance officer: “*You attached it with some tape and made a fuss about getting it exactly in the centre*”. Bad answer.)

Do you know when a glider was first equipped with it? No? Let’s take a step to the left and make a jump to the right – let’s do the time walk. In the beginning, nobody really needed equipment to show the outside airflow; flapping ties and red cheeks did that. (A tie was part of proper aviation dress, and it didn’t matter whether it was flapping over

the left or the right shoulder). Back to the story. Nothing more than a bit of wood supported the bum of the early aviator. He or she was one of the parts causing drag, but flights were very short so it didn’t matter much. As they got longer, however, a lot of brainwork went into performance – which in turn deprived the pilot more and more of the feel of the elements. Before the Second World War, one’s head was still in the airflow and one’s nose might have functioned as an indicator. But once windshields were mounted, that fun changed.

SPRING, 1939

Birds are chirping high in the sky, and for years the students of the Akaflieg Darmstadt had busied themselves at the Wasserkuppe. Among them was Günter Merino with his OH 1.4, preparing for a distance flight. A bungee launch, as usual. With meagre altitude, getting lower and lower, he had to land in a valley. But the paddock was rather large, and an aerotow was soon performed. Throttle fully open; the usual debris blowing up. Hold on, I don’t like this: some pieces of hay had wrapped around the vertical pitot tube on the nosecone. The canopy now became a hindrance, as the poor chap was no longer able to reach forward and rectify the problem.

Soon he released, and tried with all kinds of odd manoeuvres to get rid of the attachment, without success. Eventually he settled down, muttering to himself about the mishap. Now, concentrating more on the flight, he realised that he had experienced least sink whenever the hay blades were pointing straight at him. Way before his landing, the aeronautical student was enlightened. Ever since then, he flew with a piece of wool attached to his pitot! The eagle eyes of Oskar Ursinus, the ‘Rhön-father’, coach and driving force of soaring science, soon noticed the feature and enquired about it. After learning the news, he asked Günter to write an article in Ursinus’ magazine “*Flugsport*” (Aviation Sport).

Of course, the magazine has now long since been discontinued, but a few old copies are still around. If you are lucky enough to find one, you can read the original story in issue 19, September 1939.

The beginning of the Second World War hindered the spreading of ‘wool attachments’, and after the war it took some time for the string to become standard (with the help of sticky tape). And Herr Merino? He emigrated to America in 1959, but is no longer with us.



OAMPS Insurance Brokers Ltd

ABN 34 005 543 920

Let us set a better course for your GFA Glider insurance

OAMPS Aviation

Australia’s Aviation

Insurance Specialist

ACN 005 543 920

PO Box 2481

North Parramatta

NSW 1750

Fax: (02) 8838 5770

Email: aviation@oamps.com.au

GFA Glider insurance packages are the only option approved and initiated by the GFA for the benefit of members.

Why pay more than you need to?

Call OAMPS Aviation now

(02) 8838 5760



A PROFESSIONAL REGISTERED INSURANCE BROKER



Errata

The photographs appearing inside the back cover of the June issue and on page 43 of the July issue were incorrectly credited to Chris Rogers. They were in fact taken by Andrew Rigby. Our apologies.

Advanced Aerospace Materials Manufacturing Venture (From VCAMM News Release)

A world centre for the manufacture of advanced polymer matrix composites was launched in Victoria on 13 July. The State government has established the Victorian Centre for Advanced Materials Manufacturing (VCAMM) in a venture with advanced materials group Quickstep Technologies Pty Ltd of Canning Vale near Perth. Hon. John Brumby MP, State treasurer and Minister for Innovation, opened the facility at Deakin University in the Geelong Technology Precinct, Victoria.

The venture highlights the potential of leading-edge Australian technology to bring the use of non-metallic materials such as lightweight but ultra-strong composites to the global automotive and aerospace industries. Under an alliance, Quickstep Technologies has installed a fully automated production plant employing its patented Quickstep™ Process at the VCAMM Centre. The process enables the high-speed production of composite materials in volumes and cost structures not previously achievable using conventional autoclave processes.

Up to \$2 million is committed to the project over the next two years. Quickstep uses a lightweight rigid mould suspended in heat transfer liquids. Liquid circulates in a low-pressure environment with a flexible membrane maintaining constant pressure and heat on the mould to compact the laminate and cure the part, while vibration introduced into the circulating liquid forces out trapped air and gases. The technique takes advantage of the thermal conductivity of fluids. See [www.vcammm.com.au] and [www.quickstep.com.au].

Amendment to Manufacturers and Agents Contacts

(June issue, page 39):

Alexander Schleicher Segelflugzeugbau GmbH & Co.

PO Box 60, 36161 Poppenhausen, Germany.
Ph: +49 6658 890, Fax: +49 6658 8940,
[www.alexander-schleicher.de].

Contacts: Ulrich Kremer (Administration);
Martin Heide (Technical matters).

Types: All Schleicher Types.

Australian Representative: Bernard and Chris Eckey, 10 Antigua Grove, West Lakes SA 5021.
Ph: 08 8449 2871, Fax: 08 8242 3698, Mobile: 0412 981204, email: <eckey@internode.on.net>, [www.gliders.net.au].

Ximango

Please note that Christofer Kiehn Fibremites P/L is no longer a Ximango representative/agent.



Australian National Gliding Championships

[www.ddsc.org.au]

[www.jimbours.com]

Only a couple of weeks till the 2004-05 Australian competition season gets under way here in Queensland. The Queensland State Championships are on first at Kingaroy, and then the Multi-Class Nationals at Dalby.

Hopefully all the entries are in by now, but if you haven't entered and still want to come and be part of the fun then please contact us urgently. In talking to people around Australia, there has been a lot of interest in the Dalby Nationals and hopefully this has translated into entries.

A lot of people are interested in the Nationals, but for various reasons choose not to compete. To all you people, we would like to invite you all to come to Dalby for the middle weekend of the competition, 9-10 October. This will enable you to see the latest Nationals action and catch up with lots of old friends who are either competing or are just visiting as well. We have pushed with the local shire council the economic benefits of holding the Nationals, so the more people turn up the happier we will all be.

The Dalby Town Council have been very supportive, and without their help we could not have organised this Nationals for the money we are charging. Of course the help of Jimbour wines and our other sponsors has also been very important.

To find out more about the Nationals please visit our website at [www.ddsc.org.au] or send any questions you may have to <rhenderson@austarmetro.com.au>.

Ralph Henderson

FAI BADGE NEWS

New Pilot Cards

Glider Pilot cards are now available from the FAI Badge Officer, Beryl Hartley. These attractive credit card style cards are supplied on application. An application form is supplied in this magazine and available on the GFA website at [www.gfa.org.au]. The new cards are supplied at a cost of \$20 each for existing pilots who hold an Australian C certificate.

GFA AIRWORTHINESS DIRECTIVE

GFA AD 607 (Issue 1)

Type affected: PW-5 Serial no.s 17.12.022 to 17.12.024

Subject: Inspection of push rod ends installed in aileron and spoiler drives.

AVENTURA II – Two-Seat Amphibian Seaplane Kit

Serious Fun? You Betcha!



Anodised aluminium airframe, fibreglass hull, pre-sewn dacron or Stits wing covers.
Main wheels and tailwheel retract for water operations.
Amazing view out of the very roomy cockpit. Lots of luggage space.
Cruise at 70-80kt (faster with Stits wings), land at 50kt. Electric flaps standard.
Engine options 65-100hp. Call for further details and a demo flight on Lake Macquarie or other suitable location.



Aust. Agent: THERMGARD Pty Ltd • Phone 02 4970 5888.
28 William St., Bonnells Bay NSW 2264.
Email: <thermgard@hunterlink.net.au>
Contact: Dieter Stuempfl

CIRCLING THE HOLIGHAUS WAY

– Or: Do you really want to keep the yaw string centred?

Richard H. Johnson

ANSWERS:

1. *During straight flight – YES, this minimises drag and maximises the sailplane's performance.*
2. *During turns – NO, not really, because then the sailplane is actually in a slight skid, and more than necessary cross-aileron is required to prevent over-banking. This will be explained below.*
3. *During circling flight – NO, it does not minimise drag; the possibility of an inadvertent spin entry can be reduced significantly if one maintains a mild true sideslip while circling.*

INTRODUCTION

Some 30 years ago, while we were both competing at the World Gliding Championships in Yugoslavia, Klaus Holighaus – the well-known German sailplane engineer, designer, Schempp-Hirth factory owner, and sailplane pilot – generously brought to my attention the benefits of maintaining a mild sideslip while circling. He was flying his beautiful new Nimbus 2 sailplane for the German team, and I was flying an equally fine ASW-17 for the US team. I was and always have been impressed with his knowledge, generosity and sportsmanship. He died in an unfortunate mountain soaring accident some nine years ago, but his legend will always live on.

Why maintain a mild sideslip while circling? Essentially all sailplanes are designed with positive wing dihedral. During a sideslip, this causes the windward wing to achieve a slightly higher angle-of-attack, relative to the airstream, than the leeward wing – creating a rolling moment toward the leeward wing. This phenomenon is easy to prove: During straight and level flight, while holding the control stick fixed, push on one of the rudder pedals and note your sailplane's roll response. It should definitely roll toward whichever rudder pedal was depressed. This is known as positive roll stability. The beneficial effect of positive roll stability is not so obvious during circling flight, but it is still there. The lowered inside wing has less airspeed, and hence less lift than the raised outside wing. To compensate for the difference one must, while keeping the sailplanes'

skid-ball (see next section) centred, deflect the lower wing's aileron downward to increase its lift so that the lower wing's lift equals that of the upper wing. If that is not done, the sailplane will keep increasing its bank angle, and a steep spiral dive will result. When the lowered wing's aileron is deflected downward, not only its lift but also its drag is increased, and a skidding turn will be induced. The skid can easily be corrected for by adding some top rudder to keep the skid ball centred. The danger here is that when the aileron is deflected downward, it is more prone to stalling. When that happens, an out-of-control spin will likely result unless corrective action is promptly taken.

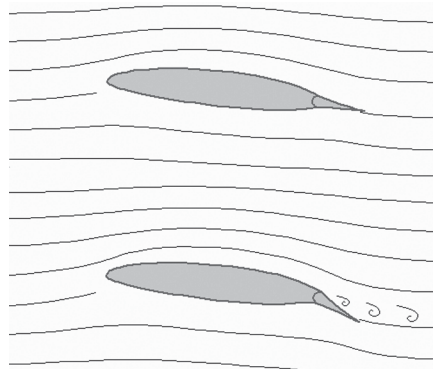


Figure 1

Figure 1 shows a cross-section of a typical sailplane wing airfoil and its airflow streamlines. The upper airfoil represents a relatively high angle-of-attack thermalling condition with the aileron un-deflected.

There, both the upper and lower surface airflows stay attached to the wing surfaces, and near-maximum wing lift is achieved. The lower airfoil shows the same airfoil, but with the aileron deflected downward. If the aileron is downward far enough, the airflow will separate from the upper portion of the aileron surface, increasing wing drag and decreasing lift. If a pilot then increases the aileron downward deflection angle in an attempt to compensate for its lost lift, this only makes matters worse. A spin entry is likely, unless the aileron deflection angle is neutralised and/or the wing angle-of-attack is promptly reduced.

How does one make allowance for less aileron deflection while circling? That is easily achieved by just maintaining a small angle of sideslip, letting the sailplane's dihedral effect provide additional lift to the lower wing. Figure 2 depicts how the wing dihedral, combined with a sideslip, increases the lift on the windward wing and decreases lift on the leeward wing. Klaus recommended maintaining a gentle sideslip while circling. The optimum degree of sideslip depends to some degree on both the sailplane's wingspan and dihedral angle. After many hours of flying my 16.6m Ventus A and similar sailplanes, I find that my best overall circling performance and handling characteristics occur while the canopy-mounted yaw string is deflected about 10 degrees on the high side of the turn (a gentle sideslip actually), because the yaw string forward placement error

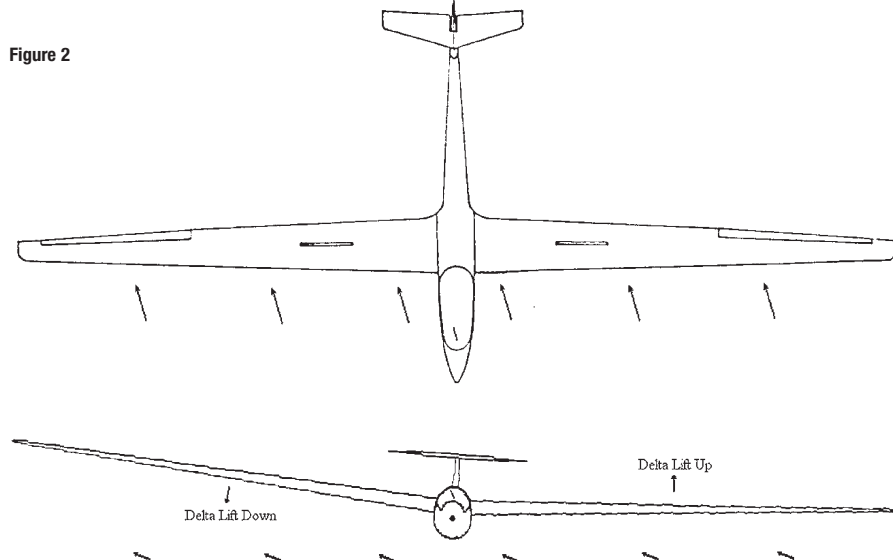


Figure 2

accounts for about half of the 10 degrees. See section below.

THE SKID-BALL INDICATOR

A skid-ball indicator is a curved glass tube filled with a clear fluid as in a compass, within which a ball is free to roll from side-to-side. It is mounted laterally on an instrument panel, and is designed to sense and indicate lateral accelerations of the sailplane. It is commonly called a ball-bank indicator in the US, but it actually indicates lateral acceleration, not bank angle.



Figure 3

I observe that under optimised circling conditions, my Ventus instrument panel mounted skid-ball is not centered, but rests about half a ball diameter on the low side of the turn. Figure 3 illustrates a hypothetical sailplane cockpit view while thermalling in a slightly slipping circling flight condition. The instrument panel includes a skid-ball indicator, and the canopy sports a typical forward-mounted yaw string deflected by about 10 degrees toward the high side of the turn.

WINGLET PROBLEMS

I did not have winglets installed on my 16.6m wings during the above flight-testing, and they are often prone to stalling during slipping or skidding flight. Sailplanes equipped with winglets likely need to just keep the skid-ball centred to avoid winglet-stalling problems. Place some wool tufts on the inboard sides of your winglets and see for yourself during a test flight.

YAW STRING LONGITUDINAL LOCATION PROBLEM

Figure 4 depicts a plan-view of a sailplane while thermalling. Circling with the yaw-string centred actually results in a slightly skidding turn, because the yaw string is mounted well ahead of the sailplane's CG. That concept is illustrated in Figure 4. The yaw-string is mounted about two metres or so ahead of the sailplane's CG; therefore, the air approaching the yaw-string arrives slightly from the left of the sailplane's nose.

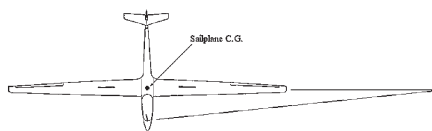


Figure 4

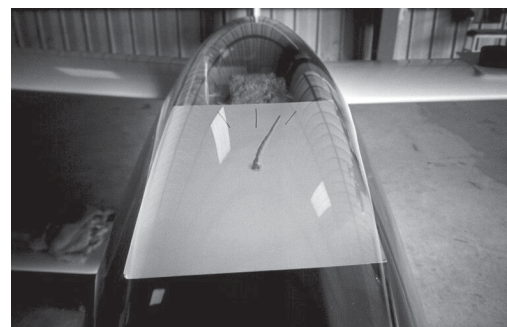
Another way to view this turning flight situation is to consider the sailplane to be motionless in space, while the thermal is rotating at say 45kt against the sailplane. That makes it easier to appreciate the effectively curved airflow approaching the nose-mounted yaw-string. Many single-seat sailplanes today do not carry skid-ball indicators, but fortunately most two-seat training sailplanes do. The errors in the canopy-mounted yaw string angle can easily be seen during turning flight by referring to the true skid-ball indicator. In a tandem two-seater with separate yaw strings, one can compare the difference in the angles between the rear and front cockpit yaw strings. If the yaw-string could somehow be mounted at the sailplane's CG and utilised by the pilot, it would show zero yaw deflection when the sailplane was being flown with the skid-ball centred. Because of its normally well-forward mounting location, the yaw string indicates a slight sideslip, even though the sailplane's more accurate skid-ball shows none. Obviously, the skid-ball more accurately portrays the sailplanes' true flight condition.

CANOPY CROSS-AIRFLOW MAGNIFYING EFFECT

During both straight-ahead yawed flight and skidding/slipping circling flight, the canopy air cross-flow has a magnifying effect on the canopy local airflow direction. The actual sailplane slip or skid angles are likely to be about half that indicated by the yaw string.

SUMMARY

1. Because the canopy-mounted yaw-strings are typically mounted well ahead of the sailplane's CG, they indicate a slight side-slipping condition while turning, when in fact the sailplane is not slipping.
2. Better and safer sailplane circling performance can be achieved by maintaining an actual slight half a ball-width sideslip while thermalling. When circling in that condition, the yaw-string typically needs to ride about 10 degrees to the high side of the turn.
3. Winglet-equipped sailplanes may suffer stalling on the inboard winglet during the half-ball sideslip. In that case, keeping the skid-ball centred will most likely optimise climb performance. To achieve that, the yaw-string still needs to ride about five degrees on the high side of the turn.



Cockpit views of the yaw-string on Richard Johnson's Ventus, showing its angle during some of the conditions described in the article

Illustrations: Richard H. Johnson

4. For safety's sake, never skid a turn unless a spin entry is to be an acceptable condition. Never fly with the yaw string on the low side during any turn – that is a dangerous skidding flight condition, and too much aileron deflection is required to prevent over-banking. Skidding is an indication that too much pro-turn rudder is being applied. At low airspeeds, this can easily lead to a highly unwelcome loss of roll control and a dangerous spin.
5. It is very important that a yaw string be installed on modern sailplanes, but it is also prudent to have a simple skid-ball mounted on the instrument panel to indicate true slipping or skidding. Next to the airspeed indicator, the yaw string is, in my opinion, the most important sailplane safety instrument.
6. Although the ability of a yaw-string to correctly indicate a skid or slip is only fair, it is cheap and simple. Its most redeeming feature is its mounting location, squarely in the pilot's forward field-of-view.



The Paranglider

Brett Snellgrove

RECENTLY, WITH THE INTRODUCTION OF SMALL RIGID SECTIONS IN PARAGLIDERS LIKE THE GIN BOOMERANG AND APCO KERA, I HAVE NOTICED THERE HAS BEEN A GREAT DEAL OF INTEREST FROM PILOTS WONDERING WHY LARGER RIGID SECTIONS, AND ENTIRELY RIGID WINGS, CANNOT BE USED IN PARAGLIDERS. THERE APPEARS TO BE AN ONGOING FASCINATION WITH A VEHICLE THAT COMBINES THE ADVANTAGES OF BOTH HANG GLIDING AND PARAGLIDING. UNFORTUNATELY THERE ARE SOME UNIQUE DIFFICULTIES SPECIFIC TO PARAGLIDERS THAT MAY MAKE RIGIDIFYING OUR SOFT WINGS VERY DIFFICULT IF NOT IMPOSSIBLE. I HAVE INVESTIGATED AND EXPERIMENTED WITH THE CONCEPT FOR MANY YEARS, AND THINK I HAVE ENOUGH INFORMATION TO VENTURE AN INFORMED OPINION.

Positioning the major portion of an aircraft's weight far below the wing is an excellent way to stabilise a wing, and renders traditional methods like sweep back, tip washout and reflex in flying wings, or canards and tails as used in more traditional aircraft, unnecessary.

A very low payload however, when associated with connection to the wing by lines rigid in tension but flaccid in compression, introduces a significant problem with pitch, surge oscillation. This problem is kept to a minimum in paragliders by using a very light, low inertia wing, and in using a soft wing that can collapse at low angles of attack. As such, when the wing surges following gust induced pitch back or stall, or encounters airflow at a negative angle of attack to the wing, a portion of the wing collapses, creating drag. The drag assists in bringing the wing back overhead. Add weight and rigidity to the wing and you add

considerable inertia to the pitch, surge oscillation and remove the primary means of dampening that oscillation. In rough air there's nothing to stop the wing surging right under the pilot.

This is the major problem that leads to the failure of virtually every attempt to add rigid sections of any significant size to paraglider wings. The Forth Dimension, with its inflatable transverse centre spar, is a classic example. The LD was said to be 11:1, so if a successful rigid paraglider can be achieved the result would be clearly worthwhile.

