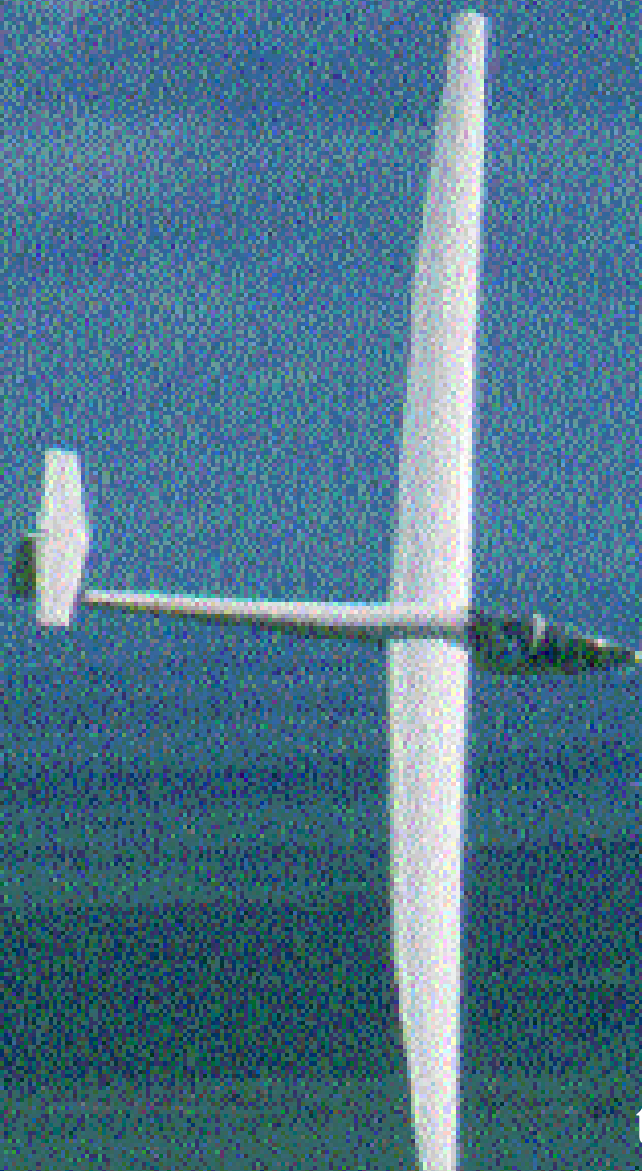


Gliding Australian SKY SAILOR



In this Issue:



Tomas Suchanek – A Profile

Exploring
the Explorer



Home Building
in Australia



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

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

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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

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DEADLINES UNTIL JULY 1999

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 Articles of unknown origin will not be published.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 the name of the photographer 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.

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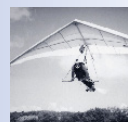


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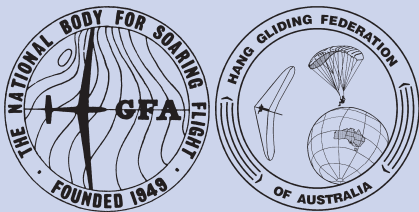
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Hang Gliding Federation of Australia and Gliding Federation of Australia Joint Statement

The Gliding Federation of Australia and the Hang Gliding Federation of Australia have for some time been investigating the advantages that may be obtained through an amalgamation. The details of progress on this proposal have been regularly published and distributed with the final proposal scheduled to be put to members of both organisations via a postal ballot in May 1999.

The Council of the GFA and the Board of the HGFA agree that it will be beneficial to give the members of both organisations an opportunity to become more fully informed about each others activities and to become more familiar with the amalgamation proposal. It was agreed that the most appropriate way to achieve this educative process is to combine the national magazines (Skysailor & Australian Gliding) for the period leading up to the vote. This trial publication period is to include the five monthly issues from March to July 1999.

