

# *Gliding* Australian **SKY** SAILOR



## In this Issue:



Flying  
the Oly

Winter flying  
in WA



Women of  
the Sky in  
Microlights



# AirBorne

AUSTRALIA



# PURE FUN

NOW AVAILABLE  
160 190 220

Air Borne Windsports Pty Ltd  
Po Box 42 Redhead NSW 2290  
PH 02 4944 9199 FAX 02 4944 9395  
[fly@airborne.com.au](mailto:fly@airborne.com.au) [www.airborne.com.au](http://www.airborne.com.au)

GRAPHIC DESIGN & PHOTOGRAPHY ESSENTIAL PICTURES MAX WIENER



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

## EDITORIAL CONTRIBUTIONS AND ADVERTISING

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

**AUSTRALIAN** NEW GFA sub-editor: *Sandra Rosner*

**GLIDING** PO Box 1315, Byron Bay NSW 2481, ph/fax 02 6680 1298

email: rossie@nor.com.au • Website: www.gfa.org.au

### AG Advertising Contact

Australian Gliding, GPO Box 1650, Adelaide SA 5001

**SKYSAILOR** HGFA sub-editor: *Richard Lockhart*

c/o Blackheath Post Office, Blackheath NSW 2785, Ph: 0418 130354

Email: skysail@ozemail.com.au Website: www.ozemail.com.au/~skysail/

Skysailor classifieds: Mailed or emailed to the sub editor or faxed to the HGFA on (02) 6947 4328. Classifieds will be included in the next possible issue after receipt of payment.

All 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.

## CLASSIFIEDS AND ADVERTISING RATES

Classifieds are charged at \$15 for the first 4 lines, \$4 for every line thereafter (40 characters). Display advertising rates and mechanical specifications are available on request. All ads to be paid prior to publication.

## ALL OTHER MATTERS

Subscriptions/circulation/changes of address:



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 Website: www.gfa.org.au



Hang Gliding Federation of Australia

PO Box 558, Tumut NSW 2720, Ph: (02) 6947 2888, Fax: (02) 6947 4328

Email: hgfa@tpgi.com.au

## DEADLINES UNTIL FURTHER NOTICE

Deadline for articles, photos, news and display ad bookings is the 15th of each month, six weeks prior to publication.

## 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. Please do not print on the back of photos.

Drawings, maps, cartoons, diagrams, etc. should be in black ink on white or transparent 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 GFA 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.

Trade Practices Act 1974 (CTH): 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.

## CREDITS

Cover: PWC impression. Photo: Jiri Stipek

Design: Suzy Gneist, Gneist & Moffatt

Film, Printing: Hyde Park Press, Adelaide SA

Mailing: ContacMail, Newcastle NSW









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).



# Contents

October 1999

'99 World Gliding Championships	2	
In the Circuit	5	
Women of the Sky in Microlights	6	
Buzzing around	8	
Flying the Oly	10	
Using and Flying with GPS Datalogger	12	
Winter Paragliding in WA	14	
To Be or Not To Be, that IS the Question	18	
STOP PRESS – GFA Announcement	18	
GFA Letter to the Editor	19	
GFA Soaring Calendar	20	
New FAI Badges and Certificates	20	
Barossaglide – Update	21	
Hangar Talk	22	
Raptor Designs Competition	24	
1999 Class 1 Australian National Ladder	24	
HGFA FAI News	25	
Blue Days in Summer	26	
Japan as seen by a flying Guy Jin	32	
HGFA Operation Manager's Report	34	
HGFA News	36	
HGFA Airmail	39	
HGFA Events Calendar	40	
GFA Classifieds	41	
HGFA Classifieds	42	
HGFA Addresses	44	



# '99 World Gliding

## Bayreuth, Germany



Photo courtesy of Aerokurier



Queen Beryl and her Merc.  
All photos: Beryl Hartley

BERYL HARTLEY

### The Site

Bayreuth is a university city in Bavaria, home of Richard Wagner and each year the city hosts the Wagner music festival. At the same time this year it also hosted the World Gliding Championships with 122 pilots competing in 3 classes. Just 5 kilometres from the centre of the town is the hill site of Bindlach with the airport perched on the top. The runways fall away steeply at each end into farming valleys. Take off and landing on this strip is similar to operating on an aircraft carrier.



The airfield.

The local gliding club has put in three years of extensive site preparation to develop five parallel runways. One small camping area for up to 20 sites was expanded to allow for 300 sites during the championships. An international camp site was established with modular transportable construction and a number of temporary small establishments erected for the operations facilities. Each team was allocated a team hut with telephone and data lines. Unfortunately the data lines took two of the three weeks to establish a working link and provided considerable work for Bruce Cowan, crew for Peter Trotters team, who worked on the web page for the Australians. The airport has a RPT service with Dash 8 aircraft, a terminal building and tower, a restaurant and four hangars.



Spectators on site.

The German gliding community supplied volunteer workers for the championships and more than 135 pilots from gliding clubs throughout Germany gathered at Bayreuth for the three week period. Entertainment was provided each day and most evenings for visitors and the club catered for meals and drinks from 7:00 am to 2:am. The number of visitors to the site during the championships was the largest I have ever seen at any gliding event. It was estimated that 10,000 people attended on the mid Sunday of the championships when a small airshow was held in the afternoon.

### The Australian Team



Base camp.

Six pilots represented Australia in this championships: John Buchanan and Gary Brasher in the Open Class, Bruce Taylor, Brad Edwards and Peter Trotter in the Racing Class and Miles Gore-Brown in the Standard Class, plus 14 crew members and myself as team manager. The team gathered at a small

airport north of Bayreuth prior to the championships. The members of the local club at Otten-Gruner Heide welcomed the Australians and ensured that the facilities of the club were made available to our group in the week that we practiced from that site. The team was elevated to star status with newspaper articles, a mayoral reception and a fabulous BBQ on the last night. The promotion of the sport through the local media was of importance to this club which has the same membership woes as do most small country clubs in Australia. Our special thanks to the club for their hospitality and the opportunity to enjoy the most comfortable gliding operation I have ever seen.



The BBQ.

### The Competition



The team.

The championships started with, reportedly, the best gliding weather in Europe for at least 100 years. The Opening Ceremony was held in the city and pilots sat in the sun, listened to the speeches and visualised 1,000km tasks. 100 kilometres to the east a young pilot flew 1,000km in an ASW15 on this day. The Australian team looked wonderful in their R.M. Williams uniforms with Akubra hats and, as usual, were admired by other teams and visitors.

### The First Contest Day



Miles prepares his Discus 2.

Great weather, well planned tasks, plenty of workers on the field and 122 aircraft lined by to be launched by 20 Wilga towplanes. Three years of preparation were now to be tested and generally the day went well. The towing took too long and the standard of towing was very questionable with some tugs wagging wings and diving before the pilots had a chance to release. Some

# Championships

lost their way to the drop zones and almost all were too slow for the gliders full of water. Many of the tow pilots did not speak English and the organisers were busy calling for more speed and tried to direct tugs to the correct area. Miles Gore-Brown ended up on tow for what seemed like an eternity. He was towed through all the drop zones and finally left 23km from his start point. The change to separate drop zones and start gates for each class was a success and provided a safer start for the large number of gliders. The 150km plus speeds for the day were the mark of an excellent start to the championships.

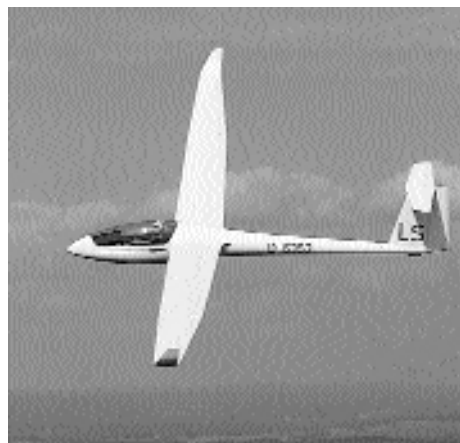


Photo courtesy of *Aerokurier*

## The Tasks



A serious briefing.

The organisers set a number of cats cradle distance tasks with nominated turnpoints. These tasks proved to be popular with the majority of pilots and greatly improved the safety of the championships. Those pilots who flew the Pre-World event last year reported on the improved safety aspects with the large number of entries. The rules were very simple for the task: Fly for the time nominated within the task area, using the nominated turnpoints. The turnpoints were to be used in an appointed manner. For a 4 hour cats cradle

task, 4 hours after you had crossed the start line your distance was measured to that point. A 15% bonus was added for landing back at Bayreuth and the pilot could come back at any time up to sunset. The task was set for one class on each of the good flying days and was not used on the two difficult weather task days.



Miles gets ready to launch into a CB.

Unfortunately the weather deteriorated into wet, overcast skies within a few days and the organisers found it more difficult to task. The towing difficulties resulted in one day being cancelled for the Racing Class when 42 pilots completed their task and two pilots were forced to land in a very marginal field immediately off tow. The rules did not allow for any compromise in this situation and will need to be reviewed in light of this day's results.

Controversy raised its head when a pilot flying in the Open Class for Germany did not return to the field after the task for the Open Class was cancelled, but went out on task and flew in company with the German Racing Class pilots for 20km in the struggling last part of the task. This placed the German pilots in the Racing Class and the organisers in a very difficult position as it was clearly outside the rules of the championships to provide assistance from a non competition aircraft. Pilots and organisers were dismayed by this show of disregard for the spirit of the sporting rules and while the rules make no provision for penalty to the offending pilot, the matter was referred to the German Aero Club for consideration and suitable disciplinary action. Sympathy was felt by all for the German Racing Class pilots who clearly did not want or need any assistance from the Open Class glider and the controversy would have certainly affected their performance for the rest of the championships.

## The Aussie Pilots



John and Pam Buchanan.

John Buchanan was the highest rated of the Australian team. He was the winner on one day and in the top ten of his class most other days. In his beautifully prepared new ASW22 and with his well disciplined crew, he eagerly looked

for the chance to make up the one point he needed for overall 3rd place on the last day, but it was not to be and the tasks were cancelled after all the Open Class and five of the Standard Class were launched. Those Aussie pilots who found the blue thermal days of last year's competition to their liking, found a very different weather pattern this year. The competition faded away with bad weather after the first few days. The Closing Ceremony was a disappointing short prizegiving period with no provision for photographs of the winners who were invisible in the mass of pilots and crews herded into one of the hangars. A rousing cheer from the Aussie pilots and crews for John, who placed 4th overall, and for young John Coutts from New Zealand, competing in his second World Championships, who came 2nd in the Standard Class.



Photo courtesy of *Aerokurier*

## Airspace and Topography

The airspace requirements for the task area within Germany and the Czech Republic increased the on-board workload for all pilots. Infringement of any airspace resulted in day disqualification for the first offence and disqualification from the championships for any other offence. The pilots competing at this level are extremely busy in the cockpit,



OUR LATEST RELEASE  
Aussie designed and  
manufactured

## Microair 760

- 760 channels – 25 memory channels • 2 displays – active/standby with flip flop or memory only (25 memory channels plus scanning)
- Priority toggle – immediately switches to channel 25, handy for 121.5, finish line frequency etc.
- Remote stick mounted toggle switch can allow handsfree memory selection and scanning
- TX indicator – steady red means transmit – flashing indicates a transmission
- longer than 40 seconds STUCK MIKE INDICATOR!
- RX indicator – Steady green means signal
- Variable squelch control • 2 place hot mike intercom as standard
- improved mike input with speech compression • 3.5 watts carrier (14 watts PEP!) • 85 ma standby – 1.2 amps transit – will work down to 10.4 volts. Now only 135mm in depth!
- ACA approved – VFR approved to 25,000ft



RRP \$1,150.00 ex tax

Please enquire with dealers for club pricing.

**Microair**

**Boom microphone available  
– rugged construction  
electret insert.**

Contact

**MICROAIR ELECTRONICS**

PH: 07 5448 9986

FAX: 07 5448 8866



**Portavia  
Soaring Centre**

AUSTRALIA'S MOST ADVANCED FLYING SCHOOL  
P.O. BOX 78, TOCUMWAL 2714  
N.S.W. AUSTRALIA  
PHONE: (03) 5874 2063  
FAX: (03) 5874 2705

Due to fleet renovation we have the  
following gliders for sale:

**Mosquito – VH-UKV \$33,000**

2,413 hours – 1,128 landings  
Ferro Gelcoat  
Genave Alpha 10 radio  
Borgelt B20-21 vario

**Standard Cirrus**

**– VH-CZR \$23,000**

2,510 hours – 1,299 landings  
Schwabellach Gelcoat  
Genave Alpha 10 radio  
Borgelt B20/21 vario  
Tail wheel

**LS4 – VH-IEE \$55,000**

3,867 hours – 2,356 landings  
Ferro Gelcoat  
Cambridge C Nav 50  
Dittel 720 radio  
Tinted canopy – Tail wheel

**Libelle VH-GSP**

Schwabellach Gelcoat  
Complete instrumentation  
Ready to fly

P.O.A.

# '99 World Gliding Championships

especially on cats cradle days, dealing with logger event markers, moving map loggers, airspace, other competing aircraft and the large number of club gliders flying within the task area. To their credit no pilot was penalised with an airspace infringement during the championships and there was no damage of note to any of the aircraft.



The township.

The topography of the airport required straight in landing from finishing aircraft as the safest method of fitting 122 aircraft onto 5 parallel strips and all within minutes of each other. This provided the most exciting and testing racing finishes for pilots and spectators alike. On a number of occasions aircraft approached within 10 metres of the finish line and were unable to climb up to the airport to land straight ahead. They had to do a quick turn and head down the valley to one of the conveniently prepared landing fields. Frustration for the one German pilot who landed 3 metres below the airport in the last field before the perimeter track. A large seating stand was set up on the airport to watch the action and each day at launch and finish time the stand was packed with spectators.

## The Future of World Championships

This year the leading aircraft in two classes carried tracking devices which relayed their position back to Bayreuth and the race was displayed in the recreation area during the flight. The hangar was filled with visitors and crews alike, tracking the pilots during the task period and enjoying participating in the race. The display was also put on the internet and enthusiasts from all over the world could watch the race in progress. This is the future of our sport with a wide market for sporting enthusiasts to follow the competition. The web page set up by Peter and Lisa Trotter was

very well received by Aussie pilots and thank you to all those who responded with messages of encouragement and sent along the masses of hero-grams.

## 1999 World Gliding Championships Results

### Open Class

Rank	Pilot	Plane	Nation	Points
1	Holger Karow	Nimbus 4	GER	6,623
2	J.W. Andersen	Nimbus 4T	DEN	6,578
3	B. Gantenbrink	Nimbus 4T	GER	6,452
4	John Buchanan	ASW 22BLE	AUS	6,451
5	Gerrit Kurstjens	Nimbus 4T	NED	6,399
6	Holger Back	ASW 22B	GER	6,393
7	Gerard Lherm	Nimbus 4	FRA	6,344
8	Didier Hauss	ASW 22BL	FRA	6,322
9	R.A. Cheetham	ASW 22BL	GBR	6,304
10	M. Gaeumann	Nimbus 4M	SUI	6,258
27	Gary Brasher	Nimbus 3	AUS	5,419

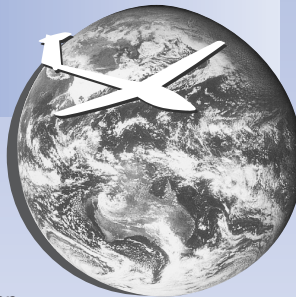
### Standard Class

Rank	Pilot	Plane	Nation	Points
1	J.M. Caillard	Discus 2a	FRA	6,616
2	J.R.P. Coutts	LS 8	NZL	6,502
3	Laurent Aboulin	Discus 2b	FRA	6,467
4	Peter Hartmann	LS 8	AUT	6,464
5	Erwin Ziegler	LS 8	GER	6,448
6	Luciano Avanzini	Discus 2a	ITA	6,441
7	P. Frackowiak	LS 8	POL	6,365
8	Baer Selen	LS 8	NED	6,361
9	R. Brigliadori	Discus 2	ITA	6,361
10	J. Engstroem	LS 8-a	SWE	6,355
27	M. Gore-Brown	Discus 2b	AUS	5,957

### 15m Class

Rank	Pilot	Plane	Nation	Points
1	Giorgio Galetto	Ventus2a	ITA	6,618
2	Stefano Ghiorno	Ventus2	ITA	6,537
3	Steven Raimond	ASW 27	NED	6,463
4	Bill Bartell	Ventus2a	USA	6,448
5	Thomas Gostner	Ventus2a	ITA	6,387
6	Justin Wills	ASW 27	GBR	6,337
7	Mariusz Pozniak	ASW 27	POL	6,322
8	Werner Meuser	Ventus2a	GER	6,268
9	Henry Romeijn	Ventus2b	NED	6,265
10	Alister Kay	Ventus2a	GBR	6,257
18	B.W. Edwards	ASW 27	AUS	5,983
32	B.L. Taylor	ASW 27	AUS	5,467
35	P.J. Trotter	LS 6	AUS	5,235

# In the Circuit



## Local News

### Experimental Category in Australia

The introduction of the Experimental Category in Australia has raised many questions on the selection and testing of wood and its suitability for aircraft construction. The answer to many of these may be found in "Werkstatt Praxis für den Bau von Gleit- und Segelflugzeugen" by Hans Jacob Unfortunately for most English speakers, who rarely see the need to learn other languages, it is in German.

However, the Vintage Gliding Association of America is proposing to publish an English version, which should be of interest and use to all wooden aircraft builders, whether glider or powered. There are about 350 pages of text which is a very big job for one translator. They are having difficulty in securing sufficient translators from German to English.

This paragraph is being written in the hope of enrolling a large number of translators, each of whom need translate only 5 pages or, if they are keen, 10 pages. In this way, the translation can be achieved quickly, and the book published promptly. So if you speak German, please contact: Acting Editorial Assistant in Australia, Peter Carr, phone or fax 03 5221 3505 or write 123 Aphrasia Street, Geelong VIC 3220.

In USA: Robert E Gaines, fax 770 973 1414 or write 308 Chase Lane, Marietta, Georgia 30068 USA.

You will receive 5 xeroxed pages for translation and the editorial group will expect translation within 2-3 weeks. If you have worries of not understanding technical German don't worry. You can leave one or two sentences blank and the editorial staff will chase up relevant expertise.

### Airworthiness Directives

#### AD512-Issue1

*Type Affected:* Hoffman variable pitch propellers, all models. Grob G109 and Grob109B, SF25C, H36 Dimona HK36TC, TS, TTC, TTS, ASK14, IS-28M, L13 Vivat  
*Subject:* TBO for Hoffman variable pitch propellers.

#### AD513-Issue 1

*Type Affected:* LS6 all serial numbers.  
*Subject:* Obstruction of emergency canopy jettison.

#### AD514-Issue 1

*Type Affected:* LS7 all serial numbers.  
*Subject:* Obstruction of emergency canopy jettison.

#### AD515-Issue 1

*Type Affected:* LS8 all serial numbers  
*Subject:* Obstruction of emergency canopy jettison.

#### AN 150

*Type Affected:* All sailplanes and powered sailplanes operated under GFA regulations.  
*Subject:* Glider Maintenance Release Part.

#### AD511-issue 1

*Type Affected:* Stemme S 10-V and -VT, all serial numbers.  
*Subject:* Variable pitch propeller – propeller fork 10AP-V08 of propellers 10AP-V and 11AP-V/project No 14-006.

#### AN 140 issue 1

*Types Affected:* All fibre composite sailplanes  
*Subject:* Epoxy Resin Systems for manufacturing and repair of sailplanes

### IVSM 2000

The Vintage Glider Association of Australia has been invited to compete in the International Vintage Sailplane Meet – IVSM 2000 – to be held at Harris Hill, New York State, USA, from 1 to 9 July 2000.

This vintage sailplane regatta is being sponsored by the Harris Hill Soaring

Corporation, National Soaring Museum and Vintage Sailplane Association. Harris Hill is close to Elmira, the home of the Schweizer Aeroplane Company and it is also the site of the SSA National Soaring Museum.

Since space is limited the entries are being limited to 50 gliders with priority being given to those gliders designed before 1958. The VGA has decided to send a contingent of six members and the "Golden Eagle" which will be the oldest glider participating. This decision has only been taken after receiving strong invitations from Paul Schweizer and Howie Burr. Howie is past president of the American Homebuilders Association, and built the one and only Schweizer 1-25 while working at Schweizers.

The IVSM will be run in the tradition of the European rallies. Tasks will consist of duration events and short cross country flights over safe terrain. To encourage overseas participation, registration fees are being waived for foreign competitors.

Since the cost of making this entry is large, the VGA is seeking financial support from GFA members to make the participation possible. Any offers will be gratefully received by the Hon Secretary VGA, 11 Sunnyside Crescent, Wattle Glen VIC 3096.

Alan Patching ✂



**COMPOSITE COMPONENTS**

**Make Horsham\* Aerodrome your base for complete sailplane care and attention.**  
*Repair work and hangarage fully insured.*

- ★ GFA APPROVED WORKSHOP ★ REPAIRS – MAJOR/MINOR
- ★ REFINISHING IN SUPERIOR GERMAN 2K OR FERRO
- ★ INSPECTIONS/SURVEYS – FRP/STEEL TUBE/WOOD

**BOOK EARLY FOR REFINISHING THIS YEAR**

Phone: Joe Luciani – 03 53825735  
Hangar 03 53826777 Fax: 03 53821999  
23 FARRAR AVE, HORSHAM, VIC 3400

**Australian Agent for Mountain High Electronic Delivery Oxygen Systems.**

*\*The Good Country. Home of the Wimmera Soaring Club.*





Therese Dennis  
All photos: Tony Dennis

# Women of the Sky in Microlights

TONY DENNIS

*Chief Flying Instructor/Pilot Examiner  
The Right Altitude Microlights*

For years while in hang gliding instruction, I was asked if there were many women pilots. The unfortunate answer to that was 'no', mainly because of the physical requirements of flying a hang glider. It's great to see that now with the advent of modern trikes with easy to fly wings and electric starts, we are seeing so many women taking up flying as individuals, or as couples with their partners. For those of you who are wishing to take up flying and maybe feel that it's beyond you, here are some stories about some of the women pilots I have been lucky enough to train over the last couple of years.



Linda Taylor

## Linda Taylor

Linda had her first Trial Instructional Flight in early April '99 at Benalla. At the time of this writing she has only three hours instruction under her belt, and is enjoying the challenge of learning to fly. Her new Airborne Edge X with Wizard wing arrives at the end of May (in her business colours – blue and fluoro yellow).

At this stage, just lacking a little bit of confidence in her ability, it'll just take time in the air to gain the skills required to learn to fly and to get really comfortable in the flying; there's no doubt about her capability. A lot of new pilots get in the front seat of the aircraft the first couple of times and are really unsure of what to do... left goes right and in goes down and out doesn't go up... confusing! It's no wonder



some get a little confused and start to doubt their ability! Remember it's just a bit of machinery we drive around the sky and it can be a little bit confusing to work out what the machine actually does. It's true for all of us that as we get older we do fewer new things – persistence is required. Linda agrees – it's great to learn something new. She has a lovely personality, and it's a pleasure to have her at our flying school. I've found over the years that the people I meet in triking (both professionally as an instructor, and personally as a pilot) are really some of the best there are in this world. Triking must attract them! Linda runs her own business, and finds it great to have a new adventure-type hobby. It gives our lives more balance.

## Therese Dennis

She always wanted to marry a pilot, although she was thinking of bigger aircraft! Training was cheap, but now she's paying for it! Just be aware that anything I say will be used in evidence against me, so I have to tread very carefully in what I say about Therese.

There's no shortage of go-getter in Therese. There was no need to ask her if she wanted to learn to fly – it was just a matter of fitting in time with her between the other students (just for the record note that she was my girlfriend before she was a student). Therese had no shortage of confidence and got flying very quickly. The only problem she had was when it was time for her to go solo – I think I held Therese back a little too long before sending her solo! I blame the lack of a suitable airfield at the time (three years ago), while she blames me for being over protective. OK, so she went solo at 35 hours when it could've been about 14. The airfield I sent her solo on was a 3km long and 100ft wide bitumen runway. She still overshoot – maybe she was too used to ballast in the back! Only joking – she flew perfectly.

She now has over 170 hours and loves to take people up when the opportunity arises. I'm happy for Therese to take up any of our students, especially some that may be in the process of learning to land. Therese's technique is great to watch as a passenger and she finds it helps to talk herself through the landing phase.

We still very often get those glorious sunset flights together, and it doesn't matter who's in the front seat.

## Karen Weiner

What a go-getter! Karen and husband Wally were just looking for something new last winter. They had been long-time committed to being softball players and it was time for something different. They bought a new Edge X with Wizard wing in November '98, with colours to match their softball team.

Karen mastered the flying very quickly and was solo in no time. Karen weighs only 55kg and she doesn't find handling the aircraft difficult or physically challenging. Karen (and



Karen Weiner

husband Wally) have been ideal students, both achieving excellent results in their theory and working really well together as a team. They made every effort to get passenger carrying as soon as possible, and now take it in turns as pilot in command.

Karen really didn't have any difficulties learning – she just persisted until she achieved the right result. The other day I was told that Karen was seen down at Barwon Heads taking a couple of her friends for a fly. It made me feel really good to hear this.

Karen and Wally will be sharing the pilot's seat in the Murray Trip in June. Although they keep their trike at Barwon Heads now I'll always look forward to seeing them at Benalla, or at the club meetings in Melbourne, or somewhere in the sky!

## Jeanette Walker

Jeanette and her husband Stan both got the flying bug about 15 months ago. Jeanette will tell you with pride that she got the bug first and Stan followed her. Once they purchased their Edge X with Edge wing she was right

into it! As she says, it really makes a difference to your entire training when you've got your own trike. Learning everything about the aircraft from considering its position in the hangar and thinking about preparation for the next time it will be used, to things such as fuelling it, replacing spark plugs and just knowing what's normal for your trike.

Jeanette was the first to go solo, and Stan followed in her slipstream a couple of weeks later. Jeanette has completed about five hours solo at the time of this writing, and although at first I think she would've preferred a Wizard wing, she's really gained confidence in the Edge and her flying skills are improving day by day. She has no shortage of confidence or eagerness to learn.



Jeanette Walker

It's great to see women like Jeanette undertaking flying and pursuing it beyond a few hours. Jeanette would be first to agree that the reward of flying is well worth the effort of learning. When she was learning she probably found the final flare in landing the most difficult to get right. As with a lot of people who try to position the aircraft onto the ground, she was a little rigid with the movements. Now she flies the wing to get her trike onto the ground – a pilot in command of her aircraft. She's named the trike "SkyWalkers" – a good name!

## Maureen Cochrane

Two years ago her husband Daryl introduced Maureen to trikes, hoping to get her interested. It did. There's no stopping her now with their Edge X with Wizard wing (stored set up in a shed on their own home strip near Yarra Junction, Victoria).