In an effort to address these problems, I experimented with one-third scale models, adding rigid reflex to a paraglider wing in the form of rigid battens (soft reflex in a paraglider wing can simply blow down at low angles of attack, this is why hang gliders use luff-lines to hold the reflex in the trailing edge). Such airfoil sections are auto stable

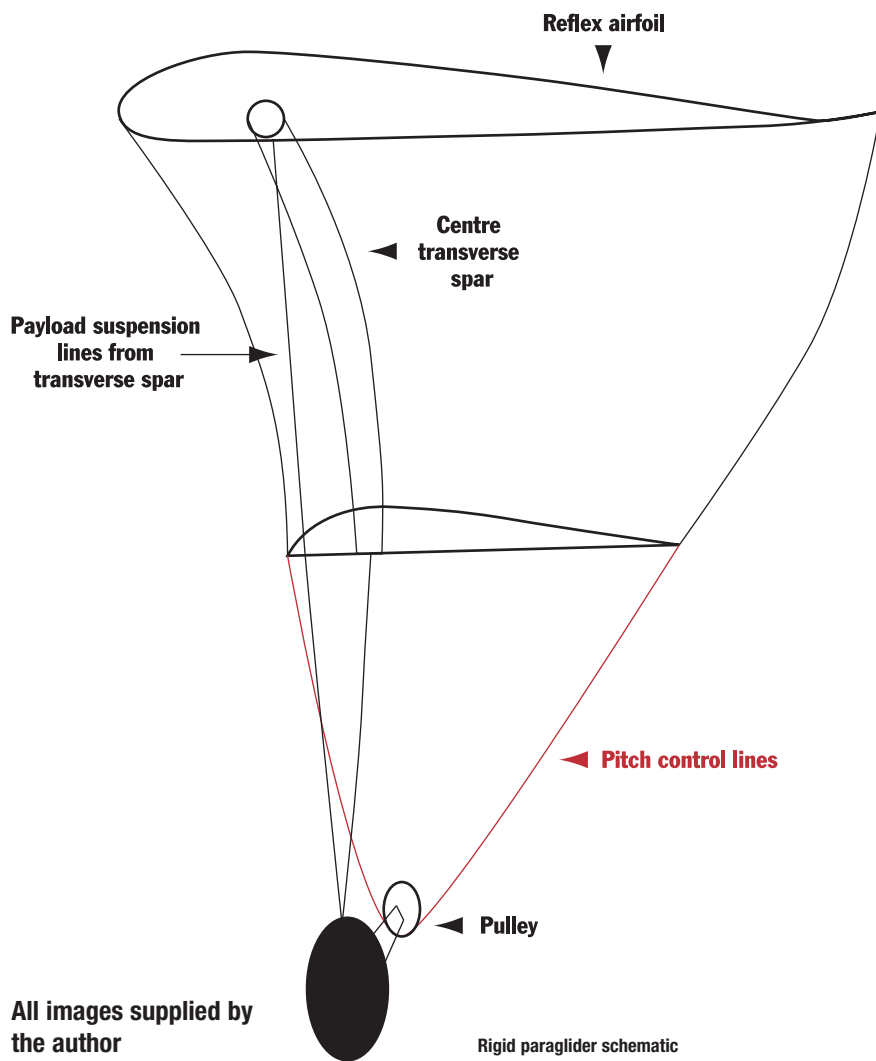
and subject to far less pitch surge oscillation, so they seem ideal for such a concept. However, on testing the models, an immediate problem became apparent: the battens would very easily tangle in the lines. The solution was simple – add a transverse spar as well. This immediately eliminated the tangling problem, but not the pitch surge issue.

A typical, non-reflexed airfoil is not stable on its own, and without additional stabilising devices, will tumble or rotate about the balance point (the balance point, or centre of lift, is the place on the airfoil where the lift can be considered to act about a single point and is typically one third to one quarter the distance back from the leading edge of the total chord or width of the wing). Paragliders prevent this tendency to rotate by running lines to the front leading edge and rear trailing edge of the wing down to comparatively heavy payload to hold the wing in a fairly rigid relationship to the airflow and pilot. As such, wing pitch oscillations (or tendency to rotate) are directly limited by the action of the pilot's weight pulling the wing back to a level position relative to the airflow. A hang glider, and indeed virtually all other aircraft, utilise different methods to stabilise the wing. In the case of a hang glider, a single pilot attachment is set somewhat ahead of the centre of lift or balance point of the airfoil.

If you position the centre of gravity (in this case, the pilot) ahead of the balance point at the centre of lift, you create a nose down tendency. Sweep back and washout of the wing tips, and inboard reflex, create a countering force to balance the nose down tendency and stabilise the wing. Think of it like a see-saw – as the passenger slides for-



Woopy-fly



All images supplied by the author

Rigid paraglider schematic

ward of the balance point, the tendency to tilt down is countered by a downward force at the opposite end of the see saw by air pressure pushing down on the upward deflected surfaces providing balance. The further forward you slide on the see saw away from the balance point, the more downward countering force is needed at the opposite end. (The distance forward of the centre of gravity from the balance point is called the static margin, and is a good measure of wing stability. The greatest static margin is achieved by placing the downward force at the end of a long lever – a typical tail.)

With such an arrangement, the wing is somewhat freer to float independently of the influence of the pilot's weight – since aerodynamic forces now serve the same purpose in returning the wing to neutral pitch after most excursions. For example, if the wing is tilted down it flies faster, additional air pressure on the reflexed, washout tips, or tail surfaces push down on the rear of the wing tilting it back to neutral. As such, the pilot can push the bar out or pull it in, or push the stick fore and aft, and let go and the wing will return to neutral on its own – this is termed pitch stability.

Because a typical paraglider airfoil is not auto-stable, and utilises the pilot's weight to stabilise the wing, it is less free to adapt

to the oncoming airflow independently to the pilot weight. If a typical paraglider wing is pitched up for example, since the pilot is in such a rigid relationship to the wing, the wing will surge back as the pilot swings forward; pitched down and the pilot will swing back. While resistance to swing (or inertia) stabilises the wing, once the pilot is swinging the resultant momentum can exacerbate, rather than dampen, the pitch and surge oscillation.

Imagine, however, if a gust hit the wing and rather than pitching the wing up and oscillating the wing back, swinging the pilot forward, the wing itself simply tilted upward independently to the pilot. Then, due to the inbuilt stability, came straight back down as the gust past with the pilot remaining directly under the wing. This could be achieved by simply suspending the pilot at a single point ahead of the balance point in the same manner as a hang glider. Imagine the case of a surge: rather than the wing swinging forward and tilting downward relative to the airflow (because lines to the leading edge pull it down leading to a negative angle and collapse), if the wing was not rigidly held at the leading edge, the wing would be free to tilt upward (rather than pulled downward) as it surges forward maintaining a neutral angle of attack relative to the airflow. There would be no tuck under and the surge would be



Woopy-fly



Rigidified paraglider

immediately dampened. So rather than pitching up and down as the wing swings back and forward it would simply translate forward and backward maintaining the same neutral angle of attack relative to the airflow.

I decided, since I was using an auto stable airfoil, I would abandon the traditional method of stabilising a paraglider with front and rear lines, and attempt to stabilise my rigid paraglider in the same manner as a hang glider. I suspended the payload from a transverse spar (ahead of the balance point but back from the leading edge) from three lines (one from either end of the spar and one from the middle to add support to the spar and prevent upward bend under load). I ran lines from the leading edge and trailing edge of both wing tip batons to the payload to control pitch and support the tips, but rather than rigidly attaching the tip lines to the payload, these lines ran through a pulley to allow the wing to float. There were only seven lines in total. The pitch control system was such, that in the absence of pilot input, the wing was free to float in pitch after the manner of a hang glider.

In the models it worked well. I did some wind tunnel (house fan and cardboard box) tests and found the wing could be tipped as far as 40 degrees negative to the airflow and still pop back up when released, with no



tuck under. If a rigid paraglider ever becomes a viable proposition I suspect this is the form it will most likely take. The model did appear to fly well and tolerate turbulence to a great extent.

However, after some consideration I came to realise the inherent problem with such a concept. In extreme turbulence even the most stable hang gliders have been known to tuck and tumble. With the pilot rigidly and intimately associated with the wing, he is free to exert control inputs during the tuck and bring the wing under control – he also tumbles with the wing. In extreme turbulence a rigid paraglider style wing suspended far above the pilot on lines would tuck independently to the pilot, rendering the control lines flaccid and inoperative. The tumbling wing would then tangle in the lines creating an unrecoverable disaster. Whether a current soft paraglider would be any safer in the sort of turbulence that would tumble such a rigid, paraglider style wing, is a matter for debate, but what is certain is the rigid wing would be unrecoverable once tangled. Unfortunately it's the sort of problem that only becomes apparent at the

worst possible time, and I have no intention of finding out the hard way as a test pilot.

As such I turned my focus in a different direction – rather than trying to evolve a paraglider toward a hang glider, perhaps a hang glider could be modified to make it more like a paraglider. I began to consider various ideas for making a hang glider lighter and more portable with convenience approaching a paraglider. I investigated various bowsprit designs, and even looked into cable leading edge wings like the Whitney portawing of the mid 70's, but none seemed to offer sufficient performance advantages over paragliders to make the effort worthwhile. Those concepts that did, were not sufficiently more portable than current hang glider wings. Then one afternoon, while watching windsurfers setting up, I hit upon the idea of eliminating the cross tube by curving and pre-loading the leading edge. I built several working models with a fibreglass rod leading edge and even took it to the radio controlled model stage, until one day when surfing the web, I found an article about someone who had beaten me to it many years earlier. This is the story of the Longbow.

The inventor was Bill Brooks, who is now chief technical officer for the BMAA. At the time, 1992, he was working for Solar Wings. Basically, Bill was also looking for something with the portability and convenience of a paraglider and the performance of a hang glider. He wondered if a curved, pre-loaded bow for the leading edge would eliminate the necessity for a cross tube, kingpost and upper rigging, and allow the leading edge to be removed and broken down for easy transport. Interestingly, like me, he also got the idea from looking at wind-

surfers. But unlike me he took it a lot further than the model stage and beat me to it.

To tolerate positive and negative loads, the leading edge bow needed a radius of 14.8m and used 2 5/8ft diameter aluminium 17swg HT30TF tube with 2 1/2ft inner sleeve progressively tapering to 60mm 7075-t6 tube with 1mm wall thickness at the tips. The leading edge broke down to five sections of 2.4m and rolled inside the sail with the battens remaining inside the wing. The fold up package was so small it could fit inside a small car for transport. With a tube this large it was able to tolerate all positive and negative loads without cable support and may have been the first true topless wing?

The leading edge tube was assembled from five sections and posted (slid) into the wing sleeve, then loaded (bent) with a winch that was built into the sail to provide the 180kg of pre-load required – taking about 10 turns to fill the sail. It was then held securely in place with a winch pin. The lower lines were then attached to the leading edge boom and it was ready to go. Assembly time was minutes.

The resulting tension in the wing was such that there was little tip washout in flight, so weightshift only roll control was poor. Furthermore, since low sweep back was combined with minimal washout, reflex was required in the wing battens for pitch stability. In some respects the wing was probably more similar to a plank style flying wing than a hang glider.

Since roll control with weightshift alone was ineffectual, and wing tension precluded a functional billow shift mechanism, D handles were added to the A frame with lines that lifted the tip trailing edge to dump lift and provide excellent roll control. This sounds very similar to the tip lifters currently under investigation for augmenting roll control in stiffer, high performance hang glider wings, but activated by hand controls rather than coupled with weightshift. The advantage of hand controls meant the wing could be more or less flown on the ground making groundhandling very easy.

The disadvantage of permanent, built in reflex in a flying wing is pitch stability comes at the cost of efficiency – reflex airfoil sections typically have lower coefficients of lift. King-posted hang gliders get around this problem with tip washout and reflex that only comes in at lower angles of attack when the sail blows down and the luff lines hold up the trailing edge. This does however create a “hole” on pitch tests as the wing approaches lower angles of attack before the reflex kicks in and becomes effective.



This page: The Woopy-fly

On pitch testing of the Longbow there were no such "holes" at low incidences on the pitch curve. The wing was pitch tested to 400kg positive 150kg negative and proved stable up to 50mph. Internal struts held the trailing edge up at low incidences (the first sprogs?). Furthermore, because of the built in reflex, it was virtually impossible to stall. At sustained high angles of attack the wing would oscillate, alternately throwing off tip vortices rather than stalling the entire wing.

Since the wing was essentially topless, some of the inefficiency of a reflex airfoil section was offset by reduced line and kingpost drag and the wing was estimated to have an LD in the vicinity of 9:1. Comparable to the best single surface hang gliders with far greater portability, significantly reduced weight and set-up time, and with greater control efficiency.

At the time of writing the wing had only been truck tested and in short glides with S-turns off bunny hills. There had been no soaring flights as the author was concerned with spiral dive tendency shown in models (low sweep back and washout?).

The designer felt the weight and convenience could be further enhanced with a composite leading edge tubes and Kevlar lines. He also felt the reflex could be reduced and glide improved with a short V-tail. Solar Wings liked the idea, but declined to take it any further as it was felt the flying public would consider the concept too radical.

In later correspondence with an associate of Bill Brooks, I had the opportunity to pass some questions on to Bill. He confirmed it was the tendency of the wing models to spiral dive, and Solar Wings' lack of interest, that put a halt to further development. He also said that Bill felt the spiral dive tendency could be overcome with tip rudders, but this would detract from the simplicity of the wing which was the whole point of the concept. Some inbuilt dihedral in the wing would also solve the problem, but would be difficult to achieve in a curved bow style leading edge.

Unfortunately, this was the last I've heard of it. Clearly, a wing with the portability and convenience of a paraglider, and the performance and handling characteristics of a hang glider (speed, wind penetration and tolerance of turbulence) is an achievable goal. It may be achievable by increasing paraglider rigidity (without reinventing the hang glider) but this direction is fraught with aerodynamic and engineering problems. More likely, the solution will be something along the lines of the Longbow.

Interestingly, Laurent Kalbernmatten designed a wing called the Woopy-fly, which, despite external appearances, is similar in many ways to the Longbow. By eliminating the curved leading edge and opting for a straight, internal tube in what is essentially an elliptical, plank style wing, he was able to add dihedral to the wing and likely eliminated the spiral dive tendency. Rather than internal battens, he opted for an inflated, paraglider style wing that utilises battery operated turbine motors and a closed leading edge to maintain inflation. The wing has built in reflex for pitch stability, as the pilot is positioned close to the wing rather than suspended far below, losing the stabilising effect of the very low centre of gravity in a paraglider. Roll control is achieved by a centre rudder, and coincidentally the LD is said to be the same as the Longbow at 9:1.

Apparently the wing will be released for sale in the near future. Whether pilots will accept such a radical concept will be interesting to see. My personal feeling is reliance on battery operated motors for wing inflation may deter some pilots. If this proves to be the case however, it should be a simple matter to replace the inflated wing with a battened one with minimal weight or convenience penalty.

Whether the end result is a rigid Woppy-fly or a straighter Longbow, I'll leave to the experts to debate, but either way we might see a wing that meets the requirement of both paraglider and hang glider pilots and all that arguing over a combined magazine will be a thing of the past...

Paragliding Headquarters Equipment - Advice - Service

www.paraglidingheadquarters.com 0414 332737

Australian agent for **GRADIENT**

2001 World Champion
2003 Australian Champion 2003&4 NZ Champion

gliders for pilots like you and me

Also good enough for:
CRAIG COLLINGS RON McKENZIE BRIAN WEB
and other pilots you'd like to catch up with.



Owners of **GRADIENT** gliders now have an unfair advantage: **ANY** damage to their wings can be fixed in Australia without affecting the warranty. A serious damage to a glider normally means losing the wing for 2 months or more and adding enormous transport costs to the repair bill. **GRADIENT** pilots can expect to be without their toy for 2 weeks at the most and pay much lower bill.

Our Certified Repair and Testing Centre in WVA will also serve to other brands of paragliders. These repairs will be subject to availability of materials and the implications on warranty conditions will have to be considered in each individual case.

www.waparagliding.com 08 92952820

Paragliding Headquarters is also a sole Australian Agent for:

DIGIFLY - A world class aviation instruments
Vario FLYER with auto start recording - only \$445.00

CompeGPS - Flight analysis software
The latest version - only \$119.00

For details visit:
<http://www.paraglidingheadquarters.com/instruments.html>

We have anything what a serious paraglider pilot may ever need at competitive prices. Distributors of **GRADIENT** gliders anywhere in Australia. Some accessories may be available only from Paragliding Headquarters direct.

**FLIGHT INSTRUMENTS
RESCUE PARACHUTES
FLYING SUITS
HARNESSES
HELMETS
GLOVES
EPIRBs
GPS**



Also available from:

WA - WVA Paragliding Academy - 08 92952820
NSW - Windworks Paragliding - 02 99139086
ACT - Michelago Paragliding - 0419 897005
QLD - Sunshine Coast Paragl. - 0438 107518
Vic - Alpine Paragliding - 03 57551753



How To Not Fly

Taff

“RIDETQUE SUI LUDIBRIA TRUNCI” (LUCAN, IX, 14)

“AND SOARING MOCKS THE BROKEN FRAME BELOW.”

A GOOD QUOTE, AS IT IS BOTH PROFOUND AND IRRELEVANT.

Many of us, and I believe I speak as something of an expert in this field, have for many years bemoaned Soaring Australia’s total lack of commitment to the noble “Art of Not Flying”. It has clearly failed to recognise the vast majority of people who wish all the kudos of being a paraglider or hang glider pilot, without the inconvenience, or indeed risk, associated with actually leaving the ground.

So in order to address this incredible oversight, and at great personal expense and hardship, I have compiled this brief overview of the “Art of Not Flying”. Donations in cash can be forwarded to me at the usual address. (For further copies and updates, please send a SAE. No cheques please.)

GETTING THE SITE RIGHT

I have so refined this technique that I am able to create the impression that I get to fly on more days of the year than anyone else in my club. I can do this without ever leaving the ground, or home even. Here are some techniques:

Say, for instance, a club member telephones you with the suggestion, “We’re all off to Spring Hill today – fancy the trip?” Never reply, “Don’t you think it’s too westerly?” but instead say, “I’ll try to get over to you but it may be too westerly.”

This, if used right, creates the impression that not only do you know a more appropriate site than everyone else, but also that you may find it amusing to try to fly to Spring Hill from there. When you don’t show up that day they will assume you flew to another location.

Another useful gambit is my “site derider”. Wherever the club members decide to go, the following phrases, developed and tested by me over many years, may enable you not to:

For the club’s favourite site, try, “No, no, you go ahead, think I’ve overused that one this year.”

For the largest hill in the area, “Not for me thanks, I always feel I’m cheating, starting so high up.”

When the wind is gusty, state, “You go have some fun, I can’t be bothered when it’s this sedate. I’m off crewing the yacht for good old Mike today.” This, if used right, implies that anyone flying in such easy conditions must be hard up for airtime.

Faced by ideal weather and wind conditions, look up into the sky and in a loud voice state, “If we weren’t in for a big blow it would be worth a shot, but...” Then walk straight to your car, give one long last look into the sky, shake your head and drive off very slowly. If done properly this leaves everyone wondering what exactly is wrong, and whether it really is worth the drive to the site. This is also known as my “Vague Unease Ploy”.

WINNING THE JOURNEY

There are times when even the best plays fail; you may find yourself faced by ideal conditions with your partner and kids away for the weekend, the garden looking immaculate, and keen friends offering to give you a lift to the hill. Don’t panic. All is not lost. To counter this we have to look to “winning the journey”. The first rule of winning the journey is: “Never be late.” In fact, always be exceedingly early. Arrive at the other pilot’s house at least two hours before you arranged to meet. This is particularly important if you are the one who was supposed to be picked up. This will create a “flurry” in the other pilot, which, if maintained, keeps him in a “one down” position for the rest of the day.

Having arrived at his house, be sure to politely refuse all offers of breakfast, cups of tea or slices of toast, but insist your host eats. On leaving the house, and uninvited of course, pick an apple from the fruit bowl and polish it vigorously on your T-shirt before eating it. This leaves the other pilot wondering about the hygiene of his kitchen and his qualities as a host, and also neatly starts to undermine the idea of flying today.

Your car should be adjusted to have squeaky brakes, slightly bald looking tires

and a disturbing tendency to veer right in busy traffic. This, plus developing your skill in driving at great speeds down narrow country lanes, will leave even your club’s bravest pilots unable to travel in a car for weeks, let alone fly.

The trouble with using this ploy too often is that pretty soon you will not be able to persuade the other pilot to journey to the hill in your car. However, you still need to take control of the journey.

Get the driver to stop in some remote hamlet and say you are going into the village shop to get “some baccy”. Then do not emerge from the shop for at least half an hour. Return to the car with a large amount of food, none of which is for your companion, but do hand over a packet of extra strong mints, saying, “These may help.” This will leave the other pilot wondering whether he did have too much garlic bread the night before.