This is an important period for the members of both organisations in which they will be asked to vote on whether or not the organisations should look to an amalgamated future. A joint publication is an important vehicle for disseminating this information and should lead to a better understanding of the issues involved. Perhaps more importantly a joint publication can best illustrate both the similarities and the differences in the ways we embrace the same activity – the joy of soaring.

Your elected representatives in agreeing to this magazine trial trust that you will find there is no reduction in the usual features and quality you expect from AG and Skysailor. Furthermore it is hoped that this journey into other worlds of sport flying, will be not only interesting and educative but indeed may open the door to a greater understanding of the broader soaring challenges and enjoyment available to us.

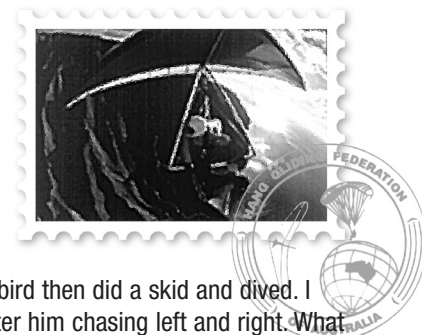
HGFA Board and GFA Executive



► After reading the article “Birds of a Feather” I thought that my experiences of flying with these beautiful birds could be of interest. In March last year I travelled with Rohan Holtkamp and ‘friends’ to Eucla on the Great Australian Bight. Whilst there the group flew with many eagles on the cliffs, the first one I came across was a small lighter brown wedgie who seemed to be quite happy flying with 12-15 gliders in the air. The second were a pair of sea eagles that were just as curious as I was, and would follow behind or off to one side for a kilometre or so. As I flew along the cliffs I flew with five different eagles in 113km. None of these birds looked like attacking, they were just enjoying the ride.

When returning from Eucla I wondered if life got any better than this. Well Graham rang and asked if I’d like to fly at Thistle Hill. Not having been there before (and with the blessing of the good woman), I jumped at the chance. The wind was SW at 15kt with light thermals coming through; perfect. I took off first. At around 200ft above launch I heard a screech from behind, then a wedgie swooped over the leading edge and flew off into the distance. I climbed higher then. As Graham took off the same thing happened twice to him, then on the third swoop it had its talons out and hit the leading edge, causing the glider to drop left sharply.

During the afternoon three eagles joined us at different times, none of them particularly friendly. They seemed to attack Graham’s glider more; he does have a red leading edge whereas mine is white. They would take up the dominate position, behind and higher, and I would then turn away. Sometimes they would follow or keep flying straight on. At one stage one bird positioned himself above Graham. When he attacked I dived on the bird. He watched keenly as I descended upon him, his head turning from side to side. At the last second he dove left and I went right. The eagle and I hit the lift band, ascending together watching each other. I managed to get within 3m of the bird, it was just off my right wing. It then pulled in its wings and dove down, stretched them out and ascended to the same height, but 10m ahead. It did this a few more times flying 60m headwind. It then turned towards me flapping its wings, gathering speed. I thought ‘oph-ark!’ and when it got almost close enough to spit on I flared hard, presenting the whole wing to it.



The bird then did a skid and dived. I dived after him chasing left and right. What an afternoon – an hour and a half of the best fun flying of my life. I landed pumped. As I zipped up the glider the sky was turning an orangey-red, the wind still blowing, and looking up was the silhouette of two eagles flying gracefully. I said ‘thank you’. And life does get better than this!

Hugh Alexander

► Congratulations to all those involved in providing a new launch ramp at Mt Buffalo recently. The new one is slightly longer and steeper than the old one. More importantly, it is wider (better for tandems/crosswinds) and now has no gaps between the timber slats. I believe a few epic tales are remembered about the old ramp (such as how the gouge marks came to be on its surface) and the time(s) a pilot, running to take off, got his VG cord caught in one of the gaps between the slats. Would any other readers like to provide us with details of any of these?