Her first flight at Benalla was on 1 February '98 with the Wizard wing. Their trike arrived from Airborne at the end of February, and her pilot certificate was issued 2 May '98. Daryl and Maureen both piloted their aircraft on last year's Murray Trip, and now, as they venture to different places, Maureen usually flies one leg and Daryl the other. She's always an early riser, well organised and works very hard. Being in their own business time off is at a premium. You've just got to listen to her talk about recent flights to see how much she loves it. She's full of enthusiasm.



Annette Jacob

## Annette Jacob

Annette started learning mid '97. She had been keen to learn long before her and her husband Stuart purchased their Edge X Trike with Wizard wing. It took her a little time to get comfortable with being in the trike's pilot seat (as for all of us with a non-flying background). She really started to get a good feel for it once she had her own aircraft, and Stuart took her flying to some exciting places in different conditions. That seemed to improve her confidence in the aircraft. She's now solo and will have her pilot certificate by the time this is printed.

The thing that made a difference with Annette was her understanding of how the machine worked and her general confidence in the machine. Perhaps ladies may find it harder as they usually do not have a mechanical background. She found it a little bit confusing to understand how the trike operated as a machine in the sky. Now as a pilot her skill and confidence level is probably higher than average. Her flying is really natural, not rigid, and she really feels confident in her machine. After her first solo she got out she said, "This is easy, let me go up again."



# Buzzing

JULES MACK

At around \$5,600 my new Explorer motor harness

is an expensive but exciting enhancement to my long

flying experience (13 years). I now consider myself

to be ready for one. I have done all kinds

of towing: winch, platform,

car, aero – and even the Bill Moyes

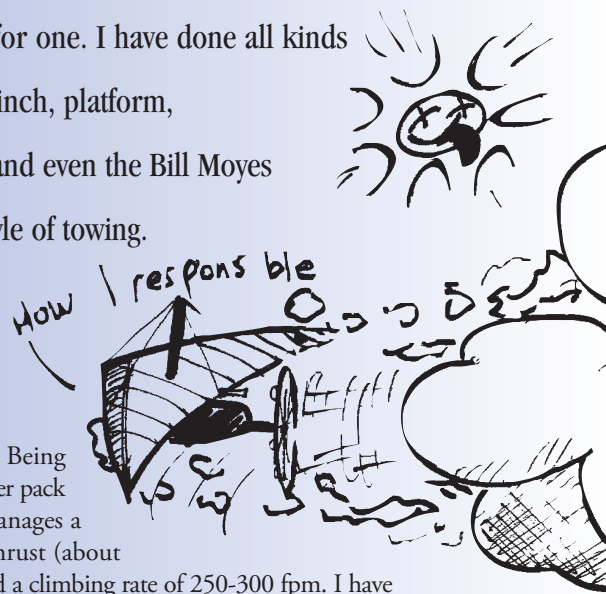
skyrocket style of towing.

I'd describe a powered harness as feeling similar to aerotowing. Being a minimal power pack of 120cc, it manages a considerable thrust (about 9,000 rpm) and a climbing rate of 250-300 fpm. I have only flown three times with it so far, and at the advice of Craig Worth I have only launched into a breeze off a hill.

The next stage to progress to will be light/nil wind off a hill, then off flat ground with a wind, and then nil wind on flat ground. It's this careful build up of confidence and skills that I hope will help me to avoid any pointless mishaps. Frankly, I hate the noise, the danger of combustible fuels, and the whizzing slicer dicer just behind my toes. What I do like is the ability to climb unaided with the freedom to choose my course (bearing in mind that this small power pack has considerable limitations).

On my first flight off Tamborine (in 15kt, gusting to 22) I spent all afternoon checking, adjusting, starting, restarting, waiting for conditions to smooth and fielding questions from people about things I wasn't even sure of. I finally decided to launch with two wing men and one on the nose wires. Everybody was keen to see me commit aviation, but I resisted until a suitable lull gave me confidence. I started the motor, gave the all clear and powered off full throttle, clenching my teeth down onto the oversized clothes peg. The moment became another time in space as I watched events happen in slow motion while cutting out into the lift band. Adrenaline has that affect on some.

Then while soaring out along the ridge thoughts came to me: "I'm hanging a bit low" and "this is not how I adjusted the harness." Looking down I saw the front entry buckles were not done up. I felt horror as I saw the zipper had undone to about 100mm left of connection. Hanging from my armpits and leg loops with white knuckles on the uprights, I eased my feet up into the boot (really difficult while hanging low) then zipped up the harness. The motor had stalled and the free wheeling prop was creating considerable drag, making the glider fishtail around in the lift. If a wing dropped the increased drag would put the glider into a steep turn. I locked the



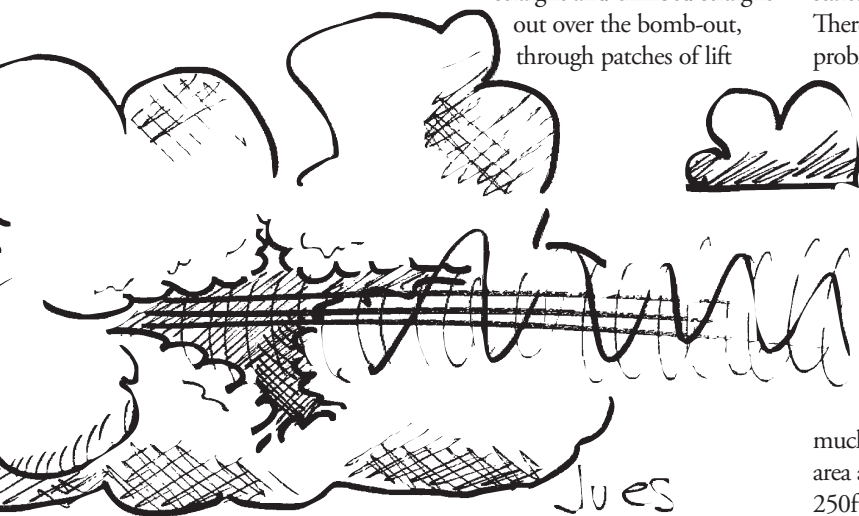


# around

prop and buckled up the harness with two hands while my chin rested on the base bar. "OK," I said once I'd gained proper control again, "now I'm flying". Everybody had been so absorbed in the launch that no-one had noticed this small important detail. They just wanted to see me go off for their entertainment. Let me tell you now, emphatically, safety FIRST, crowd pleasing NEVER.

I managed to restart the engine as the cold sweat evaporated from me. I carefully applied power smoothly, and gradually felt the push of the prop taking the base bar position back about 150mm. I kept it

straight and climbed straight out over the bomb-out, through patches of lift



and sink, to 4,500ft. Confidence and colour returned to me. I killed the motor, locked the prop, and settled into silence and the vario. It's not possible to hear the vario or radio while the motor is running, even at idle, so I had to watch the dial and feel the response from the wing. It was bitterly cold at altitude so I got the throttle cable inside my hand fairings with my icy knuckles and settled in for the gliding. The headwind at altitude really only had me parked in the sky. Even at full throttle I made slow headway. The apparent limitations of this sort of aviation are now obvious. I must keep in mind a margin for error, the very first thing I learned way back when I was a novice.

When I restarted the motor 20 minutes later (as I had rehearsed it a dozen times) I felt the familiar power thrust and heard the loud chainsaw buzz. I motored around trying different rpm with climb rates. Only full power seems to make the difference. I ran the fuel tank dry and predictably the motor just stopped. I glided around at altitude doing what I always do, admiring the scenery. I've always been a sky tourist. I like the view from up there – the whole world is a beautiful creation. I gradually lost height and headed for the landing. With no additional effort except for fuddling with the landing gear and ropes and string things that get tangled in the wind, and making sure the prop was locked. Landing into 15 knots and keeping extra speed on for the wind gradient near the ground was second nature (as it is when you've done it a thousand times). In fact, it is no different with this harness and it is not heavy, as some may think. "Hello Mother Earth, didya' miss me?" I packed it up carefully and went to get a pizza.

Two weeks later I launched off Beechmont late into a smooth and steady 15kt southeasterly. With full throttle I climbed out fast in the lift band. Tandem pilot Mike Jackson, in the air at the time, reported seeing me go up like a rocket. With sufficient height, I killed the engine and locked the prop for free flight. The air was a choppy 18-20kt at

altitude and going southerly. 20 minutes of rough house air and I restarted the engine. The motor fired up and idled rough as I released the prop and applied full power for another climb. Maybe the air would get smoother higher up. Trouble, as it only revved to half speed – I thought it might just be because it's cold.

I tried several more times before deciding that "now would be a good time to abort and top land." The wind picked up and I landed in Munsters' with a perfect standup on the spot. Maybe someday the insurance of these wheels on the base bar will be handy, but not today. I packed up carefully in the cold and headed home in the dark.

Last Sunday I arrived at Flying Fox and set up amidst some interested pilots, while others jeered and taunted. Charly Fellay, genuinely interested, helped me to set up and discovered that the low rev problem was a sticking choke. The return spring assembly was a bit ineffectual. I started the motor amidst disapproving stares and revved it to full power. There was no way I would have launched without first discovering the problem. I was quite prepared to free fly that day; that's what I really

love anyway. I set up carefully, then launched with full power into light scratchy lift. I powered up into the valley, and at a safe altitude, futzed around with landing gear and ropes and bits (throttle off), before continuing (full throttle) to slowly circle around the mountain in a large upward spiral. A few jellies

scratching in front of launch shrunk with altitude, but the climb seemed a bit slow. There were two levels of cumulus on this grey, mostly overcast day. I ascended through the wispy and sparse lower level towards their diffuse tops. At 6,300ft the tank (only half filled to begin with) dried up and the motor quit. I had been looking up at intervals to see how

much fuel remained. I flew around leisurely and found that the general area air was sinking at 100-200fpm. Together with my sink rate of 250fpm, no wonder the climb was so slow. It was cold, but the view of nearby billowing cotton wool cu's, pure white in the afternoon sun, was spectacular. Why do those clouds always seem to look like huge breasts?

It took 30 minutes to lose height as there really wasn't any lift around, but an increasing head wind from the north. I top landed as I always do, sensing the air speed and feeling the glider response, pulling off a perfect "knees up mother brown" spot landing. The cows had left brown spots everywhere amongst the low cropped grass. I dragged the harness on it's nylon (stain resistant) runners back to the launch and packed up there. "How was your flight?" "What?" I reply. "How was your flight?" "Speak louder," I say. I got told to fly straight out as I climb next time, so as to spread out the noise pollution factor for the residents of the valley (sort of giving each a short window of nuisance). I told them that if lift was available I would have used it. As it was I powered down several times to find lift, but there wasn't any.

For now I want to stick around launch until I get the thing under my absolute control and mastery. I have plans to explore the places you can't usually get to in a hang glider: the ranges and Cunningham's Gap, the Glass House Mountains, Mount Warning and the volcanic crater escarpment, the Flatties and the Islands. I made a long list of pros and cons, as my hang gliding seems to be less these days with all the added responsibilities that one must accept. I have to make my flying time more quality, and less hanging around the take-off or bomb-out. I particularly enjoy marginal conditions that test your best; so much nicer than riding the bull in turbulence with the Swiss tubing creaking it's protest. So I hope at least I'll get another bite at the cherry on those scratchy days with this thing strapped on. Perhaps I should have just paid the mortgage, but I can't wait until that's finished. Time is passing and the days are less. Perhaps some day I can point to the sky and tell my three year old, "Daddy used to fly up to the clouds".





Caleb White with Olympia "Yellow Witch"

## CALEB WHITE

On the twenty-eighth of December nineteen hundred and ninety-eight Olympia turned fifty. It has been 50 years since she was born. Or more appropriately, airborne. You see the Olympia is not a person but she is still a lady. Her full name is *The Chilton Olympia* a pre Second World War sports sailplane design. Her name Chilton (the manufacturer) Olympia because she had won a design competition for an Olympic Aerobatic sailplane. One can only stand back and dare to imagine her as she was wheeled out as a state-of-the-art, high performance aircraft as December turned January for the forty-ninth time this century. Today she sits, a modest and proud aircraft rather unlike the modern rent-a-planes of today. She has a unique personality so this is the story of the Olympia or the "Yellow Witch", arguably the most famous glider in Australia today.

As our car shot along the dirt road towards the gliding club like the nucleus of a comet ahead of its tail we peered out at what must have been a total of seven gliders on the ground and I remarked to Dad: "Keith has got the Oly out." "Oly" has now become slang amongst the club and its members for the Olympia. We pulled up at the caravan used as a makeshift control tower. I went over to Keith, the proud 77 year old owner of this 50 year old "sports ship". I proceeded with pleasantries and offered to carry out the compulsory daily inspection on the Oly as he was busy taking up students in one of the club's two place K-13 training gliders.

My first thoughts when I approached the yellow and orange lady of the air were of the particular canopy arrangement. Once I man-handled the canopy off I looked inside and started coming to terms with her personality.

Around the canopy there was silicone sealant; misplaced on application as well as bedraggled electrical tape used to cover any panel joints. On the sheet aluminium seat carelessly rested the parachute required to fly her and even needed as a seat to get comfortable. Removing the 'chute revealed seat cushions discoloured with the brown dust from the paddocks of northern Victoria. Amongst these lay a pair of handkerchiefs which, when quizzed about, Keith said were for wiping the glider's instruments at high altitudes. This added to my scepticism as I wasn't sure whether she'd be capable of reaching those high altitudes Keith boasted of. However, I'd take his word for it. He is immensely proud of his old girl or, as he sees it, his young girl.

Glancing over to the instrument panel after my brief discussion with Keith, I saw it was barely more than a crudely shaped piece of plywood painted matt black so as not to reflect the sun. It had cut outs for various instruments that had been added and long since removed.

I reached for the maintenance release and fought my way through a jungle of electrical and radio cables to the small, blue vinyl pouch in which I found the release, a rather authentic document. It was in an assortment of boiled lollies Keith described as his fuel for long



distance flights. I must admit Keith's confidence in her performance was starting to rub off on me. I then started the walk around. On inspection up close she more closely resembled a patchwork quilt than the "aerial armchair" as Keith described her. She had a bright orange body with yellow tail surfaces and a brilliant white pair of wings which were predominantly white but had several bare discoloured patches.

I finished my inspection and signed the release, despite being rough around the edges she was still perfectly airworthy. I waited for Keith's return and propositioned him for a fly. I felt less daunted about the Oly's appearance now and knew she was fit to fly. Now I was more intrigued than anything else.

Keith was happy to give me a fly, I think he was more surprised that I wanted to fly it, after all the glider I usually fly was there and it's twenty years younger and had better thermalling performance. I awaited my flight with baited breath. Keith said he wanted to fly it first to make sure the wings wouldn't fall off, standard procedure as the glider had just been re-assembled. The fifty year old craft was able to perform the most co-ordinated aerobatic manoeuvres as Keith demonstrated with a loop almost immediately after release from the winch, not bad for airplane/pilot combination 127 years old.

Soon the couple was firmly on the ground again and Keith briefed me on the Oly. I now had full confidence in the aircraft. The briefing was over, Keith shook my hand and off he went to train a student. It was my turn to fly the Oly.

The number of gliders waiting to be thrown into the air at the launch dwindled and it was my "go". I lashed on the parachute with the aid of another club member and climbed into the cockpit which yielded a surprisingly high amount of visibility. I carried out my cockpit checks carefully and thoroughly as to not miss detail that could turn the experience of the flight sour. With nothing amiss I gave the corny "thumbs up" with the canopy pinned in place. It was ready to go.

Glasshouse Mountains, Queensland.  
Photo: Richard Friday

I reached forward and pulled the yellow bung to open the hook for the winch wire. With a snap it was in and in the distance I could faintly make out the amber flashing beacon rotating on the top of the winch some 2 kilometres away. This was an indication he was all set to start the launch. My wings were levelled and I was set to go.

The winch wire picked up its slack with a jolt and hit full power. At that instant a gust of wind lifted one wing, subsequently slamming the other into the ground. With that impact she became airborne. The gust, however, still in control of the aircraft yawed me violently to the left at ten feet off the deck. The gust died and I recovered control and set her at the right nose angle for the climb, the next 30 seconds of the launch were uneventful. I released at the top at about 2,200ft, I would have to join circuit and make preparations to land if I lost too much height. I snapped on the vario (to find rising air) and it shouted almost immediately. I made a steep turn to the right and maintained it to stay in the lift, up I went. She flew fantastically, Keith was right; and not just biased towards the old girl. I kept her in a tight turn to stay in the lift, not daring to flatten out and open up my turn as the height was still clocking up, though it might be difficult to find another patch of lift. The cockpit visibility was second to none; no glider had I flown with a better view. My altitude built to a very substantial height, I was loving every minute at the controls of the "aerial armchair." I've never climbed so fast in a glider especially one passing the half century mark. To 7,000ft I climbed, an altitude that I was told later was probably the top height of the day, almost beating gliders one fifth of her age. Landing was on my mind so after about forty minutes I started my descent which consisted of finding sink and spiralling down in it. She handled like a dream. Landing was relatively smooth and nothing but an error of judgement delayed our re-union with Terra Firma.

Keith drove up to help tow the Oly back to the hangar. To his unspoken question I answered: "She flew beautifully." As the day died we towed her back. Keith and I in rapid conversation about the flight that had transpired and about the oldest glider and the youngest pilot.





# Using and Flying with

MAURIE BRADNEY

## Using GPS Datalogger for Verification

**G**PS datalogger verification use is on the increase and soon will be the main method of verification. It offers simpler, cheaper, quicker results and a considerably lower personnel requirement than photography. For competitions these days there are fewer people who are prepared to volunteer their services for one or two weeks, so this adds to the pressure for organisers to opt for dataloggers.

Fortunately, such units are getting cheaper, easier to use and more reliable. Currently in Australia it is possible to use combination units with a separate GPS machine feeding to a datalogger (GPS plus Borgelt Joey), or a stand alone GPS and datalogger combined. These latter units may be connected to a display to give navigational information, but cannot have any pilot input in flight apart from an event marker. The former type are not IGC approved and while they are acceptable in Australia for competition, they are not acceptable for FAI certificate or record flights except as barographs.

All download to their own program on a PC. These allow verification at various levels. In a competition they are usually moved into a separate verification program so that all will have a common standard of measurement.

With either system, to be of any real use, the user needs to load the latitude and longitude of the start, finish and turnpoints planned to use. For competitions, this database is defined and every position entered needs to be double, double checked for accuracy. Nothing can correct an error caused by having a point incorrectly defined. If used it could result in a zero points day. Every entry should be checked by another person in a quiet uninterrupted situation.

Each club should develop its own database of turnpoints. These should be checked for accuracy by whatever means are available. The best is to hire a differential gps. This uses a fixed base known position as well as the normal GPS satellite system to establish positions. The hand held GPS types that we use will wander in their position indication about 15 seconds (1,500ft or 457m!) if left for any time. For improved accuracy from these they should be left stationary at least half an hour and an average taken. The longer it is left in one place the more accurate the average will become.

For measuring position maps are reasonably reliable, the larger the scale the better. Nothing smaller than 1:250,000 should be used. 1:100,000 or 50,000 is much better. It needs to be borne in mind that the symbols on the map are only representative and can easily be 200 metres (about 6 seconds) from the real position.

Mapping convention is that railways are the most accurately positioned on a map. The premise is that once in position they are unlikely to shift. Roads are often straightened, moved or otherwise modified. So a feature next to a railway, such as a silo, can be reliably positioned from a map.

The dataloggers vary a great deal in their pre-flight capabilities, so it is a matter of studying the relevant handbook. Some allow a flight declaration to be entered, and some allow some provision for an Official Observer (OO) to key in a secure code. If in doubt about a declaration it is best to put it on a form. For records and such this then can be forwarded with the claim. Most dataloggers have a built in aerial

and need to be positioned so that this is under the canopy rather than under glass or carbon structure. Some have provision for a remote aerial, which can allow more variation on where the unit is stowed. All have a led that indicates whether the unit is operating or not. This obviously needs to be positioned so that the pilot can check it occasionally.

All units are dependant on battery power. Experience is that the units themselves are very reliable. They either work or they don't. There have been a number of occasions where the battery has failed and the flight data was lost or incomplete.

Downloading only needs to have the appropriate program and cable. So far there is no standard cable. Each type uses its own. The owner of the datalogger should supply both of these.

The programs are all very simple and straightforward to use. All, so far, have been in DOS, with small demands on computing power. All run well under Windows in a DOS window.

While most of the dataloggers have their own proprietary format, if they do not download as an IGC file, the program has the capability of changing the file to an IGC format immediately after the initial download. The oldest Borgelt does not do that, but the txt file that it does download can still be verified. For individual flight analysis this may not be necessary. For competitions it is. This is a programmer area and there are current universal verification programs available to do this.

However, for an individual flight, it can be verified in its native format and program. Even though files may be in IGC format, those of one datalogger do not always verify correctly on another make of analysis program. It is important to use the matching program or a universal verification program such as the one for competitions.

The verification program will need some initial setting up. Entry of the database of turnpoints, start point and turnpoint parameters. Some even have provision for airspace. This may be useful if that is an issue. In some countries, penetration of non gliding airspace will disqualify flights! (Check the FAI rules for this, it may now be a general provision!)

It is important to ensure that both the computer and the datalogger program have the correct time difference between the time zone and GMT/UTC. If not the timing will be incorrect and this can cause other anomalies.

With the program set up it is only a matter of opening the flight file and it either fits or it does not! Not quite so simple. If the flight went past a turnpoint or to a wrong turnpoint, it could still be valid if it fitted the FAI photo sector rule. If so, it would be acceptable.

Another item is to check for engine use. Most new dataloggers have provision for detecting engine use, either by noise or by vibration. Checking this is necessary for self launchers. It is also as well to check for possible start-ups around the course!

Free distance flights are no problem. The checking program can indicate the lat/long of any turns or outlandings. They will also do the distance calculation.

Fill in the paperwork!



# GPS Datalogger

## Flying with GPS Datalog Verification

**S**tudy the rules for datalogger use. There are variations between the Australian FAI and Club class rules. If you go to overseas competitions there will probably be variations there too. This applies particularly to starts. People are still searching for better ways of avoiding gaggles and leaching by changing starting procedures.

You will need a database of the start points, turnpoints and finish lines. Some loggers require this to be entered from a PC. Others you can enter directly. A very laborious business if there are something like 100 or more points. Easier to obtain it from someone else who has done all the hard work! However you obtain it you must check and doubly check it. Nothing can save you if your data point is incorrect.

Sometime in the near future there will be a standard database for Australia. I am trying to set this up by collecting various sets of TP data. However, it will take a while to build it up and get it correct. Then it will only be a matter of selection and loading just those points for the event. There are a few computer programs around that can turn Garmin into Cambridge format and so on. As the system grows these and others for every brand of datalogger will become more readily available. An exchange network for this needs to be set up now.

Whatever GPS system you use it will have some means of telling you that it is working. Flashing leds or something similar. If they stop – it has failed and you will need to fall back on another system. Cameras or a second datalogger. Fortunately, gps is highly reliable, and once it commences working usually the only thing to fail is the battery.

So the battery becomes the most critical part of the system. There are varying opinions on the best way to handle this. I prefer to have a separate independent battery. Some prefer to attach it to the glider system. If the latter has a back up battery as well, then this may be the safest choice.

A good quality battery, fully charged for the commencement of each flight. It is as well to have a small volt meter to check things. If the charger fails the first you will know about is that the GPS fails from a flat battery! Check that the charger is working under load and check the battery voltage before each flight. Have fully charged spares available on the airfield, not back at the ranch.

Ensure every item is securely mounted and that all connections are well made and unlikely to vibrate, move about on take off or in flight or wear insulation off. In short, have a good well made secure system.

Most systems will not record anything until you start moving. This saves memory and batteries.

The datalogger will function as a barograph as well as log your track. Apart from checking that it is operating from time to time, generally you can ignore it in flight. Of course you will probably be using the GPS part for navigation. That is another chapter.

Current international rules require you press the event marker for starts and turn points. So as you approach a turn it is a good reminder to check that it is working in case you have to revert to a back-up. If you have a second datalogger that you have to use as a back-up, and it does not have a display screen, make your turn point very conservative. It is very easy to be outside the 500m radius if you do not have a visual indicator. For FAI classes they currently require the crossing of a start line which is at right angles to the first track leg, two kilometres long within the diameter of a 1km radius from a nominated start point.



That is, you need to fly through the semicircle. Your start time will be the last data point in this semicircle.

Starts need some caution if approaching from the on track side. You must ensure that you get onto the correct side of the line before turning onto track. Turning when your GPS indicates that you are 200m from the start point can have you miss the line and semicircle altogether! No start, no points!

In the club class the start points are treated like turnpoints, so the technique for turnpoints applies.

To achieve a valid turn your datalogger must log one or more data-points in a 500m radius circle around the turnpoint position. Do not think that this allows you to turn 500m short of the turn! If you do this you will sooner or later miss the circle and get a penalty or worse still get the equivalent of an outlanding where you turned!

The 500m radius is to allow for the fact that the GPS positions “wander” or “dither.” This can be as much as 15 seconds, which is a little less than 500m! Only if you have US military equipment and current codes will you achieve the much talked of 1m or greater accuracy with no dithering.

Get to within 300 or 200m of the TP before commencing a turn. This will probably put you right on the turn most times, but even so, you will be surprised that sometimes it will have you short of the turn. Where the change in direction is not great to the next leg you still need to take care.

Currently the international rules call for an event marker to be in the 500m circle, so be sure to press it several times from the 500m indication on. This is an easy item to get just outside the circle if you try to do it with just one mark.

Be sure to have the finish line in your logger. Then you will get an accurate distance for your final glide and be sure to get a finish. If the finish is one km on from a lead in point it may be better to final glide to the lead in point and eyeball the finish.

Currently finishes are manually timed, but this will shortly change to a datalog time as then the whole flight can be scored from the data file without additional input. More accurate and saving on the volunteer workers that get scarcer every competition. So, make sure you really do cross the finish line!

# Winter Paragliding in WA

MICHAEL DUFTY

Traditionally winter is a good time for flying in WA.

The inland sites are green and pleasant, the weather is nice and cool, and the thermals are not so violent, making them more enjoyable despite a lack of serious altitude. The last few months in WA have lived up to these expectations. On the Anzac day long weekend we even had good cross country conditions, the best for a year or more. Below are some highlights of the last few months of flying.

## April

As is often the case, despite the rain in Perth, Saturday, 18 April proved an excellent day for flying at Toodyay. The range was pretty much flyable all afternoon. There was a bit of thermal activity, but no one got more than about 300ft above take-off despite a few scary looking cu nimbs in the distance. At one stage there were six gliders up at once, which got a bit crowded when the lift died down. At other times we were able to get out over the house and even circle in some nice little thermals.

Mike Annear, Steve Watts, Mike Moore, Gordon, Doug Cook and myself all flew. There were a couple of minor incidents, with Alistair taking out the small fish windsock with his harness early on. Mike Moore went one better and flew his (speed challenged) Apollo backwards into the big wind streamer on top of the hill. Only the steel pipe was seriously injured and we managed to restore it to function. Later in the afternoon Gordon discovered just how painful the rocks at the range could be when he flew a bit too close to some and hurt his arm and his vario.