Apologise for the delay at the shop with the excuse, “Chap in the shop did the first ascent of ‘Nightmare Route’ on Boorooma rocks, in nailed boots!” Then tell the other pilot in great detail how, “Men were men in those days, they took real risks for the love of adventure and sport!”, thus giving the impression that flying is for pussies and you’d rather be off rockclimbing in hobnails. Five kilometres down the road “remember” you left your wallet back at the shop.

If these gambits are not having the desired effect, then it’s time to introduce the “Little Known Shortcut Ploy”. Make sure, for each of your regular sites, you know a route guaranteed to add at least 14km to the journey, and several interesting dents to the car.

When you get to the hill the other pilot will be in such a mixed state of anger, embarrassment and a feeling of being “got at” that he will not be in a fit frame of mind to fly. Or hopefully by then conditions will have blown out.

KNOW THINE ENEMY

If, however, all previous ploys fail and you find yourself on the hill, strong tactics are called for. It pays in this situation to know your enemy. Below are a few useful examples. (Further examples are available in my pamphlet, “Pilots and How to Bring Them Down”, \$15.00).

GADGET MAN

Every club has one, the guy who has every device known to flying. To counter these fellows is easy – I can sell you a “little black box from Japan” (Price on application). A simple device the size of a matchbox, it has one red and three green diodes mounted on



a matt black case. All you have to do if your fellow pilot is a Gadget Man, is ask him nicely, "Would you mind taking this up for me? It's a little something I'm developing for the boys at Murayawa." Gadget Man will have no option but to take it up as:

a) *he likes to think he's at the forefront of development, and*

b) *he can't admit there's something he hasn't got.*

Automatically after five minutes in the air, the red light will flash rapidly and a low howl will come from inside the box. This will be enough to bring Gadget Man down to earth, as the only reason these guys have all the gadgets in the first place is due to their distrust of the elements and their ability to cope with them. On receiving it back, offer to give him the readings "once they get back to me from Osaka." Then look seriously at all the gadgets on his harness and in a low voice say, "They all give off microwaves, you know," and glance at his crotch. He'll be so worried he's sterilising himself, he'll not fly again that year.

COMPETITOR

The man who wins all the cups in the club's annual competitions and possibly national ones as well. Fiercely arrogant or annoyingly humble, he is naturally one up. Several ploys have been developed against these pilots. When you meet these "regular winners" on the hill, gently prompt them into talking of their winning ways. Once they are in full flow, smile and nod encouragingly. Then, at the first lull in Competitor's speech, ask in

a quiet voice, "What was your relationship with your father like?" Implying that your interest is not only clinically psychological in nature, but that he is a particularly screwed up specimen, and needs help. Another tactic employed with this type is, after watching them take off and land in great style, walk over and ask, "When you take off do you feel the wind or do you ride with it? I mean, is it conscious or instinctive? I think I can see how you make it work for you, you're very natural." This is ideal for putting them off, as not only is it very confusing, it is also total drivel. Nine times out of 10 the Competitor will blow his next take-off and probably end up upside-down in a bush. Great effect has often been had by simply asking, "And what do you do to enjoy yourself?"

CLUB LAD

In each club there is a "lad". They will always turn up at the site with no food, money, cigarettes or even a glider. By sheer personality they will then borrow all the requirements for a good day out, and proceed to out-fly other members, especially those they have borrowed from. Difficult to counter due to their natural friendliness, good humour, charm and total lack of morality, they are a worthy foe. The following ploy is not yet fully developed, but is worth experimenting with. The gambit is to refuse to lend Club Lad your old glider, but to point him in the direction of a newly qualified greenhorn with a brand new can-

opy and shout, "Any chance of lad here borrowing your kite? He'll test it to destruction for you!" Then slap Club Lad on the back and walk away. Within minutes of him taking off, go over to Greenhorn and say, "Sorry about that, the chap had a rather disturbed childhood you know. We all try to help out, but be careful." Within a few weeks even Club Lad will be wondering:

a) *why everyone is giving him such sad looks, and*

b) *why no-one will turn their back on him.*

TREE HUGGERS

Another ploy, which is useful to have up one's sleeve if you find yourself on the hill, is to use the countryside to your advantage. When out with a group of pilots, on reaching the site immediately get on all fours and scout out some insignificant beetle or bug. Then call a halt to the proceedings by declaring, "The people at CSIRO said I might find these here, we'd better tread carefully, if at all." Then, after chiding everyone for the way they laid their canopies out, where they walked, and where they dropped sandwich crumbs, sigh very loudly and say, "Well, I can't be part of this environmental vandalism in my position, now can I?" Then leave the site immediately.

I would welcome correspondence on any of the above matters. Any difficult problems you would like cleared will be given individual attention. (Please send the usual \$20.00 donation to ensure prompt response.)



HANG GLIDING XC TOURS 2004/05

Sat 11th Dec (Dep. Fri 10th) - Sun 19th Dec 2004 | Sat 5th Feb (Dep. Fri 4th) - Sun 13th Feb 2005



9 DAYS OF ■ endless terrain ■ pumping thermals ■ unlimited height* ■ unlimited distance



Bring your HG gear & a mind for the sky! The TFP crew will take care of the rest.

Whether you're a beginner looking for an awesome challenge, or advanced, focused on height and huge distance, be prepared for a thrilling journey, packed with atmosphere and excitement. You will be accompanied by our dedicated and lively crew of regulars, who set out each year to challenge the elements. Go on... spoil yourself!

We're back in Deni/Conargo this summer!!

*class G airspace

Call Tove on m - 0419 681 212 t - 02 4849 4516 e - chqpgc@goulburn.net.au

satisfy your hunger for airtime and roam the incredible Oz flatlands

TFP0230 katabatic.com.au

Book Review

Martin Simons

“SEGELFLUGZEUG-GESCHICHTEN, DIE GLEIT- UND SEGELFLUGZEUGE DES DEUTSCHEN SEGELFLUG-MUSEUMS” (SAILPLANE STORIES, THE GLIDERS AND SAILPLANES OF THE GERMAN SAILPLANE MUSEUM) BY PETER F SELINGER. PUBLISHED APRIL 2004, DEUTSCHES SEGELFLUGMUSEUM MIT MODELLFLUG (ISBN 3-00-011649-4). HARDBACK, 180 PAGES, 230 X 240MM, GERMAN LANGUAGE, ILLUSTRATED.

After 1918, Germany was forbidden by the Treaty of Versailles to build or fly aeroplanes. This hated rule would not be broken if a few enthusiasts built and flew gliders, as these were not aeroplanes in the eyes of the legal bureaucrats. Thus, the sport of soaring began in Germany in 1920. That year, a competition was held on the Wasserkuppe mountain about 20km east of Fulda in the High Rhön. The Wasserkuppe was not a perfect site. The dome-shaped mountain rises 950m asl and may be snow-bound in winter; in summer it is likely to suffer from “Knöfe”, as the local pilots called it: low cloud and rain for days on end. The site had, in fact, been used by an energetic group of Darmstadt schoolboys who designed, built and flew a series of successful gliders before 1914. It seemed appropriate to start again here. At first the aspiring pilots and engineers lived in hastily assembled wooden shelters. During the interwar decades, this became the place where many of the great German aircraft designers and pilots began their careers. There is still an active gliding and soaring operation there, now with hangars, club rooms, hotels, cafes and souvenir shops. The development of the sport is remembered and displayed in the outstanding German Sailplane Museum. A large extension, more than doubling the space previously available, is being built. It will be possible next year to display 51 full-sized, historically important sailplanes. Space will also be available for model aircraft. Peter Selinger is already well-known for his outstanding sailplane photography and several earlier important books on, for example, Schempp Hirth, Schleicher and the Hortens. In this new work he describes, and illustrates with well-chosen photographs, each of the types represented in the museum. (Some of them remain in storage until the new exhibition hall is opened.) The book is much more than



a catalogue. The background of each design is explained in detail, beginning with the Lilienthal hang gliders of 1891 and 1896, continuing with the Darmstadt boys' 1912 record-breaking FSV X and Willy Pelzner's hang gliders of 1920–22. The *Hannover Vampyr* was the first true sailplane. It made flights of more than an hour in 1922, and on the next day exceeded three hours. The museum's *Vampyr* is not the original (which remains in greatly reconstructed form in the Deutsches Museum, Munich). The Wasserkuppe replica was built with meticulous attention to accuracy following extensive research. Most of the other exhibits are originals which were airworthy and in use until, one way and another, usually by donation, they found their way to the museum. Only when no original could be found were replicas built from surviving plans. Full credit is given in the book to those who carried out this immense task. For instance, the *Rhönadler* was built by Klaus Heyn, vice-chairman of the museum's governing board, in the attic of his home. A hole had to be made in his roof to get it out. Heyn was also responsible for the *Musterle*, the *FS 3 Besenstiel* and the *Grunau 9*

Schädelspalter (Skull-splitter) primary glider.

He rescued the *Falke* from a Swiss

mountain ski lift shelter, and stored it. The *Hols der Teufel* as built and flown by Mike Mach in England, the aerobatic *abicht* by the Wasserkuppe's own Idtimmer group. Moving forward, exhibits described include some of the earliest 'laminar flow' sailplanes, such as the *HK-1* of 1953 and Rudolf Kaiser's *Ka 6*. Also included are sailplanes produced in the former East Germany, the *Lom 111 Laminar* and the two-seat *Lehr-ster*. The arrival in the late 50's of re-reinforced plastic sailplanes is recognised with the graceful *Phönix* of Herman Gele and Richard Eppler, the Schleicher *W 12*, the Braunschweig Akaflieg's *SB-8* and, the youngest exhibit in the museum, the Lemke Schneider *LS-1*. Selinger's book concludes with chapters on the development of motor sailplanes and a look to the future. Here are included photographs of some of the newest sailplanes and champion pilots. The sailplane parachute rescue system is shown in action. Finally, there is a list of 13 soaring flights exceeding 2,000km distance, mostly by Klaus Ohlmann in Argentina, and a chart comparing world records in 2003 with those from 1967. Any sailplane pilot, model flier or aviation enthusiast should visit the Wasserkuppe museum if possible, and will be able to buy Selinger's book there for less than \$20. It will cost twice as much by surface mail, but is well worth this price.

The text is of course in German but not technical, and the photographs speak for themselves.

Order from Stiftung Deutsches Segelflugmuseum mit Modellflug, Wasserkuppe 2, D-36129 Gersfeld/Rhön, Germany.

Price 20 Euros by surface mail, 10E in the Museum shop.)



FINAL GLIDE

A. B. (Tony) English 1928–2004

John Welsh

A sombre group of glider pilots and their families turned up on a gloomy, wet May afternoon at the

Fremantle Crematorium, to acknowledge and honour the passing of one of nature's gentlemen, Tony English.

Tony had not enjoyed the best of health in the latter years of his life, and had also suffered great family tragedy. He is remembered by the glider folk as a strong personality who had a wonderfully bright wit and intelligent mind, and made a great contribution to the sport on the BSS Committee and as WAGA and GFA president for several years. He also served the country for many years in the Royal Australian Navy.

According to my logbook, I flew several times with Tony, the most memorable being a wave flight in KYK at the Stirlings in

1988. We were climbing quite nicely at the foot of the wave after jumping off the back of the Bluff from ridge lift. I was flying from the back seat, and must have drifted backwards into the rotor. Without any warning or turbulence, the Twin smartly swapped nose for tail at 42kt; I checked the ASI and pulled through in a half loop, and, amazingly straight back into the primary, resuming our strong, smooth climb. It all happened so quickly and in complete silence, but I noticed that my hand holding the stick was trembling slightly. Then, after a small pause, a firm voice came from the front, "What the [extensive nautical terminology] happened there?" I was so preoccupied with hilarity, and the mental effort of deciphering the extensive nautical terminology, that the hand tremor disappeared. Tony and I often toasted the

memory of that flight while sitting beside the Beverley campfires that he enjoyed so much, along with the company and a Guinness or a fine red wine.


The photograph shows Tony on a flight he took with me in an IS28 when he visited us in Tasmania during my two-year exile down there. He always enjoyed his flying and the company of his son, Eric, when they flew. Tony's wise council on difficult subjects was always worth listening to. He could always see the win/win solution to a sticky problem, if there was one to be had, and his adept skills of organisation and interpersonal communication are sadly missed at club, WAGA and GFA levels. Fly high and far, Old Friend.




WinPilot

Cables & Connection Kits
Mountain High Oxygen Systems
Garmin, Emtac, Transplant GPS
PDA Mounts

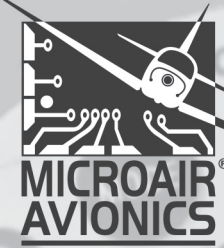
www.craggyaero.com



**M760
TRANSCIVER**



**T2000
TRANSPONDER**



**MICROAIR
AVIONICS**

Airport Drive
Bundaberg QLD 4670
AUSTRALIA
Ph + 61 7 4155 3048
Fax + 61 7 4155 3049
sales@microair.com.au

www.microair.com.au

CLAUS-DIETER ZINK

– A legend in soaring photography

Martin Feeg



Soaring at 8,000m msl

It is February. Casually, I ring Claus-Dieter Zink to see how his trip to the South American Andes went. He is as passionate a glider pilot as he is a photographer, so my expectations for his report are sky high. His photography career is as old as his gliding license. When I was a small boy, buying soaring magazines with my pocket money, his photos and photographic skills had already been well established.

Being a well-known pilot he is friendly with numerous others, and has a particularly good friendship with Klaus Ohlmann. (Never heard of Klaus Ohlmann? Well, that is another story). Anyway, Klaus had nagged him to come and marvel at the sights of the southern hemisphere and take a 'couple' of shots. In late 2003 Claus-Dieter gave in, booked a ticket to fly south, and packed his bags – particularly his camera, with innumerable rolls of film. And off he went.



Packing the shipping container

If my reckoning is right, he should be back now. I wonder what he saw and experienced. So I punch in the long sequence of digits into the phone. It is ringing... "Hello ... How are you? ... How was your trip, tell me!" Well, it was like being hit by a tidal wave. I know Claus-Dieter lives his photos – but this was an overwhelming blast. Have a read for yourself of one of his airborne stories before I embark on more details about the man behind the camera.

...Second day, we went on a volcano tour, an experience not to be missed. Depending on the altitude, you might see examples as far as 300km. Firstly, Lanin (3,776m) was waiting for us. Only 60km north of our home airfield Chapelco (810m msl), it towers over the jungle of deep green, steep mountains. Countless bizarrely-formed lakes surround it. I have stopped learning all their names. This 'Kilimanjaro of Argentina' cannot compete with the real one in size, but certainly in his outstanding beauty. Raven-black lava flows bearing glaciers at its summit: that's his trademark. And on top is an immaculate icecap, which even now in summer almost obscures the summit that was spat out, together with the mountain, ages upon ages ago. On closer inspection, countless little red and multicoloured dots turn out to be tourists, heading for the crater. Unbelievably close to the rock – far closer than at Pic de Bure in France – a mega-wave



Klaus Ohlmann preparing at the crack of dawn

welcomes you and catapults you upwards at seven metres per second in no time, way above the summit. A few days later we were gliding along the eastern side, tracking north-west, when a nice cloud sucked us upwards at three metres per second – almost into its base. For millions of years, this thermal has been at work at this precise point. Now, finally, someone has found it: a glider pilot all the way from Germany. What a privilege to be here and enjoy it.

Hungry for more, Klaus Ohlmann and I go on, the clouds thinning, and far in the distance a volcano summit pokes through the Pacific mist: our second turn point. I would have never dared to go there without a landmark, in fear of getting below the inversion and having to land out in the middle of nowhere. But Klaus has four years of experience, and so I shunt away all reservations, allowing myself to float upon the views. At length, without any lift at all, we get there. A one metre per second thermal gets us back to the top of the inversion, and we jump over to the summit wave.

What a sight: red glowing magma deep inside an eternal chimney. Two seconds only, and then for us and for any mountaineer it is hidden forever. The 'eye of the devil', it is called. Turn around and shoot, and again – then hope and pray. This picture will be for my calendar.

Over clear, deep green lakes, forests, hidden valleys and winding rivers, we glide straight on for another 70km to the smoky summit of Llaima (3,125m), an active volcano. We arrive just above the lower surrounding peaks. And again, an awesome sight: foreign dark-green trees veiled in white lichen, mostly dead at their branch tips. The terrain is wild and deeply carved with sheer faces. Lakes behind every corner, filling the dips and crevices and looking out in a spectrum of colours. Some are filled with weed, others bordered with grass. At just 100m above this dream scenery, I start to rise at four metres per second – turning tightly, allowing orbits of only twenty seconds. I am so struck with the view that, for the first time ever, I forget to take photos.

Klaus is beside himself: for the first time, he has the chance to get to the smoking summit. Usually, a damping inversion embraces this mountain. The volcano has obviously coughed up not too long ago. Dark streams of lava wind down the slopes, once-green woodlands now buried. Lush green fighting its eternal fight with death.

Nine rolls of film are exposed, and we have arranged to meet Golf-Oscar for doing some shots. Do I have any left? A last glance, once more inhaling the richness and purity...

Only when you appreciate his enthusiasm, and his skills honed through 46 years of soaring, is it possible to believe that all his photos are real views. None of his pictures has been manipulated throughout processing. What you see is how it is.

Have a look at Claus-Dieter's web-page [www.fotokalender-segelfliegen.de] and you'll see what I mean.

These pictures are not just taken in a fly-by; this is real work. Getting the sailplanes is not difficult, as Claus-Dieter is so renowned. But his fellow pilots need to have the skills to soar the terrain, as well as keeping strictly to his advice. They have to fly precise track and speed, while Claus-Dieter is concentrating on his own aircraft as well as composing his pictures with object and backdrop in the camera's viewfinder. Like a director he advises on corrections to the flight path, while like a cameraman he concentrates on focus, light, etc. And, with distances between gliders less than 50m, precision is precious.

Test him on any photo of his favourite terrain, and within a second he will tell you where it was shot, the angle, time of day and date. His knowledge of the Alps is, in a sense, five-dimensional. The first three dimensions are the terrain as you and I would see it while soaring. But light is essential in photography, and that is where the other two dimensions come in: the correct positioning of the sun (depending on the time) and the character of light and landscape (depending on the date). The weather is important too, and finally the 'film stars' have to be beckoned. You can easily appreciate that it takes at least a couple of attempts to get everything right. An hour is gone in a flash, and so is the light and the setting. 'Next time?' Who knows if there ever will be a similar composition.

Even if one or more films whir through the camera, there is no guarantee of one good shot. So much detail has to be just



Early morning preparations for another big day



Spying through undercarriage of a 'big ship': Klaus Ohlmann checks the weather

right. Airbrakes of the 'film stars', distance, cut off tips, focus ...

And, almost all of the pictures are taken with the camera held overboard. "If I have the camera inside the cockpit, the reflection of the perspex obscures the lot", says Claus-Dieter. How does he deal with the cold air stream at altitudes of several thousand meters? "Well,

Reflections: Klaus piloting towards the smoky summit of the mighty Llaima, an active volcano





every now and then I have to pause and warm my fingers at my chest, or rub them. Gloves are no good, as they are too slippery – I have to keep the camera steady against a howling 110km/h wind. And I wouldn't feel the release button either. No, it is a frosty job."

"Tell me, are all your pictures well thought through and planned?" "No, even after 30 years I discover new things on almost every flight. Maybe I haven't paid attention to some detail – mostly it is new altogether. You remember last spring, when I took the pink series. This was absolutely new to me." Claus-Dieter is referring to a day in early 2003 when a wave

was tumbling over, as they do on the sea shore and the surfers go through the tunnel. The same happens in the air, quite often but invisibly. This particular day, the moisture was just right for such a tunnel to form, but it was more of a veil, with the chance to see through. It was something Claus-Dieter had never experienced before. And then, with the sun already low, the clouds went pink. He exposed three films, some pictures with other gliders in and around the veil of clouds, others just capturing the halo effects. There are many years ahead for us to enjoy ever-new releases of this particular day. The 2005 calendar will feature the first.

And Claus-Dieter himself? Born in 1940, he had a summer holiday during his school days at the famous Deutsche Alpensegelflugschule Unterwössen (German Alpine Soaring School of Unterwössen), and soloed there. A year later he got his licence while flying at Hornberg south of Stuttgart. During his years of studying medicine, he developed a fascination with the Sisteron area of France. In 1974 he took a couple of good photographs towards the setting sun, and with that, soaring photography infected him. Those shots were instantly published in the calendar *Segelflugbildkalender*. As he delved deeper into this obsession, producing

Riding the ridge in company with '45'





In the evening near Chapelco

more and more photos (far more than could be published), he decided to launch his own calendar with the 2000 edition. The number of followers of this calendar, Fotokalender-Segelfliegen, is growing steadily and has already covered Europe, with America and (since this year's addition) Australia and New Zealand following suit. Claus-Dieter has clocked up over 4,000 hours, mainly in the Alps, and is adding some 300 annually. More than half of his flying is done for photography. For three decades the Alps have held him strong in their clasp; but since last Christmas, the Andes of Argentina have

captured him. And the hardware? Nothing fancy. The glider is a 26-year-old Mistral-C, his workhorse since his early days, but specially modified for photography. Each year about 300 films are exposed in my reflex camera.