Not far away, a new Mt Emu access track has recently been opened/upgraded for use by ordinary (2WD) cars. There used to be a prize in the Bogong Cup for the worst car to make it to the top on the old 4WD track! Thanks are due to NEVHGC, VHPA and other contributors (HGFA?) for this. Note that, unlike Mystic or Buffalo, there is no site fee or road use toll payable here.

Peter Bolton

Like Lemmings

Like lemmings we all believed the Sunday forecast and rushed off to Stanwell;

Like lemmings we saw the light ENE breeze;

Like lemmings we decided Blackheath was the place to be;

Like lemmings we rushed up to Blackheath;

Like lemmings we stood on launch and marvelled at the light southerly;

Like lemmings we rigged up anyway;

Like lemmings we lined up and threw ourselves, one by one, off the hill;

Like lemmings we followed each other, one by one, directly to the landing area;

Like lemmings we crashed in the light, flukey conditions;

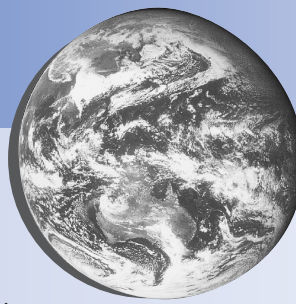
Like lemmings we went to the pub;

Like lemmings we joined all the other lemmings for the Sunday afternoon rush back to Sydney.

David Phillips

In the Circuit

Overseas News



News from "Der Adler"

With the BWLV holding its 11th seminar on club PR initiatives, Hans-Jorg-Jung reports that the connection between publicity and attracting youth is becoming clearer.

Some clubs achieving high levels of media reporting (some with up to 80 editorial publications each year) are finding high levels of enquiries for membership by young people. The media interest offerings include club involvement in charity, community and sports events, including networking with youth groups, school topic classes, special events in conjunction with organisations for disabled etc.

The gliding club Fliegergruppe Wolf Hirth e.V. was presented with the "Golden Ribbon"

award sponsored by Dresdner Bank to the value of 10,000DM for their efforts to promote and advance performance in the sport. This award is judged annually by the National Sports Federation.

The award is not only for hosting regional contests for 33 years plus a 14 year program of contest training young pilots leading to national and European titles in several classes.

Michael Wider reports on a 3 year trial to grow permanent grass (lawn) on hangar roofs, using a felt matrix.

This approach is easing planning permission for large hangars previously considered too visually prominent, as well



Growing permanent lawn on a felt matrix to decrease the visual impact of hangar roof expanses. Photo: Michael Wider

as providing control of heat transfer and longevity in the structure.

F.G. Rentsch e.V.

F.G. Rentsch e.V. have built a new winch featuring a constant speed diesel motor wedged to a hydraulic drive. The layout allows the current 2 drum layout to be expanded to 7 or more as launch rate demand at the club increases.



Noel Matthews. "Kingfisher" at Balaklava Gliding Club SA.

Photo: Beverly Matthews

In February, our most recent editor of *Australian Gliding*, passed three mile-stones: turned sixty, gave up *Australian Gliding*, and celebrated 40 years in gliding with the Balaklava Gliding Club.

Noel's interest in magazine editing began in the early 1960's, with the founding of the club's magazine, the *Whitwarta Whisper*, which he edited for several years. This meant writing it, typing it, running it off on a Gestetner, and distributing it.

He later did the same thing with other groups in which he was involved – the Adelaide Caravan Club (the *Shrieking Pip*) and the Coeliac Society of SA (Gluten-free). Noel was a founder member of both these organisations, and on the committees.

Editing *Australian Gliding* he found was a luxury – not having to do the writing, copying and distribution!

His gliding career though, involved a lot of back-seat work in the early days. That first flight in Kookaburra VH-GHN was later

followed by about 1,000 in the same aircraft as an instructor. He was CFI at Balaklava from 1964-69 and again from 1975-77. The Kooka is still around, usually hangared at Stonefield, and he and his wife Beverly now have a half share in it.

These days ear trouble precludes too much high flying, so his gliding is confined to the airfield locality, with visits to other clubs, competition sites, and vintage rallies when possible.