Sunday the 19th was frustrating. It looked like a perfect day for Mt Bakewell, but just as the cumulus started popping off everywhere the wind died to nothing. I took off in a gentle gust and found nothing but sink. Mike Annear tried later and managed a little better, but still never got above take-off.

John at Wozza's Knob.  
All photos: Michael Dufty





Dennis coring zero sink at Wally's Place.

We moved on to the tow paddock where the club winch was running smoothly under expert operation by John and Wesley. Aaron Massey, Cilia Smuts, Gordon, Alistair, Georgie, Steve, Mike Annear and myself were all there. Unfortunately the flying was little better than Bakewell. The best tow heights were about 600ft due to lack of wind, and no one found any serious lift despite the awesome looking sky full of cumulus.

The Anzac Day long weekend brought the best flying weather of the year so far. I abandoned a planned trip to Geraldton due to lack of interest and a good forecast for Mt Bakewell – I didn't regret it, Mt Bakewell was in good form all weekend. On Sunday almost everyone on the hill got away. Mike Annear and I flew across to the Toodyay Road, over 40km. It was my best flight yet in WA. There were fantastic cloud streets at 6,500ft, and beautiful strong thermals (1250 fpm) running up underneath them (and even between them). I climbed well above the base of the clouds a couple of times. Miguel also flew to Toodyay on his paraglider, together with Derek on his hang glider. Several other hangies also had great flights.

Saturday was a good day at Mt Bakewell too. There was reasonable ridge lift and some strong thermals. I launched and went straight up to 1,000ft above take-off, where a wedge-tailed eagle joined me flying a couple of feet behind my trailing edge. I returned to the hill to wait for Mike Annear, but he had put his glider in a tree on launch. I ended up landing in a burnt and ploughed field about 2.5km west of Bakewell. I walked back up and helped Mike extract his glider from the particularly vicious tree. By this time the magic lift had come on and we boated around about 500ft above the hill for an hour or so in the sunset.

On Monday the wind seemed to be a bit north of east so we went to Bailliee farm/Noondeening Hill. As we stood on take-off it shifted back to the ESE, and after watching some hang gliders take off into some really horrible air we went to Bakewell again. I took off at 3:30 pm straight into some beautiful smooth thermic lift. It didn't last though, and I soon found myself scratching back and forth in front of take-off. 15 minutes later I landed in the gravel pit. The magic lift came on half an hour later though, and Wally, Bill Brooks, Julian, Eric, Mike and myself all had good flights.

On the same weekend Wesley and Gordon and others went towing, initially at York (without a lot of success) but later moving to Toodyay to find a lot more thermal activity. Gordon got some good height, but came down for his mobile phone, and of course never got high again.



Sunset flying at 'The Range'.



the Gin Bonanza (very fast). I ended up top landing, as the wind was a bit gusty and not particularly pleasant on a new glider.

Near sunset the wind dropped again. Most of the assembled masses had headed back out to the coast by then, but we still had Jiri, Julian, Dave, Mike, Wally, Peter and myself all in the air at once. Jiri and Dave were swapping over between the Response and the Bonanza to compare them, concluding that they were both pretty good.

Finally on 23 May we got a chance to fly Mt Bakewell again. We had quite a good turn out, with Mike Annear, Dave Humphrey, Alistair Bass and myself turning up, as did new arrival Craig and visiting Aucklander Peter Creighton. The sky looked great, but the wind was a little strong and a bit too easterly. After an hour or so watching the gusts thrash the trees, Dave launched and immediately climbed up to a considerable height, getting right out over the river. Even on his new Response he still didn't have much penetration in the gusts, and was getting bumped around a bit, so the rest of us were still cautious. After another half an hour or so I joined him and found conditions reasonable, although I never got the sort of height Dave had earlier. Conditions started to lighten off as the afternoon progressed, and in the light patches only the small face below the south-east take-off was working. This made things a bit crowded once Peter joined us, and one by one we dropped out of the lift and down to the racecourse. We were joined by two hang gliders, arriving from a cross country after aerotow launching at Cunderdin.

I spoke with the owner of Mt Bakewell Station after landing, and he said he was quite happy for us to land on his property (right in front of launch). This is really good to hear, as we won't need to leave the hill early to reach the racecourse as we currently do.

On the last weekend in May it was flyable again at the Range. A number of people flew including Julian and Steve, trying out the Edel Promise demo. Gradually the wind dropped again. I bombed out on the Promise, but was still able to top land on Jiri's Sector (despite being way overweight). A few students got shoved off to end a good first day's training, and Julian collected a good crop of mushrooms when he got bored with flying.

## June

On the June long weekend several pilots headed up to Geraldton, including John, Wesley, Gordon, Peter Machen, Tony Croft, Craig and myself.

Saturday morning in Geraldton brought ENE winds which picked up to 25kt as soon as I laid out my glider. There were lots of hang gliders up there taking advantage of the stronger wind. At about 2:00 pm the wind swung around onto the larger SE face at Wozza's and dropped to a 'paraglidable strength'. The conditions stayed good right through to sunset and we had up to five paragliders and three hang gliders aloft at once. Around sunset the wind became perfectly smooth, allowing dune type flying inches above the hilltop if you felt so inclined.

Sunday turned out similar to Saturday, although the wind was a little lighter in the morning allowing the paragliders to fly the NE face too. On Monday the wind was more northerly, causing a little crowding on the small NE face. We took turns with either one hang glider or two to three paragliders in the air for fifteen minutes at a time. By midday the wind swung north bringing rotor from the SE face, but still refused to go west enough for Horrocks despite the forecasts. Everyone then headed back to Perth.

The following weekend wasn't great in Perth, but Mike Annear flew the coast north of the Murchison River mouth in Kalbarri (start of the Zuytdorp cliffs). This site has massive potential, as the Zuytdorp cliffs stretch unbroken for over 100km.

Colin had a fairly horrible backwards flight off a tow at John Salmon's (on the Monday morning). He made up for it in the afternoon getting some good thermals, and I think he travelled about 7km before coming down. John and Michael Moore and others flew at Muttonbird Island in Albany. Jason and Graeme had a good flight at Pat's place on Saturday, including a short cross country down the valley to Toodyay. Dave Morgan and Dave Hegney flew on the coast in Esperance. So it was on pretty much everywhere except Margaret River, where Peter Machen did a lot of wine drinking and not much flying.

## May

Together with Gordon and Sam (two hang glider pilots) I started May with an excellent couple of hours flying at Serpentine. The wind was a little light on launch for the hang gliders who didn't stay up, but once above launch there was lots of thermic lift and I got up to 800ft above take-off a couple of times.

The weekend of 15 May was flyable at the Range in Toodyay. On Sunday there was quite a crowd. Gordon McCabe and I launched just before 12:00 pm and got some really good height. I went over the back in one particularly nice thermal that took me to 2,500ft, but it had clouded over and I didn't find anything else, landing about 5km down the Goomalling Road. Gordon stayed on the hill whilst the wind picked up and also had very good height, but felt rain and cloud suck, so came down with big ears and speed system. Mike Annear and I watched in horror from the road as he landed on the downwind (rotor) side of the hill (!), but he landed quite smoothly.

After a while the wind dropped again, perhaps too much sending Dave Morgan to the bottom. Mike Annear and I got up, but the strength then increased. It got even stronger and Mike Annear landed, whilst I was able to stay up as I was having a test fly on



## July

The weather bureau issued a strong wind warning for the first weekend of July, and it seemed the strong winds took heed and stayed well away. The wind stayed light enough to fly inland all weekend and indeed dropped to nothing in the mornings and evenings.

On Saturday Dave Humphrey, Wally and Dennis flew for a few hours at Master's (northwest face of Noondeening Hill). The wind occasionally gusted to 20kt on take-off, but stayed flyable until it dropped off at 4:00 pm. I arrived at ten past four – D'oh! Dennis says there was a fair bit of thermal activity and it was probably flyable all morning too.

Sunday brought similar winds. Mike Annear, Dennis and I were a little late leaving Perth, but managed to get ahead of the rain and had a pleasant half hour's flying at Wally's place (windmill hill). Conditions were quite light but smooth, so although it was a little crowded no one actually ran into anything or anyone. The wind dropped to nothing as a little rain arrived, so we finished for the day. It was the first time Dennis or I have flown at Wally's place and we found it quite pleasant, surprisingly smooth considering the hills in front. The powerlines are still a worry though.

For those lucky enough not to have to work, the middle of the week offered even better flying weather. Dave Humphrey, Julian and Mike Annear flew Mt Bakewell on Tuesday. They found better thermals than most of the summer, getting up to 600m above take-off. The same crew went out to Noondeening Hill on Thursday and again found good thermalling, up to 600m above the hill and out over the road.

The forecast for the third Sunday of July was a little more promising, and about fifteen paraglider pilots turned up at the Range. The wind was about 25 knots, but at least we had enough people to play a bit of soccer on take-off. The ball only went down the main face once.

By 1:30 pm the wind seemed to have eased a little (to about 18-20kt) so Dennis and I tried launching part way down the hill. Conditions were quite rough at times, and we didn't have a lot of speed to

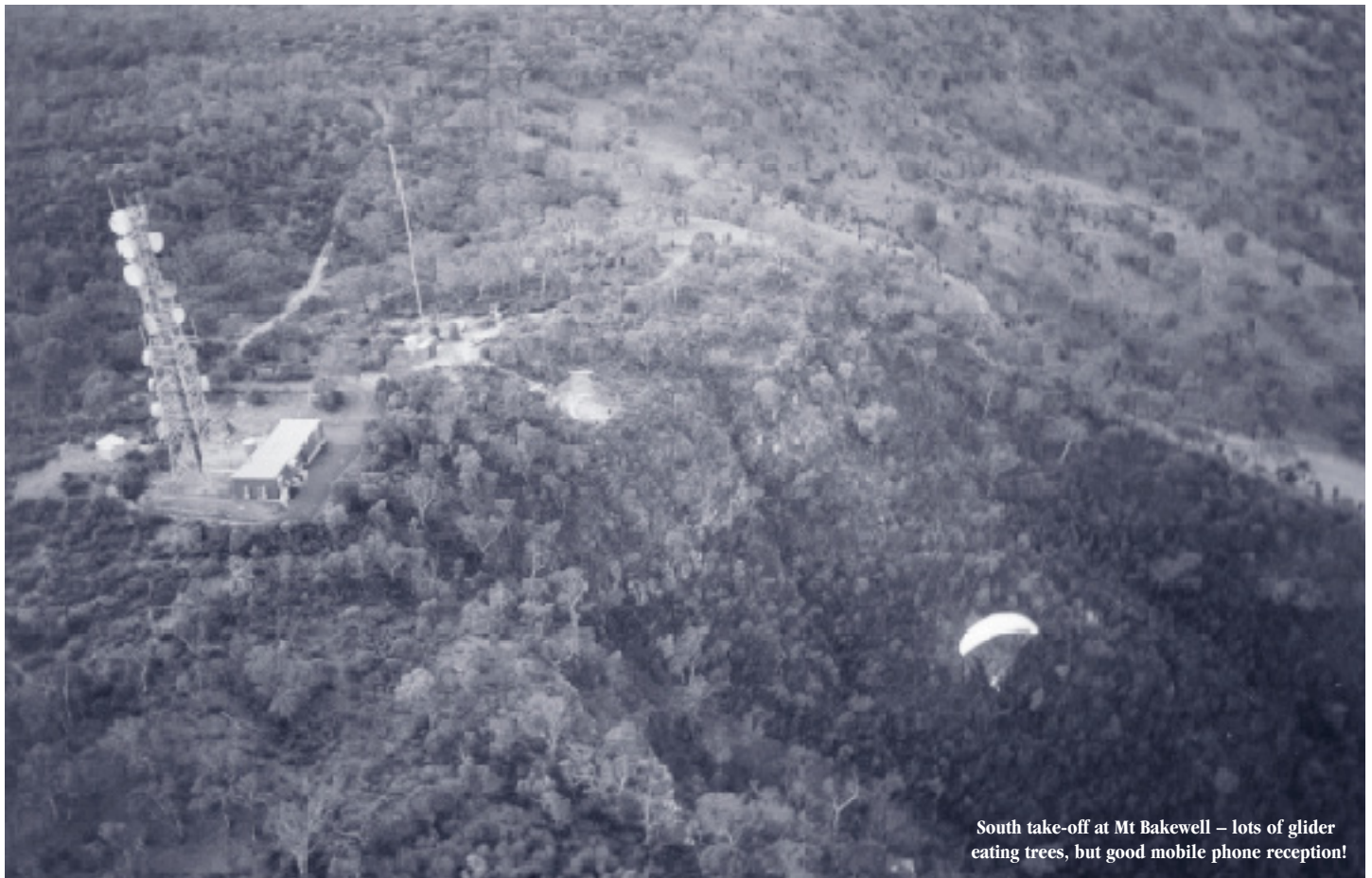
play with. It was more suitable for the three hang gliders that took off around this time, but I started enjoying myself after half an hour.

By 3:30 pm it had dropped enough to allow launching (with difficulty) from the top, and pilots started dribbling into the air. Before long we had eight paragliders airborne at once, possibly a record for the site. There was still plenty of room in the air though, thanks to the strong wind. The air was a bit rough, with enough thermal activity to make it interesting but not to get really high. At about 5:00 pm a rather nasty patch of air came through, forcing everyone onto their speed systems. There was enough turbulence to cause collapses on the higher performance gliders. All except two gliders chose to land at that time, but conditions settled shortly afterwards and three or four more pilots took to the air.

On the final Saturday in July the wind was north-easterly, but still very light. At the end of a frustrating afternoon of bomb-outs we received a radio call from Rick Williams who had stopped for a look at the potential weather station site on Mt Nardie on the way home. The wind was much better there, and although the overgrown state of the launch prevented Rick taking off in his hang glider, Dennis, Mike and myself were able to fly in nice conditions for half an hour in the sunset.

Although Mt Nardie is a big hill, the soarable face is quite small and it was quite crowded with three of us there. The lift was abundant but weak, so we were all weaving between the trees at times. Combine that with the low sun (which meant we couldn't see much at all on the westwards beat) and it's surprising we didn't crash really. Rick still reckoned there would have been room for a hang glider if only he could launch, and arranged a crew the next weekend to strip the three foot high regrowth. It is now much improved and suitable for brave hang glider pilots.

The first weekend of August brought cross country conditions again, with cloud streets at 5,000ft and strong thermals. I'll classify that as Spring and save it for another story.



South take-off at Mt Bakewell – lots of glider eating trees, but good mobile phone reception!



# *To Be or Not To Be, that IS the Question*

VIVIENNE DREW,  
*President Gliding Club of Victoria*

From the outside looking in, I see  
a sport that is struggling to survive,  
let alone make itself heard.

I hear talk of amalgamations from “the powers that be”, our nominated delegates,  
and on the other hand, I see “grass roots” members unhappy about the amalgamation.

I see a large fund of money, the ITOC fund, devoted and perhaps squirreled away, for a lucky few who can fly faster than the rest and stay in the air at the same time and thus make the grade to the international competitions. On the other hand, I see clubs struggling to keep their heads above water, both small and large for lack of assistance and direction.

I see a magazine that is now amalgamated showing information on various flying activities for the aviation enthusiast, and on the other hand, I see pilots flicking through a hotch-potch of information to get to the bits that interest them and is relevant to their chosen sport. I see a magazine that is costing more per month and less in the coffers to pay for it.

The sport of gliding seems to be bobbing in the water looking for a direction that will cure the ills of lack of membership.

Will the members and their representatives of GFA pull together only when the last glider is flown and there is no more beer in the fridge? “Too late!”, hailed the worn-out gliding hero.

Should we spend further time and effort in pushing amalgamations, whether it be associations or magazines, when it is clear from the many and various reports published in AG, from not only glider pilots, but hang glider pilots et al, that it is not what the individual members of either sport want?

Perhaps for economic and political reasons, it may have been the best solution, but the gliding fraternity, from all disciplines, have said that it is not a solution.

Is this not then the time to look deep into the way we see ourselves and perhaps step outside the permeating, miasmatic circle of the sport we live and breathe and see ourselves as others see us. We are declining into a geriatric pastime, which is not meant to be derogatory, just pure fact. There is not enough emphasis placed on securing youth, not enough emphasis on marketing ourselves to the general public, not enough emphasis on initiating a good competition circuit, not enough emphasis on the pure pleasure of being privileged to be an aviator. All the things that make us exciting.

The grass roots of our sport, i.e. our club scene, is our survival. No club, no members, no money, no GFA.

Members money, via the GFA, should, I believe, be put back into the sport. It has been shown over the last few years, that the clubs cannot market themselves effectively, and very often do not have the resources to embark on long term programs to facilitate membership due to lack of funds and members to sustain them.

We need our Federation to support us and facilitate processes to strengthen and focus the clubs' resources. The clubs have demonstrated they cannot do it on their own and they are crying in the wilderness for help. With GFA to facilitate, should clubs themselves amalgamate to share resources and create a stronger presence in their region? Should GFA facilitate a program for clubs to share resources, i.e. instructors, duty pilots, AELs and make it acceptable for members to assist other clubs without being tarred and feathered for leaving the “sacred precincts”?

We need our GFA as a lobby group to access youth groups on a national basis, e.g. Air Training Corps and Leagues, instead of clubs negotiating on a singular basis. These young people with an interest in aviation already, are our future.

GFA as a lobby group and utilising some of the members funds and networking, can put together national marketing, whereby we all market ourselves together at one time, to form a presence in the public eye, not just at various locations around the suburbs with little chance of impact.

We need our Federation to turn itself to its members; haunt the clubs for their opinions, find out what they really need to be effective ambassadors and provide assistance for them to obtain it.

As a friend in marketing once said to me, “when you take your foot off the accelerator, the car stop... business and sport is no different – no momentum, no business.”

I invite other opinions, whether they shoot me down in flames or not. I am very mindful that we are all, in the end, volunteers – but we choose to volunteer for these positions of responsibility, so therefore we cannot hide behind the name “volunteer” when it suits our purpose.

We are at a crossroads; our attempts at amalgamation did not deliver the desired result, so we must move on. We desperately need our Federation to work more closely with the clubs to form a visual, singular presence in the eye of the public, not fragmented attempts by various clubs and individuals to endeavour to make a small dent in the market, which does not ultimately work.



## URGENT ANNOUNCEMENT

Members of GFA who contribute to AG/  
Skysailor are asked to send articles to the  
new GFA sub-editor in future.

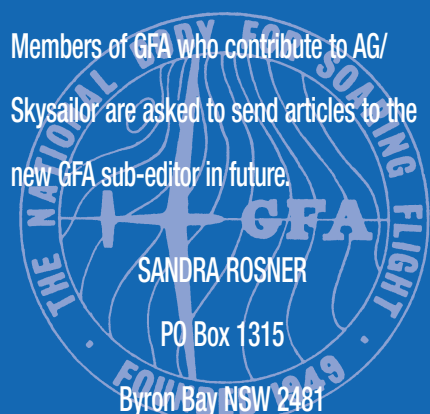
SANDRA ROSNER

PO Box 1315

Byron Bay NSW 2481

ph/fax 02 6680 1298

email: rossie@nor.com.au





## Harley Davidson Syndrome

► Is it just because you ride a Harley Davidson, would that make, let's say, a Japanese bike rider second class bike enthusiast? I certainly feel that way after the amalgamation outcome. Being a hang glider and ultralight pilot myself with strong interest in gliding, I have very much enjoyed reading Skysailor and Australian Gliding in one combined magazine.

Anyone who voted against amalgamation must realise that there is a hell of a lot of fresh blood coming from the hangies and others. Now, you tell me how this could have been bad for bonding?

Glide on man... glide on.

Thomas Breig, Kununurra WA

## "Bird Strike"

► Dear Sir,  
Referring to "Bird Strike" by James Cooper in AG August 99.

I have been gliding for 34 years with about 2,500 hours. I have always looked on the eagle with joy, as it is such a wonderful soaring bird and occasionally in weak conditions it will show you where the lift is. I join them regularly, but more often with curiosity to watch and enjoy their presence. If you have any fear I am sure it will sense it, probably by the way you fly.

In early March this year we had a group from GCV stay here. We all had a great time soaring into the mountains and training our visitors to the winch.

Several of the GCV pilots were menaced by an eagle over the hills about 5km north of the field. I flew over there to say hello to him. He straight away turned towards me head on with claws stretched out. I reduced speed to about 50kt to avoid damage, but as he got closer I was concerned about canopy or tailplane damage. When we were a few seconds from impact I kicked left rudder and slammed the stick to the left, applying about 20 degrees bank. He hit the leading edge of the starboard wing about two metres from the wing root, one wing over the top of the glider wing and then fell down about one hundred feet and then flew away. He had lost interest in gliders. This is the best way to handle a head on attack as the D nose of the wing is very strong.

We haven't had any further trouble with him.

Yours faithfully,

KAS Mann, Tumbarumba NSW

► Of recent times, there has been much discussion, indeed, arguing regarding the directive from GFA concerning the fitting of guillotines to all winches before 1/1/2000.

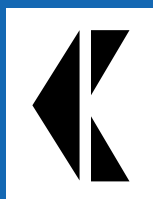
I know in my own club, a number of ideas (designs) have been aired, but in most cases, shortcomings have been identified, practicality and reliability being the main concerns. It was suggested that Australian Gliding/Skysailor should run a competition and publish the better designs received, so that clubs could select the design that suited their requirements. Others have suggested that GFA should adopt an "approved" design of guillotine, but this will not occur because of the fear of litigation. Some engineering shops have also shown an unwillingness to be involved in the fabrication of such a unit. During a discussion with some of our club members, the words "cable release" were uttered. This triggered a thought and now I propose that the cable release that we all know

so well and accept, in terms of reliability, method of test, and even frequency of test, be incorporated in the guillotine design. The basic design, i.e. the cutting blades (one fixed, one moving) and the motive force (loaded springs)

is common to most designs I have seen. The criteria of simplicity, reliability and minimal cost have been fulfilled. I suggest that the moving blade be held up by a Tost cable release mechanism via a lever and chain connection. The lengths of the arms of the lever could be arranged so that the load on the release can be kept to an acceptable level. Those of us involved in airworthiness would be aware of how the cable release tester "goes off". The cable release part of the guillotine could be maintained each year and tested every four years as it is an accepted frequency. The method of test is also accepted in AD 277. I believe these facts should obviate the possibility of litigation.

I cannot include a thumbnail sketch in this document but if anyone is interested, please email me at alanmcm@rocknet.net.au

Alan McMaster,  
Central Queensland Gliding Club



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

### Chamberlain Knights Pty Ltd Insurance Brokers

Chamberlain  
Knights  
Australia's Aviation  
Insurance Specialist  
ACN 002 493 521  
PO Box 329  
Epping NSW 2121  
Fax: (02) 9868 5262

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

Call Kevin Chamberlain now\*

# (02) 9868 4044

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

A PROFESSIONAL REGISTERED INSURANCE BROKER

## GLIDING FEDERATION OF AUSTRALIA

Airworthiness Inspection

### FORM 2 NOTICE

- ☐ A Form 2 inspection is due  
Cheque for \$125 is enclosed
- ☐ A 20, 30 yearly, etc is due  
Cheque for \$275 is enclosed  
with copy of aircraft log book
- ☐ An initial C of A inspection  
and initial registration is due  
Cheque for \$465 is enclosed

(tick appropriate box)  
on the following aircraft.

TYPE .....

VH .....

Please forward relevant airworthiness  
documents to:

.....  
.....  
.....Postcode.....

Forward to:

GFA Secretariat,  
130 Wirraway Road,  
Essendon Airport 3041



# Soaring Calendar

## Victorian Soaring Association Inc 1999

### Airworthiness Inspectors course

9-15 October 1999

At Bacchus Marsh. Enquiries to Gary Sunderland 70  
Underbank Blvd, Bacchus Marsh, ph: 03 5367 5374  
before 10pm.

### 1999 Homebuilt Glider Symposium

13 & 14 November 1999

The AHSA annual technical meeting and  
flying demonstration. Maupin "Windrose"  
and Ultralight gliders on show at Smithfield, near  
Nagambie, VIC. Contact James Garay,  
ph: 03 93673694.

### Narromine Cup Week

20-26 November 1999

Orana Soaring Club will host a seven day Narromine  
Cup Camp during the week immediately preceding  
the NSW FAI and

Club Comps, also at Narromine. Try for FAI badges  
records, decentralised comps,  
Barron Hilton Cup or your personal best flight.

### Basic Cross-Country Seminar

11 & 12 December 1999

At Gawler, contact Rob Moore, ph: 08 82588026.

### SAGA Performance Week

12-17 December 1999

At Waikerie. Team flying and coaching for advanced  
pilots, contact Bruce Tuncks RTO/S, ph: 08  
82527905.

### Year 2000 Homebuilt Glider Fly-In

To be held at Lake Keepit in conjunction  
with the VGA Rally.

## NSW State Competitions

### FAI and Club (Ex Sports/2-seater) classes

Practice Day: 27 November 1999

Competition: 28 November to 4 December 1999

At Narromine. Contact Eric Sweet ph: 02 9957  
2372, mobile 0419 412 641.

### Australian Grand Prix Championships

17-28 January 2000

Entries are invited for participants to compete in the  
first Grand Prix championships. These will be held in  
conjunction with the Barossaglide International  
Championships at Gawler. Basic rules were shown  
in the July edition of AG/Skysailor. This competition  
is open to gliders of lower performance than a  
handicap of 0.90 or 15m gliders below 0.88. Use  
the Barossaglide entry form, see September issue  
AG, or see the web page [www.worldclubclass.on.net](http://www.worldclubclass.on.net)

### "Barossaglide" Australian

### Club Class Championships

17-28 January 2000

Gawler South Australia. (Pre-world Club Class  
- formerly Sports & 2 Seater Class). See also  
opposite page.

### Vintage Sailplane 2000 Rally

January 2000

Lake Keepit, NSW. The Vintage Glider Association is  
holding their rally at Lake Keepit, near Tamworth,  
NSW, in early January. Winch and aerotow available.  
For final details contact Ian Patching, ph: 03  
94381497.