If you've got the bug, the 2005 calendar is nearly finished. After the overwhelming success of the 2004 edition, I have reserved 100 copies for Australia. To get on the mailing list, drop me a line at <XCCLoudBase@aol.com>, headline "calendar" and I will alert you as soon as the new edition has arrived. In the meantime, enjoy the pictures with this article.



Beautiful lenticular clouds at altitude over the Andes



Enjoying the evening over a hostile-looking landscape



HGFA Editor's Choice

Thanks to everyone sending articles in – I'm getting lots of blushing "I've had this on file for a while..." and "I've been meaning to send..." and "Thought you might like..."

This month we have a great comp report from Godfrey (including an account of the mysterious Hadong Pig Head Wind Miracle!); tips from Taff on how not to fly; an in-depth article from Brett Snellgrove on that rare beast, the "paranglider"; an uplifting true story from Andy Austin; an invitation to like-minded souls from Andrew 'Banjo' Kennedy; important reminders from Dr Barry Oliver on flying safely; and the conclusion to Jillian Georgiou's tale of XC addiction. Perhaps the only disappointment this issue is the lack of microlight articles sent in... Only Rodney Lynn holds up the microlighting end, but he does it so well that he's the winner of this month's \$100! Hopefully that might also encourage more articles from microlight pilots next month – see guys, petrol money, easy!

Next deadline, 25 September for the November issue – looking forward to hearing from you!

Richard Lockhart, HGFA sub-editor, ph: 0418 130354, <soaring.australia@hgfa.asn.au>

Australian Paragliding Competition Ladder '03/'04

Here's the final paragliding ladder for the 2003-2004 season – at least the first 100 places out of 196. The full list is on the HGFA website. The events that contributed are: AAA comps Canungra, Bright, Manilla; B sanction WA Championships; C-184 Mystic Cup; C-100 Killarney Cup; and C-50 events State of Origin at Manilla, Canungra weekend series, Millennium Cup and CMAC XC League. See the Competition Manual on the web for the method of calculation.

Australian Champion: Fred Gungl

Women's Champion: Jill Borst

Serial Class Champion: Craig Donnell

Sports Class Champion: Ian McFarlane

PLACE	NAME	STATE	POINTS
1	Gungl, Fred	VIC	3,499
2	Horchner, Andrew	QLD	3,380
3	Rockman, Rhett	NSW	3,335
4	Webb, Brian	VIC	3,143
5	Donnell, Craig	ACT	3,030
6	Lawson, James	NSW	2,879
7	Cawte, Steve	QLD	2,862
8	Murphy, Enda	NSW	2,800
9	Dennis, Stewart	ACT	2,761

PLACE	NAME	STATE	POINTS
10	Bastion, JJ	NSW	2,676
11	Hill, Shane	QLD	2,672
12	Wittich, Ky	NSW	2,637
13	McFarlane, Ian	QLD	2,622
14	Sexton, Geoff	QLD	2,610
15	Thompson, James B	NSW	2,588
16	Hystek, Phillip	QLD	2,581
17	Collings, Craig	VIC	2,520
18	O'Donnell, Brandon	QLD	2,461
19	Anissimov, Ivan	QLD	2,431
20	Kelly, Bernie	QLD	2,308
21	Harris, Rod	VIC	2,301
22	Bowyer, Peter	ACT	2,298
23	McKenzie, Ron	NSW	2,131
24	Wong, Geoff	VIC	2,124
25	Robinson, Brett	ACT	2,101
26	Ladyman, Ian	NSW	2,042
27	Roser, Patrick	NSW	1,922
28	Borst, Jillian	VIC	1,906
29	Kemp, Andrew	VIC	1,889
30	Chapman, John	ACT	1,884
31	Post, Justin	WA	1,881
32	Wenness, Godfrey	NSW	1,878
33	Texler, Karl	VIC	1,675
34	Russell, David	VIC	1,670
35	Duffy, Mike	WA	1,659
36	Casswell, Duncan	VIC	1,625
37	Skinner, Paul	NT	1,490
38	Daehler, Antje	VIC	1,389
39	Banks, Ian	VIC	1,379
40	Hack, Nigel	NSW	1,378
41	Turner, Jason	NSW	1,342
42	Sheppard, Brian	NSW	1,246
43	Toth, Zoltan	VIC	1,245
44	Rundle, Peter	NSW	1,228
45	Vandenbeginne, Richard	QLD	1,202
46	Nienkemper, Adam	VIC	1,173
47	Gingell-Kent, Kevin	VIC	1,150
48	Scott, Barbara	VIC	1,127
49	Hewatt, Tim	NSW	1,123
50	Smith, Bob	NSW	1,107
51	Stevenson, Garry	VIC	1,103
52	Gingell-Kent, Sharyn	VIC	1,078
53	Dennis, Carolyn	VIC	1,053
54	Hamann, Heike	VIC	1,045
55	Humphrey, David	WA	1,037
56	Russell, Paul	NSW	995
57	Nagle, Steve	NSW	992
58	Roberts, Bill	NSW	970
59	Wennersten, Peter	NSW	934
60	Plenderleith, Mark	QLD	921
61	Cawte, Alison	QLD	907
62	Ryrie, James	NSW	854
63	Waddington, Fiona	VIC	819
64	Couper, Rob	NSW	817
65	Elston, Mark	ACT	800
66	Guest, Geoff	VIC	756
67	Morton, Matt	NSW	736
68	Tuckwell, Richard	ACT	724
69	Eliasson, Matts	QLD	719
70	Appleby, Warren	ACT	705
71	Golus, Che	NSW	702
72	Millington, Gavin	VIC	701
73	Jeffery, Colin	VIC	700
74	Page, Colin	VIC	687
75	Hollands, Greg	QLD	659
76	Van Saanten, Hans	VIC	639
77	Abbott, Andy	NSW	619
78	Brooks, Bill	WA	609
79	Brown, Timothy	QLD	591
80	Banks, Stuart	VIC	585
81	Kovco, Benn	NSW	578
82	Arnall, Clinton	VIC	562
83	Allen, Peter	VIC	525
84	Tidswell, Tony	VIC	525
85	Darke, Ben	QLD	515
86	Merrigan, Rod	WA	480
87	Dobson, Mark	VIC	478
88	Brooks, Luke	TAS	476
89	Marker, Mal	VIC	454
90	Savery, Philip	VIC	453
91	Bobner, Heinz	VIC	427

PLACE	NAME	STATE	POINTS
92	Whitworth, Peter	VIC	425
93	Wootten, Lindsay	NSW	363
94	Rocco, Tony	VIC	360
95	Clarke, Brian	NSW	342
96	Gray, Edward	NSW	315
97	Rainczuk, Joe	VIC	303
98	Robinson, Robbo	VIC	296
99	Joyce, Martin	NSW	273
100	Kemp, Christabel	VIC	268

CLUB NEWS

Dalby Hang Gliding Club

Facilities

"Build it and they will come", and so they did, to the construction of yet a second hangar for the Dalby Hang Gliding Club.

We were generously granted permission by the Dalby/Wambo Aerodrome Board to extend our current facility by cladding and adding doors to the second half of the hangar. Over two weekends in June, with a superb turnout of willing and able hands, we managed to double the size of our hangar space.

We are very grateful for the support of the local community and their assistance with this project. The Council is right behind us and their support has been vital to our growth from 20 members to 35 members in the past 12 months.

But most importantly, this means we now have more room for more toys!

The Comps

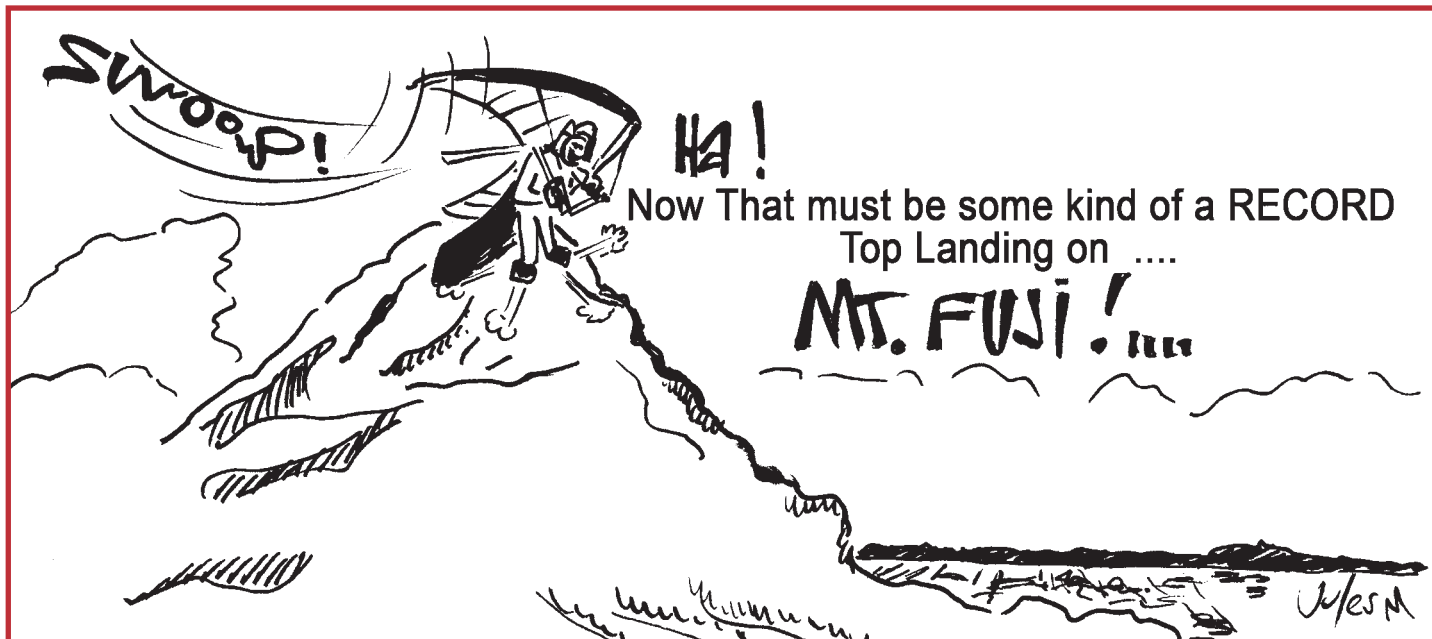
Our inaugural competition, held in October last year, was a success. Even though for a large part of the time the weather was not on our side, those who attended got to experience the terrific soaring conditions Dalby has to offer.

This year we are not able to hold the comp due to the National Gliding Competition run by the Darling Downs Soaring Club, which will take place at the Dalby Aerodrome during the week we had hoped to hold our competition. However, we are happy to report that we will be holding our next competition around the Anzac Day long weekend in 2005 and plan on it becoming an annual event.

The Darling Downs Soaring Club have had many great competitions operating from Chinchilla over Easter and this year they were blessed with fantastic soaring conditions for the full eight days; therefore we are excited about the potential of good weather for this time of the year. Stay tuned!

A Round of Applause

I would like to congratulate all the new members in the club, especially Johannes who came from the coast to fly inland. After his second visit to Dalby he achieved a personal best of 80km+. From day one, Johannes aerotowed well and now enjoys many hours in the air, flying over the Darling Downs.



In May, the club voted to provide financial support to our new member, Jay Longden, who will be training to become a full-time hang gliding instructor. By taking the long-term stance of supporting an instructor, we can make sure everyone has the same opportunity to get into the sport as we did many years ago. We look forward to assisting Jay to reach his goal and to finally be able to provide instruction to the many interested people from around the Darling Downs. The Canungra Club has seen the merit in our decision to support Jay and will also be providing assistance to Jay to eventually share his instructional services.

Congratulations also must go to Phil Pritchard who broke the club straight distance record. In April, on an average day, Phil flew from Dalby and landed in Roma – 269km. Well done, mate! I'm sure many more records will be broken this coming year.

Got the Winter Blues Down South?

Please feel free to come to Dalby and enjoy the winter conditions. While cloudbase may not be as high as during summer, where else can you still achieve distances of up to 200km in winter? On

4 July '04, after completing some tandem flights and not getting away until 2:00pm, Jason "Yoda" Reid achieved a flight of 120km, crossing the Great Divide from west to east.

The Dalby Hang Gliding Club is certainly in good shape! With guys like Smokey towing us all year round, Yoda who teaches the new members how to tow like champions, and all our other team members, it is no wonder we are growing and enjoying the success that the Dalby experience has to offer!

Daron (Boof) Hodder, President DHGC, ph: 0413 515160, <dhodder@alpanel.com.au>

NEW PRODUCTS

Apco – A Little Innovation, Making Your Life Easier

Over the course of the years we at Apco (probably as well as all other manufacturers) received many complaints regarding worn webbing on trim tabs. A great effort has been made to try to find a proper combination of trim tab and webbing insuring safe, prolonged use, but with no real results until now.

Finally, a different approach has been taken by Apco and we decided to make it easy to replace the worn webbing in due time, instead of replacing the whole riser.

If your trim tabs are worn out, simply unpick the safety stitch, take out the trimmer webbing (yellow) and replace

it with new webbing (easily obtainable). After reinstalling the trimmer webbing make sure to sew a new safety stitch in the same place as the original in order to have the same trimmer range.

Easy! And there you are ready to go again... riser as good as new.

This is not the greatest invention of the century, but still something important, showing that we care – hope it will be appreciated. From now on all our gliders with trim tabs will be delivered in this set up with replaceable webbing.

Anatoly Cohn, APCO Aviation Ltd.
ph: +972 46273727, fax: +972 46273728

FAI NEWS

FAI World Records

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

Claim number: 9631

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

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

Course/location: Mansfield, WA (USA)

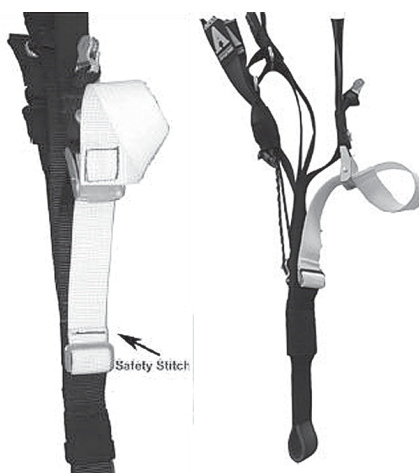
Performance: 42km/h

Pilot: Martin Henry (Canada)

Date: 10/7/2004

Current record: 34.47km/h (16/8/2000, Davis Straub, USA)

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).



Replacement Trim Tab Webbing



Wayne Blackmore launches

Photo: M. N. Brearley, 1981

Born to Fly

Andy Austin

A COUPLE OF YEARS AGO JULES SANDERSON UNDERTOOK TO TEACH YOUNG PARAPLEGIC WHEELCHAIR ATHLETES TO PARAGLIDE FROM BALD HILL AT STANWELL PARK AND LAND ON THE TURF BELOW. MEANWHILE PEPI LEPRE HELPED TACKLE THE PROBLEM OF DISSEMINATING SKILLS TO HANG GLIDER PILOTS WHICH MIGHT HELP THEM SURVIVE WATER LANDINGS. BOTH PROGRAMS WERE SENSATIONALLY SUCCESSFUL AND HONOURED BY THE NSW STATE GOVERNMENT.

About 23 years earlier, Wayne Blackmore, a paraplegic hang glider pilot, landed in deep water and was not so lucky. He was born in 1951 in Adelaide, a natural athlete and an aero-nut from the start. At age 18 he won a pilot cadetship in the RAAF, and while in pilot training at Point Cook he attended a rock concert at the Myer

Music Bowl in Melbourne where he saw a man in a white suit spiralling down in a kite from way above. This led him to build his own "man-lifting kite" from a design in a NASA magazine article – a typical Rogallo with terylene sailcloth, king post and A-frame. He flew this wearing a harness and a pair of skis behind a boat.

On 1 November 1971 he flew it fixed by a rope to a dune buggy on an airstrip. On his first flight he got to 20m, and on the second, after adjusting it to go faster, he got to 30m, at which point the rope snapped and the wing stalled, resulting in a dive into the bitumen. He survived, but was paralysed from the chest down, confining him to a wheelchair for the rest of his life.

In December '73 his family took him to see friends in California who were raving about hang gliders flying free from a 600m hill at Lake Elsinore, 100km east of LA, landing at the bottom five or six minutes later! Back home he bought a Wings Albatros, made in Melbourne, a delta wing with a curved leading edge, but none of his mates who tested it could get it to fly, possibly because they had no idea how to foot launch from a hill...

On a trip to New Zealand in March '75 he saw a couple of blokes with a hang glider on top of their car. They took him to several sites around Christchurch that were up to 1,650m high (Coronet Peak and Arthurs Park) where they were flying around and staying up for more than 15 minutes at a time! And they were doing it five days a week.

This inspired Wayne to modify the Alby, building in a plastic bucket seat below the base bar and linking a wire from the hang point to his feet, then extending the down-tubes to eight feet to take a couple of 35cm wheels with large pneumatic tyres to land on, with the keel as a tail skid. First flight was a nose-up, a blow back over launch, a stall and a broken A-frame. But on 1 June in milder air he managed seven flights, some for 30m at one foot, and one for 250m at 100ft.

In no time he was soaring the ridges and dunes and landing on top, and from then on things got better and better. Alby could fly for three hours at a time, do 360's, figure of 8's, stall turns, spot landings – the lot. He bought a higher performance kite, a Twister from Free Flight, and first flew it in a 30-plus-knot breeze. It went straight up and over the back with the bar right in. He survived, but he had diarrhoea for a week. The Twister, though, became the best kite he'd ever flown, and taught him to thermal.

In 1977 long flights were becoming common and the challenge was to fly across Rapid Bay, south of Adelaide. This was a three-kilometre flight over the open sea. They calculated it could be done if you started off with a height of 450m above the southern cliffs and headed downwind across the bay 600 to 700m offshore to the cliffs on the far side. Plan B was to head crosswind for the beach if your height fell below 215m. Two pilots had succeeded in getting across,



and four to land on the beach. He had a go with several others in January '77, but he was too low and made a rough beach landing. However he did succeed in getting across in mid-July. He then tried it again two weeks later. As he began the wind dropped and veered to offshore. About 100m from the beach he was about 10m high. The water was rough. One wheel touched a wave; he pushed out and cartwheeled to the right, and sank within seconds. An RAAF helicopter and police divers brought him ashore next day.

A few weeks before his final flight he was asked to write an article to explain his obsession with hang gliding. In it he said, "For me the fascination, the meaning, the very reason I engage in hang gliding, has little to do with either sport or thrills – it involves much more. To me, hang gliding is life itself; the very reason for living."

Wayne Blackmore is the inspiration for the Wheelchair and Water Landing Programs we conduct today, helping pilots to both realise their dreams and stay safe whilst doing so.

(Some facts for this article obtained from "Born to Fly", M. N. Brearley, 1981)



LAKE KEEPIT

TAMWORTH NSW

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

Contact:

PO Box S152

TAMWORTH SOUTH 2340

Ph: (02) 6769 7514

Fax: (02) 6769 7640

Email: keepitsoaring@bigpond.com

www.users.bigpond.com/keepitsoaring



PROPELLER HEADS

Andrew 'Banjo' Kennedy

*We three went flying Frank and Me
Just last weekend with ol' John Tree*

*Careful John took to the air
So calmly now while people stare*

*I wrecked my prop d'ya think they care
I thought this last one was a spare*

*Just look at this young fella' Tree
It's almost like he's flown for free*

*While props and sails for Frank and me
Are just disposable you see*

*Congratulations to John Tree
He's high on air with his knees scratch free*

But seriously, in spite of my putting my "keel stand" through the prop on Saturday and having another small, but non-life threatening, mishap with the equipment in flight, we had a great day. I was helped out by Frank's spare prop, for which he graciously landed to retrieve from his locked car. We were flying with John at Wellington Point on Brisbane's bayside, in winds varying from light (five to eight miles per hour) down to

almost non-existent, with big areas on the water like glass. Hopefully our tiny group of regular motorised hang glider pilots will grow, allowing us to share the sights around Moreton Bay and Stradbroke with others, while we, in turn, enjoy the support of more flying buddies.

The point I would like to make again is that John is a shining example of someone setting a plan and some rules for safe learning and sticking to them. He is like a sponge, always asking questions, soaking up various bits of information and opinions, weighing them all up and therefore reaping the benefits of mistakes others have made before him.

Please, oh, please (!) aspiring powered hang gliding enthusiasts out there: team up with someone, instead of thinking it's easy because you can fly well or because you prefer to make a fool of yourself in private. I keep hearing about people who have been disappointed or had other unhappy experiences with motors. It doesn't have to be like that. Get a mentor, or ask us about the best conditions and situations for practice, and you too can enjoy the sky without always having to drive to the mountain.