Gliding memories include flying the *Golden Eagle*, his first flight in a *Blanik* at Colac (with a very low cloudbase), Gold distance and goal in a *Boomerang* during a nationals at Waikerie, and an unrehearsed double tow at an airshow at Parafield.

With *Australian Gliding*, Noel first became involved in the 1960's, when Peter Killmier was editor. He was club news correspondent for a time. In the mid 1980's he again became involved on the committee, then as proof reader for a short time before taking over as editor when Allan Ash retired.

Perhaps because of his experience while working for over 20 years with DCA/CAA, one of his aims with *Australian Gliding* was to publish as much as possible on safety issues, believing that you can learn from the experiences and mishaps of others. Another priority has been development, often neglected by many in the sport, but essential if we are to survive. In recent years *Australian Gliding* has published much on this topic, as well as providing posters, bumper stickers, and so on.

Working closely with the printers in Adelaide, he was able to improve the layout and colour content of *Australian Gliding*. Although regretting the decision to go bi-monthly, he enjoyed the advantages of the A4 size, with even more colour to improve the appearance.

For the future? Noel is still involved as club delegate to the state association; plans some caravanning (there is a van parked at the airfield); and no doubt will still take a camera along whenever airborne. And at the moment there is a half acre block with the new house to be established...

IGC-Approvals for GNSS Flight Recorders

Following is the list of approved data loggers for FAI badge and record flights.

The up to date list and the status of the information can be found on the FAI web site at www.fai.org/gliding click on APPROVED FR's – Updated 28.10.98 (Version 2 of LXN Colibri approval)

Terminology

"GNSS" stands for Global Navigation Satellite System. This is a generic term, and includes the US GPS system and also the Russian GLONASS system.

"GNSS Flight Recorder" is the term selected by IGC to best describe these units.

The term "logger" is used by some but not by IGC because it has already caused difficulties and misunderstandings in translations, it is not as defining, and can also mean something other than a flight recorder in the IGC sense.

Summary, Manufacturers and FR Models

Manufacturers in alphabetical order:

Cambridge Aero Instruments

EW Avionics

Filser Electronic GmbH

Garrecht Computersysteme GbR

LX Navigation D.O.O.

{Peschges Variometer GmbH

Print Technik

Zander

14 FR Models in alphabetical order:

Cambridge Model 10

Cambridge Model 20

Cambridge Model 25

EWFR Model A (see below for list

of GPS units approved for connection)

EWFR Model B (see below for list

of GPS units approved for connection)

Filser DX50

Filser LX20

Filser LX21

Filser LX5000

Garrecht VL1.0

(VL1.0E, VL1.0C)

LXN Colibri

Model 1.0

Peschges VP8

Print Technik GR1000

Zander GP940

A new web site for Australian Gliding Records can now be found at: www.ace.com.au/~djansen/index.html

Another Spectacular Soaring Season in Australia

The current Australian summer season has once again produced spectacular soaring weather with National and World records tumbling. Soaring records have been set at all levels of our sport.

By the second week of January 20 100km flights were completed. Two flights were over 1,200km. Gerrit Kurstjens of Holland is no stranger to Australia and flying his Nimbus 4 from Tocumwal completed a 1,250km triangle. Harry Medlicott, an Australian from the Central Coast, flew over 1,200km in his Nimbus 3D from Lake Keepit to Gawler and then within 24 hours flew another 1,000km from Waikerie.

Tocumwal reported thirteen 1,000km flights between December 11 and January 6. The list looks impressive indeed.