# LAKE KEEPIT

## TAMWORTH NSW

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

Contact Jim Stanley - Manager  
P.O. Box S152  
TAMWORTH SOUTH 2340  
Ph: (02) 6769 7514  
Fax: (02) 6769 7640

[www.users.bigpond.com/keepitsoaring](http://www.users.bigpond.com/keepitsoaring)



# New FAI Badges & Certificates

## Summary to August 1999

### A Certificate

LEWIS Scott	10315 Adelaide University
PHILLIPS David	10316 Lake Keepit
HAMEL Daniel John	10317 Darling Downs
KITHER Nicholas Fleming	10319 SA AIR TC
WALKER Jordan Peter	10321 Darling Downs

### B Certificate

WORNER Dean William	10297 Narrogin
CURRAN John Edwin	10304 Beverley

### C Certificate

WORNER Dean William	10297 Narrogin
CANT Phillip Graeme	10289 Central Coast
MACGILLIVRAY Angus Graham	10148 Adelaide University
TREWIN Christopher John	10260 SA AIR TC

### A & B Certificate

I'ANSON Adam Lawrence	10313 Albury - Corowa
GRAY Nigel Laurence	10318 Bathurst
SCHULTZ Simon Anthony	10320 SA AIR TC

### A, B & C Certificate

WETHERSPOON Paul Gerard	10314 R.A.N.G.A.
SOLOMONS Roger Malcolm	10322 Lake Keepit

## Claims for all badges and certificates to:

### FAI Certificates Officer:

Beryl Hartley

106 Meryula Street

Narromine NSW 2821

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

Fax: 02 6889 2933

Email: [hartley@avionics.com.au](mailto:hartley@avionics.com.au)

## Decentralised Competition entries to:

Gary Hollands

92 Grange Road

Westbourne Park SA 5041

Ph: 08 8230 5722 (w), 08 8271 2020 (h)

Fax: 08 8230 4428

Email: [Gary.Hollands@adelaide.on.net](mailto:Gary.Hollands@adelaide.on.net)



# Barossaglide – Update

Barossaglide is an international event to be held in conjunction to the Australian National Gliding Championships – Club Class. The event will take place from Sunday, 16 January to Friday, 28 January 2000 at Gawler in South Australia.

## Yes, you are welcome to compete

The competition is open to any pilot who meets the minimum flying experience requirements – has flown in National championships or major regional championships with approval from their gliding club chief instructor. We expect a large number of Australian pilots to be competing as this will be the final selection event for places in the 2001 World championships at Gawler. We also anticipate a large number of international pilots to attend, and welcome their involvement – pilots preparing for the World championships or pilots simply wishing to experience a major competition whilst enjoying the great weather conditions which are usually available from the site.

## Positions available

Gawler is a large airfield and so there is no restriction on the number of competitors who can be accepted. The type of tasking ensures a safe and fair competition for a wide range of aircraft types. The Australian Club Class competition permits a full range of aircraft types, typically including some wooden gliders all the way through to Nimbus 4D.

## We need your glider

We already have a number of international pilots wishing to participate in the competition and most are looking for suitable gliders for hire. As this is normally a quiet time for many clubs, immediately following all of the club camps with members recovering financially, there is a great opportunity for clubs and private owners to get some involvement in the world comps and make their gliders available for loan or hire. Many people will enjoy providing a car and crew for the competition also, getting to meet pilots from around the world, developing friendships, whilst playing an active part in a major international

competition. Some pilots are wanting to swap gliders with Australian pilots – getting the use of a glider here and making a glider available for your use in Europe during their summer. This is a great opportunity for both parties to have some affordable flying in a different country, during their own countries winter.

If you are willing to hire or loan your glider, or club glider, please contact the competition office – shown on the entry form.

## POST tasking

The club class competition uses POST tasking which ensures minimal gaggles and an opportunity for gliders of quite different performances to compete on equal terms. Over 30 turnpoints have been selected to the north and east of Gawler over some very impressive country – but always within easy reach of large fields and a friendly community.

There will be a number of variations of this tasking to ensure reduced impact from local knowledge and to reduce the randomness of varying weather conditions.

## Grand Prix

Those pilots who prefer not to fly POST tasks, those who enjoy a straight out race, those who wish to participate in a new exciting competition format, will be welcome to compete in the first Soaring Grand Prix championship. With a mix of Australian and International competitors, this will be the fore-runner of the first International Soaring Grand Prix which will be held with the World Championships in January 2001. This is a non-handicapped competition, designed to accommodate previous generation 15m Class and current generation Standard Class gliders (Ventus, LS6, asw20b, Discus, LS8, DG300, etc.). Even older gliders will be quite competitive, with wing loadings restricted to moderate values.

With some spaces available to compete in the Grand Prix during the world comps, there is a great opportunity for pilots to be a part of this inaugural event by staking a claim for a position in the Australian team through competing in January 2000. ✂

## FOR SALE

*(Reluctantly due to work commitments)*

### Soaring Adventures Holiday Coast Pty Ltd

A unique adventure gliding operation based in the magnificent New South Wales resort city of Coffs Harbour – an extremely satisfying and rewarding passenger flying business taking in the ocean and mountain scenery of one of Australia's prettiest coastal areas. Good returns, excellent potential.

This business is well presented and totally professional, based at Coffs Harbour or can be relocated to another resort area.

Everything you need, ready to fly. All the documentation completed.

#### BUSINESS CONSISTS OF

**PIPER PAWNEE D235** (The best in Australia)

Details 1,750 HTR Prop & Engine, Frame 2,373 hrs

**1 BLANIK L13**

*(Both aircraft extremely well presented.)*

**MOBILE BUILDING** (in permanent place) for reception and office, with toilet, shower facilities, kitchen, paved undercover porch

**Excellent RADIO** equipment, leased hangar at Coffs Harbour

**Large advertising banners**

**Mobile phone, etc.**

**CURRENT A.O.C.**

**Arrangement** with a privately owned airstrip at Yamba for use during the year for joyflights and training, flying over the second largest delta area in Australia.

#### WILL SELL SEPARATE

**P.O.A. Phone – 0412 305799**

**Email – gliders@midcoast.com.au**

# Hangar Talk



PETER MCLEAN

I start this article by stating that the test flight of this new wing is my honest opinion. The manufacturers know this too, so what you read will be warts and all.

After ordering the new Streak wing, I couldn't wait for its arrival. Emails were going backwards and forwards between Airborne and myself on a regular basis. They must have been getting sick of hearing from me, but I thank Phil for putting up with it. You see, I was really eager to get our new wing.

I finally got the good word, "It's arriving tomorrow." Did I get much sleep that night? Yes, I slept like a log! I had the flu and was doped up good and proper. Tomorrow came, the truck arrived, the rear doors opened... and there it was, all wrapped up in its cylinder. The truck driver started to lift the wing out of the truck and we saw that the cylinder was damaged, big time! He said, "Mate, it was like this when I picked it up." That's right, blame someone else, I thought. What a start! I was not happy with our new wing being chucked around in the back of someone's truck like it obviously had been. Anyway, the truck left and Anne and I started to look at our new wing. We unzipped the bag and found that the pad set for this wing is just brilliant. In the past, I have had to cover a number of my Executive wing parts with cloths and thick old socks to protect them, but this wing had covers for all the vulnerable areas. Except one... and to our horror it had damaged the new wing. Somehow the quick release fitting for the nose had found its way from the middle of the wing to the outside, then ripped a hole in the bag and almost in the leading edge as well. You can imagine what we both said.

### Rigging

Unfortunately we were not able to rig the wing due to the weather and also my flu. A very long three days passed before we were finally off to the airfield for a test fly. We decided to set up the wing before taking our trike base off the trailer, just in case there was some structural damage from the dispatching problem. We paid special attention to the aluminium in the leading edge under the position where the mylar had been dented. If even a scratch had been evident we wouldn't have flown

it at all. Luckily all the damage was superficial. The set up was great, with even the battens going in easily. The use of velcro was flawless, and the kingpost comes right out of the keel. I noted again that the protective covers do exactly that! I could go on and on about the set up, but I won't. All I'll say is that it was very easy, and it actually only took the time recommended by the manufacturers, about 20 minutes. With the set up complete it was time to get the trike base off the trailer. Bugger, we had a flat tyre.

Oh well, never mind. We fixed the tyre and were then ready to attach the wing. The attachment point has three holes to alter your centre of gravity. I chose to use the centre position and went up solo to get a feel for the new wing before taking Anne up.

### First Flight

I started the engine and taxied to the end of runway 34. I decided to take off with the in-flight trim around the halfway mark. Power smoothly up, then off. I'd only got to 5,000rpm before becoming airborne, and climbed to 1,500ft in a remarkably quick time. I then turned and flew a circuit. I now know just how quick this wing is, for as I passed Anne the airspeed indicator showed 65kt. Two more passes followed, with the trim in different positions.

Now for the climb rate. From a flight level of 1,000ft to an altitude of 2,900ft at 6,000rpm, it was very close to 900fpm. Descending was something else. Throttle back and bar in gave 1,600fpm at 73kt while fully controllable.

To try a stall I climbed back to 3,000ft and throttled back with bar out, waiting for the stall... waiting for the stall, waiting for the... oh, there





Left: Climbing out at 900fpm and 5,000rpm after take off.

Right: Anne and Peter McLean, two proud owners.

All photos: Peter McLean

it is. This wing is not easy to stall, and the recovery was easy as well. As a matter of interest I do not recommend that anyone goes looking to stall any weightshift aircraft, unless you have plenty of altitude.

To test the manoeuvrability I turned and burned from 50kt to 70kt, up, down, and around the hills. I had full control of the aircraft. Yaw was a slight problem at the start, but this is because the Executive wing I am used to has a fin, which stops most of the yaw. I am quite used to tight turns, and this wing makes them even tighter.

## In-flight Trim

I climbed to 2,500ft and set the throttle at 5,300rpm. On the fast setting, the bar was hands free at a speed of 60kt IAS. Then with trim back to the halfway point the bar moved forward and the speed dropped to 50kt IAS; but the aircraft started to climb, so I pulled the bar back. With trim at the slowest position the bar went all the way forward and I started to climb again. I throttled back to 45kt IAS. I am happy with the trim on this wing, it works really well.

I first tried a landing with the trim in the full slow position. Not a good idea. The landing was slow but very bumpy, as my aircraft just didn't want to stop flying. Next, a landing with trim halfway. This went well. The landing was spot on, stopping right where I had intended. I then executed a landing with the trim in fast position (while watching the sink rate and not trying a glide approach because I probably wouldn't make it). I came in with plenty of power to spare, and had to do a full short field approach. I only just stopped at the position on the runway I had chosen.

## Two-up Flight

The second flight for the day was with Anne in the back. Take off and the climb rate was not far off the solo rate. We tracked to Yea at an airspeed of 57 to 60kt IAS, and our ground speed was 55kt. Anne noticed the difference as soon as we were airborne, remarking that the flight felt quite different. She also regretted not rugging up more. The extra speed created a noticeable increase in windchill factor! Together, we conducted most of the flight manoeuvres that I had done on the first flight, and to be quite honest the aircraft's response was much the same (though the in-flight trim worked even better with two). I made sure that we flew through moderate turbulence, and it was no different to how my Executive wing reacts. However, my Executive wing handles turbulence much better than most other wings anyway. Why? I don't know.

## Main Points

In conclusion, the wing's good points are: speed and the manoeuvrability; the way the wing is protected when packed; the



ease of set-up; and a few other little extra things designed into the Streak wing.

As far as bad points go, I really haven't found any yet.

However, a word of warning for anyone thinking of getting a new Streak Wing. If you have the Executive Wing and you are upgrading, pay attention to all aspects of flight with the new wing. It has the potential to catch you out, due to the higher airspeed. However, it shouldn't take you long to get up to speed with the new wing. If you are a Wizard Wing owner, I strongly recommend that you get at least two hours of coaching from someone who regularly flies a Streak Wing. I couldn't even compare the two wings, they are very, very different. Beginning with the sheer speed and sink rate, the landing approach is also vastly different to the Wizard. The Streak Wing is sold as a high

performance wing, and that's just what it is!

## What do I Think?

So, how much did I like it? WOW! That's how much! I like it, no, I love it. From set-up to pack-up it was fun. The flying (all 1.4 hours) was some of the best I have had in a trike. I'm looking forward to hundreds more hours of fun in the future.

I have heard a lot about trikes made overseas and how good they are. Well, my research indicated that the majority of these companies have finished the development stage and are now into the sales stage, quite content to stay there. Airborne Windsports have been through the development stage, and the sales stage, then they put their brains back to work and started the development stage again (first with the Wizard Wing, ideal for initial training and flying, and now the high performance Streak Wing). When I was first looking for a trike I could have bought any on the market. I chose to buy the Edge and have never regretted that decision. All I can say is thanks to everyone at Airborne for keeping up the development on a really good aircraft, designed with Australian conditions in mind.



## Competition



### WIN A LAZER HELMET!



**Raptor Designs** is pleased to announce a contest in association with the new Dynamic Flight Park!

**The first person to fly out of Victoria into New South Wales or South Australia after the opening of the new flight park will win the Lazer soaring helmet of their choice!**

**Entry forms will be available at the flight park.**

#### Conditions:

1. Employees and business owners of the Park are not eligible for the prize! (sorry Rohan)
2. The flight must be in an unpowered soaring hang glider or paraglider, and must originate from the Flight Park estate, and terminate anywhere in New South Wales or South Australia.
3. You will need to provide some acceptable evidence that that you succeeded in flying interstate, preferably the signature of a landing witness. Information supplied will be checked.
4. The judges of this competition shall be Raptor Designs Pty Ltd, and decisions by the judges shall be final.

#### Sponsored by:

##### **Raptor Designs**

distributors of and manufacturers of light sports aviation communications equipment.

**[www.aerialpursuits.com](http://www.aerialpursuits.com)**

### 1999 Class 1 Australian National Ladder – Top 50 (1 April '99)

Rank	Name	Total	NSW99	WAS99	SAS99	NATS98	SEQ97	NATS99	NSW98	BCUP98	BCP99	FBS99	SEQ98
1	COOMBER, Kraig	1254.4						446.6			450.0		357.8
2	HOLTKAMP, Rohan	1183.5						440.5			383.0		360.0
3	REBBECCHI, Joel	1138.3						355.3			423.0	360.0	
4	HEANEY, Grant	1077.9						450			305.0		322.9
5	MOYES, Stephen	1047.8						367.6			350.9		329.3
6	PATON, Len	867.4	204.4					383.1				279.9	
7	HEANEY, Tove	835.9						237.8			328.0	270.1	
8	FREEMAN, James	823.2						287.1			261.9		274.2
9	JACKSON, Mike	759.3				250.6				203.6			305.1
10	BEAVIS, Alan	689.5				218.4					249.4	221.7	
11	DURAND, John Snr	685.7	215.6						200				270.1
12	DURAND, John Jnr	670.5	177.4								284.3	208.8	
13	WELLINGTON, Dave	663.4		230.0		151.4		282					
14	MACLEOD, Glen	659.6	232.7						198.7				228.2
15	LOWREY, Tony	626.4				192.8					230.5		203.1
16	SCHROEDER, Phil	611.7	191.5			191.8					228.4		
17	REDMAN, Dave	605.0	198.1				165.7						241.2
18	WAGNER, Derek	560.9				133.1		278.7		149.1			
19	ADAMS, Dave	544.4				354.1	190.3						
20	SATCHELL, Hugh	539.7				179.8					152.1	207.8	
21	DAVIE, Garie	535.7	185.2						175				175.5
22	STRICKLAND, John	477.3	174.3				159.1						143.9
23	BULL, Neva	456.8	150.9			197.7	108.2						
24	HUBBARD, Guy	455.0				267.4						187.6	
25	McGREE, Colan	447.2				150.2	135.2						161.8
26	HOEFS, Stephen	445.5				283.2				162.3			
27	ROSE, Mike	441.1								288		153.1	
28	COOPER, Drew	423.3					145.5						277.8
29	BLINKINSOP, Steve	423.2			230.0		193.2						
30	GORDON, David	417.0				204.3						212.7	
31	CAUSER, Tim	415.8	104.0									150.0	161.8
32	GONSALVES, Bernie	414.1					140.4						273.7
33	WORTH, Craig	409.2	165.4						97.7				146.1
34	McLOSKEY, David	395.4				325.1						70.3	
35	STAVAR, David	385.5	158.6				28.8						198.1
36	SUMMONS, Harry	369.8				190.9						178.9	
37	HOLMES, Andrew	369.8		210.7				159.1					
38	KAMBAS, George	369.6			185.7					183.9			
39	THOMPSON, Mark	369.2		133.5				235.7					
40	ZWAHLEN, Bernard	368.9	113.4						125.7				129.8
41	SPEIGHT, Darryl	367.0		118.6				248.4					
42	KNIGHT, Tony	365.3					124.4						240.9
43	CASSAR, Ray	357.1				195.5				161.6			
44	BIESKE, Gordon	354.6					157						197.6
45	WORTH, Matthew	354.2	156.1									102.4	95.7
46	MERSHAM, Neil	352.5					144.6						207.9
47	RUCKREIGAL, Karl	346.4		142.6				203.8					
48	OSBORNE, Tim	326.7				145.2					181.5		
49	REES, Ian	323.5				152.4						171.1	
50	HUNT, Steve	321.6	116.3			102.4						102.9	





## 1999 Hang Gliding World Championships Results

The top 20 positions are as follows:

Pilot	Country	Glider	Points
Manfred Ruhmer	AUT	Icaro Laminar	5,198
André Wolf	BRA	Icaro Laminar	5,120
Pedro Matos	BRA	Icaro Laminar	4,901
Betino Schmitz	BRA	La Mouette	
		Topless	4,730
Gordon Rigg	UK	Icaro Laminar	4,729
Richard Walbec	FRA	Wills Wing Fusion	4,703
Steve Cook	UK	La Mouette	
		Topless	4,596
Oleg Bondarchuk	UKR	Aeros Stealth	4,578
Alvaro Sandoli	PAR	Moyes Litespeed	4,466
Gérard Thévenot	LUX	La Mouette	
		Topless	4,462
Luiz Niemeyer	BRA	Icaro Laminar	4,365
Sandy Dittmar	VNZ	Wills Wing Fusion	4,293
Allan Barnes	UK	Icaro Laminar	4,291
Guido Gehrman	GER	La Mouette	
		Topless	4,253
Stephen Moyes	AUS	Moyes Litespeed	4,220
Jobst Baeumer	GER	Aeros Stealth	4,217
Daimon Koji	JAP	La Mouette	
		Topless	4,202
James Lee	USA	Wills Wing Fusion	4,094
Christian Ciech	ITA	Icaro Laminar	3,958
Alessandro Ploner	ITA	Icaro Laminar	3,944

### Other Australian contenders:

26 Joel Rebecchi	AUS	Moyes Litespeed	3,512
85 Tove Heaney	AUS	Moyes CSX4	2,366
109 Phil Schroeder	AUS	Moyes CSX5	1,894
110 Grant Heaney	AUS	Moyes CSX5	1,885
120 Len Paton	AUS	La Mouette	
		Topless	1,629

## World Pilot Rankings Update

Following the hang gliding world championships, only 8 points now separate the top 5 ranked pilots. Gérard Thévenot (LUX) still leads the hang gliding rankings with 302 points, 4 points ahead of Manfred Ruhmer (A, 298). Steve Cook (GB) has moved up to 3rd with 297 points. Richard Walbec (F) has moved from 7th up to 4th. Oleg Bondarchuk (UKR) drops to 5th (from 2nd). Guido Gehrman (D) and Alan Barnes (GB) maintain 7th and 8th positions. Newcomers to the top 10 are Gordon Rigg (GB, 6th) and Betinho Schmidt (BRA, 9th). André Wolf (BRA) has dropped from 8th to 10th.

In the females, Françoise Moçellin's (F) inclusion in the French Team and 63rd place at the World Championships, gives her a strong lead in the female rankings and puts her in 22nd place overall with 181 points. Kathleen Rigg (GB) is 2nd female on 88 points, with Marie Jo Rufat (F) 3rd on 70 points.

There are now 458 hang gliding pilots ranked.

The paragliding rankings have seen the addition of the PWC events in Piedrahita, Spain and Morzine with 8 points separating the top 5 ranked pilots. The Swiss dominate with 6 pilots in the top 10 places, however it is Austrian Christian Tamegger who currently heads the paragliding rankings with 276 points. Hans Bollinger (CH) has moved up from 4th to 2nd with 275 points. Jimmy Pacher (I) maintains 3rd place with 272 points. Kaspar Henny (CH) is 4th (from 7th), Kari Eisenhut (CH) has dropped from 1st to 5th, Peter Von Kanel (CH) is now 6th, with Patrick Berod (F) and Peter Luethi (CH) sharing 7th. Steve Cox (CH) is now 9th with Stephan Steiglair (A) 10th.

Claire Bernier (F) heads the female rankings and is 57th overall ahead of Sandie Cochepain (F, 66th overall) and Petra Krausova (CZE, 74th overall).

There are currently 481 pilots ranked.

Full rankings can be found on FAI/CIVL website at [www.fai.org/hang\\_gliding/](http://www.fai.org/hang_gliding/)

## New FAI HG Record Claim

Sub-class 0-2 (HG with a rigid primary structure/movable control surface(s)) – General Category

Claim number 6230

Type of record: Straight distance to a declared goal

Course/location: Segeletz Airfield (Germany)

Performance: 271km

Pilot: Claus Gerhard (Germany)

Hang Glider: to be advised

Date: 1.8.1999

Current record: 170.3km (26.6.93 – William Woodruff, USA)

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

## Steve B Soaring

The Australian agent for

# ICARO

- Laminar 2
- Atos rigid wing
- Skyrunner helmets
- Paragliding Airbags



Also selling



- new Conar back-up chutes
- Deltastop drogue chutes

See [dove.mtx.net.au/~sblenk/](http://dove.mtx.net.au/~sblenk/)

e-mail [sblenk@dove.net.au](mailto:sblenk@dove.net.au)

Phone 08 83741080

## NZ PG TOUR

Over the past two flying seasons I have operated with great success paragliding package tours of New Zealand. On both prior tours, flying was attainable to all pilots everyday. This year I'm offering two tours, one especially for the novice pilot. Your tour guide has Level I instructor ratings and a good knowledge of local sites visited. A great opportunity for novice pilots to experience a range of coastal and inland flying.

### PACKAGE INCLUDES

Airfare ex Sydney • Transport Average 3,500km • Nine Sites Available • Accommodation 12 Nights • Light Breakfast • 10,000ft Tandem Skydive • Bungee Rocket Ride • River Jet Boat Ride • NZ HGPGF Fees

TOUR DATES January/February 2000

TOUR COST AUD\$2,100

FOR DETAILS CONTACT

MARCUS ROWLANDS

34 Ada Street, Bexley NSW 2207

Phone: 02 9570 7095

SYDNEY PARAGLIDING CENTRE

Mark Mitsos

PO Box 225, Helensburgh NSW 2508

Phone: 02 4294 9065

Email: [spc@ffa.com.au](mailto:spc@ffa.com.au)



# Blue Days in Summer

TOM BRADBURY

Reprinted from *Sailplane and Gliding*

For many seasons we have tried to get more information on blue thermal days and how they may be exploited.

Now Tom Bradbury tackles the subject to help you capitalise on these elusive conditions.

In some years, especially when spring and early summer have been very dry, there are many days when the skies remain blue. The lack of cumulus clouds often disheartens the early cross-country pilot. Most people like some cloud to show where there may be lift. What follows is an explanation of why some days remain cloudless and where one may find lift out of the blue.

## The evolution of blue days

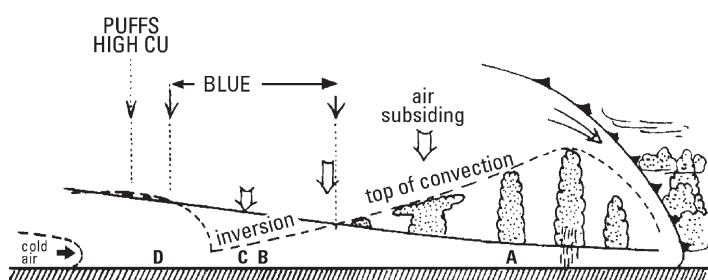


Figure 1

Figure 1 shows a cross section of weather following the passage of a cold front (shown moving off to the right). There is often a rather narrow clear zone just behind the cold front caused by air subsiding and drying out the cloud. Then the deep cold air moves in and cumuli build up to give showers. If a region of high pressure follows, the air aloft starts subsiding. As it sinks it warms and forms an inversion which limits the top of convection. At the same time the arrival of drier air raises the condensation level so that the base of cumulus becomes higher.

There may be a stage before the air has dried out sufficiently, when the cumulus spreads out under the inversion to form an almost total cover of cloud. If the high pressure lasts long enough the subsidence inversion descends below the condensation level. Then the thermals are prevented from rising high enough to form cloud and blue days arrive.

If the subsidence continues strongly the inversion may sink so low that the convective layer becomes too shallow for proper thermals to develop. I recall a hot blue day at one of the first Nympsfield competitions when John Williamson was the only pilot to set off. He headed out across Gloucester and then went to Cheltenham and finally landed on Cheltenham racecourse, some 28km away. In all that distance he found no lift, even over the towns.

When the inversion sinks very low the sunshine has only a shallow layer to warm up. One day of strong sunshine almost destroys the inversion so that the next day very little extra heat is needed to break it. This is shown in the diagram by the top of the convective layer shooting up several thousand feet.

At the extreme left hand of the diagram there is a little intrusion of cold air. An example of this occurred on 4 August 1990 when the north-westerly winds brought undercutting cold air. This ruined the day for the Open Class competitors; none got through beneath the newly formed very low inversion.

## Changes in the temperature aloft

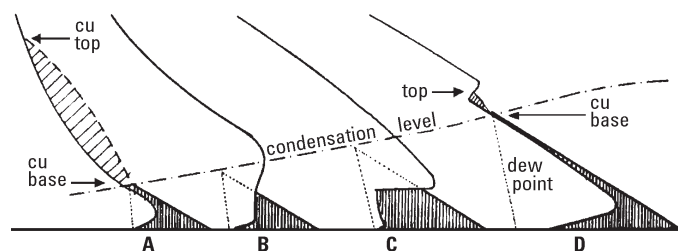


Figure 2

Figure 2 shows how the temperature profiles change as a high moves in. The letters along the base of Figure 1 are repeated in Figure 2 to show the approximate positions of the soundings.

"A" shows the traditional cumulus sounding at dawn. The vertical hatching shows how the heating warms up the lower air. The straight line is a dry adiabat (the rate at which a blue thermal cools as it rises). The diagonal hatching represents the energy supplied by the condensation within a cumulus cloud whose base and top are marked. The almost vertical dotted line is the dew point. Where dew point meets dry adiabat is the condensation level.

"B" shows the first blue day when the subsidence has warmed up the air so much that thermals no longer rise to the condensation level.

"C" shows a variant where the inversion is particularly strong. This tends to inhibit thermals severely, especially when the lid is only about 2,000ft. Notice that the shaded area representing the heating almost reaches the top of this inversion by late afternoon. Next day far less heating is required to break the inversion and let the thermals rise much higher.

## The sudden breakthrough

"D" shows how the lowest layer is easily warmed up during the following morning so that by about midday the inversion has been broken and thermals can shoot up. Some thermals go so high that puffs of cu appear. (These are apt to disappear again soon.) Such puffs are most deceptive to a ground observer. Even experienced pilots can be fooled into thinking they are only scraps of low cumulus. One day last May several Nympsfield cross-country pilots were sitting about watching these feeble looking puffs and saying it was too early to launch. Then someone spotted a K-13 from Aston Down fly overhead; it was a mere speck in the sky and must have been at great height. After the subsequent scramble for a launch the first off reported the cloudbase was 6,400ft above the site. A similar puff appeared over Lasham in August while the competition director was debating when to launch his huge fleet of sailplanes. At that moment Alpha Lima called, "6kft with cloud-base 8,000ft near Hungerford."

The feature of such days is that once the temperatures have passed the critical value the conditions change from totally unsoarable to absolutely booming in a very short time. This is in contrast to most days when lift slowly improves and only becomes good two or three hours after thermals have started.