JAXIDA ALL WEATHER COVERS CONDENSATION FREE

www.jaxida.com



Protects your aircraft

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

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

Design reg. 2062846
Pat. No. 9300546

NARROMINE CUP 2004:

All the fun a gliding week should be



Photos: Mike Nelmes

Plans are under way for the 2004 Narromine Cup. Following last year's fantastic turnout, the small team of organisers is starting early to put everything in place to ensure a great week of flying. While the weather is out of their control, the rest of the planning is in place to welcome even bigger numbers of pilots for this fun week of cross-country flying. So, what is available at Narromine for the cup week?

- *A great airfield well prepared by the local council*
- *On site camping and motel type rooms*
- *A friendly country town within walking distance of the airport*
- *Well established club house, all meals and bar*
- *Daily briefings, tows, encouragement to achieve your gliding goals*
- *Daily short seminars by experienced coaches, parachute specialists, and other sport training*
- *No entry fee*

From Silver C to 1,000km distances, all are welcome to participate in this great



Some views from last year's Cup:

Top: The line-up for aerotow

Above: Pawnee towing Discus

Right middle: DG.505 from Bathurst

Right bottom: Trailers for the record number of gliders

gliding week. Don't miss it. 21 to 27 November. To help with our planning and for any assistance with accommodation, we would like to know when you plan to

arrive. Call Beryl or Arnie Hartley on (02) 6889 2733 or email <hartley@avionics.com.au>.



2004 Basic Airworthiness Course

COURSE OBJECTIVES

This interactive intensive course is designed to introduce club members and owners to the rigors of annual inspections of their club fleet or syndicate owned aircraft.

1. *Learn how to determine the airworthiness condition of your glider and how to schedule and conduct necessary maintenance.*
2. *How to record your annual inspections and meet associated legal obligations.*
3. *Techniques of inspection including conduct of non destructive testing.*
4. *The safety chain processes to warrant that club and privately owned aircraft remain airworthy.*
5. *Learn about airframe structures and design as related to maintenance.*

WHO SHOULD ATTEND?

The course is open to all GFA members who aspire to conduct glider maintenance and who have some experience with annual inspections under the supervision of their club maintenance officer or capable inspectors.

WHAT YOU CAN GAIN

The objective is to advance all candidates towards ultimately gaining a Form 2 Inspectors endorsement. Progress on this path depends on the individuals knowledge and experience and diligence while working with the allocated team.

Endorsements depend on meeting the required standards of competence set by GFA RTO/A's conduct an interview with each candidate at the end of the course to review aptitude and competence of each individual.

WHO ARE THE LECTURERS?

The key course lecturers have been in gliding and the aerospace industries throughout their careers. The following have already agreed to volunteer their time to lecture and demonstrate the correct procedures to conduct annual inspections:

*Roger Druce,
Alan Patching,
Gary Sunderland,
John Ashford,
John Viney,
Eugene Blunt,
Erwin Hirt,
Ian Hardy,
Ross Birch,
Joe Luciani
Neil Joiner*

COURSE VENUE AND DATES

Dates:

The course will commence on 16 October and conclude on 23 October 2004.

Venue:

Bacchus Marsh Gliding Club's clubhouse. The clubs have several workshops and hangars which provide ample room for candidates to conduct the annual inspections.

Accommodation:

The Victorian Soaring Association is subsidising the course to encourage attendance. The clubhouse accommodates up to 20 persons. The accommodation fee of \$10 per night includes a self help breakfast. Early booking is necessary. Bacchus Marsh has a Motel for those who prefer more comfortable accommodation. Contact the course organiser to make your arrangements. Meals: The Victorian Soaring Association Inc. arranges catering for the entire course duration.

AIRCRAFT TO WORK ON

Candidates will work on a variety of gliders and airframes. Candidates are encouraged to bring a glider and associated log book and maintenance records to work on during the course. However, you must advise the course organiser that you wish to do so. We cannot warrant that you will complete the annual inspection by the end of the course because of time constraints.

COURSE FEES

The course fees have been set at \$350. The fees include all course notes in hard copy and a CD that contains all the PowerPoint Presentations and other useful information focused on the maintenance of gliders.

THE TOOLS YOU NEED

We recommend that you get the following tools with you to the course:

*Screwdrivers – Phillips and cross head;
Hex sets – metric and inch;
Open ended spanners – metric and inch;
1/4 drive socket set – metric and inch;
1/4 Flex and ratchet drives;
Pliers and side cutters;
Mirror, Torch and Magnet steel retriever; Assorted files, needle files;
Piano wire and lock wire;
Adjustable spanners and vice grip pliers; 10 X (at least) magnifying glass;
Steel rule, Stanley Knife and Tape Measure; Drill & Bits;*

HOW TO ENROL

You can down load an application form from the GFA website or you can contact:

Edwin Grech Cumbo
12 Culgoa Court,
Keilor VIC 3036
Phone: 03 9336 2305;
Fax: 03 9336 2305;
Mobile: 0419 542761
Email: <egrechc@melbpc.org.au>

Tim Shirley

General Notes

The NCC has been quite busy since last season, and it is time to let pilots and prospective pilots of the upcoming Nationals know what has been decided, and what is being considered for future seasons. The biggest job this year was to combine the rules of the Club Class and Multi-Class Nationals into one document. We did this because it was getting hard to maintain the two different sets of rules; when a rule changed for one competition, it didn't necessarily flow on to the other one. Also, we were introducing the Junior Nationals this coming season (more on this below) and the last thing we needed was a third set of rules. This project is now complete, and the new Rule Book is available on the GFA Website.

While creating the new book of rules, we changed a few of them – however, this was mainly to make sure that the rules reflected what is actually happening during the competitions these days. There were also a few specific changes that I will list below – but mainly we tried to make the language simpler and to correct obvious errors or anomalies. The changes that were made by NCC in general terms are as follows:

1. *Rules. We have made it clear that these rules must be followed. They are, after all, the rules of the National Championships, and while we know they are not perfect, they ARE the rules and they need to apply without exception. The time to change rules is between the seasons.*
2. *Pilots in Command. We have also made it clear that pilots are pilots in command, and that it is their responsibility to obey all GFA requirements (as stated in the Manual of Standard Procedures) and other applicable laws. The point we are making is that the competition does not alter a pilot's responsibilities as a pilot in command of an aircraft.*
3. *Lay Days. At the Club Class Nationals, there was some confusion over the circumstances in which Lay Days could be granted. We have now tightened up those rules. Lay Days must be scheduled by the end of the previous day's briefing, however there are circumstances where the Contest Director can grant a Lay Day on shorter notice, and these circumstances are now spelled out in the rules. Pilots who take Lay Days in Multi-Class will not be eligible to win the Championship, and in no class will they be eligible for Team Selection.*

4. *Scoring. We are continuing to use the World Comps formula, however we are now going to score on aggregate rather than average scoring. Pilots will be given a score when they take Lay Days, and this will be their average score on their flying days less five percent. The reason to have a five percent reduction is that we don't want pilots taking Lay Days for tactical reasons – for example to avoid the competition when in a leading position. The purpose of Lay Days is to allow pilots to rest if they need to, to attend to unavoidable business, and to make the event more attractive to newcomers. We want the pilots who are in contention for prizes to be flying every day.*
5. *Finishing. There have been some examples recently of Contest Directors setting and enforcing minimum finishing heights and finishing circuit procedures, to the extent of penalising pilots who breach them. This is not a practice that is supported by the NCC or by the Operations Panel, as it cuts across a pilot's responsibility to arrive and land safely. As a result, the rules now specifically say that the organisers must not set mandatory rules in this area – although of course they can and should advise pilots of the preferred arrival and landing procedure, and will of course penalise unsafe behaviour. We expect that pilots at Nationals level know how to land a glider safely, and while some guidance is appropriate, there is no need for rules which may be quite inappropriate to a specific situation.*
6. *Launching. We have had a few instances where pilots have refused to launch at the front of the grid when directed to do so, because they would prefer to have plenty of gliders in the air and a shorter flight time. This has happened with both gliders and motor gliders. In these rules there is now a maximum of three launches for the day (this aligns with World Comps Rules) and a refusal to launch will be counted as one of those launches. We expect that pilots will respect the grid positions they are given.*

Organisers and Task-setting Guidelines

The old Tasksetting Guidelines have been updated and reformatted. There have been a number of changes, including a section on the RUN Task and changes to the AAT guidelines. We have also included some guidelines on task length and also on task cancellation – noting that there has been a tendency to set shorter tasks and to cancel flyable days, which

is a trend we want to reverse. Pilots at Nationals level need to be able to fly even in quite adverse (though not dangerous) conditions – in many parts of the world this is a fact of gliding competition life.

With the use of the World Comps formula for scoring, there will always be a number of devalued days, and we don't want devaluation to be taken into account when deciding whether to cancel a day.

Junior Nationals

At its meeting in February the Sports Committee endorsed the running of a Junior National Championships, the first of which is planned for Temora in December 2004. The impetus for this came almost entirely from an enthusiastic group of Juniors and the Sports Committee, Sporting Coaches and NCC are strongly supporting them.

The event is open to pilots aged 25 or under at the start of the competition, which will be a one-week event run to the Nationals Rules. The choice of whether the event follows the Multi-Class rule to allow water ballast, or the Club Class rule (unballasted) is still to be made, and will depend on the numbers attending and the types of gliders that they bring. There will be some coaching during the event, and I would encourage interested juniors to attend and for clubs and State Associations to get behind the event with assistance and support to juniors.

Multi-Class

As you might expect, there has been a lot of discussion about the future format of the Multi-Class Nationals. Last season we tried a radically different format, which is continuing for the coming season – but at the same time, we want to consider what is best for the future. With this in mind, we will be surveying pilots at pilots' meetings and elsewhere to find out what they think. We want to cover both the actual pilots attending, and those who are potential attendees. NCC considered five basic options:

1. *The current format but with two successive one-week comps – the first being 15m Performance, and the second Open Class.*
2. *Return to FAI classes with Standard and 18m the first week, and 15m and Open Class the second week (the original Miles Gore-Brown proposal). This could be with or without handicaps.*
3. *15m Performance with an Open Class Grand Prix in the first week, and Open Class with a 15m Grand Prix in the second week.*

4. Same as the current format, but hold Nationals every second year to allow a greater emphasis on State Comps in the "off" years.
5. Keep the current format.

These are only starting points for discussion, not the only options that can be considered. The NCC wants to hear as many views as possible on this. The aim is to bring the Multi-Class Nationals back to a point at which there are 40+ competitors every year, and to do this we must attract new entrants and lure back those who have stopped coming, as well as retaining those who already attend. Please don't be shy about putting a view forward – it is only by hearing what you want that we will get the best result. If you would like to discuss this further, talk to a current NCC member (Tom Claffey, Tom Gilbert, Tobi Geiger, Chris Stephens or myself) or contact me as shown below.

NCC Structure

There was some discussion on the structure of the Committee, and as a result a proposal for change will be put to the GFA Council in September. The new structure, if agreed, will have:

- 1 Convenor appointed by Council
- 1 Decentralised Competition Representative, appointed by Council
- 2 Pilot Representatives elected by the Multi-Class Pilot Meeting
- 2 Pilot Representatives elected by the Club Class Pilot Meeting

The aim is to get away from having Council appoint representatives who are specifically associated with one of the Competitions, and also to increase the percentage of pilot-elected representation on the Committee. The advantage of having two reps from each competition is that we will get more expertise, and if it turns out that one rep can't attend a meeting, then the other will be able to fill in. I will still put myself up for appointment as the Convenor. I will be happier to do the job in this new format, as I want to be quite independent of the specific competitions – so I can do (and be seen to do) the best by all.

Tim Shirley, NCC Convenor, Ph: 0417 268 073, <tshirley@bigpond.net.au>.



The Gliding Federation of Australia

ABN 99 008 560 263

POST OR FAX TO:
FAI OFFICE – PO BOX 275, NARROMINE NSW 2821
PHONE 02 6889 2733, FAX 02 6889 2933

APPLICATION FOR PILOT CARD

NAME/CLUB:

ADDRESS:

POSTCODE

PHONE NUMBER: DATE:

RECEIVED BY: PHONE ☒ FAX ☒ POST ☐ EMAIL ☐ IN PERSON ☐

ORDER TYPE: INTERNET ☐ CREDIT CARD ☐ CHEQUE ☐ CASH ☐

CREDIT: MASTERCARD ☐ VISA ☐ BANKCARD ☐

DIRECT BANKING:

The Gliding Federation of Australia – ANZ Bank Airport West.
BSB 013 442 Account Number 3047 29562

ENTER CREDIT CARD NUMBER BELOW

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

EXPIRY DATE: ITEMS SENT:

SIGNED:

QTY	C CERTIFICATE NUMBER	PRICE (\$)	SUBTOTAL
1		20.00	20.00
TOTAL			

GFA Badges & Certificates

FAI BADGE CLAIMS

July 2004

A CERTIFICATE

Fowler, Douglas	10989	Sydney GC
Harford, Alan Vincent F	10990	Caboolture GC
Tilley, John P	10994	SA Air TC
McBean, Bruce Philip	10996	Byron Power GC
Peake, Nathan John	10998	SA Air TC

B CERTIFICATE

Palmer, Jade	10902	SA Air TC
Wyatt, John Lowther	10979	Lake Keepit SC
Powell, Christian Leslie	10981	SA Air TC

B AND C CERTIFICATE

Sharman, John Richard	10988	Caboolture GC
-----------------------	-------	---------------

A, B AND C CERTIFICATE

Manietta, Graeme	10991	Caboolture GC
Schmidt, Gregory G	10992	Kingaroy GC
Terrell, John Colin	10993	Adelaide GC
Wookey, Martin William	10995	Bathurst GC
Launer, Heidi	10997	Balaklava GC
Kettle, Brett Thomas	10999	North Qld SC

SILVER C

Rechinger, Karl Bjorn	4543	Adelaide SC
-----------------------	------	-------------

GOLD C

Texler, Michael Lutz	1591	Adelaide Uni
----------------------	------	--------------

DIAMOND DISTANCE

Texler, Michael Lutz	Adelaide SC
----------------------	-------------

DIAMOND GOAL

Rechinger, Karl Bjorn	Adelaide SC
Texler, Michael Lutz	Adelaide Uni

ATTENTION DEFICITS AND STRESS

Dr Barry Oliver

I'M A BEGINNER IN THE PARAGLIDING WORLD WITH ABOUT FIVE HOURS LOGGED, ABOUT 15 HIGH FLIGHT LAUNCHES AND SLED RIDES, BUT MANY HOURS OF GROUNDHANDLING IN DIFFERENT CONDITIONS – I THINK I'M ADDICTED TO GROUND HANDLING. THIS STORY IS ABOUT MY EXPERIENCE ON ONE PARTICULAR FLYING DAY MY FLYING PARTNER, RUTH, AND I DECIDED TO GO FLYING. RUTH HAD ABOUT 30 HOURS OF FLYING EXPERIENCE, AND I FELT CONFIDENT WITH MY ABILITY.

There were two sites that promised flying opportunity: Geary's Gap and Collector, both near Canberra. I had not flown from these sites before. Ruth was already at Geary's Gap by the time I arrived, as was an instructor and four students. I was a little nervous as I hadn't flown much with the total responsibility for all the necessary pre-flight preparations to consider, as well as flying from a new site. Being surrounded by students, Ruth and I decided to do some groundhandling at the back of the launch, possibly to ease my nerves but also to 'get the feel' of the wing at the new site. There was no problem with this as there was a lot of space. I unpacked my glider and it wasn't long before I was groundhandling. The instructor, who was also a senior safety officer, indicated that I could take off if I wished. I was excited to be able to show off my groundhandling skills. He was attending to his students needs and probably could see I was excited. I was at the back of the launch and he indicated I should bring my glider down closer to the face before taking off. There was no one else flying. To me this was no problem, just a tweak on the A's and with the glider above my head, and lines clear, I walked in between the students. Arriving beside the instructor I sensed the amazement from everyone at my groundhandling abilities. All the practice was finally paying off. Those endless hours in hot paddocks being dragged around by evil little dust devils, no wind one minute and a howling gale the next. After a few steps and a brief run I was clear of launch.

My plan was to track right from launch, then turn to get some height and continue as I saw fit along the ridge. About 50m out from launch I realised that I hadn't turned on my radio, and obviously not done a radio check. I decided that the price for my poor pre-flight check was to go directly and land. I didn't have a lot of options because as I'd

turned south when there was a little north in the wind I'd lost a lot of height.

After landing I watched everyone else turning left to better face the wind. Maybe they had used me as a wind dummy. I was annoyed enough about the radio without thinking about my less than perfect flight plan. However, as I unclipped my wing the next error of the morning identified itself. I'd failed to attach my speed system, and as I turned on my radio I also realised the battery was flat. It concerned me greatly that these basic checks had not been done. I thought I was careful. Maybe the cause of these errors was due to my overall inexperience, inexperience at a new site, and being the first to fly; my mind just couldn't concentrate on everything. Although each aspect of any launch, including weather assessment, pre-flight planning and the influence of others around, aren't individually significant or difficult, the combination of them with a little nerves can cause basic errors to be made. Maybe the role of the safety officer was not only to help in assessing the conditions, but to allow a little room for the mind to concentrate on other things, particularly for the inexperienced.

I returned to launch, and after a brief discussion with Ruth we decided to head to Collector. Luckily, I had a battery charger in the car for the radio. There was no one else at Collector when we arrived. I did all the normal checks, such as assessing the landing paddock, the wind and clouds. Ruth gave me other information about the site and potential landing zones. Ruth pointed out the powerlines below launch. I strained to see the poles, let alone the wires between them. I made a mental note of where the poles were and made the deduction that the un-seen wires were between the poles. They made me a little nervous. This time I would not be so forgetful about my radio and speed system. I ensured that these checks were done. Again I was the first ready and I did

an easy launch. I still hadn't realised the mistake of flying first nor the mistake of turning right that I did the last flight at Geary's. However with hindsight the correct path was to fly directly out from the hill to get over the powerlines. I justified my decision to turn right because on the left the powerlines headed further away from below the launch. This would have made crossing them a little more difficult had height not been obtained. Flying directly out from the hill didn't occur to me. I was intent on trying to soar along the ridge which I found out later isn't easy at the best of times even for the experienced. Anyway, as I turned right I lost a lot of height. I didn't want to continue and lose further height as there was no safe landing options, so I turned away from the hill and then back along the ridge towards the front of launch. Unfortunately, I was out of any lift and lost further height as I came back across launch. At this point I looked towards the powerlines and became concerned that I wouldn't make it across them if I now flew directly out from the hill. As I proceeded past launch, now well below it, I made the conscious decision not to try and get across the powerlines but to land between the base of the hill and the powerlines. The first error of this flight was becoming evident – poor planning again.

I was now too low to make a direct flight out into the landing zone and miss the powerlines. I was also facing into the wind, but continuing in that direction was not good because there were numerous trees as well as the powerlines that angled away a little on my right, directly into the wind. My only option was to turn away from the hill again and head back to the right of launch. My day was not going well. I turned and again lost more height. I was now only about 50ft above the trees. I had few options. There was a set of powerlines to the left, a barbed wire fence between me and the powerlines.

To my right was the hill and lots of trees. In front of me was a small cleared patch of ground with some dead trees around it. This is where I headed. I was quite nervous about the situation. I was now planning to land tailwind in a small area that was surrounded by trees.

Landing tailwind can be achieved if you use dead trees to kill-off airspeed, not that I recommend such action unless the alternatives are a set of powerlines or a barbed wire fence. Actually, hitting the trees was not a decision I intentionally made. I misjudged the turn and didn't give enough room between the fence and the trees. I clipped a few branches at about three metres above ground, which swung me into the main branches at probably 30km/h. I slowed the glider down as much as I could, but with a tailwind that's a bit difficult. It's quite amazing how big branches can be broken when you are travelling at around 30km/h! I crashed through the crown of a tree that was lying on its side and came to a reasonable landing (if face-down with the glider over the top of me is 'reasonable!'). At least I was on the ground with nothing more than a few scratches on my leg and a little shaken. Once I recovered my composure I asked myself: how could I get such a basic flight so horribly wrong?

I should have waited and watched what other pilots did, in this case, Ruth. I felt that as my poor flight plan unfolded I was getting into more difficult choices as to what I had to do. What I ended up doing was probably appropriate given the error I initially made.

Ruth had taken off, flown directly out from launch, and landed out in the paddock on the other side of the powerlines. This was the obvious correct flight path. Also, the instructor and his students had arrived and kindly agreed to take us back up to launch. Back up to launch, now with the four students and instructor, Ruth and I once again prepared to launch. Again I was the first ready. This time I was a little more nervous about taking off, but more confident after seeing what Ruth had done. I was going to fly directly out from launch; if there were no thermals I'd land. The instructor said, *"Just fly straight out from launch and you will be a long way above the powerlines"* – exactly as I now realised I should have done before. As I went to clip in my glider, I noticed my left carabiner could not be screwed together. It was sprung open. The only way that the carabiner wouldn't close was because on my last flight I'd failed to do it up. I couldn't remember whether I undid it or not when I had crashed through the trees, but there is no way it would be sprung

open without being placed under considerable stress undone.