December 11

1. Rob Looisen	Holland	ASW27
2. Gerrit Kurstjens	Holland	Nimbus 4
3. Pam Hawkins	England	Nimbus 4
4. Pepe Gresa Valero	Spain	Nimbus 4
5. Paul Bourgard	Belgium	Nimbus 3

December 25

6. Gerrit Kurstjens	Holland	Nimbus 4
7. Pam Hawkins	UK	Nimbus 3
8. Hana Zedjova	Czech	SZD 56

January 3

9. Erile Bougaerts	Belgium	LS6 17.5
10. Eddy Huybrech	Belgium	LS6

January 6

11. Christian Flutsch	Switzerland	ASW27
12. Hans Wiesenthal	Germany	DG 600
13. Bob Ward	Australia	Ventus 2C

Just to add to the impressive achievements at Tocumwal it was reported that Hana



Pam Hawkins at Tocumwal, January 1999.

Zejdova had flown 17 world records and Pam Hawkins achieving a number of UK and World records.

The 1,000km task was not restricted to the big open class ships. Tom Claffey flying his Discus FV on a 4 day visit to Narromine flew a 750kg triangle course breaking the Australian speed record for the distance. He then flew 920km triangle. He followed this with a 1013km triangle scoring another Australian speed record.

Tomas Suchanek flying an ASW20 completed a 1,013km FAI triangle. Tomas, well known to the world of hang gliding as a three times world champion, has been flying at Narromine for the past two seasons in full weight gliders. He competed in the hang gliding championships at Forbes in January, packed up and moved to Narromine and on his first soaring day completed on 1,013km flight arriving back to the airport at 6:14pm.

The big weather was widespread encompassing huge areas of Australia. Frits Romig from Waikerie flew his 1,000km.

An indication of a big summer is the number of claims and records for both Australian and International pilots. The FAI officer reports increasing numbers of badge claims from Silver to distances up to 1,200km. Halfway through the season, the GFA Record Officer has received more than 45 claimed records.

Beryl Hartley



Left: Hana Zejdova and father Vladislav Zejda at Tocumwal, December 1998.



AQUA Communications, Inc. launches SnakeEye™ – a low-cost handheld Remote Video Inspection System

VMS International signs Agreement to sell SnakeEye™

Cambridge, MA, U.S.A. – January 1, 1999

AQUA Communications, Inc. is pleased to announce the introduction of SnakeEye™, a low-cost handheld remote video inspection tool. Lightweight, modular and portable, SnakeEye™ "lets your eyes travel where you can't." Combining CCD camera and TFT-LCD display technology, SnakeEye™ delivers crystal-clear, full colour video at a fraction of the price of current remote video inspection systems.

SnakeEye™ is modular in design so that it can be easily configured to inspect... air frames, engines, both internally and externally, behind walls, inside ceilings, in and around pipes and machinery, under vehicles, behind computer equipment, underneath automobile dashboards... the possible uses are endless. SnakeEye@ is ideal for quick, non-destructive, qualitative inspections in hard-to-reach places.

SnakeEye™ achieves its versatility with an interchangeable camera head that can be attached to a rigid wand adaptor, a ring finger adaptor or variable length cables. SnakeEye™ comes equipped with a full range of accessories and also has plug-in capabilities, one of which allows the user to connect to a standard VCR to record and playback images. SnakeEye™ offers a full line of optional accessories such as a 3ft gooseneck and a C-mount camera head that allows the user to attach a borescope or a

fiberscope and view the inspection on the SnakeEye™ colour display.

If you would like more information, please contact Ron Mulder, Director of Business Development, VMS International: phone 07 3344 1866, fax 07 3344 1777. VMS International has signed an exclusive distributor agreement for SnakeEye™ in Australia, New Zealand and Papua New Guinea and will be introducing SnakeEye™ at the upcoming Australian International Airshow, booth 145, AQUA Communications engineers and manufactures remote viewing systems and handheld devices.

Workplace Study finds Pilot Fatality Rate highest amongst Workers

Pilots cautioned about electrical hazards from overhead powerlines

The Electricity Association of NSW today issued a caution to pilots, reminding them of the electrical hazards associated with flying at low altitudes near overhead powerlines.

The caution follows the release of a study undertaken by the National Occupation Health and Safety Commission, which found that pilots had the highest fatality rate of all workers – 200 in every 100,000. Many of these deaths have been attributed to aerial agricultural aircraft flying into overhead powerlines.