## Finding lift in the blue

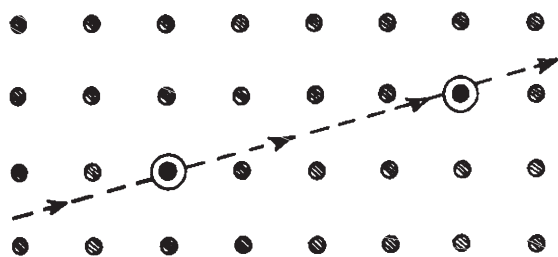


Figure 3a

It used to be conventional wisdom that you were bound to find a thermal if you flew straight on track, just as you were sure to bump into a tree walking blind through the woods. Figure 3a illustrates this theory; the "trees" are tidily set out as in an orchard, but clearly there is a good chance of bumping into one or two as you fly along the dotted line. Unfortunately the faith and blind hope principle can let you down on many days.

## Streeting

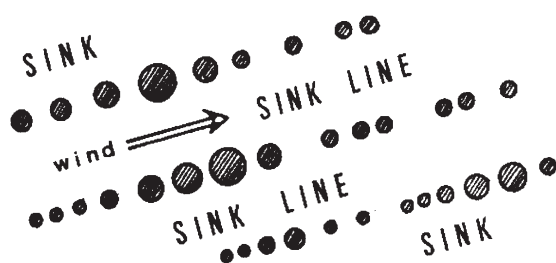


Figure 3b

Figure 3b shows how thermals may be distributed when there is a moderate breeze and the lift has formed into invisible streets. Now if you fly in the same direction as in "A" there will be either an almost constant line of thermals, some bigger than others, or a permanent line of sink. If the sink goes on for a long time the track is probably almost parallel to one of the sink lines. Pundits are quick to recognise this but lesser mortals may press on through the sink believing that they must be nearing a good thermal. One pilot told me he left a thermal at 6,000ft and found sink all the way down until he landed.

It is worth noting that true thermal streets do not originate from specific hot spots like towns; they are a feature of the atmosphere that can equally well develop over the oceans. Towns do send off a train of thermals, which move away downwind. These behave like a short-lived street but the effect seldom extends very far.

## Thermal clumps

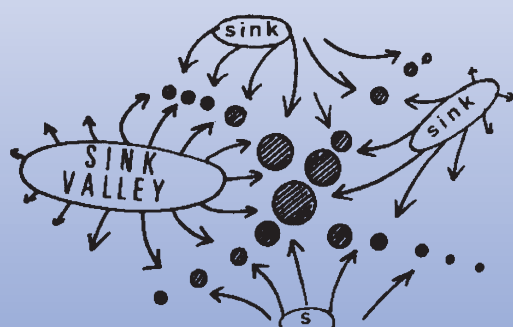


Figure 3c

Figure 3c shows another type of distribution, which can develop on an almost calm day after thermals have been going for a couple of hours or more. This is the "thermal clump", an irregular area where many

thermals seem to have gathered together. When you reach a thermal clump only a proportion of the thermals will be active at any one time. Approaching it one finds the air getting more lively with the vario giving encouraging squeaks well before one reaches the strong thermals. Leaving such a clump one keeps on running through quite acceptable thermals. Bouncing through these, one can maintain height for some distance before the air goes dead.

## Sink valleys

Thermal clumps seem to occur not far from valleys of sink, unlike the better known streets of sink, these sink valleys are not aligned along any particular direction. They seem to be part of a larger circulation with outflows from areas of sink converging to boost thermals where they meet. On the ground one experiences light variable winds which unexpectedly start to blow briskly from the sink valley towards the unseen clump of thermals. Bonfires and chimney smoke occasionally reveal this low level convergence but in hot summers bonfires are rare and all the factory boilers seem to be out. It is extremely distressing to fly through a sink valley on a blue day. There is often nothing to show where it is or how it is aligned. Sink valleys seem to extend for several miles. Variometers indicate long periods of 6-8kt down and flight directors scream "faster... faster!" as you approach  $V_{ne}$ .

## Variations of surface

Thermals seem to be more common where there is a strong contrast in the surface so that one area quickly becomes hot while an adjacent region is slow to warm up. For example during the heat of the day wide areas of ripe corn with cooler woods nearby seem to be a fruitful source of thermals. Although woods are slower to warm up they do retain their warmth at the end of the day. Then, towards evening, one may find weak lift coming up from wooded areas. This lift may in part be due to the extra moisture. Trees transpire a surprising amount of water vapour during a sunny day and the addition of water vapour slightly reduces the density of the air, making thermals possible when temperatures are a little lower.

## Lift over towns and airfields

Towns and large concrete covered airfields are the most obvious places to find lift. They become hotter than the surrounding countryside and so provide a steady source of thermals. However, they are not 100% reliable. One might suppose that the larger the town the better the chance of finding a thermal; oddly enough this doesn't seem to be true. Some small to mid-size towns appear to work better than the really big ones. One can waste a long time searching over a big town such as Swindon (one of the usual topping up places for cross-country from many clubs). Although Swindon rarely fails completely the best thermals are sometimes right at the edge, or in one distant corner. Gloucester is another town whose lack of thermals has worried me. In contrast Cheltenham always seems helpful. You can make your own list.

Figure 4a shows the text book example of a nice thermal right over the middle of the town. Figure 4b shows a more common variation. One first flies through heavy sink, then the expected thermal is encountered and all seems well. After heading off on track a better thermal comes up from the high ground.

Figure 4c is the nightmare situation. The usual sink starts as you approach the town but, alas, you are just too late. The only thermal left a couple of minutes earlier and the next one is not due for ten minutes. All that is left is the wake turbulence. Spending too long in this leaves insufficient height to reach the hills beyond which still have good lift.

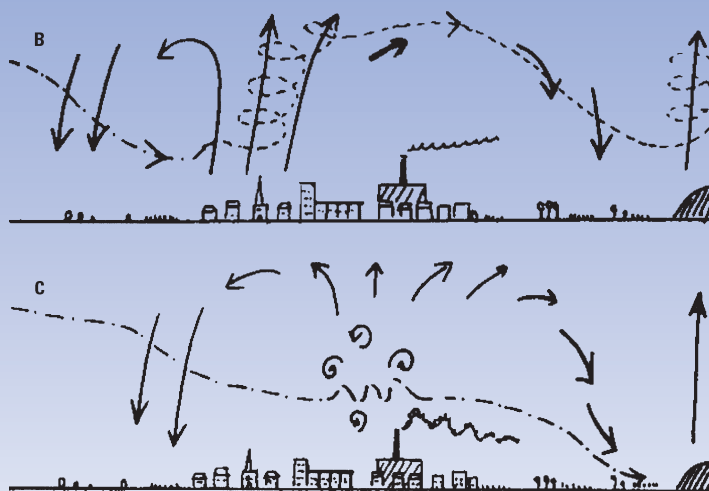


Figure 4

## Power stations

Large power generating stations with their collection of cooling towers, mountains of black coal and surrounding buildings are always worth a try. On sunny weekends one can almost always meet one or more sailplanes topping up over Didcot; the largest number I know off was 11 at one time, but I suspect this was a lead-and-follow school. However, not even Didcot is infallible; in heatwaves it occasionally seems to take a mid-afternoon siesta.

## I will lift up mine eyes unto the hills from whence cometh my help

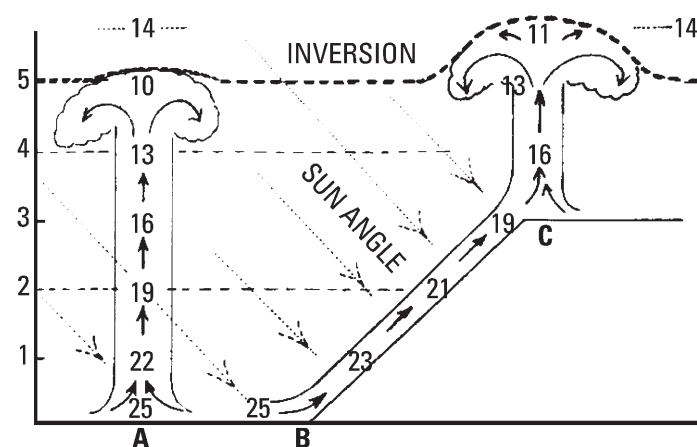


Figure 5

The author of Psalm 121 spoke these words centuries ago, but they certainly seem true for soaring pilots today. Hills are usually good thermal sources for two reasons. First they are usually drier than the valleys and so less of the sun's heat is wasted evaporating moisture; secondly those parts which slope towards the sun get more intense heating. In middle and high latitudes a sunny slope may get at least 30% more energy from the sun than level ground. Figure 5 shows some of the advantages of a hill. The left hand thermal rises from the plains, cooling at 3°C per 1,000ft and coming to a hold at 5,000ft where it meets an inversion. The air on the right rises up a sunny slope and gathers extra heat from the hillside as it goes. It doesn't start cooling at the 3°C rate until it breaks away at the hilltop. Over a modest English hill this only adds a little extra power to the thermal but among the Welsh or Scottish mountains it can be a significant extra boost. Among high mountains such as the Alps thermals are almost entirely controlled by the alignment of slopes and ridges.

A thermal off a flat plain takes a limited amount of heat up and then activity ceases until that patch of ground warms up again. Over a

sunny slope a thermal draws in air from several sides to produce much longer lasting lift. Even if there is a very solid inversion thermals over the hills tend to push up through to give extra height. If the inversion is weak the hills may send thermals thousands of feet higher than over the plains. In really bad years, when excessive rain has turned the low ground into a chain of water meadows, thermals are largely confined to the hills; soggy valleys are just traps for small span gliders.

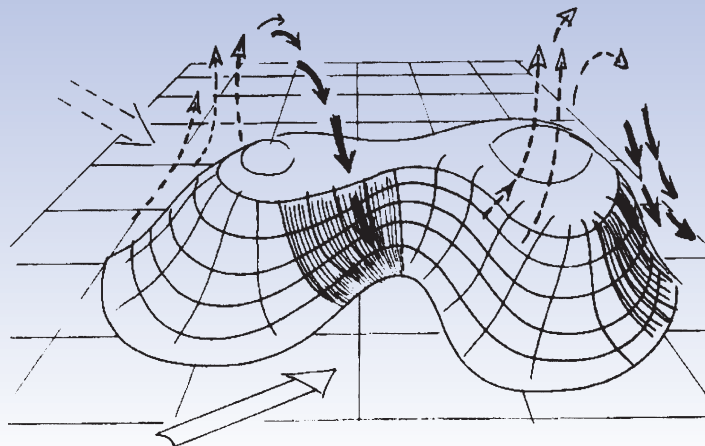


Figure 6

Even quite small and isolated hills which barely reach 800ft above the plain seem to attract warm air from the surroundings and channel it upwards as frequent surges of lift. Figure 6 shows an attempt at a 3D sketch of a pair of hills with thermals coming off the sunny sides and sink going down over the shaded slopes.

## Avoiding sink

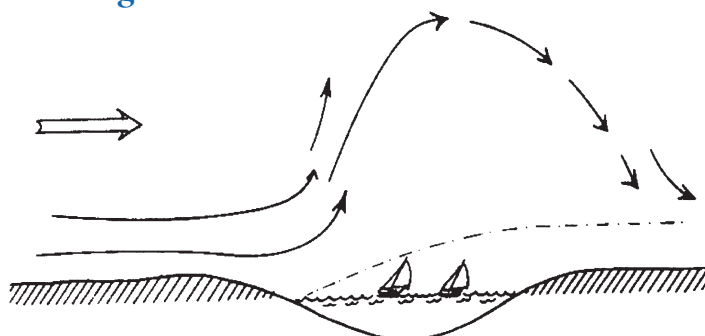


Figure 7

One generally has to accept areas of sink as a normal hazard like bunkers on a golf course but there are some obvious areas to avoid. The shady side of a large hill, especially if this is also the downwind side, is likely to have sink. The region downwind of large lakes is (not surprisingly) a poor area for thermals and may become a zone of steady sink. Figure 7 shows the wind blowing across a lake with either no thermals or a region of sink for some distance to leeward. Rather surprisingly one may find thermals breaking away very close to the upwind side of a large lake. This is an example of a thermal developing where there is a big contrast of surfaces. Both effects may occur near the Cotswold Water Park south of Cirencester.

## Wave effects

There is often a vertical windshear at and above the inversion. If the winds increase with height above the inversion there may be waves which interfere with thermals below. On one competition day an easterly wind was blowing across the Cotswolds. One non-competing pilot reported wave to about 6,000ft over the Cotswolds. Competitors flying near the western slopes of the Cotswolds found that thermals were absent or unworkable just to the lee of the Cotswold edge but



a few miles westward over the Severn valley was a line of regular thermals more or less parallel to the hills. Similar effects can occur to the lee of any line of hills. This effect can be baffling if one expects lines of sink to be due to streeting along the wind direction. Waves tend to produce lines of thermals and sink across wind.

## Windward coasts

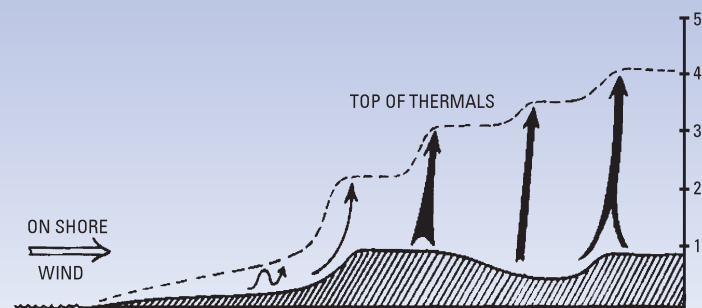


Figure 8

It is well known that when there is a steady wind off a cool sea the air has to travel many miles across the hot land before the sun's heat sets off any thermals. Figure 8 illustrates how the top of thermals rises as the air moves inland. The example is taken from the southern Cotswold when there is a WSW wind coming off the Bristol Channel. It is also true of the south coast of England. For example southerly winds at Lasham can severely limit thermal tops but by Newbury conditions become much better.

The diagram shows no useable thermals until the air reaches the western edge of the Cotswolds. There the slopes set off quite strong but sadly short-lived thermals which die out, sometimes before reaching 1,500ft asl. A few miles further inland the thermals may extend another thousand feet higher. With such winds there is an enormous difference between Nympsfield and Aston Down. At Nympsfield it may be hard to stay up directly over the airfield but going downwind takes one into far better thermals within 10km. The barograph trace of a pilot returning to Nympsfield from the east looked rather like a flight of stairs. The top of each successive climb was stepped down several hundred feet and the last was barely high enough for the final glide.

## Lift in blue thermals

Some thermals, usually those that are set off by the meeting of two opposing outflows, seem to leap off the ground as if a spring had been released. Most thermals start off slowly and gather speed as they rise. This is an excellent reason for keeping high; more time and perspiration can be lost trying to improve on a 1/2kt thermal at 500ft than is wasted by topping up with a few turns in mere 3kt higher up.

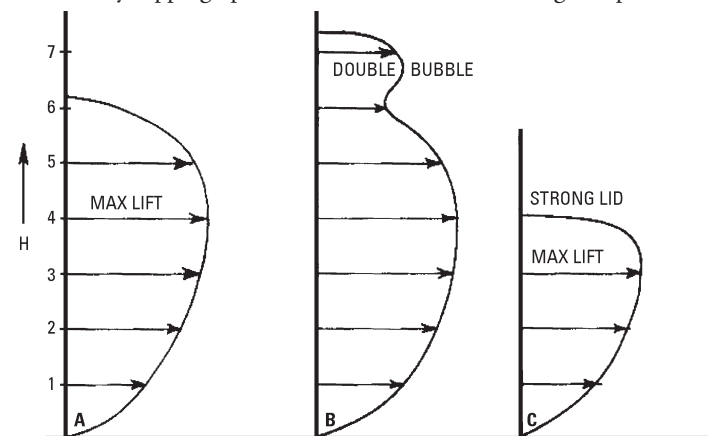


Figure 9

On average the higher the thermal goes the stronger is the lift. Figure 9 illustrates the distribution of lift in a blue thermal. (The omission of actual figures for lift is deliberate.) "A" shows a thermal rising into a stable layer with no marked inversion aloft. The lift builds up to a peak, which may be about 2/3 the way up to the top, and then decreases as the thermal nears the stable layer. There is often a considerable depth of air where the lift does not alter very much. As one nears the top the rate of climb dwindles to an unacceptable value and most pilots set off on track.

"B" represents what a timid pilot may occasionally encounter. While hanging about wondering if an extra few hundred feet may be squeezed out of the dwindling thermal a second bubble comes shooting up along the path of the original thermal and suddenly there is more height to be gained. Just occasionally such timid behaviour pays off; the double bubble carries one up above the haze layer and gives a few miles of totally smooth glide. Then the aircraft sinks back into the top of the thermic layer where the remains of many defunct thermals still churn about creating useless turbulence.

"C" shows what happens when there is a really solid inversion. The lift suddenly shuts off dropping from 4kt to nothing within a single turn. There is no point in hanging about hoping for a second bubble to take one higher. Second and third bubbles come to a halt at the same level.

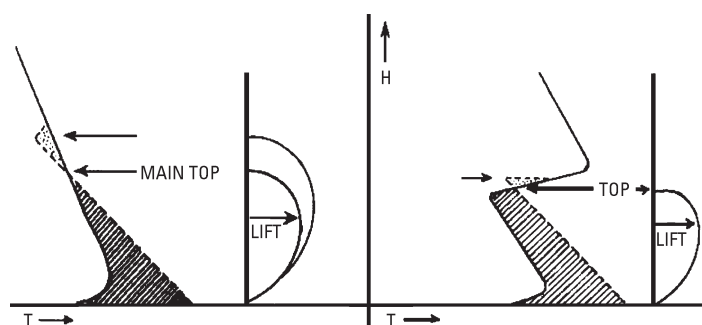


Figure 10

Figure 10 shows the kind of temperature profiles which produce the difference. In the left hand diagram there is just a slightly stable layer aloft and the thermal slows down gradually; some stop where the dry adiabat meets the temperature profile while others, especially the "double bubble" type, can push some way into the stable layer before drying out. A rough indication of the lift is shown alongside. The right hand diagram shows a very strong inversion with the temperature rising several degrees over 100ft. Thermals may bump into such an inversion with lots of momentum but they come to a halt very quickly. All thermals, weak or strong, tend to stop at much the same level.

## Working the double bubble thermals

Figure 11 shows what one may find when there is a slight sheer of wind. The thermal starting from "A" rises almost vertically (in spite of the wind) until it loses lift. Then it begins to tilt over with the wind. One does not always notice this since it is not necessary to shift circles to keep in the lift. However, at level "B" the lift is clearly fading away and even hesitant the pilot will be compelled to abandon it at "C". Pilots hanging on beyond "C" are just wasting time.

The thermal starting at "D" behaves like its predecessor. At "E" it weakens and starts to tilt and by "F" practically all pilots would have left. However, the ultra-timid widens the circles more in hope than expectation and runs into the second bubble (G-H). This has come up along the path of the original but is still strong enough to resist wind tilt. Very cautious pilots usually make snail like progress, so I always thought. However, there seem to be some pundits with the ability to



feel that the old thermal is not quite done for. They are much quicker to spot the effect of wind shear, know where to find the next bubble and use the extra height to whiz around triangles without losing any time.

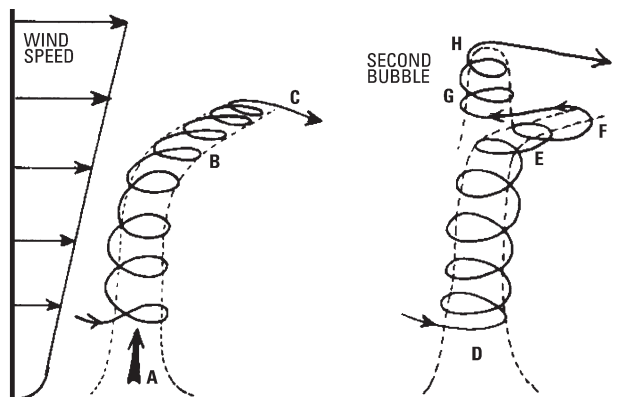


Figure 11

## Reading the haze

Although one sometimes finds exceptional visibility, the majority of blue days are also hazy. Flying from hazy into very clear visibility may also mean flying from strong thermals into weak ones. A little haze can be useful. If you use polaroid or similar type of spectacles the start of blue thermals may be seen from the ground. The sky becomes faintly mottled where thermals have concentrated pollution under the inversion.

Seen from the air the tops of thermals often produce haze caps; these are valuable guides to lift, especially when the thermals are part of

a clump. If the lift under one cap has ended there is still a good chance of finding a new thermal nearby. These little domes of haze show up best when flying into sun. Particularly strong thermals such as the "double bubble" can put a haze cap several hundred feet above the normal haze top; from along side you can see blue sky between this haze cap and the main haze layer.

Very strong inversions are often marked by a sharply defined haze top. Stable layers without marked inversions also have haze tops but the boundary between clear air aloft and haze below is not so well defined. If you use a powered aircraft to make an early morning temperature sounding you may find the haze thins out gradually and appears to consist of several layers. Occasionally yesterday's hot hazy air is undercut by today's much cooler air. This not only produces a new and much lower inversion but also raises the old haze layer well above the ground. Then the low-level visibility becomes good but the blue sky still looks hazy. The soaring is apt to be poor because there is not enough room for decent thermals beneath the new inversion.

*Tom Bradbury is a noted British meteorologist. His series of weather articles has been recognised as one of the finest collections of teaching about soaring weather ever written. For over 40 years, Tom served in the British Meteorology office and at many RAF airfields. In a soaring capacity, he has acted as a forecaster for gliding and microlight contests and has accompanied the British Gliding team to the World championships.*



- Supplied with antenna, leads, AC adapter, mounting bracket, software and manual
- Suitable for club pilot or private owner.

## LX COLIBRI GPS Data Logger

An ultra-compact logger, which does away with the need for a separate barograph, turnpoint camera(s) and handheld GPS! The LX COLIBRI **does it all**.

- Smallest logger on the market, 98x59x35mm.
- Operation 10-24V, 100mA current drain.
- **In-flight Navigation** screen displays BRG, TRK, SPEED and DISTANCE to turnpoint.
- **Wind calculation**, strength/direction shown.
- **100hr record memory** at default recording interval.
- **Internal database** for 600 turnpoints, 100 tasks.
- Comprehensive **task statistics** viewable on screen.
- **NMEA Output** to drive flight computers.
- **RS232 Port** for connection with PC.
- **ENL**, Engine noise level sensor for motorgliders.
- **Recording Interval** around TP and on task independently selectable.
- **IGC Approved** for badges, records, competitions.
- **In-flight Operation**: 7 button keyboard for ease.
- TP rounding confirmation - **Audible Alarm**.
- **Event Button** for thermal marking etc.
- 12 month **Warranty**. Many more excellent features.

**LUKE DODD** Australian Agent

Ph: (08) 9330 2023 Fax: (08) 9383 6426

Email: [LKDodd@bigpond.com.au](mailto:LKDodd@bigpond.com.au)



# BANDIT



## NEW DHV 2 INTERMEDIATE BY GIN

SOON AT YOUR LOCAL DEALER

### REWARD:

The Paragliding  
Centre of W/E Qld.  
07 3343 7237

Windworks  
02 9413 9086

WA Paragliding Academy 08 9295 4557  
Australian Paragliding Centre 02 6225 9014



OR [WWW.GINDESIGNS.COM](http://WWW.GINDESIGNS.COM)

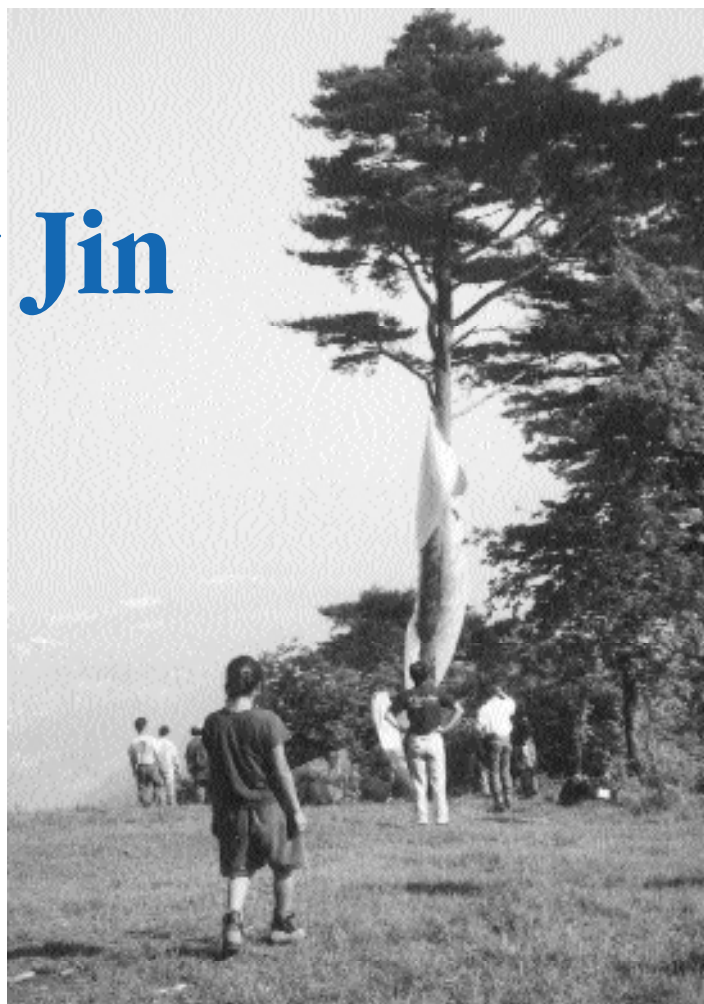
# Japan as seen by a flying Guy Jin

JOHN MCKENRY

## First Impressions

No matter where you come from you will find a visit to Japan an amazing experience. Having spent the previous two months in Indonesia I was amazed at just how ordered and polite society is. With my vocabulary consisting of please, thank you, hai and saionara, I was relieved to be staying with a Japanese friend. The land of the rising sun could more aptly be named the land of vending machines, Neo-Print, loose socks, free tissues and Hello Kitty! The first major test was learning how to drive a Japanese toilet! One false move and you could be spraying a water fountain over the room or setting off the warm air blower. I wasn't complaining because all toilet seats are heated – an indescribable luxury. However enough of this toilet talk, I was there for flying and travel.

Although I have met many Japanese pilots, I had never bothered to take any address details or information on flying sites. The Yellow Pages came to the rescue and I discovered that Tokyo has one paragliding shop. I was impressed to find a comprehensive site guide, however trying to read Japanese with its three different scripts made the guides redundant. Fortunately I found that some sites were close to Tokyo, and decided to go and investigate a place called Gokan where I was told a fellow "Guy Jin" (foreigner) was working.