My day was now really becoming bad. Here I was, ready to fly, or so I thought, with all the students waiting around me, probably keen to see me do another great launch, and now not only had I difficulty with a carabiner, but I had some serious questions in my mind about my pre-flight checking, particularly when considering the problems I'd had at Geary's Gap. The stress was considerable. Thankfully, I was at the back of launch and could unclip myself and sort out the problem without interrupting the others. I was becoming very concerned about my abilities and confidence.

Ruth had taken off and was heading towards the landing zone as she had done previously. The students had also made a clean launch and were heading in the same direction as Ruth. The only people now on launch were the instructor and I. I must have had a look of apprehension on my face, as the instructor came and did a quick safety check of leg-straps, chest straps and carabiners. All were okay. I'm sure had they not been okay I would have unclipped and not flown. But I remember the sense of relief when he did these simple checks. It was like a weight had been removed from my shoulders. It allowed me to concentrate on other things. It also made me realise that a safety officer isn't there to assess safety alone. They also do an important job of allowing the mind of the pilot greater ability to concentrate on other aspects of the flight. This is most important for the inexperienced.

So what was the cause of my disastrous morning? A significant factor was my inexperience, but being first in the air at sites I'd never flown before and without the conscious contribution of a safety officer to confirm that the conditions were suitable were also significant factors. The fact that I had to take complete responsibility for all the facets of the flight, coupled with my inexperience, crowded out my normal pre-flight checks. Maybe the issue about the radio not being on, nor the battery charged, and the speed system not being connected was because when I groundhandled I never had the radio on nor the speed system connected. Groundhandling at the launch site is not a very good idea. Had I planned to launch rather than groundhandle, then maybe all the necessary checks would have been done correctly.


As for the carabiner not being screwed up, maybe because I was rattled with the radio and speed system errors from the previous flight I concentrated on those for the next flight but failed to check the carabiner as my mind was concentrating on everything else.



Three gliders at Sunnyside

Photo: Jiri Stipek

Importantly, what have I learned from this experience? Firstly, the reason for rules associated with flying are not always obvious – a safety officer may assess safety aspects of flying, but also they confirm (or reject) the decisions of the inexperienced (and the experienced). This can have a powerful subconscious effect that isn't always obvious. They give the mind of a pilot an extra margin that is often needed for other important things about the flight.

So what have I done to help reduce these errors happening again? I've realised that safety rules may have a purpose that isn't always obvious. I will be much more careful flying from sites that I've never flown. I've written a list of pre-flight checks that are attached and clearly visible on my flight deck. This list acts like the role of the safety officer, not taking the responsibility, just removing a little of the pressure to allow my mind to concentrate on issues about conditions and flight plans. The list is used as a check, not a substitute. I've purchased a spare battery for my radio, which is kept in my flight deck and I regularly check to ensure the batteries are fully charged. When I go groundhandling I ensure my speed system is connected. Finally, I've learned that even though you might believe you are capable of doing something, that under a little stress it can block out the most basic of things that must be done. It made me wonder about the experienced paraglider pilots who have taken off without their leg straps being done up. Maybe something very simple was crowding out their thoughts just enough to make the error. Thankfully, my error wasn't fatal. Attention deficits under stress may be the cause of a lot more errors we make in society than we realise. 

HGFA General Manager's Report

ACTING GENERAL MANAGER'S REPORT

HGFA ACTING GENERAL MANAGER

Stewart Dennis
PO Box 118, Dickson ACT 2602
Ph/fax 02 6247 0008
Mobile 0417 766356
Email <general.manager@hgfa.asn.au>

General Manager Arrangements

Interviews have been conducted, but the selection is not quite finalised yet, so I'm still holding the fort.

Air Space Violation

One of the first jobs I had to do after stepping in as Acting General Manager was to investigate a violation of Maroochydore controlled airspace. A helicopter reported seeing paragliders soaring a hill seven miles from the airport, the tower subsequently observed them and called the police. I received a six page report to complete and fax back to CASA.

This sort of thing doesn't do us any good. It's possible to get access to flying areas in a less damaging way. In the ACT the local association was able to get access to extra airspace over a site on an occasional application basis, as well as getting a permanent shift to one of the height steps via the RAPAC meetings. Competitions have been able to get raised ceilings for their duration by pre-arrangement, getting a NOTAM in place. In some areas it's easier to do than others – past problems can harden attitudes. And in some areas there are requirements that just can't be overridden. But ask yourself what would happen if we all just went out there and flew in controlled airspace en masse? Do you think that would then bring you the access that you want? Or do you think instead that it would create an incident that the authorities can't ignore – with calls for "action". At the very least it would then end up in the lap of your hard-working club committee. Or it could go further with sensational media reports and pressure by airlines pushing for "something to be done to protect airline passenger safety". Remember we used to be limited to 300ft agl, then 5,000ft asl – finally 10,000ft asl. These things aren't just handed to you on a platter. Behaving like cowboys just undoes the hard work. Here are some links:

The constructive way: [www.airservicesaustralia.com/pilotcentre/forums/rapac/rapac.htm].

Or else you can check out the potential consequences (particularly prosecution) via CASA's site [www.casa.gov.au/hotopics/action/tools.htm].

Also have a look at the HGFA Constitution – Disciplining of Members [www.hgfa.asn.au/HGFA/HGFA Constitution.pdf] or consult section 7.2 of your Operations Manual.

Conargo NSW

Some better news. From time to time our members have used the Travelling Stock Reserves near Conargo for towing. Normally the General Manager has just sent off an annual application for a permit to use them. Last year the permit was not approved because of extreme fire risk and a good growing season – the risk of serious economic loss from fire was high. We've applied again just for the winter and have approval to the end of September, at a total cost of \$55 (already paid). Any club that would like to use these paddocks can do so for no charge until then – just call the Riverina Rural Lands Protection Board first on 03 5881 1055. They have asked that you call a week before you want to go – they might have to move cattle. Cattle grazing on the TSRs is a major income earner for the Riverina RLPB, so obviously they need to look after their clients. I've put the phone number on our website in the Operations forum.

We're still working on getting back permission for summer – fire issues remain.

Competiton – Anti-doping

The FAI has adopted an anti-doping policy which can be found in their General Section. It applies to all FAI airports – just imagine aeromodellers on the ground using performance-enhancing drugs to cheat...

I'm not sure how concerned we need to be about this. No-one has been able to point out any banned performance-enhancing drugs in our sports. Any other sorts of drugs reduce performance and safety and we certainly don't want to be flying with pilots who are impaired by them. The competitive pressure and the real chance of getting seriously hurt from impaired piloting combine to act against their use at any rate.

In Europe, governments of major countries do fund teams for hang gliding and paragliding and they do testing. It would be very strange if the Australian government could find money to test in sports that it doesn't fund and that don't have a drug-cheating problem anyway! The main concern for us is not of drugs prob-

lems but of potential administrative problems and costs. Keep your eyes open and let the competition committee know of anything that might impact on our comps.

Some links for further information (I've also put these up in the Competition forum on our website) are [www.wada-ama.org], [www.fai.org/medical/nodoping.asp].

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: *intermediate PG*
Experience: *54hrs (18hrs last 90 days)*
Glider: *DHV 1-2*
Pilot injury: *sprained ankle*
Glider damage: *nil*
Location: *inland soaring site*
Conditions: *5-15kt slightly crosswind, slight turbulence*

Description:

The pilot was ridge soaring in a crosswind. At the downwind end of the ridge he made a turn and found sink and a strong headwind requiring speed bar to return. The standard landing field was now beyond reach so he headed for the short emergency landing area which is very small. He was too high and made a 360 degree turn to land, lost more height than expected, and didn't have time to turn back into wind. A small bush caught his feet twisting his ankle.

Comments:

It is often the case in an accident that an earlier decision has put pressure on subsequent decisions. A delayed decision to head out put pressure on the landing in a more difficult and unfamiliar place. A 360 degree turn involves losing sight of the landing – for this reason a standard landing circuit or figure eight turns are preferred, as well as giving a better opportunity to judge the wind in the landing area.

Stewart Dennis



Letters to the Editors • • • • •

Microburst Captured With a Throwaway Camera

I have noted that in recent issues of Soaring Australia and Flight Safety Australia there have been articles about microbursts. I have seen the associated dust rings from the air on at least

two occasions whilst I have been flying in gliders. After speaking with fellow pilots, I don't think that there are many photographs of this potentially dangerous phenomenon from the air.

I was undertaking a 500km glider flight from Gawler (YGAW) to Quorn and back to Gawler on Valentine's Day this year (14 February). It was one of the hottest days Adelaide had had in recent memory (43°C). There was a hot northerly wind, with a headwind of at least 20-25kt aloft. I was flying a Discus glider (VH-IUI). The sky had overdeveloped. There were high based cumulus clouds (base around 9,500ft to 12,000ft amsl), with active convection (I was able to climb to FL110 on numerous occasions, thank goodness

I had supplementary oxygen with me). I was on the return leg from Quorn heading south, abeam Jamestown, at around 8,500ft amsl. To the east of me, I saw a microburst.

This photograph shows the column of virga, with the ring of dust associated with the outflow. It was taken on ASA 100 speed film with a throwaway camera! – sorry about the graininess.

Michael Texler



Humorous Stories

I was both enchanted and delighted by the short story on page 30 of the May issue, 'The Tiger Moth and the Dragonfly' by Geoff Hastwell. I should very much like to thank him for writing and submitting the story of two aircraft he has personified as Terry and Danielle. The story that my friend Geoff Vincent wrote entitled 'The Stowaway' on page 31 of the June issue also adds a touch of humour to our otherwise technical pursuit.

Henry Leschen

Garry Speight at 70

Further to last month's article on Garry Speight, we had his 70th birthday party and a chorus of his friends sang him this song.

Dave Shorter

(With apologies to Lerner and Loewe.

Sung to the tune of "On the Street Where You Live" from My Fair Lady.

Words adapted by Carol Shorter)

I have often flown down a street before

But the paddocks weren't so far beneath my feet before

All at once am I climbing very high

Oh this thrill is the reason I fly.

But oh, the towering feeling

Just to climb on pillars of air

The overpowering feeling

circle up where only eagles dare
People stop and stare, they don't bother me
Because glider pilots are all just as weird as me
Let the time go by, but please let me fly
On and on, just as long as I live.

The Big Adventure

I am leaving tomorrow (8 July) for Europe where I will be competing in the Women's Pre-world championships in Germany. If you are interested in

Bad Habits...

This photo was taken by our driver at a recent Owens Valley meet in the USA. The pilot had stepped up to launch at Walts Point with an experienced wire crew at the ready. The shot was taken on his third pick up attempt, as he waited for a smooth cycle. Vicki Harrison (the photographer) was the first to notice the pilot's oversight, asking, "What's that loop dangling underneath the glider?" I did go on to fly the length of the high Sierras with this pilot on this day, but it may have been a very different scenario. Although I can't seem to persuade the Americans to stop walking around in their harnesses unhooked, maybe pictures like these may stop a few Aussie's from imitating the practice!

Craig Dorich

monitoring the competition, the website is [www.dsmf2004.

de]. (It is in German, so if you need to translate I recommend [www.freetranslation.com]; you can cut and paste text or just enter the web address to have the whole page translated. It's not perfect but it's the best free translator I have found.)

Lisa Turner <lisa.turner@dlgp.qld.gov.au>



GFA President's Report

FROM THE PEN OF THE PRESIDENT

GFA Management Structure

I am very pleased to report that the revised management structure of the GFA (see my previous report) has been agreed to, and will be put to this year's ACM for ratification. This agreement was reached after long and open discussion at an extended Executive meeting (including the Executive and the state vice presidents from each region). This was a historic meeting.

The principles behind the new structure are in my previous report, and the details are outlined in the ACM papers available on the web or direct from the GFA office.

In essence, what has been achieved is that the GFA Council has been re-formed and streamlined into a smaller group, called the GFA Board, which can meet more often and can fulfil its responsibilities by taking charge of policy. The Executive will then be able to limit its actions to implementation of that policy.

This streamlined Board will have the authority to set policy for the GFA. Board members will bring input from the Departments of the GFA via the heads of those

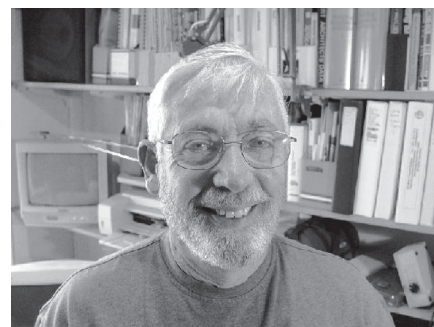
Departments and from the regions via the state vice presidents of the regions. This structure makes discussion of policy in the regions an essential component of the political process. Regional representatives will be responsible for taking the views of any significant group of members (whether the state vice president agrees with these views or not) to the Board for a decision. Based on all such input the Board will make a decision in the interests of the GFA, and each state vice president will then be required to communicate that Board decision and the reasoning behind that decision to his or her region.

Details of just how this new structure is to work will be discussed and hopefully agreed at the ACM.

Marketing and Development

It was also agreed that we will set up a Marketing and Development Committee which is planned to have the same status as the existing departments of Ops, Airworthiness and Sporting.

This group will be charged with the responsibility of continuing, evolving and



adding marketing to the good start made by the GFA Development Plan which has now seen full-time membership up by more than five percent per year over the two years of its operation.

Membership and Pilot Cards

As part of the development of the new membership database, we now have the software and hardware to produce credit card style membership cards. These will be issued on renewals of membership as well as for new members. This same format will be used to issue the proposed Pilot Card and can be used for a range of other purposes.

A Pilot Card will now be issued with each new C certificate. Holders of existing C certificates can apply for this card at a cost of \$20.

Web Page

The revised web page is currently being trialled. Initial comment is very positive.

As soon as we are confident that the new site does not contain any 'bugs', it will replace the existing web page.

Migration

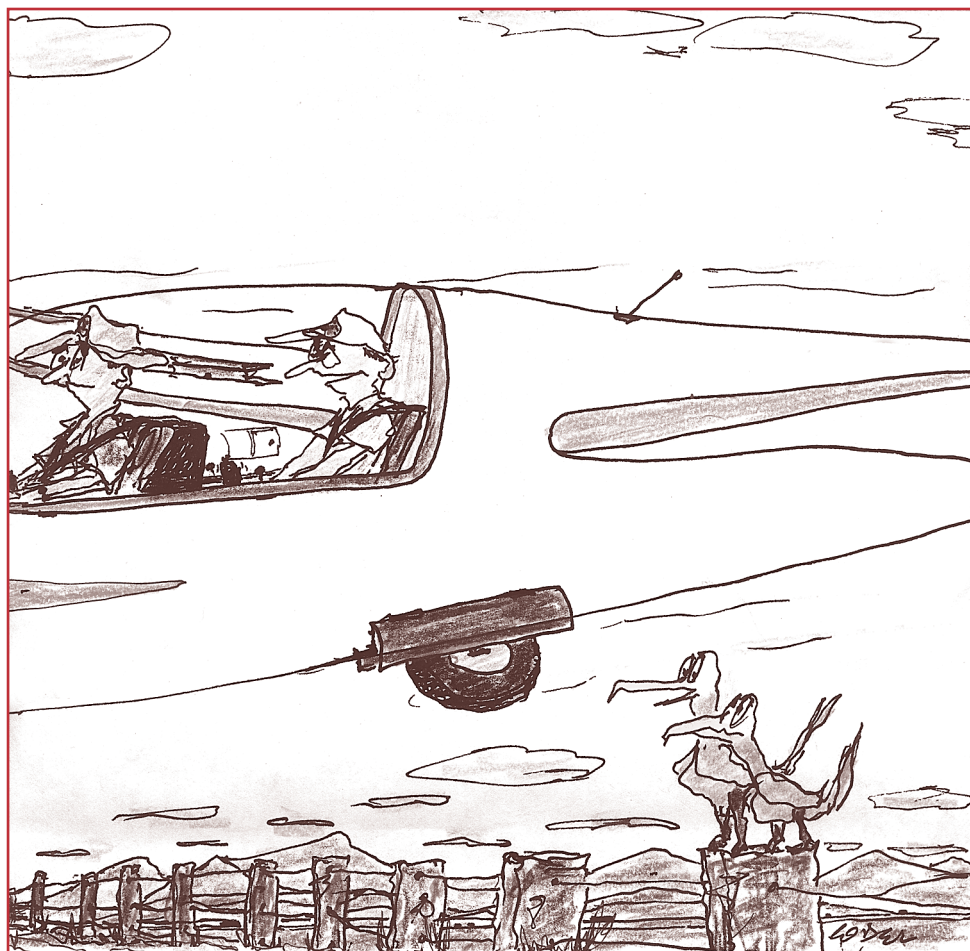
An essential step in the migration process of the GFA has been the changeover of registration of the existing entity from the ATC to Victoria. After considerable delays this has now been completed. The completion of the process has now commenced – but some difficulties remain. More detail at the ACM.

National Coach

I am particularly pleased to note that Bruce Taylor has been appointed as National Coach to work closely with Lisa Trotter. Bruce will do an excellent job in this position and we are all very pleased with this outcome.

Loans to Clubs

The GFA continues to process inquiries from clubs to access the GFA Loan Scheme, and a number of clubs have availed themselves of the facility. The individual limit on loans to clubs and the total amount of GFA funds made available to this scheme will be reviewed at the ACM.



They've got an intriguing call, Audrey – something like: "Watchyaspeed, watchyaspeed, watchyaspeed"



CASA Interaction

Two issues: There has been little visible progress with the re-write of our Regs, and there have been some serious concerns as to the audit processes used by CASA. These matters were raised at a meeting with Bruce Byron (CEO of CASA).

It was emphasised that more resources should be devoted to the re-write by CASA, as delay in this area is now beginning to cause serious problems since our regulations are effectively frozen until this re-write is completed. We now hope to see progress with this important matter over the next couple of months.

As CASA has overall responsibility for aviation safety, it has a responsibility to audit the processes used by the sport aviation organisations to supervise sport aviation. However, the audit process used has not been defined or agreed. It is now clear that we must be proactive in this matter, and through the Australian Sport Aviation Confederation (ASAC) develop and agree on a process which will not undermine the operational control of sport aviation, but still meet CASA's needs to be able to ensure safe outcomes.

Airspace

Hazard assessment of the alternate proposals for revision of the Stage 2b NAS changes nears completion, and we expect a decision soon.

Implementation of the Stage 2c changes (replacement of MBZ with US-type CTAF procedures) is apparently also on track for November this year.

Class E Airspace

Many of the existing regulations, particularly for sport aviation, refer to controlled and uncontrolled airspace. With the introduction of Class E airspace, this distinction has been altered. Class E airspace is being rolled out on the basis that it imposes no additional obligations on VFR flight. Unfortunately, CASA has elected to classify Class E airspace as 'controlled airspace', but did not alter the wording of the regulations attached to this distinction. This decision has caused a large number of unintended and unjustified additional requirements and/or restrictions on sport aviation operations in this low density airspace. This matter needs to be addressed urgently.

Bob Hall



NOW OFFERS 6-DAY COURSES

The next courses are being run in September, October & November 2004.

Bunkhouse accommodation included.

All club facilities available, including clubhouse, kitchen and more.

For information, contact Richard Bull:
BH (02) 9752 8745 • AH (02) 9872 1454
Mob 0418 411 593 • rbull@ric.nsw.gov.au

LEARN TO Glide

www.bathurstsoaring.org.au

Weather Station



Wind, rain,
temperature,
humidity,
barometer,
plus more...

Also available:
Windsocks and frames,
handheld weather meters.

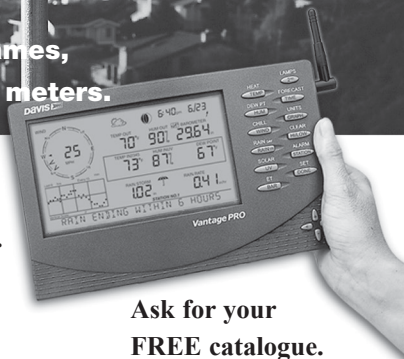
Australian Agent
for Davis Instruments.

ECOWATCH

Unit 5, 17 Southfork Drive
Kilsyth VIC 3137

Phone: (03) 9761 7040 Fax: (03) 9761 7050
email: <davis@ecowatch.com.au>

Ask for your
FREE catalogue.



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

Soaring Calendar

AUSTRALIA

Picolight Fly-In 2006

18-19 September 2004

Milbrulong, NSW (east of Lockhart, NSW). It's on again, the annual gathering of paramotor and hangmotor pilots. Join us for a weekend of fun and flying. Jeff has, as he has done for so many years in a row, made a paddock available close to the camping ground, and Jos has organised fine weather. For details contact the organisers, Jeff (02 69206233) or Jos (02 60265658).

Queensland State Gliding Championships

26 September – 2 October 2004

Kingaroy, QLD. Practice day: Saturday 25 September. Contact: Darryl Hansen ph: 0409 623310, <daggshansen@bigpond.com>.