"All pilots, not just those spraying crops, need to be reminded of the hazards associated with flying close to powerlines," said Mr Michael Sinclair, Executive Manager of the Electricity Association of NSW.

"At dawn or dusk, or when it is overcast, overhead powerlines are difficult to detect when flying close to the ground, and a

number of tragic accidents have occurred because of poor visibility from the air.

"Unmarked power poles also pose a hazard to pilots, especially for those landing on unfamiliar properties or landing strips," Mr Sinclair added.

The Association advises pilots to research the location of power poles and overhead wires before embarking on a flight, especially in areas where they will be taking off, landing or flying at low altitudes.

While most power poles are marked by red and white stripes (large airports), or plastic orange balls (smaller airports), markers are not always clear on private properties, which can lead to serious accidents.

The Association has also issued a caution to pilots of ultralights and hang gliders.

"Pilots of ultralights and hang gliders are also at risk of coming into contact with overhead powerlines," Mr Sinclair said.

"They fly closer to the ground than engine driven aircraft, and have less control depending on the direction of the wind.

"Any contact with overhead powerlines is extremely hazardous and we remind all pilots to remain vigilant with their air safety procedures," Mr Sinclair added.

For information about the location of overhead powerlines and power poles, pilots are asked to contact their local electricity distributor.

An excellent reference for all pilots is "Flying at Low Level" by John Freeman, available from The Pilots Shop, Parafield Airport, SA or any mainstream aviation book supplier. Price around \$17.50, plus postage.



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Canungra Hang Gliding Video now available

Copies of a newly produced video about hang gliding in the Canungra area are now available. This tape by Richard Glasscock is designed as a brief introductory, explanatory and inspirational look at flying in this region. It would be extremely useful for showing your friends, family or work colleagues, to let them see what flying in Canungra is all about. Most people who have seen this video think it is the best hang gliding video they have seen yet.

For details contact Richard Glasscock by phone on (07)55435057, or by email: richardg@qldnet.com.au.

Bird Lore

Most of us have had some encounter or other with a bird, or birds. Real birds. With feathers. Or we have seen them in action, or heard of other bods who have. Some birds think they are hang gliders and want to join in the fun, and some think hang gliders are birds, but are not always friendly and go on the attack. I don't know what they make of paragliders but probably no more than what hang gliders do. Anyhow, Richard Lockhart, the raptor trainer whose article you read in the Oct/Nov '98 Skysailor, is compiling a book on birds he has met, birds he has trained and birds other pilots have encountered, and he would be very interested in hearing from you either at: flyhawk@kdbnet.net.au or nswghga@s054.aone.net.au; or by post (with photographs if possible), here at 19 Gladswood Gardens, Double Bay, NSW 2028.

Airwave releases new Topless

The X-Bow 138, the new topless hang glider from Airwave, has recently passed its British Certificate of Airworthiness. The company claims that the X-Bow 138, with its improved performance and handling characteristics, has been developed for the club pilot. The 138 is fitted with CompoTech carbon spars and has a refined aerofoil section to gain optimum performance.

For more details visit the Airwave website: www.airwave-gliders.co.uk.

Loop-Tightener for Parachutes

Charly Produkte of Germany has released a new emergency parachute fastening system, known as the loop-tightener system. The manufacturer claims that the installation of the loop-tightener makes the use of a pre-determined breaking thread no longer necessary. The system incorporates two pressure springs designed to ensure a constant friction between the surface of the eyelet and the release pin, irrespective of the

pressure from the rescue system.

Further information may be obtained by contacting: Charly Produkte – D 87637 Seeg, Am Osterosch 3. Ph: +49 83641286, fax: +49 8364 8426, email: charly-produkte@t-online.de

Outback Fly-In

The Bourke Flying Club is organising a fly-in on the Anzac long weekend (24-26 April) and are inviting all to come and join them - whether you fly gyros, hang gliders, GA, or any other flying craft. The town of Bourke offers visitors many historical and natural attractions and the club will be organising treks out to a number of points of interest, including the small villages of Fords Bridge, Hungerford and Engonia. The outback country is spectacular from the air, and encounters with friendly local eagles make flying this area a real experience.