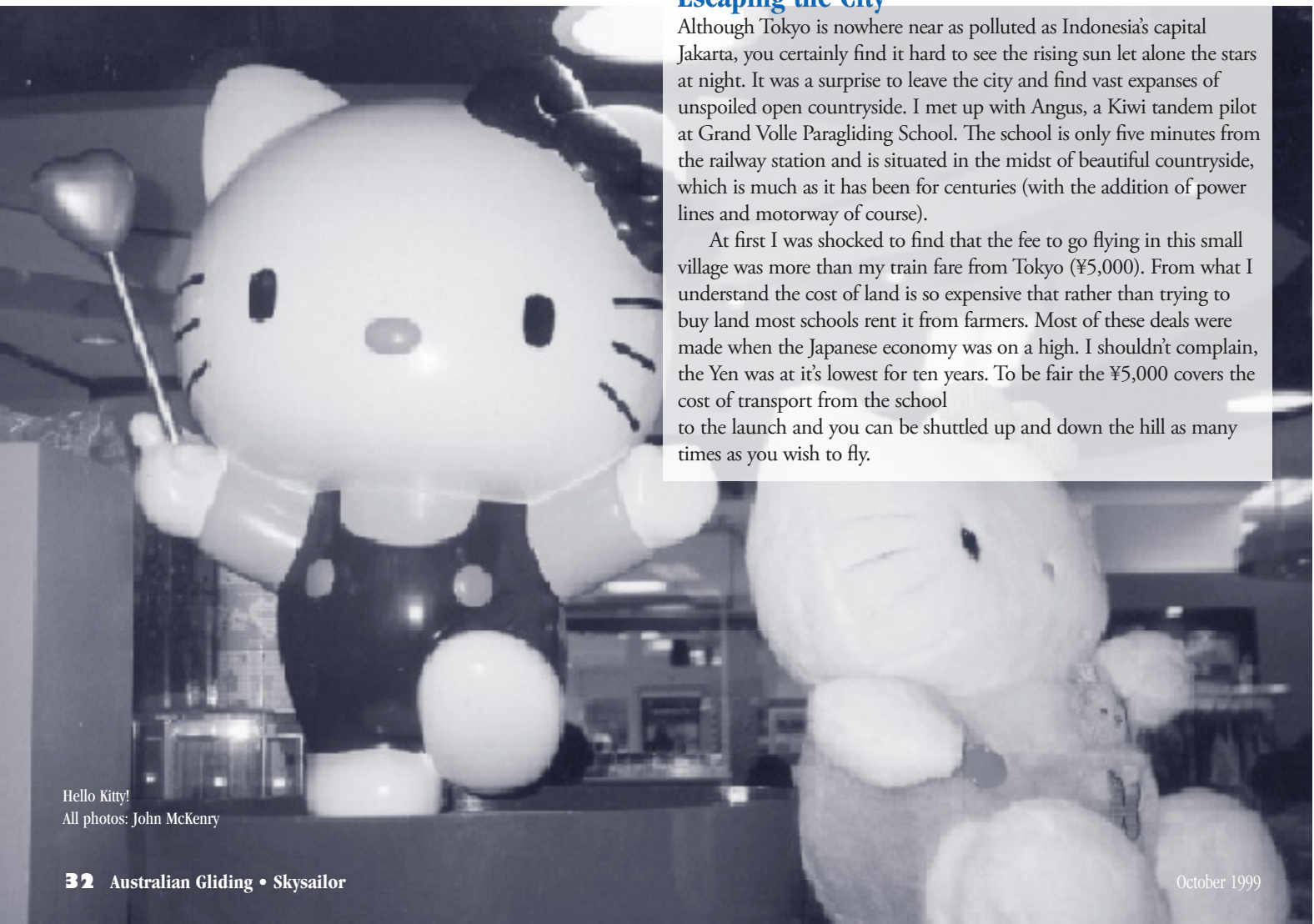


Omega 4 hugging a tree.

## Escaping the City

Although Tokyo is nowhere near as polluted as Indonesia's capital Jakarta, you certainly find it hard to see the rising sun let alone the stars at night. It was a surprise to leave the city and find vast expanses of unspoiled open countryside. I met up with Angus, a Kiwi tandem pilot at Grand Volle Paragliding School. The school is only five minutes from the railway station and is situated in the midst of beautiful countryside, which is much as it has been for centuries (with the addition of power lines and motorway of course).

At first I was shocked to find that the fee to go flying in this small village was more than my train fare from Tokyo (¥5,000). From what I understand the cost of land is so expensive that rather than trying to buy land most schools rent it from farmers. Most of these deals were made when the Japanese economy was on a high. I shouldn't complain, the Yen was at its lowest for ten years. To be fair the ¥5,000 covers the cost of transport from the school to the launch and you can be shuttled up and down the hill as many times as you wish to fly.



Hello Kitty!  
All photos: John McKenry





Above: A very civilised LZ. Below: Paraglider monorail – a very easy way to get to the top.



## The Flying Site

I have to say I have never seen so many people fit into a Highace van in my life (14 with equipment plus the driver). Sitting in the front I wasn't sure if the driver was trying to change gear or just being friendly! The van stopped about 200m short of the launch and I was staggered to discover a small monorail for paragliding equipment. The short walk takes you past an old Buddhist shrine, which had been renovated by the club in exchange for access and launch rights from the mountain. Most pilots stop and make an offering by throwing money into a large trough accompanied by a clapping of hands and a little bow.

Coming from NE Australia where there are only six active paraglider pilots, it was a bit of a shock to find 50 people in the same place at one time. I also felt like a poor cousin with my old Apco looking like an antique in comparison with all the hottest new models on the mountain. I was told that in the spring and summer height gains of 1,000m above launch can be made. A number of cross-country flights have been made, but few have exceeded 20km.

There are three launch areas, one of which has matting embedded into the slope to avoid line tangles. I must be jinxed because the day before people had been skying out. Within minutes of my arrival at launch the wind went cross.

## The Entertainment Begins

However, that was when the entertainment for the day began. Most of the people on the hill were there to escape from the city and their work. Having come so far and waited so long

they were not about to go without a flight. I'm sure we can all relate to that. I was really keen to fly but I wasn't about to make an idiot of myself. The wind occasionally rolled up the second launch face. Whenever this happened, within the space of a few seconds, one of the pilots would launch.

A good launch missed the bushes by inches. A poor one meant the pilot flying through the bushes and missing the roof of the temple and trees by inches (or millimetres, depending on the pilot). Although desperate to have my first fly in Japan I was not about to join in.

One of the pilots who had earlier made a dare devil crosswind launch came back for more. Sadly on the second occasion he ended up with the wing hooked in a tree. Not the best way to treat a three week old Omega 4. Fortunately the pilot was not airborne and within a minute a rescue team appeared with a ladder and a long pole to disentangle the glider, all very efficient. This had obviously happened on more than one occasion in the past. As it turned out there was a box containing ropes, harnesses, a ladder and a number of other pieces of kit aimed at safety. This could only happen in Japan! I say this because it was organised, and because in most other countries somebody would have stolen the gear. Everything comes to those who wait and at very end of the day I made a nil wind launch for a short top to bottom flight.

The landing paddock, about the size of a soccer field, was surrounded by rice paddies. I had seen an American pilot land in a rice paddy a few weeks earlier in Indonesia. It cost him a good deal of embarrassment, a dirty glider and US\$5 in compensation. In Japan all the costs would be the same except the compensation which starts at US\$50 depending upon what stage of development the crop is in. Fortunately I made a nice landing. The thought of the cost is a damn good incentive to be spot on.

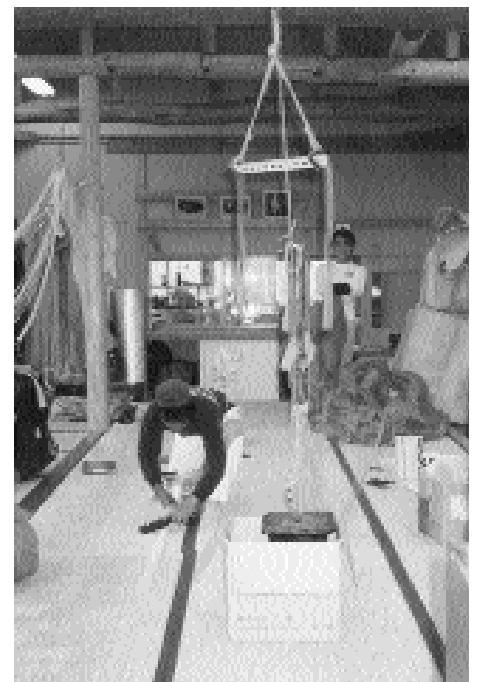
## Après Flying

The Japanese certainly know how to chill out whether they have been flying or not. On packing up the glider I was immediately shown some good Japanese hospitality. If you are not flying then you have a little cheese, drink some wine and take in the rays. Certainly a lot more organised than I'm used to in Australia where one of the lads has an Eskey full of tinnies in the back of his panel van.

My flying fee included accommodation in the school's packing room; it also included a free entrance to the local "Onsen". An Onsen is a Japanese Turkish bath heated by hot spring water. Unfortunately



Hang glider video arcade game.



Stretching dyneema lines and repacking reserves.



Angus gets all tied up on a rainy day.

the entry doors don't have little drawings to indicate the gender. Oops! I can assure you there is nothing more relaxing at the end of a day's gliding than to lie in a hot Onsen looking out of a big window over beautiful countryside.

That night the Seven-Eleven shop provided really cheap microwave snacks, and with beer available in vending machines on most street corners it is very easy to have a party. Don't underestimate the ability of Japanese to consume alcohol, especially sake and their local whisky. I think we were celebrating someone's birthday.

The following day was clouded over and only three flights were made between showers. I was lucky enough to be the second pilot to launch. The price of the flight was a wet glider as it began to rain on the decent. The school shop is a great place to watch videos, drink coffee and play games. The atmosphere is fantastic as everyone has made the break from the city and wants to have fun. I was impressed to see the school's instructors re-packing reserve parachutes and stretching the dyneema lines on gliders due to the damp weather. Very professional indeed.

Sadly I didn't get the opportunity to fly again, although I did manage to have a shot at hang gliding on a video arcade game. Having crashed into a bridge and through a tree I think I'm safer sticking to paragliding.



Neo Print photo booths.

toy/ cartoon character which appears on almost every consumer item in Japan), nor did I understand the need to continuously have photos taken in "Neo Print" photo booths.

I'm told there are some really good sites around Japan and would happily go back there tomorrow. If you can't go flying I'm sure you will find lots to do and that you will have a great time.



## Final Thoughts

I loved the Japanese food, being given free tissues at the entrance to most railway stations, being greeted as I walked into and out of shops, banks and restaurants, and being able to leave my bicycle unlocked outside the tube station all day. I never had people bowing to me, I never understood the love of "Hello Kitty" (a children's

# HGFA Opera



One of the most difficult aspects of my job with the HGFA is having to initiate disciplinary action against members. Such actions are carried out in accordance with the HGFA constitution (reprinted in the HGFA Operations Manual Section 7.2). Though this task is always carried out reluctantly, it is nonetheless necessary to

ensure that our freedom to fly is maintained. The HGFA is contracted to CASA to "seek to ensure that all members operate in accordance with the requirements of the regulations". I have always believed that members are better off answering to an HGFA Tribunal than to a magistrate.

Recently an HGFA Tribunal suspended a pilot's certificate for six months for intentionally flying into controlled airspace and landing in the primary zone near the centre of a city. To some this may seem over the top given that there was no actual conflict with other aircraft. However, the potential would certainly have existed; had the worst occurred and a mid-air resulted we could all suffer. I greatly appreciate that the vast majority of members endeavour to operate within the rules – it is certainly in our interests to do so.

## Visual Flight Rules

Whilst talking of "seeking to ensure compliance", I will soon be issuing some Operations Manual amendments, one of which is a correction to the Visual Flight Rules as shown in Section 6.5.1. The current inclusion has been wrong for some time, the amendment is merely correcting it to match the requirements for all aviators. Specifically the change is in regard to the minimum distance from cloud – pilots must maintain a vertical distance from cloud of 1000 feet. I appreciate that this rule is difficult to enforce, however I ask that all pilots comply. It must be remembered that there is always the possibility of an aircraft operating IFR (using instrument flight rules) hurtling out of the base of cloud. During a major competition a while back, this actually happened. Thankfully the pilot of the passenger aircraft was able to avoid the gaggle of gliders directly in his path. He wasn't impressed, to say the least!

## Reserve Parachutes

Recently I have fielded several inquiries regarding emergency parachutes. Following are some often asked questions with my responses (compiled with assistance from John Chapman of the Australian Parachute Federation – APF).

**Q. What is the correct method for re-packing a parachute, fitting it into its deployment bag and stowing the parachute into its compartment in the harness?**

A. Re-pack procedures are detailed in the Manufacturer's Handbook. If you did not receive a handbook with your parachute you should seek assistance from the harness manufacturer, an HGFA instructor or an APF Parachute Rigger. It is imperative that the parachute will come out of the harness without tangling with



# Accident Manager's Report

the bridle – so the bridle goes in first, then any lines that are not in the deployment bag, then the deployment bag and chute. It is worth pulling the 'chute back out a few times (without actually deploying it) to ensure that it will come out without snagging.

There are some poor designs from the point of view of accidental operation; pilots need to consider the security of handles, bridles and pins. It is worth checking the security of the reserve as one of your pre-flight checks.

Most clubs have parachute nights occasionally – I recommend attending one of these as they are most valuable.

## **Q. How should the reserve be deployed?**

A. Deploying the 'chute entails several distinct actions: Look at and grasp the handle; peel/pull (or whatever it takes to get the bag swinging free of the harness); and as it swings back, throw clear. GRASP – SWING – THROW

It can take a lot of energy to free the bag from the harness – then it is better to make a separate action to throw it. If it does not deploy immediately it can be worthwhile tugging on the bridle. Pull it in and throw it again if you have to. It is good practice to look and grab hold of the deployment handle regularly when you fly, then when you need to do it in a hurry it is second nature. Chances are you will be tumbling or at least being thrown around when you need the 'chute – get it out and throw it hard! It is worth practising throwing the 'chute whilst hanging in the harness on the ground. It is also beneficial to have someone throw the harness around to simulate some turbulence.

Some earlier harnesses had too much velcro sewn around the parachute compartment which made the 'chute hard to get out. Make a few test deployments and if it is difficult to release the velcro, it may be necessary to reduce the amount of effective velcro by taping over some of it with masking tape.

## **Q. What is the recommended re-pack schedule for a reserve chute and what does it involve?**

A. Section 9 of the HGFA Operations Manual states twice yearly re-packs for 'chutes; though the manufacturer may require a different time frame. If this is the case, the manufacturer's recommendation should take precedence. However, this will depend on what sort of flying you do – if you pack up on the sand (or merely fall into the sand in your harness) it is worth checking to ensure that sand has not penetrated the 'chute compartment. Similarly, if the harness gets wet the 'chute should be taken out and dried. Sand and moisture will radically reduce the life of the 'chute. When re-packing the 'chute check the lines, bridle and fabric for any signs of wear or deterioration and have any damage repaired.

Obviously any time you remove the 'chute, pack it in the deployment bag and stowage container carefully to ensure that it will come out without tangling.

Thanks to John Chapman of the APF for his ongoing assistance. John has a collection of various HG/PG reserve manuals and is prepared to offer advice to HGFA members – telephone 02 6281 6830 or email at: chapoapf@apf.asn.au

## Accident Reports

### No 1

**Pilot:** Intermediate hang glider pilot  
**Experience:** 72 hours  
**Glider:** Intermediate hang glider

October 1999

**Aircraft damage:** Broken upright  
**Weather:** <5 knot breeze  
**Location:** Inland tow paddock  
**Pilot injury:** Fractured upper arm

### *Description & comments (as submitted by pilot):*

T'was the sixth day of towing operations and this was my first tow of the day. Having been towed by the same driver the previous day in similar conditions I was confident that the tow would present little difficulty. I locked on the radio and reported that the wind was "very very light". I gave the command to proceed, and after running a few steps raised the nose of the glider to begin the climb. I believe that I raised the nose too early during the run. The driver reported that the tow gauge "went off the dial" and so slowed the vehicle. As the tension came off the tow line I drifted off line and began to descend. I called for the driver to "go faster!" and felt the tension return. This tension must have been due to the stretch of the rope or its weight because the driver later reported that they had stopped completely, due to the 'sound' of my voice. The tension on the tow line gave me some impetus because after 'swooshing' through the grass for a second I climbed to a height of about 10 metres. I thought to myself that I was "going to get away with this" – thinking that the driver was proceeding at speed. I continued to command the driver to go faster when it became apparent that I was descending again. Believing that the tension might come back on soon I elected to stay with the tow until it was too late to release. I impacted the ground on my left shoulder causing a minor fracture. Given time to contemplate the accident it is obvious that I should have released earlier and landed. The doubt as to whether the driver was still following my commands greatly reduced the little time available for decision. The whole incident arose from my 'popping the nose' at the beginning. (It is better to make a few extra "moon walking" steps to ensure that adequate speed is attained prior to raising the angle of attack.)

### No 2

**Pilot:** Advanced paraglider pilot  
**Experience:** 200+ hours  
**Glider:** High performance paraglider  
**Aircraft damage:** Nil  
**Weather:** 12 knot breeze, nil turbulence  
**Location:** Coastal site  
**Pilot injury:** Minor bruising

### *Description:*

The pilot was soaring a headland site with the wind coming near to directly along the beach; whilst below the headland the wind tended to flow along the headland toward the back of the beach. The pilot began a series of gentle wingovers, gradually drifting along the headland, and down into the differing airflow. Failing to recognise the change in drift, the pilot miscalculated the space required and was forced to tighten his final turn. This led to a partial stall and collapse. Not having sufficient height to recover, he landed heavily in low scrub.

### *Comments:*

A lucky one, could easily have led to more serious injuries. Carrying out aerobatics close to the hill is asking for trouble. Pilots must be ever conscious of the possibility of a change in wind direction due to terrain.

**Fly safely,  
Craig Worth**



## Flowerdale (The Three Sisters):

On behalf of the Southern Cross Paragliding Club and all other paraglider pilots who use the flying site in question (located in central Victoria by the name of Flowerdale or The Three Sisters) I would like to issue a caution. I have recently visited this site and have been sadly informed that there are still pilots in our community who decide to disregard the rules set down for this site. The rules for this site are set not only to protect ourselves from injury, but also to keep the property owner happy. Unfortunately some small minded people are very seriously putting this site at risk of closure for everyone.

I have been informed that these paraglider pilots were driving a Ford F100. If anybody knows who these pilots were, could they please let me know so I can forward the abuse I've received from not only the owner of the property but also the Eastern Hang Gliding Club who have done a lot of negotiating with the owner in the past.

Please read and obey all signs when entering this site, including the speed signs and the use of 4WD vehicles only. For any queries on this matter please contact me on 0418 323 692.

*Alister Johnson (a paraglider pilot sick of seeing the dark side of the property owner and the Eastern Hang Gliding Club)*

## New wheels for hang gliders now available



Wheel features are:

- Hub with passage for VG rope
- Wheels made in two halves for easy assembly
- Optional wheel lock

Contact Moyes Delta Gliders Pty Ltd, 1144 Botany Road, Botany NSW 2019, ph: 02 93164644 or fax 02 93168488 for more details. Web site: [www.moyes.com.au](http://www.moyes.com.au)

## Moyes Litespeed out now

Moyes are proud to announce the release of a new high performance/competition glider, the Litespeed. The Litespeed utilises 7075 series aluminium throughout the frame and features a revised cross bar and dive stick design, reducing weight by 3.5kg.

Stall speed has been reduced by 2mph, and glide performance has markedly improved throughout the speed range.

The Litespeed 5 at 155ft<sup>2</sup> is fully USHGMA pitch and load tested and is now available.

Contact Moyes Delta Gliders Pty Ltd, 1144 Botany Road, Botany NSW 2019, ph: 02 93164644 or fax 02 93168488 for more details. Web site: [www.moyes.com.au](http://www.moyes.com.au)

## Storm Aviation release

New four stroke engine release from PAL NZ. A specific built flat two of 58kg, featuring 65-70hp with fuel injection and computer engine management. Australian agent for Storm Aviation is Keith Emms: 0418 583668, [kemms@tbsa.com.au](mailto:kemms@tbsa.com.au)

*This gem of a prediction was found in an old 1988 Skysailor. The article was called "Paragliding – A New Airsport" by FP and BB (names have been withheld so as not to embarrass the still active authors!). Ed*

**"Mixing paragliding and hang gliding at one site shouldn't be a problem as the performance of the two is so different. The paraglider flies at 12-20mph and sinks at 350-500fpm, gliding at only 4:1 angle. So there is very little chance of a paraglider getting in the way of a hang glider."**

## Sunshine Coast Hang Gliding Club

Our club held its AGM Saturday 31 August. There was a strong attendance of about 50 pilots and general business was mercifully short. All members of the club executive retired, and a new executive was elected which included two paraglider pilots, and Gary

## Inaugural Rainbow Flyers Classic

The recently incorporated and affiliated Rainbow Social Flyers Club Inc. invites pilots of all disciplines to come to Rainbow Beach on 26 to 28 November 1999 for the inaugural Rainbow Flyers Classic.

3 days of challenge and fun in sunny Queensland.

If you want to know more about the great prizes, accommodation and other activities available in the area, contact Andy or Michelle for your registration pack. Ph: 07 54863771.

Andy Abbott

Allen, a novice hang glider pilot, as president. Good onya Gary! Special thanks to Tony Giammichele for his gracious acceptance of the position of hang gliding senior safety officer – after some serious verbal arm twisting!

There was extensive group discussion about recent events in our region where our club had, with the best of intentions, attempted to exert some authority/control over our sites. Subsequent events have shown that this approach led to conflict and ill feeling amongst the flying fraternity, and in fact was counter productive, leading to the loss of permission for our instructors to operate at Rainbow Beach. Hopefully this will be resolved in time for the summer flying season.

Our sites are available to all pilots to fly, provided that they are suitably qualified, and respect such basic requirements as causing minimum impact by their activities.

Flying conditions have been poor this year, and there have been few good flights reported. However conditions have improved recently, with a paraglider pilot flying from Flaxton to Gympie, and Phil Pritchard recently flying from Gympie airport to Noosa spit. So hopefully the spring will bring some good flying.

Finally, a big thank you to the outgoing club executive for their hard work on behalf of the club; especially Cathy Edmunds, who has been the backbone of the club executive over several years.

Safe Flying,

Michael Powell



## Cloudbase Paragliding Club

The Cloudbase AGM was held on 28 July, and the following people were elected to the committee for 1999/2000:

President: Dave Humphrey, Vice President: Dennis Smith, Treasurer: Colin Brown, Secretary: Michael Dufty, Committee: John Osmy, Gordon McCabe, Wesley Zdanowicz.

Dennis Smith wasn't at the meeting, and has since claimed not to be a member of the club, so there may still be a vacancy there.

On the flying front, thermals have been taunting us lately, not quite strong enough to hold us up in the light winds (though a dedicated band have still been bombing off Mt Nardie and Noondeening every weekend in the hope of catching the big one). For Mike Annear and Mike Dufty it all paid off on 7 August, getting sucked up off the south west face of Mt Bakewell by a nice group of clouds and flying 20km cross-country, landing near Quellington. Mike Annear has also won the club perpetual trophy for best cross-country flight (1998/99) in recognition of his 45 km from Mt Bakewell on ANZAC day.

Regarding sites, Mt Nardie access is now easy and there's no need to contact the owner



Mike Dufty at Perkin's Beach, Albany WA. of the house on the way up. The take off area

has been cleaned up by some of the hangies and it's now quite a reasonable launch. No one should fly this site for the first time without consulting someone who has flown there. The landing area is still very restricted by powerlines. A crop has been planted at The Range in the usual landing paddock. Do not land in this crop. The owner has requested that we use the paddock between the crop and the house for bottom landings. No vehicles are to be driven in the paddocks during winter, even on tracks. Pilots can be picked up from the landing paddock by driving out to the main road, then back in the driveway and diverging left just before the house (but try to minimise the traffic, it's not far to walk). John Master's site at the western end of Noondeening Hill now also has a crop below the take off. If you have any doubt as to your ability to land before the crop do not fly here. A new gate has been installed providing vehicle access to the top of this site via Baillie farm. It is still necessary to obtain permission from the Masters' by phone or in person before flying this site.

The club message bank (9487 5253) is starting to work well. The message is generally updated several times over the weekend to

What, you haven't heard of Aire?



You don't know what you've been missing out on! !!

## Session DHV 1-2

Pilots all over Australia are having 'sessions' rather than 'going for a fly'. Hassle free flying for the beginner and experienced pilot. Definitely a glider to 'grow up' in! Great performance and handling with a wide safety margin.

## Shape DHV 2 (the one in the photo)

This is the sexiest glider you'll ever lay your hands on. Handling is like 'power steering'. Combined with good safety and performance, you'll chew up the k's and finish with a smile on your dial..

## Cargo DHV 1-2, Acapul Biplace

Don't test fly this one, you'll be hooked!! Safe (DHV 1-2 accelerated), easy inflation, great speed range, good performance and solo glider handling. Simply the best on the market today.

....But wait, there's more....

We also have harnesses, rescue systems, helmets, radios, headsets and all the other little things you need for your flying pleasure (within reason). Call us for a test fly or a brochure. We are looking forward to hearing from you!

**sydney**  
**paragliding**

Tel/Fax: +61 (0) 2 42 94 9065  
e-mail: [spc@ifa.com.au](mailto:spc@ifa.com.au)



going off!

## HGFA merchandise

Available from the HGFA, PO Box 558,  
Tumut NSW 2720 Phone: 02 69472888  
or Fax: 02 69474328



- ◆ **\$30 Polo shirt** with embroidered HGFA logo in navy, green & white (sizes 16 to 24)
- ◆ **\$50 Rugby top** with embroidered HGFA logo in navy, green & grey (sizes 16 to 24)
- ◆ **\$15 Cap** (cotton or corduroy) with HGFA colour logo in red, black, navy or green



- ◆ **\$1.50 HGFA Car sticker** (no postage required)
- ◆ **\$6 Embroidered Badge**
- ◆ **\$30 HGFA Hang Gliding Training Video**
- ◆ **HGFA Competitions Manual** – no charge
- ◆ **HGFA Towing Manual** – no charge
- ◆ **\$45 1998 Hang Gliding Grand Prix Series video**
- ◆ **\$5 HGFA Pilot Training Workbooks**
- ◆ **\$15 Beginning Coaching** (Australian Sports Commission)
- ◆ **\$35 Better Coaching** (Australian Sports Commission)
- ◆ **\$35 Hang Gliding or Paragliding training video**
- ◆ **\$10 HGFA Operations Manual\***
- ◆ **\$15 HGFA Operations Manual Binder\***
- ◆ **\$5 HGFA Log Book\***

\* Replacement Prices only – These items are issued free with initial Full Membership

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

## News

indicate where the best places would be to fly. There are still very few pilots leaving messages though; please do if you're heading out anywhere for a fly.

The club winch is now operating well, although the line may need replacing. John, Wesley, Adam and Gordon have been using it regularly and would like to see more people join them.