Mackay Tour

25 September – 3 October 2004

Mackay, QLD. Due to last September's outstanding success of the flight tour at Mackay, we are planning another week long trip at Eungella (Mackay, North QLD). 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>.

The Canungra Classic 2004 ("Back to Base")

25 September – 2 October 2004

Canungra, SE QLD. We're going home to where it all began. Back to Moriarty Hall, in the heart of Canungra. Back to bigger parties, our own bar, great food, swimming pool, skate park, red faces, film nights, touch footy, cricket, pool comps, glider simulators, fun for the whole family. Pilot numbers are limited to 75 so book now. Registration day Friday 24 September. Entry fee: \$220 (after 1 September), site fee: \$40. GPS mandatory, int. pilot rating with inland experience. Camping is available at the showground, five minutes walk from HQ. Or alternately you can book accommodation with one of the hotels in town. For accommodation information visit [www.triptera.com.au/canungra/area/index.html]. For registration go to [www.hgfa.asn.au/~registration/index.php]. (Entry not confirmed until payment received. Payment by cheque or M/O to "Canungra Classic". Send to Rod Stead, 9 Griffith St, North Tamborine 4272). For entry enquiries contact Rod Stead on 0428 132215, 07 5545 0969 or email <canungrahg@hotmail.com>. For all further enquiries ph: Jay Longden on 0407 674094. Don't miss the best comp of the year!

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).

Killarney PG Classic

2-7 October 2004

Killarney, QLD. A Grade, Category 2 PG competition. Killarney is three hours drive inland from the Gold Coast. The take-off has been bought by QLD pilot, Andrew Horchner, and he will be hosting the event; local and international pilots are invited. The Killarney Classic is to be run prior to the Canungra Cup. There is one day between the comps to allow pilots to transport themselves from Killarney to Canungra. Killarney offers some of the best XC flying in the country; it has numerous launch sites that cover most directions and has over 1,000km of wide open flatlands behind it with an excellent road network. In the past people have accomplished rewarding flights, flying over and gazing down upon extinct volcanic plugs and the immense, picturesque flatlands of the Dowling Downs. It's a must for your PG calendar. Only 85 positions available, so don't hesitate to register via the registration form at [www.chgc.asn.au/killarney]. If you need retrieves for the comp week, please let the organisers know on the registration form and you will be put in contact with local drivers (details to be negotiated yourself). It is worth noting that there are several water crossings between Killarney and the SE launch bomb-out (which should be the most widely used launch and bomb-out). Depending on creek levels a car with high clearance or a 4 WD vehicle may be required. If the creeks aren't up, most standard cars can make it. Entries accepted based on requirements in latest edition of HGFA Competitions Manual and all pilots should have at least 150 hours of inland flying experience. We will accept lesser hour pilots if they have comprehensive local inland experience, but only at the organiser's discretion. Accommodation is limited, so early bookings are recommended, details on the webpage. Entry fee: \$110 (incl. GST) for entries received before 3/9/04, and \$143 (incl. GST) after 3/9/04, no exceptions. Director/Organiser: Andrew Horchner, ph: 0427 807516, email <afactor@gil.com.au>, post: Killarney PG Classic, c/o Access Factor Pty Ltd, PO Box 3013, South Brisbane, QLD 4101.

Australian Multi-Class National Championships

6-15 October 2004

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

Canungra Paragliding Cup

9-16 October 2004

Canungra, QLD. PG pilots are invited to compete in the fifth year of the AAA sanctioned Canungra PG Cup. The competition this year will be the last sanctioned Cat 2 competition before the Worlds in Brazil and the first AAA competition for the Australian season. Only 80 entries will be accepted to compete this year for the eight day event. Pilots must have an int licence and have 150 hours inland thermal experience. Entries will be accepted based on the requirements in the latest HGFA Competitions Manual edition. This will be the first year of the new glider classes, and details will be released as soon as possible on our website. Last year saw an epic seven out of eight days flying, all high scoring 800+ point days. You gotta' be here to experience the fun and games, supportive and diverse flying, and to win those first and last points available for the seasons. Entry fee: \$160 before 9 September, thereafter \$190. Fee includes pilot pack, official comp T-shirt, map, presentation night dinner and day prizes.

Over \$3,500 worth of prizes are expected to be awarded over the duration of the event. The popular Retrieve Package will once again be available – numbers are limited, so book and pay early. The cost for the package, which includes Brisbane Airport pick-up and return, is \$180. The infamous Canungra entertainment schedule each evening will see the return of 'Miss Canungra Cup', 'Roast & Boast', 'Skills Clinics' and a new exciting night planned at the Canungra Hotel! Accommodation in Canungra is limited, so book early for rooms at the motel, B&B and hotel. Details available on [www.chgc.asn.au] (go to the Links page and find Paragliding). Registrations can be made online, or email Competition Director, Karen Sexton, for details or any enquires <canungracup@hotmail.com>.

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.

VSA 2004 Basic Airworthiness Course

16-23 October 2004

Bacchus Marsh Gliding Club clubhouse. Open to GFA members who aspire to conduct glider maintenance and who have some experience with annual inspections under the supervision of their club maintenance officer or capable inspectors. The course objective is to advance all candidates towards ultimately gaining a Form 2 Inspectors endorsement. Course fee: \$350 includes course notes and CD. Application forms can be downloaded on the GFA website or contact Edwin Grech Cumbo ph/fax: 03 9336 2305, mobile 0419 542761, email <egrechc@melbpc.org.au>.

Sunraysia GC – 50 Years

30 October – 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].

Vic Spring Comp 2004

Round 1: Bright, 30 October - 2 November (Melbourne Cup weekend)

Round 2: Beaufort, 13-14 November Round 3: Beaufort, 27-28 November

Victoria. This event is a low cost, informal, fun event designed to get people into the hills at the start of spring and to give novice pilots a feel of flying in a comp environment without the pressures associated with flying a real comp. For details visit [www.vvhgc.com/] or contact <agnorman@netspace.net.au>.

Gliding 75th Anniversary

6-7 November 2004

Pallamanna aerodrome, Murray Bridge, SA. Glider static display and demonstration flying, celebrating the 75th anniversary of gliding as an organised sport. See [www.aus-soaring.on.net/saga/index.html]. Contact: Emilis Prelgauskas, <emilis@lm.net.au>.

Gathering of the Moths Fly-in

20-21 November

Mt Beauty, VIC. 'BIG' 10th Anniversary get-together! Flyers of all denominations are invited to fly

the sheltered Kiewa Valley at the foot of the picturesque Victorian Alps. Range of accommodation available. Contacts: Mark Ghirardello (03 5754 4572 or 0409 544572) and Don Pollock (03 5754 1301 or 0407 093054).

Narromine Cup Week

21-27 November 2004

Silver C to 1,000km. All welcome. Ph: Beryl or Arnie Hartley on 02 6889 2733 for enquiries.

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

5-11 December 2004

Temora, NSW. Please note the above change to the previously advertised contest dates. Practice will be held on 4 December.

Australian HG Open

28 Dec 2004 – 3 Jan 2005

Deniliquin/Conargo, NSW. One day short to allow for pilots going to the worlds. Entry fee: \$190. Open AAA, Kingpost AA and Floater A, Sub Classes. Also open to Class 2, Class 5 and PGs. Aerotow or ground tow. Four pilots will secure your ground towing strip. Special welcome to new competition pilots, regardless of the glider they fly! Come to the comp that gives you a great chance of making goal! Fly with the champions, compete against your peers. All tow and retrieve cars needs to have comprehensive or third party property insurance. All tow and retrieve cars need to have an approved fire extinguisher; if not you will get disqualified from the comp. You can buy an extinguisher at the comp (cost \$55)/ For entry or enquiry please contact Tove: 0419 681 212, <chpgpg@goulburn.net.au>, or go to [www.Taragoflightpark.com.au].

2005 World HG Championships

4-19 January 2005

Hay, NSW. Dynamic Flight, in conjunction with the Hay Shire, are presenting the World HG Championships 2005. Practice days: 4th and 5th. Registration, Grand Parade, team photos and Welcoming Party on the 6th. First comp day: 7th, last comp day: 19th with closing ceremony and party. For initial enquiries email <dynamic@netconnect.com.au>. CIVL has allowed each country to enter six-person teams. Each country can enter more than one team! All team members must qualify by having finished in the top 66% of a Cat 2 (Hay Pre-worlds, Bogong Cup, etc) comp since 2001. Come on Aussie pilots, this is your chance to fly with the world's best!

Vintage Gliders Australia Annual Rally 2005

8-15 January 2005

Bordertown. Arrangements have commenced for

our Annual Rally. Although much planning is still to be done, the organisers expect to be able to provide: camping and bunkhouse accommodation on the field, meals, winch, and possibly aerotows. No extra hangarage will be available. Further information is expected by the next issue of the VGA Newsletter, Vintage Times. Already expressions of interest have been received from operators in Victoria of an ES52 Shortwing, ES60 Boomerang, ES57 Kingfisher, Ka6 and Ka4. No doubt many more will join in the fun. For further information and to offer assistance please contact Ian Patching on 03 9438 3510.

2005 National Club Class Competition

9-21 January 2005

Waikerie Aerodrome, SA. Practice day on Monday 9 January. Contact: <john.hudson@santos.com> or <hudson@senet.com.au>; ph: 08 8224 7784 or 08 8272 5929.

Corryong Cup 2005

9-15 January 2005

Corryong, VIC. Registration/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 newcomer 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>.

Bogong Cup HG Championship

22-29 January 2005

Mt Beauty, VIC. AA Sanction, entry \$195. Practise day/ registration: 21st. Open, Kingpost, Floater & Female categories. Strictly 70 places. Min rating Int. Website TBA. For more info, please email <binder_carol@hotmail.com>, ph: 03 57501507 or 0417 311360.

OVERSEAS

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].

Motorless Flight Symposium

8-10 October 2004

Varese, Italy. The Milan Section of AIDAA (Associazione Italiana di Aerotecnica e Astronautica) is the main sponsor of this international congress. Prof. C Cardani of the Politecnico di Milano, President of the Section, and Ing. V. Pajno are managing the organisation. OSTIV (Organisation Scientifique Technique Internationale pour le Vol a Voile) has already offered "Patronage" of the event; other Associations and Organisations are supporting the Symposium. The town of Varese and the surrounding territory has a long heritage in the aeronautical field and the township will host the Congress in the historical Palazzo Estense. An exhibition of old technical documents is foreseen in the Town Library and a static show of old Italian gliders and modern ones will be held in the gardens. The list of participants and subjects to be treated includes: Aerodynamic (Prof. LM Boermans – OSTIV Chairman), Aeroelasticity (Prof. N Niedbal/FH Bielefeld), Design (Dr Ing. R Kickert), Composite Structures (Ing. C Kensche of DLR), Design Rules (Ing. H Fendt/H Kopp, LBA), Flight Tests (Ing. S Ronig, LBA), Meteorology (Dr H Trimmel), Motorgliders or Self Launching (Ing. A Lange – Antares), ULM Sailplanes (Prof. P Morelli of Politecnico di Torino), Instrumentation (Ing. M Seyschab, LBA), Non Destructive Testing (Ing. R Aoki, DLR), Crashworthiness (Prof W Roeger/Dr M Conradi), Performance Measurements (Ing. R Blume, LBA), Record Flights (Ing. JM Clement). The invited papers will illustrate the actual "state of the art" and give indications to follow or to investigate in order to improve the actual techniques. The Symposium proceedings will follow. For more info, please contact Dr Ing. V Pajno: ph: 0039 2 98231644, email <pajnovittorio@libero.it>.

IGC World Gliding 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).

Contact Addresses

GFA

NSW Gliding Association (NSWGA)

Australian Air League

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

Australian Soaring Centre

PO Box 1315, Byron Bay NSW 2481.

Bathurst Soaring Club

PO Box 1682, Bathurst NSW 2795.

Byron Power Gliding Club

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

Byron Soaring Centre & Aeroclub

PO Box 549, Byron Bay NSW 2481
02 66844244.

Canberra Gliding Club

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

Central Coast Soaring Club

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

Cudgegong Soaring Pty Ltd

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

Forbes Soaring & Aero Club

PO Box 267, Forbes NSW 2871,
02 68523845.

Goulburn Gliding Group

57 Munro Rd, Queanbeyan NSW 2620.

Grafton Gliding Club

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

Greenethorpe Gliding Club

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

Harden Gliding Club

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

Hunter Valley Gliding Club

PO Box 9, Newcastle NSW 2300.

Kentucky Flying Club

The Hill, Kentucky NSW 2354.

Lake Keepit Soaring Club

PO Box 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 1743, Aitkenville QLD 4814.

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, Wandoan 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)

Beverley Soaring Society

PO Box 136, Beverley WA 6304, 0407 385361.

Gliding Club of Western Australia

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

Morawa Flying Club

PO Box 276, Morawa WA 6623.

Narrogin Gliding Club

PO Box 232, Narrogin WA 6312, 0407 088314 or 08 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 Acting General Manager

Stewart Dennis, PO Box 118, Dickson ACT 2602, ph/fax 02 62470008, 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: 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 Mentes 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 Little (formerly Robinson) Lot 108, Pinjarra Rd, Ravenswood WA 6208, 08 9537 6204, <Kathy.Robinson@hgfa.asn.au>.

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

Microlight 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 CattleDog Tavern, Mamre Rd, St Clair.

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

Dusty Demons Hang Gliding Club

30 Dumaresq St, Dickson ACT 2602. Pres: Scott Hannaford 0417 272498, <shannaford@canberratimes.com.au>; 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: David Holgate 0410 112381, <david.holgate@hotmail.com>; V-Pres: Meg Butler 0408 446358; SSO: James Thompson 0418 686199, <james.b.t@hunterlink.net.au>. Meetings: last Tue/month 7pm, Hexham Bowling Club.

Illawarra Hang Gliding Club Inc.

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

Kosciusko Alpine Paragliding Club

[www.homestead.com/kapc]; Pres: James Ryrie 02 62359120, <ryricalago@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 HGPG Club

Pres: Nigel Lelean 0419 442597, <nlelean@smatchat.net.au>; SSO: Jason Turner 0419 997196, <jasonflys@hotmail.com>.

Newcastle Hang Gliding Club

PO Box 64 Broadmeadow NSW 2292; [www.nhgc.asn.au], <fly@nhgc.asn.au>. Pres: Mick Walmsley 0425 735784; V-Pres: Glenn Selmes 0425 275549; Sec: Matt Olive 02 49423131; Trs: Tash McLellan 0428 278 867; 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

Pres: Steve Phillips 0408 662608, <stephenphillips@optusnet.com.au>; Trs: Jim Gaal 0414 799822, <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://bbhgc.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@bmlegal.com.au>; Sec: Dale Appleton 0408 382635; Trs: Greg Holt 0418 516058; SSO: Rob Van Der Klooster 03 52223019, 0408 335559; Publicity Officer: Harry Buckle 03 52214544, <monument@pipeline.com.au>. Meetings: 1st Fri/month, venue see: [vhpa.org.au/dynal].

Melbourne Hang Gliding Club Inc.

PO Box 8057, Camberwell North VIC 3124; [www.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/nevhc.htm].

ALL CLUBS PLEASE CHECK DETAILS IN THIS SECTION CAREFULLY

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

Acting General Manager, HGFA

Sky High Paragliding Club

[www.skyhighparagliding.org]; Pres: Colin Page 0411 555128; V-Pres: John Styles <jdstyles@hotmail.com>; Trs: Clinton Arnall 0415 229315, [membership@www.skyhighparagliding.org]; Sec: Georgia Buckingham <secretary@www.skyhighparagliding.org>; Web: Tony Tidswell <webmaster@www.skyhighparagliding.org>; APN Editor: Julie Sheard 0425 717944 <editor@www.skyhighparagliding.org>; SSOs: Kevin Gingell-Kent, 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/vwhgc]. Pres: Glenn Bachelor 0419 324730, <GlennB@pocketmail.com.au>; V-Pres: Mark O'Keefe 0412 473724, <mokeefe@bigpond.net.au>; Sec: Andrew Edney 0438 571445, <andrew.edney@edag.com.au>; Trs: Phillip Campbell 0419 302850, <campbell.p@giant.net.au>; Web/Database: Damian Georgiou 0413 677090, <damiand@bachomp.net>; SSO: Rohan Holtkamp 0409 678734, <dynamic@netconnect.com.au>. Meetings: Last Sat/month, The Golden Age Hotel, Beaufort.

Queensland

Cairns Hang Gliding Club

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

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

Canungra Hang Gliding Club Inc.

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

Central Queensland Skyriders Inc.

915 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

27 Van Gogh Pl, Mackenzie QLD 4152, [www.hgfa.asn.au/~dhgc]; Pres: Daron Hodder 0413 515160, <daron@powerup.com.au>; Sec: Rod Flockhart 07 32193442, 0412 882639, <flockhartrod@hotmail.com>; SSO: Jason Reid 0418 771400; 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: Ricky Jones 08 89551088, 0402 805 099. Please contact for paramotoring, PG ridge soaring & thermal flying.

Western Australia

Albany HG & PG Club

Pres: R D Jones, 1/14 Lyndavale Dr, Alice Springs NT 0870, 08 89551088, 0402 805099; SSO: Simon Shuttleworth 0427 950556; Sec: John Middleweek 08 98412096, fax: 08 98412096.

Cloudbase Paragliding Club Inc.

334 Belmont Ave Kewdale WA 6105. Mes-sagebank 08 94875253; Pres: Wesley Zadanowicz, 08 92493707, 0411 185091, <president@cloudbase.asn.au>; V-Pres: Nigel Sparg, 08 93049785, 0427 476629, <vice_president@cloudbase.asn.au>. Trs: Colin Brown, 08 94594594, 0407 700378, <treasurer@cloudbase.asn.au>. Sec: Ian Threflo, 08 94177952, 0407 089101, <secretary@cloudbase.asn.au>. Committee members <committee@cloudbase.asn.au>: Colin Asplin (08 92774191, 0409 050370), Mike Allen (0408 947048), Mark Wild (0411 423923), David Morgan (08 93590390, 0418 908625). Meetings: 2nd Tue/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

<wshgc@hgfa.asn.au>, PO Box 483, Mt Hawthorn WA 6915, [www.iinet.net.au/wshgc/]. Pres: Mirek Generowicz 0427 778 280, <mgenerow@bigpond.net.au>; V-Pres: Mark Wild 08 94098581, <mark@gastech.com.au>; Sec: Ben Griffith 08 94724068, <benandrobryn@aardvark.net.au>; Trs: Sun Nickerson 0401 135042, <Sunny@iinet.net.au>; SSO (HG): Shaun Wallace 0411 885178, <swallace@iprimus.com.au>; SSO (PG): Jules Sanderson 0405 089709, <airoz@speedlink.com.au>. Meetings: Last Tues/month, 7:30pm, Rosie O'Grady's Pub, South Perth.

Classifieds

GFA

NOTICE TO ALL GFA ADVERTISERS

All advertisements and payments can be sent to:
The Gliding Federation of Australia/Advertising
130 Wirraway Road, Essendon Airport VIC 3041,
Ph: 0400 159325 Fax: 03 9379 5519.
Email: <frowe@optusnet.com.au>

Advertisements may be emailed in high resolution (300dpi at 100% size) using TIF or EPS formats. Photographs may be provided in either photo print or slides. Disk photographs are not suitable. Photographs, slides or disks may be returned. Please include a self-addressed and stamped envelope for the return of any promotional material.

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

Single-Seater Sailplanes

COBRA 15 GJS 15m. Very complete package, recently refinished, fully sealed with good tow-out gear, no-lift rigging equipment, full set of covers, manuals & spares. Ph: Eugene Blunt 02 6025 4436, or <deird@optusnet.com.au>.

DIAMANT 16.5m, parachute, Garmin 12 GPS, handling equipment, enclosed metal trailer, VGC, covers, basic instruments & radio. \$12,250 or reasonable offer. Forced sale. Ph: Tom Bird 08 8952 1417.

FLEET RESTRUCTURING, Waikerie Gliding Club has the following aircraft for sale: HORNET GMU, 1-piece canopy mod, Borgelt B20, 21 & 25 vario/glide computer, Micro-air radio & basic instruments. Enclosed trailer, tow-out gear, 4,100 hrs, \$24,000. LS1F GEB Wing fairing mod, Borgelt B20, 21, 24 & 25 vario/glide computer, radio & basic instruments. Schroder clamshell fibreglass trailer. Wings, Stabiliser and rudder refinished professionally, tow-out gear, 2,636 hrs, \$23,000. Ph/fax: 08 8272 5929.

PROMOTE GLIDING

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

FOR SALE



Diamond
in the sky
AVIATION

Operated by:
Bron Gliding Club Inc

CASA Air Operator Certificate No. 536061

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

HORNET, GEZ, Top cond, no trailer. For details contact ph: Jim Barton 03 9309 4412.

JUNIOR. SZD-51-1, 15m. Based at Benalla always hangared. VGC. Aerobatic. Delightful handling. Incl. spare canopy. Offers invited. Ph: Stu 0428 191079.