The club is planning a number of trips and events for the near future. These include a BBQ at John Salmon's (date to be announced), a trip to Manilla at the end of October, and a paragliding trip to Table Hill and the Hamersley Ranges in September. Contact the club for details.

Michael Dufty

### Airwave Flies Again

Markus Villinger (of Villinger Birdmen Enterprises) has bought Airwave and will be selling both Airwave Paragliders and Airwave Hang Gliders from his Austrian base. Spare parts and servicing for all the old gliders will once again be available.

For those who do not know Markus Villinger, he has been in the hang gliding and paragliding business for as long as Airwave, and is based in Austria. He is well known as the former Wills Wing Europe.

Airwave Gliders will be launching with a NEW range of paragliders as well as retaining the successful Duplex, Harmony, Fusion and XXX.

The new range will be a DHV 1-2 called the "Allstar", a DHV 2 glider called "Score" and a DHV 2-3 called "Top Score".

The full range of Airwave hang gliders will be available including Fly2/Double Vision, Pulse, Vision, Classics, Xbow 138 and 150, plus a new sky floater called the "Skye".

Markus visited the old Airwave factory and took over all the designs and manufacturing techniques, absorbing all the Airwave ethos.

Airwave's new contact details are:  
Airwave Gliders, Griesauweg 30, A-6020, Innsbruck, Austria (Europe), ph: +43 512 34 89 89, fax +43 512 36 54 54 6, [www.Airwave-Gliders.co.uk](http://www.Airwave-Gliders.co.uk)

[Markus@Airwave-Gliders.co.uk](mailto:Markus@Airwave-Gliders.co.uk)

### More Fun, Flying, Points and Prizes

The Conrad Jupiters Canungra Classic entries are flying in. Pilots from all states are keen to be a part of this year's event for good reason. Organiser, Peter Beard, said "This looks like being a great year for the Classic. Our sponsor has arranged a generous deal for pilots and their families wishing to stay at Conrad's following the presentation night. At \$125 per

couple for the night we'll all be partying on.

We have been able to arrange some interesting new tasks this year, with one goal to be set up at Sanctuary Cove. This should be a real fun day for the whole crew because we will move the scoring room and pin board to this world class resort. With dinner (for around \$5/person) and drinks at the Waterside Tavern, this is one day when everyone will make goal. We've even had a great response from Air Services to the idea, with their co-operation in easing height restrictions for the event.

Now that we have finally been granted AAA rating, the pilots looking to improve their national ranking will also benefit from this year's Classic." Any competitors still wanting to nominate will be pleased to find that the late nomination fee has also been waived for entries before 13/10/99. Bookings for Conrad Jupiters can be made with your nomination or contact Pete on 07 3348 7150; email: [peter\\_beard@msn.com.au](mailto:peter_beard@msn.com.au)

### Blue Mountains Hang Gliding Club

For all those wondering how many batten tips were in the jar, the correct answer was 489. Thank you to all those who had a guess, and helped support Care Flight.

The winner was Damien Gildea, a rock climber from Goulburn, who guessed closest with 487. He chose, of course, to take the paragliding license course with Lee Scott (High Adventure). Second was Roger Bremner of Bathurst who guessed 486 and chose the tandem hang gliding flight with Tony Armstrong (Sydney Skysailors) at Stanwell. Third was Lester Ives of Blackheath who chose the tandem hang gliding flight with Jason Turner (East Coast Hang Gliding) at Newcastle. Lester guessed 492, missing the mark by the same amount as Roger. Their names were drawn from a hat to decide second and third place. Coming in fourth was Robert Willows of Marrickville with a guess of 493. As the first pilot in the placings, Robert was very happy indeed that the Charley Insider Helmet from Moyes had not yet been taken. Fifth place (once again by draw) also went to a pilot. Sara Moser of East Hawthorn in Victoria guessed 493, claiming the flight suit from Godfrey Wenness (Manilla Paragliding) as her prize. Sixth place went to Sue Moyle of Wentworth Falls who guessed 495. She was very excited to hear she'd be going on a tandem trike flight over the Hunter Valley with Airborne.

There were also a number of minor prize winners who shared shirts, caps, videos, keyrings and stickers. Thanks once again to all of the prize sponsors mentioned above.

Richard Lockhart, President



## Air Mail

### Tear-outs and tear-offs...

► That Vince Jungvirt has a great idea. I would like the hang gliding articles placed in a tear-out section too. While you are at it... can we have the paragliding articles confined to a fully collapsible 'tucked in' section? I think the articles on trikes and powered hang gliders should be printed on oil proof paper... and the sailplane news can be on handy toilet tissue sized, perforated paper for use on the bog while I read my tear-out hang gliding section.

Honestly, if our combined magazine contains articles that don't interest me... I just skip them – no problem. I have found some sailplane and even paragliding stories of interest. I must admit that the article on hoop pine was a little dull. One thing I would definitely miss, should the combined format cease, are the wonderful sailplane photos by Mandy Wilson.

Craig Hopkins  
Canberra HG and PG Association

### More Classifieds

► I am writing on behalf of the members of the Newcastle Hang Gliding Club to voice our opinion on the issue of the classifieds section of this magazine. We believe that the old system of free classifieds for members of HGFA allowed all members an effective means of advertising their equipment. It also gave all readers of Skysailor a mechanism to explore a great range of equipment available and also to observe market prices.

We can see some of the reasons that the new classified system has been introduced, such as to come in line with the policies of the Australian Gliding magazine and to earn extra income for the magazine, but we do not feel that these reasons outweigh the benefits of a free system.

Following are a number of arguments against enforcing the minimum \$15 classified fee: This fee is more expensive than other forms of print classifieds (i.e. Trading Post, newspaper). The proportional cost of the classified for a hang glider or paraglider (\$2,000 glider is 0.75%) is greater and ten times more expensive than the proportional cost of a glider classified (\$20,000 glider is 0.075%). The number of classifieds for hang

### Farewell to a Wingman

► It is with a sense of loss that I report, due to cancer, the passing away of one of the North Coast's well known pilots, Chris Rollins. I was there when Chris took his first tentative hops back in 1975, later he was with me when we were the first hangies to fly from Monty Collum at Byron. Chris went on to pioneer many sites in the Byron area and at the Crater. Always seeking to increase his knowledge he studied and obtained his unrestricted General Aviation licence, but after a brief flirt with aeroplanes he returned to his main love, hang gliding. A quiet man with a perceptive sense of humour, Chris was known as a gentleman and his flying experience was respected. He made his final launch on Tuesday 24 August, may he fly forever.

Mark Townsend

gliding and paragliding equipment has been reduced dramatically since the fee was introduced, which means that the income generated by the classifieds is minimal. Due to the decreased number of hang glider and paraglider classifieds, people looking for equipment are lacking the avenues to find that equipment.

Thank you for taking the time to consider our opinion.

Dustan Hansen  
Secretary, Newcastle Hang Gliding Club

*A quick reply from the office Dustan,  
Most of your points are valid and were fully considered when the Board adopted the policy.*

*To produce 12 issues of the magazine a year costs twice as much as six. We needed the GFA to share that cost, and consistency in advertising rates was one of the compromises we felt compelled to make.*

*I am not sure that it makes sense to not sell equipment worth \$1,000-\$5,000 just because it requires an advertising investment of \$15? It is true that the cost of advertising the average bit of equipment will cost a bit less than 1% of the expected sale price, but then again AG/Skysailor is the only publication that goes to every active soaring pilot in the country. An alternative is to sell the equipment through a dealer/agent and pay a 5-10% commission.*

*It may seem unimportant to earn a mere four or five thousand a year from the classifieds, but it is a few thousand we would have to find somewhere else. Perhaps add a few bucks to the membership fees and make everyone pay whether they wish to sell or buy gear or not!*

*Maybe your view will strike a chord at the next Board meeting, but such a policy change will impact somewhere else – and then someone else will be unhappy. As our President recently reminded us, "There is no such thing as a free lunch."*

Ian Jarman, Executive Director HGFA

► Although I have huge respect for Ian Jarman I am a little disappointed in his (and whoever crewed up with him) to support this credit card idea. I didn't take up hang gliding to be pushed with credit cards. And if it must be then at least it should be the members decision to apply, not material sent down the pipeline to everyone unless they object. On another note, chopping out most of the 'for sale' items by raising the charge has sadly detracted from the mag's general appeal, and I should add taken away from one of its values, an open market for people to browse over. How else can you find out what gear is available across the land? On a positive note the intermingling of stories from all the varied aviation pursuits does give us an understanding of our fellow aviators and broaden our horizons.

Paul Tanner

## Australia

### Manilla Mug Revival

2-4 October 1999 (NSW labour day WE)

Competing for the Manilla mug trophy. Entry open to all pilots of any footlaunch aircraft. Entry fee of \$20 incl. dinner. Register at the Imperial Hotel, Manilla, on the Friday night/ Saturday morning. For further information call Billo on 02 49213804.

### Inaugural East Coast Sport Aviation Fly-in

2-4 October 1999

Maitland, NSW

Hosted by the Royal Newcastle Aero Club and the Windsock Flying Club. All types of sport aviation are invited to attend, provided (1) the aircraft is registered with an official aviation body; (2) the pilot is licensed; and (3) a VHF radio is carried. The Hunter Valley has some very scenic flying areas, and many local attractions for the visitor. A number of tents will be available to pilots for a nominal charge, with showers, toilets and catering on site. A number of seminars and forums on aircraft building, engine maintenance etc, will be held free of charge. If possible, could clubs advise of any volunteers available to help with catering, camping, etc. For further details, contact Dave Caban (Pres) on 02 49682843 or John Robson (Sec) 02 49459792.

### Paragliding State of Origin Series 1990-2000

2-4 October 1999 and Easter Weekend (2000)

Manilla, NSW. The PG State of Origin Series is a joint initiative of the Canungra Hang Gliding and the Sydney Paragliding Club. It is a state-based team event where low altitude pilots are encouraged to stretch their wings a little and fly those first few XC km under the watchful eye of their more experienced compatriots. As in previous years the event will be held in Manilla over the NSW Labour Day weekend and the following Easter weekend. Contact either Deirdre Skillen (NSW) on (02) 9877 0279 or Mark Plenderleith (QLD) on (07) 3278 6274 for more information. Alternatively check out the events at: [www.uq.net.au/~zzdcrook/psoos/psoohome.htm](http://www.uq.net.au/~zzdcrook/psoos/psoohome.htm)

### Far Nth Qld HG Championship Gillies Round

9-10 October 1999

For more details contact: Bernie Zwahlen ph/fax: 07 40965593, email: [zwahlen@ledanet.com.au](mailto:zwahlen@ledanet.com.au)

### Annual Spring Fly-in

17 October 1999

Hosted by the Southern Districts Flying Club and held at the Strathalbyn Airfield (South Australia). All types of sport aircraft and GA are welcome to fly and help us celebrate our 25th anniversary. Food and drink available, trial instructional flights in tandem hang gliders and/or microlights will be available on the day. For further details contact our club captain, Sandy Cummings on (08) 83251697 or CFI, Larry Jones on 0408 815094.

### 1999 Conrad Jupiters Canungra Classic

22-30 October 1999

Canungra, QLD. Sanction: AAA. Entry fee \$100 plus \$35 site fee. Registration and 'Calcutta' on 22 Oct, 7pm. PGs & floaters welcome. GPS mandatory (Garmin or Aircotec). Camera back-ups can be used every day except last day. Prizes awarded for grades A, B, C, Ladies and Para-gliding. Int rating required. Closing date for entry: 31 Aug. Late entry fee: \$30. For more info visit the website: <http://tinny.eis.net.au/~tim/classic99/index.html> Contact: Peter Beard, ph: 07 33487150, email: [Peter\\_Beard@msn.com](mailto:Peter_Beard@msn.com) Send entry to: Canungra Classic, PO Box 116, Canungra QLD 4275.

### Corryong Fly-In

26-30 December 1999

Meet 12-1pm at the Elliot bomb-out. Free entry. Free camping by the river. Int to Adv rating. Ph: Greg Smith 02 42680589.

### Laurieton Christmas Fly-in

27-31 December 1999

The Mid North Coast HG & PG Association will be running a Christmas fly-in at the resort town of Laurieton. Cash and prizes to the value of \$3,000 will be up for grabs and there will be nov., int. & adv. sections for the prizegiving. PG and HG are all welcome. Contact: Trevor Kee, ph: 02 6586 4800 or Lee Scott, ph: 02 6556 5265, email: [info@highadventure.com.au](mailto:info@highadventure.com.au).

### Hay Flatlands HG Nationals

3-13 January 2000

Hay, NSW. Practice day: 3 January. Registration will take place on 3 January at the New Crown Hotel/Motel, Hay commencing at 7pm. Welcome briefing to take place at 9pm. Sanction: AAA. GPS scoring will be used, GPS mandatory (Garmin or Aircotec). Entry fee \$180. Four pilots minimum per strip. Entries close on Friday 24 December 1999. Minimum pilot requirements are: Restricted, tow endorsed, HGFA member. Other minimum requirements: Airworthy hang glider, parachute, instruments, tow gauge, rope, releases, etc, driver, the need to get up into the air. Monetary prizes (total in excess of \$4,500) will be awarded to winners in the Skyfloater and Racing classes. Pilots flying in the Open Class will receive trophies only. Emphasis at this year's comp will be placed on shorter courses which will have two or more turnpoints allowing pilots to enjoy the night life of Hay, instead of some isolated farmhouse out in the boondocks! Minimum course time will be approximately 2 hours.

If you are interested in participating in a low pressure flatlands comp with great prizes send your entry to: Dynamic Flight Pty Ltd, 32 Willoby Street, Beaufort VIC 3373 or email us for further info: [dynamic@netconnect.com.au](mailto:dynamic@netconnect.com.au) Information booklet will be sent upon receipt of entry fee.

### Corryong Cup HG Competition

15-22 January 2000

Registrations and practice day: Sat 15th. Requirements: int to adv rating with inland experience, camera, altimeter, UHF radio, recently repacked parachute, 1:200,000 Wagga Wagga and Tallangatta topo maps, current HGFA membership. Strictly 60 pilots. Entry fee of \$80 incl. T-shirt (specify size on entry), sticker, film, presentation night, BBQ during competition, numerous prizes and trophies. Categories: Open (all competitors) and Entry level (open crossbar and int. gliders). Contact for registration: Steve Bell, ph: 02 4294 1268, email: [spb@1earth.net](mailto:spb@1earth.net)

### Corryong PG Competition

22-29 January 2000

Sanction: AA

### WA State Comps

23-29 January 2000

Wyalkatchem WA. Towing. Contact: Daryl Speight (08) 9320 0864 (w); (08) 9332 8665 (h)

### Bogong HG Competition

25 January - 4 February 2000

Sanction: AA

### 2000 PG Nationals

12-19 February 2000

At Bright, VIC. Sanction: AA.

### Manilla PG Competition

4-11 March 2000

Sanction: AA

### 2000 NSW HG State Titles

11-18 March, 2000

Registration at the Imperial Hotel on 10 March. Sanction: AA. Entry fee \$120.00 – includes films, T-shirt and presentation dinner. Minimum pilot level adv. rating or int. with inland experience. UHF radio and parachute required. GPS recommended (if it still works in 2000). Databack camera optional but recommended. HGFA rules and scoring apply with GPS turnpoint and timing verification. Cheques payable to: NSW HG State Titles, 50 Park St, Charlestown 2290. For further details email: [BOLIVE@hahs.health.nsw.gov.au](mailto:BOLIVE@hahs.health.nsw.gov.au) or ph: 0249213804 (w)

### 2000 Victorian HG Open

12-18 March, 2000

Corryong, VIC. Contact: Wesley Hill, email: [whill@nm.com](mailto:whill@nm.com) or ph: 0408 305943.

### Birchip 2000

Easter holidays

Birchip, Vic. The Flatter than the Flatlands HG competition for next Easter, will be five long glorious days of flying due to ANZAC day falling on the day after Easter Monday. Apparently this is something to do with the eclipse. Entries open on 15th January 2000 (note this has changed from previous years). Further information and updates are available on the official website at: [www.users.bigpond.com/warwick.duncan](http://www.users.bigpond.com/warwick.duncan)

### The Lore of Flight Adventure Flying Holiday

10-16 April 2000

Grampians VIC

7 days of scenic flying and Nav-ex's. Fly or tow to the 4,000ft RWY and park your aircraft right next to your accommodation. Accom. and all meals from \$310 pp. This holiday is open to all pilots, and all aircraft types. Accommodation is limited, so for more information ring Peter or Anne McLean. Ph/fax: 03 5797 2159. Email: [lore@ycs.com.au](mailto:lore@ycs.com.au)

## Overseas

### WHGS NZ Speed Gliding World Cup

18-25 September 1999

The 18th is the only official practice day, the rest set aside for competition days. For more information contact Geoff Dossetor (comp organiser), email: [antigravity@xtra.co.nz](mailto:antigravity@xtra.co.nz)

### New Zealand Hang Gliding Championships

12-19 February 2000

Wellington, NZ. Pilots are invited to fly in the NZ National comps in Wellington. The Wellington area offers a variety of user friendly sites to suit conditions, varying from mountainous to flat valley. Accommodation is at "The Ranch", hostel type accommodation in the Southern Wairarapa. Entry fee is yet to be set but estimated at \$110. Accommodation cost is \$15 per night. There will be an intermediate and open class, as well as day and spot prizes. For more info contact: Grant Tatham, 06 379 7322, [tathams@xtra.co.nz](mailto:tathams@xtra.co.nz) or Trevor Leighton, 06 3088464, [TREVOR.HELEN@xtra.co.nz](mailto:TREVOR.HELEN@xtra.co.nz)

### Women's Hang Gliding Worlds

18-30 June 2000

To be held in Greece. Contact HGFA office on 02 6947 2888.





## Single Seaters

**GLASFLUGEL 304CZ** Brand new, 44/1 L/D, flapped s/plane. Mylar control seals, auto control hook ups One only ex factory DM64,500. Lumbs on Pakington Sole Aust & NZ Agent 03 52293890, 0419 515767, grlumb@yahoo.com

**LS3 UKC** 770 hrs, 405 landings, Ferro gel, Dittel 720 ch radio, Blumenauer vario, National 425 chute, (3 years old), Thompson trailer. With ground handling gear. No prangs. Ph: Mick Honfi 02 6882 2000 (w), 6882 3841 (h).

**LS3a** Low hours, well maintained, Borgelt varios, Dittel 720ch, oxy,'chute, all ground handling gear, encl. trailer, many extras. All offers considered. Ph: 08 83903022, after 24 Sept: bobtommas@senet.com.au

**We have sold our DG4 00** and took in part exchange an LS4, which now owes us \$45,000. So if you are interested, no ifs or buts – first in, best dressed. Current Form 2 and trailer. Contact: Des ph/fax 02 9540 9474.

**PW5**, new, ready for immediate delivery, \$29,500 Genie Partnership. Ph: 02 62570502, fax 02 62570503, genie@alphalink.com.au

**SZD 55** Standard class glider. 410 hours, 135 landings, excellent condition, large pilot weight range, PZL instruments, aero & tow hooks \$57, 000. Ph: 03 5882 1132, fax 03 58821145.

## Two Seaters

**BLANIK GVL** for sale, \$18,000 negotiable, fresh Form 2, Sunraysia Gliding Club. Ph: Maurie 03 50238167, Darren 03 50238248.

## Motor Gliders

**DG400 Motor Glider** 17m, fully rebuilt trailer. Based at Camden Airport. Includes T hangar with water and solar charge. Motor 200 hrs, left on 300 hr motor. B100 coupled to Garmin 90, very good looker. Ph: Neville Page 0149 653 380 best offer.

**JANUS CM VH-GVX** Excellent condition, low hours, well equipped, including Peschges VP3 vario and repeater. Ph: Peter Griffiths 07 3260 1828 (w).

**LS3-17 TOP WQT** (see pic similar LS4TOP July/Aug AG). Excellent 17m performance, refinished, comp sealed. Fully self launching. Long range tanks, an absolute delight to fly. All ground handling. Parachute, good trailer (hardly used) heaps of extras. \$69,000. Phone for full details 03 9598 3265, email dave@primemover.com.au

**VENTUS B Turbo VH-GRG** 15/16m wings, Exc. condition, good instruments, including Peschges VP3 vario. Ph: Peter Griffiths 07 3260 1828 (w).

**SUPER XIMANGO** award winner at Avalon '99. Rotax 912-400 A/F hrs, 320 eng. hrs. always hangared, dual instruments, KLX135 GPS, radio headsets, 6"x4" GPS Skyforce, mint condition \$185,000 or 4 people at \$46,500 each. Ph: Barry or Nicki 02 46366314.

## Instruments and Equipment

**BORGELT INSTRUMENTS** INSTRUMENTS ARE OUR FULL TIME BUSINESS NOT A SIDE LINE – OUR 22ND YEAR IN BUSINESS we design, manufacture and supply quality soaring instruments & equipment & experienced professional advice. VARIOS + Flight Computers (with GPS); WinPilot Moving Map; Flight Recorders – Joey VOLKSLOGGER; Parachutes by NATIONAL, TE Probes. Exciting new industry leading instruments available this summer. Ph: 07 46355784, fax: 07 46358796 email: mborgelt@tmba.design.net.au see our web page www.ozemail.com

**CAMBRIDGE LNAV**, ver 5.7, 7 months old, 2 yr warranty \$2,500. WINTER mechanical vario, 80mm, 18 months old, \$400. Ph: Luke Dodd 08 93392023, LKDodd@bigpond.com.au

**Parachutes**, NATIONAL, STRONG, SAGE VARIOS, our famous Source Drinking Systems, Dust covers, Polish, Thermal Underwear, T-Shirts, hats, Lumbs on Pakington. Ph: 03 5229 3890, grlumb@yahoo.com

**Parachutes**, for latest prices ph: 08 8390 3022. After 24 Sept. bobtommas@senet.com.au

**ORANGE JOEY FLIGHT RECORDER**, UNDER WARRANTY UNTIL JAN 2001. Cost \$830, sell for \$ 600. Ph: Geoff, 02 48864474 (w), 02 48614284 (h).

**SCHEMPP HIRTH** Grob and Glasflugel spares from stock only. Bulk Spruce and Birch Plywood, Mecaplex canopies; Limbach parts. Edmund Schneider P/L PO Box 1154 Gawler 5330 Ph/Fax 088522 2978

## Courses

**Immediate Post Solo** course from 29 November until 4 December. Course Prerequisite: at least one solo. Course Aims: "C" Certificate.

**Basic Cross Country** from 5 until 11 December. Course Prerequisite: "C" Certificate. Course Aims: Silver Badge.

Cost for both courses is \$100. Contact David White; wisc@riverland.net.au for more information.

## Maintenance

### WAIKERIE GLIDER MAINTENANCE

P/I Box 320 Waikerie, SA 5330, ph: 08 8541 2644, fax 08 85412761

Maintenance and repairs, Form 2 Inspections, Modifications and Surveys, FRP a specialty, Timber Too, Weights and Balances, Winglets. Contact Mark or Mark.

## Gliders for Sale – Unclassified

**Puchatek-KRA** 500 hrs, nose wheel etc. **Nimbus 2C-GAW**, fully comp equipped **Hornet GSF** low hrs fully comp equipped **PIK 20D WQQ** fully comp equipped. Ph: 07 54717639.

## Gliding Publications

### AUSTRALIAN HOMEBUILT SAILPLANE ASSOCIATION:

James Garay, 3 Magnolia Ave, Kings Park VIC 3021. Ph: 03 93673694, www.geocities.com/capecanaveral/hangar/3510

**FREE FLIGHT:** Bi-monthly journal of the Soaring Association of Canada. A lively record of the Canadian soaring scene, and relevant international news and articles. \$US26 for 1 year, \$47 for 2 years, \$65 for 3 years. Suite 101, 1090 Ambleside Drive, Ottawa, Ontario K2B 8G7, Canada. Email: sac@sac.ca

**SOARING:** Official monthly journal of the Soaring Society of America Inc., PO Box E, Hobbs, N.M. 88241 USA. Foreign subscription rates: \$US43 surface delivery; \$US68 premium delivery. Annually. **SAILPLANE AND GLIDING:** The only authoritative British magazine devoted entirely to gliding. 52 A4 pages of fascinating material and pictures with colour. Available from the British Gliding Association, Kimberley House, Vaughan Way, Leicester, England – annual subscription for six copies £17.50.

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

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

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

**GLIDING KIWI:** Official bi-monthly publication of the New Zealand Gliding Association, edited by John Roake. Specialises in up-to-date overviews of the world soaring scene and Omarama the N.Z. base for many of the current world records. \$A44 annually. (Send A\$25 for 12 months back issues). New Zealand Gliding Kiwi, Private Bag, Tauranga, New Zealand.

**AIRBORNE MAGAZINE:** Covering all facets of Australian and New Zealand modelling. The best value modelling magazine. Now \$21 p.a. for six issues. Plans and other special books available. PO Box 30, Tullamarine, Victoria 3043.

# Schools in Australia

## ACT/NSW



### Tarago Flight Park

2½ hours from Sydney

- Introductory Courses
- Refresher Courses
- Aerotowing Courses
- Cross-Country Tours
- Full License Courses
- Ground Towing
- Courses
- Cross-Country Courses

The last weekend of each month is an open towing weekend. All pilots are welcome and tow endorsements can be obtained.

Agents for Moyes & Airborne • Demo gliders available  
Call Tove on 02 4849 4516 or 015 269376.

Canberra Hang Gliding and Paragliding Centre,  
chggpc@goulburn.net.au

Email address: chggpc@goulburn.net.au



MOTORISED PARAGLIDING SCHOOL

AERIAL DISPLAY SPECIALISTS

Bookings phone

**0412 013 134**

Paramotor & Paragliding Courses, Endorsements,  
Promotions, Certification, friendly sales and service.

9 Cumberlege Crescent, Pearce, ACT 2607

Phone & Fax: 02 62867337 Mobile: 0412 229499

Email: mikebrady@netspeed.com.au

Mike Brady Chief Flying Instructor

## Victoria

### DYNAMIC FLIGHT

#### HANG GLIDING SCHOOL & FLIGHT PARK

1½ hours from Melbourne

We offer a full range of services including:

- Restricted License Courses
- Introductory courses
- Tandem instructional Flights
- Towing Endorsements
- Introduction to XC Flying & tours
- Equipment Hire

We sell new and used gliders, spare parts  
and accessories for:

- Moyes
- Aussie Born
- Airborne
- Bräuniger
- Icom
- Flytec

Thinking of updating? Trade in your old glider with us.

Rohan Holtkamp P/F 03 5349 2845 – M 014 678734

## Victoria continued

### WINGSPTS

#### Flight Academy

- Paragliding courses
- Paramotor courses
- Tandem flights
- Cross-country courses
- Hang gliding courses
- Inland and coastal
- Towing courses
- Equipment sales

Located in stunning holiday destination, on the Great  
Ocean Road, 2 hours from Melbourne's Westgate  
Bridge.

Learn to fly a paramotor over winter!

Wingsports, 1 Evans Court, Apollo Bay VIC 3233

Hans van Santen 03 5237 6486

Fiona Waddington 0419 378 616.

## New South Wales



- *Manilla has more flyable days per year than anywhere else in Australia! (300+ in fact!)*
- *Mt Borah* is one of the worlds most consistent all year round sites with 4 large launches catering for nearly every wind direction.
- *Paragliding license courses* – a week of quality tuition using the latest techniques & equipment for only \$850 (inc. accommodation).
- Thermalling and cross-country courses all year
- *HG to PG conversion courses* – it's easier than you think!
- *Importer of ADVANCE paragliders, FLYTEC instruments, HANWAG footwear and most accessories – we sell only the best quality European made equipment.*
- *Mini Paraglider Kites* also available – great fun for everyone.

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.

### AIR SUPPORT

#### HANG GLIDING & PARAGLIDING



As well as training, we also offer many ranges  
of gear, including custom made AIR SUPPORT  
harnesses. Enquire for brochures and price lists for  
new or 2nd hand gear.

Call on 02 94502674, 0412 273552 (8am-8pm).

## New South Wales continued

### BYRON AIRWAVES

#### Hang Gliding School

- Lessons & full instruction available.
- 20 years hang gliding experience with training all year round.
- Learn to fly safely and accurately with all skill levels catered for.

Phone Brian and Anne on 066 290354,  
mobile 014 615950, email: byronair@hotmail.com



### High Adventure Airpark

Since 1987

Australia's internationally renowned training centre  
Located on 460 acres just 3½ hours drive north of  
Sydney, offers courses in Hang Gliding, Paragliding and  
Microlights ALL YEAR ROUND!

- Our Live in Novice License courses for Hang Gliding and Paragliding start from \$990-\$1,490 with unlimited days of instruction until your license is received. Our Microlight license courses start from \$2,500 and all Flight and Theory instruction is done on site, With the training hills and hangar just a walk away from your accommodation.
- Now with over 15 flying sites consisting of both inland and coastal soaring, covering every wind direction, we can ensure that you cover all the aspects of the license skills needed to get into the sport confidently and quickly. You can also be confident that the equipment you learn on will be the newest and latest available.
- We sell all major brands of Microlight, Hang Gliding and Paragliding equipment and aircraft
- Aero and Winch tow endorsements are available!
- Conversion courses for Hang Gliding, Paragliding and Microlight pilots available!

Check Out our Web site on [www.highadventure.com.au](http://www.highadventure.com.au)

and email us on

[highadv@midcoast.com.au](mailto:highadv@midcoast.com.au)

HIGH ADVENTURE AIRPARK

You'll pay a little more to fly with us but you  
will with Qantas also! Call us on 02 6556 5265

## South Australia

### ADELAIDE AIRSPORTS

#### Sales, Service and Instruction

- Hang Gliding
- Sky Floating
- Tandem Hang Gliding
- Microlights

Agents for Moyes, Airborne and Wills Wing.

Larry Jones – Judy Manning

Ph: (08) 85563030, Fax: (08) 85574113,

Mobile: 0408 815 094,

Email: [skyfloat@terra.net.au](mailto:skyfloat@terra.net.au)

Website: [www.terra.net.au/~skyfloat](http://www.terra.net.au/~skyfloat)



# CLASSIFIEDS

## Classified Rates

The magazine now has a policy of charging for classified advertisements. The rate is \$15 for up to 8 lines (40 characters per line); with longer ads charged at \$4 per extra line. All classifieds **MUST** be paid for at the time the ad is placed. Please direct ads, together with payment, to the HGFA office (credit card payments may be made by phone).

## Classified Deadlines

The deadline for classifieds is the first day of the month prior to publication.

## Hang Gliders and Equipment

### New South Wales

**Sting XC** int, low hours, near new harness, Ball vario, parachute, 2 UHF handheld radios, tow bridle \$2,400 ono. Ph: Tony 02 96645970 or 02 68691791.

### Queensland

**Quitting sport.** Fun 190 nov, new cond 4 hrs \$3,700. Garmin XL45 GPS with mounting bracket \$180. Bräuniger competition vario integrated, airspeed indicator, barograph, speeds to fly \$380. 2 Icom UHF radios 240V, car chargers, headset & emergency battery pack, scan \$220, \$110. 2 parachutes excel. cond. \$220 each. Ph: Pat 07 49705812 (w), 07 49780132 (h).

### Victoria

**Blade 132** adv, good cond white/yellow. \$1,400. Ph: Carol 0417 311360.

**Combat 1** adv, with batten profile & owner's manual. Most of airframe recently replaced with new parts. Very good condition. Tows & flies very well. Make an offer. Ph: John 03 94842954 (h).

**For supplies of Strong and National Parachutes,** Sage Varios, the now famous Source Drinking Systems, thermal underwear and waterproof bags for GPS contact Geoff on 03 52293890; 0419 515767; or email [grlumb@yahoo.com](mailto:grlumb@yahoo.com)

**Harness** Italian Custom built Demension DeVolio, \$400. Ph: Carol 0417 311360.

**Moyes Xtreme** harness suit someone up to 5'10, 75kg, \$600. With parachute \$1,000, with Second Chantz air rocket for launching chute \$2,050. Will separate. Ph: Peter 03 97421372.

**Sting 118** int, pink LE, royal blue US1, light blue US2. Good condition, suits nov/int pilot 45-75kg hook in weight. \$1,100 ono. Upright to suit

**Airborne Shark 156** \$75, Uvex helmet size M never used \$270. Ph: Phil 03 58253676.

### South Australia

**Moyes XT 165** int, pro good condition. \$1,400 ono. Ph: Stuart 08 86459565.

## Paragliders

### New South Wales

**Advance Sigma II** int, DHV2, 29m<sup>2</sup>, 40 hrs, as new, light purple & yellow \$1,300. Ph: Mark 014 617 530 or email [markandrews@telstra.easymail.com.au](mailto:markandrews@telstra.easymail.com.au)

**Apco Centra** standard cert, 36km/h trim speed, looks and feels new, harness, CA reserve, \$3,500 ono. Ph: Sean 0414 546 905.

**Pro Design Corrado Challenger 25** int, SHV/DHV cert. Low hrs, one owner, good condition. Plus spinal protection harness with hand deployed reserve chute. Flytec alti/vario. Helmet and manuals. Alinco VHF radio and attachments. Excellent basic/ intermediate glider. \$1950. Ph: Mike 0417 279651; email: [chesm@zipworld.com.au](mailto:chesm@zipworld.com.au)

## Trikes

### Victoria

**Quantum 912 T2-2912**

One of only two in Aust with Rotax 912, four cylinder, 80 HP, 1211 cc, four stroke. Only 85 hours on a 1200 TBO engine. Landing lights, duel strobes, kingpost aerial, VSI and ASI, glove box, IVO prop and spinner, mud flap, training bars, pannier bags, GPS, compass, Rotax 912 flydat and electric fuel pump. Always hangared and only setup 4 times ever. The best performing trike in Aust bar non Aust. Selling to finance new business. New 912 price with these options \$52,000 will sacrifice for \$34,900. Ph: 0412 356271.

## Advertising Index:

Airborne Fun	IFC
Airborne Products	IBC
Airea	37
Bandit	31
Chamberlain Knights	19
Composite Components	5
GFA Form 2 Notice	20
Gliding Club of Victoria	IBC
HGFA Merchandise	38
Icom	BC
Lake Keepit Soaring Club	20
Luke Dodd	30
Microair Electronics	4
NZ Paragliding Tour	25
Schools in Australia	42
Soaring Adventures Holiday Coast	21
Sportavia Soaring Centre	4
Steve B Soaring	25

## Wanted

**Beginner/intermediate hang glider,** complete rig ready to fly. Ph: Russ 0419 988995; email: [russ.creagh@aifitness.com.au](mailto:russ.creagh@aifitness.com.au)

## Other

### Free Flying Magazines

**Cross Country Magazine** subscriptions Carol Binder 0417 311 360.



Photo: Jiri Stipek

# HGFA Addresses



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

## Hang Gliding Federation of Australia

**Executive Director:** Ian Jarman  
**Administration:** Margaret Steinhart  
PO Box 558, Tumut NSW 2720,  
ph: 02 69472888, fax: 02 69474328,  
email: hgfa@tpgi.com.au

### President: Rohan Grant

188 Bathurst St, Hobart TAS 7000,  
ph: 03 62311112 (h), 0419 344011.

### Treasurer: Robert Woodward

PO Box 6260, Adelaide SA 5000, ph: 08 8232  
5405 (w), 08 82977532 (h), fax: 08 82237345,  
email: benchpos@dove.net.au

### Secretary: Tim Cummings

PO Box 116, Canungra QLD 4275, ph: 07  
55435093 (h), 0418 778422, fax: 07  
55434493, email: tim@eis.net.au

### Vice-President: Keith Lush

5 Fortune St, Sth Perth WA 6151, ph:  
08 93679066 (w), 08 93673479 (h), fax:  
08 94741202, email: keith.lush@hds.com.au

### Board Members:

#### Rohan Holtkamp

RMB 236B Western Hwy, Trawalla  
VIC 3373, ph/fax: 03 53492845, 014 678734,  
email: dynamic@netconnect.com.au  
**Michael Zupanc (CIVL Delegate)**

6 Sibyl Street, Southport QLD 4215, ph:  
07 55325895 (h), 0408 662328, email: zupy@  
ozemail.com.au

#### Peta Roberts

PO Box 256, Helensburgh NSW 2508, ph/fax: 02  
42943941, 0412 009952, email: epicon@  
ozemail.com.au

#### Steve Ruffels

Bright VIC 3781, ph: 018 570168, fax: 03  
57501174, email: eagle@netc.com.au

#### Michael Eggleton

27 Knightsbridge Ave, Belrose NSW 2085, ph:  
02 99754114.

### Operations Manager: Craig Worth

(Safety & Operations Committee, Pilot  
Development & Training Committee)

PO Box 71, Hallidays Point NSW 2430, Ph/fax:  
02 65592713, 0418 657419, email: hgfaops@  
midcoast.com.au

### Microlight Public Relations: Paul Haines

Ph/fax: 02 42941031.

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

## States & Regions

### North Queensland HG Association

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

### New South Wales HG Association

Sec: Steve Hocking, 19 Gladwood Gdns,  
Double Bay NSW 2028, ph/fax: 02 93274025,  
email: nswhga@s054.aone.net.au

### Victorian HG & PG Association

PO Box 400, Prahran VIC 3181; Pres: Phillip  
Campbell 03 53343034; Sec: Andrew  
McKinnon 03 95631162; SSO: Rob Van Der  
Klooster 03 52223019.

### ACT HG & PG Association

PO Box 3496, Manuka ACT 2603; Pres: Michael  
Porter 0415 920444; Sec: John Wilson 0419  
600636; Trs: Craig Hopkins 02 62862488 (h),  
SSO: Peter Dall. Meetings: 1st Tue/month  
7:30pm, "Sky Lounge" Yamba Sports Club,  
Phillip.

### Tasmanian HG Association

PO Box 163, South Hobart TAS 7004;  
Pres: Brett Tooker 03 62503506; Sec/Trs/ State  
Co-ord: Stephen Bayley 0408 154156.

### South Australian HG Association

1 Sturt St, Adelaide SA 5000; ph: 08 84101391,  
fax: 08 82117115. Pres: Stuart McClure 08  
82973452; Sec: Mark Tyminski 08 83766117;  
Trs: Gary Stockton 08 82702910.

### HG Association of Western Australia

PO Box 82, South Perth WA 6151; Admin:  
Graeme Wishart 08 94449505; PG Rep: Julian  
McPherson 08 93881584 & David Humphrey  
0418 9541176; HG Rep: Michael Derry 08  
92840750 (h) & Keith Lush 08 93673479 (h),  
08 93679066 (w); Trike Rep: Graham McDonald  
08 93649226 (h), 0418 910841; Trs: Phil  
Wainwright 08 92424483.

## Clubs

### NEW SOUTH WALES

#### Blue Mountains Hang Gliding Club Inc

Pres: Richard Lockhart 0418 130354, email:  
flytation@mailandnews.com; Sec: Alan Bond 02  
98995351, 9 Finchley Pl, Glenhaven  
NSW 2353; Trs: Dolores Sempredoni, SSO:  
David Middleton 02 4736 2605; Newsletter:  
David Phillips 02 9456 252, email: dphi@jna.  
com.au; Meetings: Last Wed/month, 7:30pm at  
the Blue Cattlelog Tavern, St. Clair.

#### Byron Bay Hang Gliding Club Inc

Pres: Bill Bailey 02 66853626, bill@omcs.com.  
au; Vice-Pres: Andrew Polidano 02 66843510  
andrew@byron-bay.com; Sec: James Samuel  
02 66804336, freefly@mullum.com.au; Trs:  
Shirley Lake 02 66858147, lois@linknet.com.  
au; SSO: Chris Rollins (HG) 02 6689 7217, Brett  
(PG) 02 66876907. Meetings: 1st Wed/month  
7:30pm, Bangalow Bowling Club.

#### Illawarra Hang Gliding Club Inc

Pres: Mark Ryan 0412 424 760; Sec: Tim  
Causser 02 4294 8110, email: timcau@  
ozemail.com.au; SSO: James Nathaniel  
02 42627677 or 0413 737077

#### Kosciusko Alpine Paragliding Club

Pres: Roger Lilford 06 2815404 (h); Sec: Lisa  
Ryrie 06 2359120, 06 2359060; SSO: Heinz  
Gloor 02 64576019 (w), 02 64567171 (h).

#### Manilla SkySailors Club Inc

http://gri.une.edu.au/mss  
Pres: Brian Shepherd 02 67852182;  
Sec/Trs: Felix Burkhard 02 67751050, mailto://  
felixb@xyon.com.au; SSO (HG): Patrick Lenders  
02 67783484; SSO (PG): Godfrey Wenness 02  
67856545.

#### Mid North Coast Hang Gliding Association

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

#### Newcastle Hang Gliding Club

Pres: Tascha McLellan 02 49278867 (h), 1800  
653935 (w), email: tascha.conrad@hunterlink.  
net.au; V-Pres: Jason Turner 02 49408665 (h),  
015 636384; Sec: Karl Kindl 02 49677711;  
Trs: Tony O'Connor 02 49529146, SSO: Coastal  
— Jason Turner 02 49408665 (h),  
015 636384, Inland — Al Giles 02 49430674,  
John O'Donoghue 02 49549084. Meetings:  
Last Wed/month, Souths Leagues Club.

#### Northern Beaches Hang Gliding Club Inc

Pres: John Clark 02 99972842 (h); Sec: Mike  
Warner 02 94521217 (h), 02 95573188 (w);  
SSO: Mike Eggleton 02 94517127, Park 02  
94502674, Glenn Salmon 02 99180091.

#### Stanwell Park Hang Gliding Club

Pres: Rob de Groot 02 42942173, fax 02  
42943788, rdegroot@ozemail.com.au; Trs:  
Karen Lederer 02 42942273, 0411 362273.

### Sydney Hang Gliding Club

Pres: Dick Heffer 02 93872613; Sec: John  
Trude 02 98873371; Trs: Greg Wilkinson  
02 98184704. Meetings: 2nd Mon/month,  
Moyes Factory Loft.

### Sydney Paragliding Club

Pres: Rob Fakes 02 42942273 (h); Sec: Duncan  
Cross, 48 Cormiston Ave, Concord NSW 2137, 02  
97435128; Trs: Dave Worthington 02 9665  
1465; SSO: Mark Mitsos 02 42949065.  
Meetings: 1st Mon/month, St George Leagues  
Club, Kogarah.

### University of NSW Hang Gliding Club

Pres: Daniel Faber 02 93150727, email:  
dfaber@kensocoll.unsw.edu.au; Sec: Jon  
Ingles 02 93150571, email: jingles@kensocoll.  
unsw.edu.au; www page: www.vision.net.au/  
~gbeng/Hang\_Gliding.html

## QUEENSLAND

### Cairns Hang Gliding Club

Pres: Brod Osborne 07 40534686 (h), 07 4051  
5555 (w); Vice-Pres: Ian Graham 07 40954466;  
Sec: Lance Keough 07 40912117, 31 Holm  
Street, Atherton QLD 4883; Trs: Kasanda  
Brease 07 40532586 (h), 07 40512438 (w).

### Canungra Hang Gliding Club Inc

Pres: Shauna Purser 07 66793404,  
shaunapurser@yahoo.com; Vice-Pres: Andrew  
Horchner 07 38707709,  
0412 807516, afactor@gil.com.au; Sec:  
Richard Glasscock 07 55435057, 015 120874,  
richardg@qldnet.com.au, PO Box 41 Canungra  
4275; Trs: Fran Ning 07 55773260, ning@  
ausinfo.com.au; SSO: Glen McLeod (HG) 07  
55435716, John Botting (PG) 07 33002049,  
bottings@bigpond.com

### Capricorn Skyriders Club Inc

Pres: Brian Hampson 079 226527;  
Sec: Geoff Craig 079 923137;  
Brian Smith 079 287958.

### Conondale XC Flyers Club Inc

13 Cottman St, Buderim QLD 4556;  
Pres: Bruce Crerar 07 54451897; Vice-  
Pres: Shane Gingell 07 32851668; Sec:  
Mark Savage 07 54416423; Trs: Annie Crerar  
07 54451897; SSO: John Blain  
07 54948779; Visiting pilot contact:  
Graham Sutherland 07 54935882.

### Gladstone Hang Gliding Club Inc

16 Far St, Gladstone QLD 4680; Pres: Colan  
McGree 0413 941134; Sec/Trs: Natasha  
Atkinson 07 49726840; PR: Brian Duffy 07  
49922676; SSO: Geoff Craig 07 49923137, Paul  
Barry 07 49922865, prbarry@tpgi.com.au

### Rainbow Social Flyers Club

PO Box 206, Rainbow Beach QLD 4581. Pres:  
Andy Abbott ph/fax 07 54863771 or 0419  
897005; Sec: Kevin French 07 54863773; Trs:  
Kachina Rye; HG SSO: Alan Goldworthy 07  
54864280; PG SSO: Jonathan Allen 07  
54748169.

### South East Queensland Hang Gliding Club

Pres: Peter Beard 07 33487150, email: Peter\_  
Beard@msn.com.au

### Sunshine Coast Hang Gliding Club

PO Box 227, Rainbow Beach, QLD 4581; Pres:  
Gary Allen 07 549440543; Vice-Pres: Duncan  
Whyte 0418 714618; Sec/PG SSO: Jean Luc  
Lejaille 07 54863048/ 0418 754157; Trs:  
Michael Powell 07 54425970; SSO: HG SSO:  
Tony Giammichele 07 33584101.

### Townsville Hang Gliding Association Inc

Pres: Gary Rogers 077 538565 (w),  
077 79264511 (h); Vice-Pres: Peter Scarfe 077  
721766 (w), 077 212666 (h); Sec/Trs: Brad  
Cooper 077 792853 (h), fax 077 815230;  
SSO: Graeme Etherton 077 724467.

### Whitsundays Hang Gliding Club

Pres: David Nash 07 49531817; Sec: Ron  
Huxhagen 07 49552913, Fax: 07 49555122,  
email: sitework@mackay.net.au

## VICTORIA

### Dynasoarers Hang Gliding Club

Pres: Peter Hannah 03 52632335; Sec:  
John Norton; Trs: Rod Trevor 03 52811209;  
SSO: Ted Remeika 015 841107;  
Rob van der Klooster 03 52223019, hrt@  
deakin.edu.au; PR: Warwick Spratt  
03 52531096. Meetings: 1st Fri/month,  
Bay View Hotel, 2 Mercer St, Geelong.

### Eastern Hang Gliding Club

Pres: Geoff Tozer 03 97583250 (h); Sec:  
Andrew Medew 03 98227861, 16/25-29  
Brougham St. Box Hill VIC 3128; SSO:  
Harry Summons 03 59646055 (h), Lance  
Sheppard 03 59623570 (h), M/ship: Mark  
Jeffrey 03 59689015 (h). Meetings: 3rd Wed/  
mth, Montrose Town Centre Meeting Room,  
Cnr Swansea Rd & Mt Dandenong Tourist Rd,  
Montrose.

### North East Victoria Hang Gliding Club Inc

Pres: Ted Jenkins 03 57551753; Sec: Lisa  
Basler 03 57501252; Trs: Bill Graham 03  
57501828; SSO: Geoff White 03 57501244.  
Meetings: 1st Tue/ month, Alpine Hotel, Bright.  
www.home.aone.net.au/gilbert/ nevhc.htm

### Sky High Paragliding Club

Pres: Hakim Menten 0412 617216; Vice-Pres:  
Carolyn Dennis 0417 515626; Sec: Fabrice  
Millet 03 95961321. Meetings: 1st Wed/month  
8pm, Retreat Hotel, 226 Nicholson St,  
Abbotsford.

### Southern Club

Contact: John Reynoldson 03 95970527.  
Meetings: 1st Tue/month, Middle Park Hotel,  
Canterbury Rd.

### Southern Cross Paragliding Inc

Pres: Gary Clarkson 0419 319948; Vice-  
Pres: Alister Johnson 0418 323692; Sec:  
Nicole Matthews 03 57501884, 018 450626,  
email: nicolematthews@hotmail.com Meetings:  
Last Wed/month.

### Southern Trike Club

Pres: Mark Howard 03 97511480, 0418  
533731, fax: 03 97511584; Vice-Pres: Dave  
Wentworth; Sec: Ben De Jong; Trs: John Amor.  
Meetings: 2nd Tue/month 8pm, Jakes  
Nightclub, 23 Church St, Brighton.

### Western Victorian Hang Gliding Club

Pres: Phillip Campbell 03 53343034; Vice-Pres:  
Andrew Hume 03 93760907; Trs: Sandra  
Holtkamp 03 53492845; Sec: Rachelle  
Guy 03 98092974; SSO: Rohan Holtkamp  
03 53492845. Meetings: Last Sat/month,  
The Golden Age Hotel Beaufort.

## WESTERN AUSTRALIA

### Avon Valley Hang Gliding Club

Pres: David Drabble, 08 93071816, wescoast  
@iinet.net.au; Vice-Pres: Rob Stevenson 08  
92211338; Sec: Stephen Hoeffs 08 95275782;  
Trs: Michael Derry 08 92840750.

### Cloudbase Paragliding Club Inc

Club message bank 08 9487 5253; www.cygnus.  
uwa.edu.au/~madmike/paraglid.html; email:  
cloudbase@paragliding.org

Pres: Dave Humphrey 08 9574 5440, 0418  
954176, paradiave@avon.net.au; Sec: Michael  
Duffy 08 9382 3036, 0417 923741 madmike@  
cygnus.uwa.edu.au Meetings: Last Wed/month,  
8pm at the Sportsmans Association, Woodsome  
Rd, Mt Lawley.

### Geraltion & Midwest Hang Gliding Club

Pres: Des Hill 08 99216219; 231 Third Street,  
Geraltion WA 6530.

### South West Microlight Club

Pres: Brian Watts 0412 552363; Vice-Pres:  
Don Wilson 08 97641007; Sec: Paul Coffey 08  
97251161; CF: Brendan Watts 0408 949004.

### WA Hill Flyers Club

Contact: Rick Williams 08 92943962 (h),  
015 057961. Meetings: last Wed/month at  
7:30pm at the Swan Districts Football Club,  
Guildford Rd, Bassendean.

### Western Soarers Hang Gliding Club

Pres: Sam Blight 08 93363738; Trs: Nav  
Brennan 08 93397991; Comp coordinators:  
Gordon Marshall 08 94519969, Nav Brennan.



# GLIDING CLUB OF VICTORIA EVENTS 1999/2000

P.O. Box 46, Benalla Vic 3672

Ph: (03) 57621058, Fax: (03) 57625599,

Email: [gliding@benalla.net.au](mailto:gliding@benalla.net.au) Website: [www.home.aone.net.au/benalla\\_gliding](http://www.home.aone.net.au/benalla_gliding)

Events	Date Start	Date Finish	Duration
--------	------------	-------------	----------

## Flying Camps

Kancoban Mountain

Fly Away Weekend	30 October 1999	2 November 1999	4 days
------------------	-----------------	-----------------	--------

Mt Beauty Mountain

Fly Away Weekend	22 January 2000	24 January 2000	3 days
------------------	-----------------	-----------------	--------

Tumbarumba Mountain

Fly Away Weekend	5 March 2000	7 March 2000	3 days
------------------	--------------	--------------	--------

Old Mates Week	20 March 2000	24 March 2000	5 days
----------------	---------------	---------------	--------

## Air Training Corps

September 1999	September 1999	3 days
----------------	----------------	--------

October 1999	October 1999	5 days
--------------	--------------	--------

Year 2000 as advised

## Chelsea Air Scouts

October 1999	October 1999	2 days
--------------	--------------	--------

## Courses

"Going Solo" All year round – Contact Office for dates

Paddock Landing

Courses All year round – Contact Office for dates

NovEx (1) Course No.1	8 November 1999	12 November 1999	5 days
-----------------------	-----------------	------------------	--------

NovEx (1) Course No.2	15 November 1999	19 November 1999	5 days
-----------------------	------------------	------------------	--------

NovEx (2) Course No.1	14 February 2000	18 February 2000	5 days
-----------------------	------------------	------------------	--------

NovEx (2) Course No.2	21 February 2000	25 February 2000	5 days
-----------------------	------------------	------------------	--------

NovEx (3) Course No.1	6 March 2000	10 March 2000	5 days
-----------------------	--------------	---------------	--------

NovEx (3) Course No.2	13 March 2000	17 March 2000	5 days
-----------------------	---------------	---------------	--------

Cross Country 1 Course	22 November 1999	26 November 1999	5 days
------------------------	------------------	------------------	--------

Cross Country 2 Course	31 January 2000	4 February 2000	5 days
------------------------	-----------------	-----------------	--------

Cross Country 2 Course	28 February 2000	3 March 2000	5 days
------------------------	------------------	--------------	--------

## GCV Competitions

Christmas Competition	26 December 1999	1 January 2000	7 days
-----------------------	------------------	----------------	--------

## GCV Safari

Contact Ron Grant

c/- GCV for details	27 December 1999	7 January 2000	14 days
---------------------	------------------	----------------	---------

## GFA Australian

### Nationals FAI

at Gliding Club

of Victoria, Benalla	27 February 2000	10 March 2000	14 days
----------------------	------------------	---------------	---------

## Horsham Week

5 February 2000	12 February 2000	7 days
-----------------	------------------	--------

(Off site competition course in conjunction with Horsham to be advised)

## VSA Events

Teams Challenge	Dates to be advised	
& Coaching Week	– Contact GCV	5 days

Victorian State

Championships

(GCV Competition

Course No.1)	Dates and venue to be advised	8 days
--------------	-------------------------------	--------

Long Flights Week	Dates to be advised	
	– Contact GCV	7 days

# All Welcome



email: [fly@airborne.com.au](mailto:fly@airborne.com.au)  
www: [airborne.com.au](http://airborne.com.au)

PH +61 2 4544 5122  
Fax +61 2 4544 5355

Dealer inquiries

Air Borne W Australia Fly - P.O. Box 47, Toowoomba NSW 2560 Australia

**“More Great Gear  
From Icom” ad**