K6e, SSR. Based in Gulgong NSW, enclosed trailer, \$8,500 ono. For details ph: John 07 4975 6613 (evenings).

LS3a 15M flapped glider, IZR. Built 1978, excellent cond, low hrs. Borgelt B50/B11, Garmin GPS, Joey logger, 760ch radio, cradle & wiring for a Compaq PDA. New ballast bags. Registered enclosed trailer. For more info [www.sandercock.com] or ph: Mick Webster 0407 834531, <mickwebster@bigpond.com>.

MESSERSCHMITT Phoebe-C GYA, 1,930 hrs, EDO radio, Borgelt B50 vario, trailer with ground handling gear. Great all-year glider. Ph: Glenn 08 9274 4828.

Two-Seater Sailplanes

BERGFALKE II, GKZ. In very good cond. throughout, new Form 2, basic instruments, open trailer, one piece canopy. Great training aircraft. Have fun flying a true classic. \$16,000 ono. Ph: 02 6684 7572.

DUO DISCUS, GCV 20m, desirable two-seater. Set up for XC & comps. Incl. two chutes & full instr. tow-gear, full covers, always hangared. Offers invited. Ph: Stu 0428 191079.

IS28B2, GVV. Damaged but repairable, photos available. Top project for very little \$\$\$. Whole glider less than cost of new canopy. Offers invited. Ph: Stu 0428 191079.

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

MODIFIED ES52. We have bought a share in the Platypus, & reluctantly offer our unique Kookaburra for sale to a good home. We have had many hours of sociable soaring in this wonderful aircraft, which must be seen & flown to be appreciated. Performance is considerably better than standard Shortwings following Doug Vanstans fabulous redesign & rebuild in 1987. For about \$12,000, this aircraft represents great value for private owner, club or a syndicate. An open trailer is incl. for free. Ph: David & Jenne Goldsmith 03 5428 3358.

NIMBUS 3T. 25.5m span, 60:1 performance with sustainer engine. Genuine 1,000km machine. Refinished, always hangared, full competition panel & seals, Mountain High oxygen system, Komet trailer, etc. Price neg. Ph: Shaun on 0407 042468 or <shaun_driscoll@roadshow.com.au>.

STEMME S10V 1995, TT 1,100 engine SMOH 60 TT engine 460, Dittel 76A, KT76A transponder, 2nd altimeter, Filser 4000, intercom, one-person wing-fold, winglets, solar panel aux battery, always hangared, Jaxida covers, excellent cond. All ADs. Only privately flown. Contact: Petar <pnovakov@bigpond.com>.

Self Launching/Motor Gliders

DG500M, XQA. Excellent cond, 560 hrs, 42 engine hrs, 'compact' enclosed trailer, tow-out gear, steerable nose wheel, tinted canopy, water ballast, automatic engine retraction. Ph: John Moore 07 3263 6618.

GROB G109B, HNK. 2,500 hrs. Owned by Flinders University & operated as atmospheric research aircraft. Excellent cond, never damaged, always hangared, extremely reliable. Many spare parts incl. spare prop. Excellent avionics incl. two radios, Garmin 150 GPS & transponder. Night-VFR equipped. All modifications to the aircraft certified by Grob, GFA & CASA, but can be removed & the aircraft can be operated as a normal motorglider under GFA. For further details, contact Jorg Hacker 0418 857115 or <Jorg.Hacker@flinders.edu.au>.

Powered Aircraft/Tugs

TOWPLANES: Two WANTED for HIRE by GCV, one @ Lilydale, Nov-May '05, 4 or 6 Cyl tug for weekend Blanik passenger flights with experienced pilots at our Lilydale site. One @ Benalla, Oct-March '05, PAWNEE for 7-day per week launching. Tugs hangared. Ph: Rob Dorning, 03 9489 4298, <softdawn@swiftdsl.com.au>.

Wanted

OPEN CLASS 17-18m glider. Eg: Ventus, DG 202/17, LS6/8. Will consider DG 400. Private Buyer. Ph: 03 9376 7210.

GLIDER for 2004/5 season for 750km & 1,000km flights central & northern NSW. Pilot 500 hrs, 120 hours 2004 season in LS6. Ph: Rob Walker 0419 839631 or <Rocket40Adel@hotmail.com>. Look forward to hearing from everyone.

RIGHT WING for Hornet 206, structurally in good cond, minor defects to coating acceptable. Advice, price asked, Model & serial no & location to <raul@diego.com.au>.

General

GLIDING CLUB OF VICTORIA, 75th ANNIVERSARY DINNER – A formal dinner will be held at the State Gliding Centre, Benalla Airfield, Saturday 2 October 2004 at 7pm, \$35 per head. Bookings are essential & must be accompanied by payment in full to Rhonda Gelletly at the GCV Office no later than 15 September. Ph: 03 5762 1058.

SOARING FLIGHT SIMULATOR PC v4. The best gliding simulator in the world. Buy online from [www.GlidingShop.com] with orders shipped worldwide. Free demo download available. All updates free of charge. Enquiries to: <sfs@glidingshop.com>.

AVTEC AVIATION. Repairs & Maintenance F.R.P. Ph: Roger Bond 07 3389 4843.

Instruments & Equipment

COMPAQ PDA. Brand new cond, latest model, unwanted present. Suitable for See-You or Anywhere Map navigational software. Bluetooth, IR, etc. All the bells & whistles. Half Price at \$750. Also available: a licensed copy of Anywhere Map & will throw in a copy. Ph: Don 0409 699115.

PARACHUTE NATIONAL 360 backpack with bag, mint cond. \$1,100. Woodend, VIC. Ph: 0409 882215.

CANOPIES, Kestrel & Motor Falke, \$500 ea (new). IS28 canopy w/frame (used), IS28 canopy (new) Janus Nose Release (new), Many IS28 spares Falke Eng. Spares, Main wheel & new tyres 4 Junior & Jantar 2B! Ph: Stu 0428 191079.

MARS PARACHUTES, ATL 88/90 Short Pack only \$1,830, ATL 88/90 Long Pack only \$1,830. Ph: Airborne Avionics 02 6889 2933 or <hartley@avionics.com.au>, [www.avionics.com.au].

ZANDER SR940 COMPUTER & GP940 LOGGER, incl. remote control column controller, compass option, temperature probe, computer connection cables all ready to go. Less than half price at \$4,000. Ph: John Buchanan 0419 643711.

REDUCED PRICES on Cambridge 302 vario systems! Demonstrator models available – Vario with GPS & logger all in one 57mm unit, \$3,500. Can be connected to 303 Final glide/Nav display for \$600 or to iPaq for moving map. Superb vario & audio quality. Bohli mechanical vario at \$300. Ph: 02 6772 0508, 0428 787 349 or <brucetaylor10@bigpond.com.au>.

X-COM OR MICROAIR RADIO. They are both good but ask Ian McPhee 02 6684 7642. Also take a test fly of the Cambridge 302/303 system before you buy. For more [www.mrsroaring.com].

NEW CANOPIES: Dimona H36 \$2,970, Grob twin rear \$1,650, Std. Libelle \$1,650, LS \$1,980. GST incl. windows & vents available. Aviation Acrylic Mouldings Pty Ltd email: <aamoulds@senet.com.au>. Ph: Ian or Cecilia Linke 08 82513780.

Gliding Publications

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

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

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

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

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

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

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

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

HGFA

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

Classifieds are to be delivered to the HGFA office for membership verification/payment by email <office@hgfa.asn.au>, fax: 02 65593830 or post: PO Box 157, Hallidays Point NSW 2340. The deadline is 25th of the month, for publication five weeks hence. Submitted classifieds will run for one issue. For consecutive publication, re-submission of the classified must be made, no advance bookings. When submitting a classified remember to include your contact details (for prospective buyers), your HGFA membership number (for verification) and the State under which you would like the classified placed. (Note that the above does not apply to commercial operators. Instructors may place multiple classified entries, but will be charged at usual advertising rates.)

All aircraft should be suitable for the intended use; this includes the skill level required for the specific aircraft being reflective of the Pilot's actual Rating & experience. All members must adhere to the maintenance requirements as contained in section 9 of the Operations Manual & as provided by manufacturers. Secondhand equipment should always be inspected by an independent person, an Instructor wherever possible. Advice should be sort as to the cond, airworthiness & suitability of the aircraft. It should include examination of maintenance logs for the aircraft. It is unethical & a legally volatile situation for individuals to provide aircraft which are unsuitable for the skill level of the pilot, or aircraft that are unworthy in any way.

Hang Gliders and Equipment

NEW SOUTH WALES

AIRBORNE FUN 190 nov, 3 months old, brand new cond, \$3,500. Airborne Fun 160 nov, EC, \$2,800. Pacific Airwave, V2 tandem glider, new sail, frame in EC, \$3,800. North Wing T2, tandem HG, the professional's choice, glider in brand new cond, 6 months old, \$5,000. Airborne Sting 154 int, in fair cond. but serviced with new Airborne parts, \$1,100. Reserve parachute, High Energy Quantam 550, tandem rated, new April '04, still in box, cost at \$875. All these gliders & more available for inspection from Tony Armstrong. Ph: 0417 939200 (I'm not closing my school, just moving excess stock). September 2004

AIRBORNE FUN 190 nov, red/blue, in EC, approx. 45 hrs, speedbar, \$2,500. Ph: Adrian 0413 072228 (Sydney).

AIRBORNE SHARK 144 adv, red/white/blue, 20 hrs since factory inspection, PC, \$3,400 ono. FUN 190 nov, yellow/blue/white, PC, 70 hrs from new, matching Aussie Skins prone harness, \$3,990 ono. Reserve parachute, \$250. Vario with Garmin GPS & mount, \$650 ono. Lazer full-face helmet with intercom, \$185 ono. Ph: 0427 730741 (Coffs Harbour).

MOYES XS4 adv, black/purple US, just tuned up at the factory, looks good & flies great, 2 spare DTs plus basebar, 100 hrs only, \$2,000. Ph: Luc 0404 499514; 02 91301076 (h)

POD HARNESS in GC. Good storage, reserve chute pocket on side, plus other zippered pockets, \$350 ono. Would consider trade for cocoon harness. Ph: 0407 613701; <simonplint@mac.com>.

ACT

MOYES XT 165 int, GC, flies straight, \$1,600. Blade 141 adv, GC, \$500. Harness for pilot 5'6", \$500. Reserve, \$200. Vario, \$200. Helmet with headset, \$150. Ph: Ross 02 62551178; 0410 154539; <rosshpgp@hotmail.com>.

VICTORIA

AIRBORNE CLIMAX C2 light adv, yellow/ white, streamline A-frame, GC, 50 hrs, handles & performs like a dream, just ask Steve Blenkinsop, \$5,500. Ph: Sam 0428 336870.

QUEENSLAND

AIRBORNE STING 154 int, yellow/light grey/white, attractive, always stored, bought through Ken Hill (Mt Tamborine instructor), GC. \$1,200 ono. Ph: Gary 0417 192735; 07 32179970; <gazzman34@yahoo.com.au>.

MOYES XT 165 int, limited use over the past five years, comes with side entry harness, (helmet, radio, towing bridle, site access trolley all optional), \$2,500 neg. Can deliver any were in SE Qld. Ph: Craig 07 54390448.

Paragliders and Equipment

NEW SOUTH WALES

FIREBIRD @ DHV 1-2, small, 65-85kg in-flight weight range, only 10 hrs airtime, as new, \$2,500. Medium reserve chute (65kg), \$500. Ph: 02 66808633 (w); 0422 224339.

Trikes and Equipment

QUEENSLAND

AIRBORNE EDGE 582 T2-2632, Edge E wing in GC. EGT, ASI, ALT, tach & water temp. Radio intercom, helmets, headsets, training bars, tow system, covers, trailer, larger radiator & rear wheel brakes. Always hangared & well maintained, \$14,000. Ph: Russell 07 54450084; 0407 966260.

Wanted

SECONDHAND COCOON HARNESS or similar, something light & easy to get in & out of for flying the coast. Ph: 0407 613701; <simonplint@mac.com>.

General

BYRON BAY: Leasehold Hangar. 5 years on existing lease. Trading name (SKYLIMIT) plant/tools & equipment. Over 500m², plus substantial caretaker's quarters. RARE OPPORTUNITY. Ideal for a trike school. Offers over \$200,000. Tony Patterson on 02 6685 6552, 0408 712885 or <sales@byronbaypro.com.au>.

COMPAQ PDA: brand new cond, latest model, unwanted present. Suitable for See-You or Anywhere Map navigational software. Bluetooth, IR, etc, etc – all the bells & whistles. Half Price at \$750. Also available – a licensed copy of Anywhere Map & will throw in a copy of Anywhere Planner. Contact me on 0409 699115.

SPORT WINDSOCKS

Portable windsocks self standing models available. Easy set-up in 2min. Sizes range from 90cm to 3.5m. Pivot kits available for permanent or portable mounting. Contact

WINDWERKS for a fact sheet. Ph: 03 6352 3429, fax: 03 63523829, <windwerks@tassie.net.au>.

BUY & SELL YOUR GEAR ONLINE FOR FREE!

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

"SKYOUT"... NEED A LAUGH?

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

Advertising Index – September 2004

Aventura 2	13
Basic Airworthiness Course 2004	33
Bathurst Soaring Club	41
Craggy Aero	23
Dalby Nationals Entry Form	5
Diamond in the Sky Aviation	46
Eco Watch	41
GFA Form 2	41
Gradient – Paragliding Headquarters	19
HGFA Merchandise	BC
Jaxida Covers	31
Lake Keepit Gliding Club	31
Microair Avionics	23
Moyes Delta Gliders	1
OAMPS	12
Parachutes Australia	IFC
Pilot Card Application	35
Raptor Designs	8
Southern Soaring	IBC
Tarago Flight Park – XC Tour	21
Wingtech 1	7
Wingtech 2	9
Wingtech 3	11



HIGH ADVENTURE Paragliding

Specialising In:

- * 1-day, Weekend, and up to 12-day Paragliding courses
- * Small Class Sizes
- * Learn both Coastal & Inland Flight Skills
- * Tandem Flights in Paragliding and Microlites
- * Australians Paragliding tour specialist
- * Paramotors, 2 Brands

FLYING SINCE 1978!

4-Day Conversion Courses for Hangglider pilots!
Over 15 Flight Sites to choose from!

Buy the Finest European Products on the Market!
See Our Website Sales, "NO Fixed Prices"

We guarantee we have the best prices on Paragliders and Accessories!

www.HighAdventureParagliding.com

(02) 6559 7177
or Mobile (0429) 844 961

HGFA Schools

VICTORIA

DYNAMIC FLIGHT
Hang Gliding School & Flight Park

Little over an hour from Melbourne
Australia's Largest School
Virtual Reality Hang Gliding Simulator
Introductory & Full Licence Courses
Tandem Introductory Flights
Ground & Aero Tow Endorsements
Cross Country Tours
Equipment Sales, Hire & Trade In

Ph/FAX: 03 53492845
email: dynamic@netconnect.com.au
Rohan: 0409 678734 Paul: 0418 348948
Jim: 0417 366766 James: 0419 129234

DISCOVER THE FREEDOM!

WINGSPORTS

- ◇ Paragliding & Hang Gliding Courses
- ◇ Coastal, Inland & Towing Courses
- ◇ Tandem & Cross-Country Tuition
- ◇ Accommodation Students & Visitors

Fantastic Location for Pilots and Family

EDEL Australia

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

www.wingsports.com.au
hans@wingsports.com.au 0419 378 616
Apollo Bay VIC 3233 Fax: 03 5237 6486

Alpine Paragliding

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

PO Box 3, Bright VIC 3741
ph: 03 57551753, 0428 352048
<enquiries@alpineparagliding.com>
<www.alpineparagliding.com>

NEW SOUTH WALES

BYRON AIRWAVES Hang Gliding School

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

Phone Brian and Anne on
02 6629 0354 or 0427 615950,
email: <byronair@optusnet.com.au>

NEW SOUTH WALES

Manilla Paragliding

- MT BORAH, MANILLA is the one of the top 10 flying sites in the world & has more flyable days than anywhere else in Australia. It has 4 large launches for nearly all wind directions & easy, safe top & bottom landings all around. Great ridge soaring & XC all in one place. It is also the #1 candidate for the PG World Championships in 2007!
- YOUR CFI IS GODFREY WENNESS: The most experienced paraglider pilot in Australia. Over 5,400 hrs airtime since 1988, World Record Holder – 335km (1998-2002), Longest Tandem Flight in the World – 223km (2000-03), Multiple National Records, National XC League Winner (inaugural 2001 & 2002), CFI, Instructor Examiner, Australian Team Member, Prototype Test Pilot, HGFA Safety & Ops Committee (PG), International Comps Organiser, & Owner of World Famous Mt Borah.
- NOVICE LICENSE COURSES: Our excellent 9-day Novice License Courses will now be continued with new waivers.
- THERMALLING, XC & OTHER TUITION: We specialise in PG & offer personal one-on-one & group tuition in areas such as basic skills refresher, thermalling, cross-country, SIV safety clinics, & Intermediate, Advanced, Tandem, Motor & other ratings.
- HG TO PG ENDORSEMENTS: its easier than you think!
- ONLY QUALITY PRODUCTS FROM THE BEST BRANDS: Importer of Advance, Flytec, Hanwag & JDC. Stockist & service of all equipment, new & secondhand.
- CABINS & CAMPING ONSITE: Stay at Mt Borah – its nice & quiet! Cabins for just \$15p/n (\$100 p/w) & camping \$6 (\$35 p/w).

So come flying with Manilla Paragliding, where the person who shows you the mountain, owns the mountain!

Phone Godfrey Wenness on:
02 6785 6545 or fax: 02 6785 6546

email: <SkyGodfrey@aol.com>

"The Mountain", Manilla, NSW 2346.

ACT/NEW SOUTH WALES

AUSTRALIAN Paragliding CENTRE

Learn to Fly in Canberra!

The Paragliding Capital of Australia and only 3 hours drive from Sydney.
At Australian Paragliding Centre we fly all year round & are open 7 days a week.

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

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

Contact: Peter Bowyer on

02 6226 8400

<pete@australianparagliding.com>

Check out our new homepage!

<www.australianparagliding.com>

SOUTH AUSTRALIA

GAWLER MICROLIGHTS

Feel the freedom of flight over the beautiful Barossa Valley. Concentrating on all aspects of microlight aircraft only! Whether it is just for fun, or serious cross-country skycamping, we can provide the training and sales of new or second hand aircraft and equipment.

Only the latest state of the art equipment is used for training. On ground theory and hand-outs are FREE.

CFI Rob Hatswell "Get More Air"

Ph: 08 8527 2785 • Fax: 08 8527 2227 Mob: 0428 527200

Email: <info@gawlermicrolights.com>

<www.gawlermicrolights.com>

Adelaide Airports

Microlight Aircraft Specialist

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

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

CFI & EXAMINER – Larry Jones

Ph: 08 8556 8195 Fax: 08 8557 4113

Mobile: 0408 815 094

Email: <fly@airports.com.au>

<www.airports.com.au>

QUEENSLAND



RAINBOW PARAGLIDING

APCO AUSTRALIA

Offering the full range of APCO equipment

APCO Aviation three years/250 hours warranty for porosity. Gliders that are made to last unique in the industry. Customer service and 100% satisfaction guarantee.

Test centre for APCO gliders <www.apcoaviation.com>.

APCO Australia and PWC winner

of the Serial Class 2000

Established since 1996, Rainbow Paragliding is based on the Sunshine Coast and Hinterland. The school has access to 25 sites and holds a permit to operate in the Coolool National Park including Teewah and world famous Rainbow Beach. In the Sunshine State, we fly all year round, 60km cross-country flights have been achieved in winter!

FULL LICENCE COURSE – Strictly only four students per instructor, for quality personalised tuition at your own pace, between eight to 10 days.

REFRESHER COURSE – Groundhandling, top landing or asymmetric recovery techniques: Come learn with the experts.
INTERMEDIATE, ADVANCED, TANDEM OR PARAMOTOR ENDORSEMENT – We have the sites, the weather and the knowledge.

SALES AND SERVICES – New and second-hand, trade-in, maintenance and repairs.

YOUR INSTRUCTORS: Jean-Luc Lejaille, CFI and senior safety officer, paramotor pioneer (first licence issue in Australia), over 2,500 student days' experience, instructing since 1995. Robert McDermott: Tandem instructor and safety officer.

Jean-Luc Lejaille CFI 45192

Rainbow Paragliding — Apco Australia

PO BOX 227, Rainbow Beach 4581

Ph: 07 5486 3048 — 0418 754 157

Email: <intheair@ozemail.com.au>

<www.ozemail.com.au/~intheair>



The new wave in gliding...



Experience New Zealand's
ultimate gliding destination...



Visit www.soaring.co.nz

New HGFA 2004 winter flying gear out now!



rash shirt



reversible polar fleece vest



3/4 sleeve t-shirt



long sleeve fleece



t-shirt



peaked cap



slouch hat



beanie



stubby holder



HGFA sticker

available in a full range of colours and sizes
contact HGFA for fax order form