Bourke has a 1,830m fully sealed airstrip as well as a grass strip, and there are plans to officially open the airstrip's new terminal on this weekend. It all promises to be a great weekend, whether you want to seek out adventure or just relax and catch a big cod in the magnificent Darling River. Trike pilots are especially encouraged to make the trip out, and join Rod Tyson in his 582 Pegasus Quantum.

Anyone interested in attending the fly-in should contact Rod on 0419 288298, as accommodation in Bourke is limited and organisers would like to get an idea of numbers for catering and camping.

Canungra Hang Gliding Club News

The Tamborine bomb-out situation at present is that we have not yet received notification that the park, which is to be our landing area, has become council land, so for the moment all pilots must keep landing in the current place – the public open space in the Settlers Park Estate. The trees in the park have not yet been removed, making the park quite dangerous anyway. The current bomb-out is quite narrow from east to west, so I would anticipate that, despite our best efforts, there may be some pilots who unavoidably overshoot the public open space. Please try to stay within the correct area, but if you overshoot please move all your gear to the correct place as quickly as possible.

The committee's congratulations go to Jon and Judy Durand and Phil Pritchard, who have recently bought Beechmont launch from Stan Roy. While it is better in theory that all sites should be owned by the club, in reality it was not possible for the club to have bought Beechmont at the present time. There were some enthusiastic and sound ideas from Gordo and Davo as to how we could have done this, but the matter was urgent (other non-pilots were looking to buy) and

there was no way the money could have been raised in time. We are glad that Beechmont launch is in the hands of such capable and dedicated pilots. Jon Durand spoke at the last committee meeting, and their main aim is to improve Beechmont as a flying site. Site fees will stay the same. The idea is to extend the launch area to the right and remove privet and rocks in front of launch to make it safer for paragliders, and for face landing hang gliders. So far Jon has used last year's site fees to pay for Tony Oniper's bull dozer to get the job done. Members are invited to help in future work to remove smaller rocks and sticks and to promote new grass growth.

Andrew Kennedy has finalised plans for the Tambo toilet, which have been sent to Council. We are proposing that they pay for materials and we supply the labour.

Davo Staver is busy making a noticeboard for Kadies Kitchen, to display messages, ads, comp results and other information.

My thanks go to Bettina and Daryl for hosting, and Davo for organising, the terrific Christmas party. Also thanks go to Telecom Dave, Tim, Shirley, Trevor Purcell and Phil Hystek for delivering hampers and gifts to the landowners for Christmas.

Impressive efforts lately have been: Jon Jr won B Grade at both Bogong and Forbes and is now rated 9th (unofficial) on the National Ladder. Graham Mansfield did an impressive personal best XC to Boonah, and Akiko, flying her paraglider, outflew all the hangies by a long way to do a 70km flight to Aratula. Less impressed were Gordo and Zupy, who drove for 43 hours straight to the WA Nationals to score the comp, and from last reports there hasn't been a valid day yet!

1999 Bogong Cup

Day 1: Mt Emu to Mt Beauty via Gundowring – 67km. Barely soarable conditions saw Kraig Coomber win with 29km, closely followed by Rohan Holtkamp and Oleg Bondarchuk.

Day 2: The Pines to Milawa via Everton, Boorhaman and Moyhu – 97km. A classic day saw the field heading into the flatlands. Oleg won the day with a speed of 42.4km/h, followed by Gerolf Heinrichs and Attila Bertok. Twelve pilots from the field of 30 made goal.

Day 3: Mt Buffalo to Mt Beauty via Ovens, Running Creek and Gundowring North – 111km. Another classic day with 18 pilots in goal. Oleg won again with a speed of 41km/h. Gerolf was 2nd and Attila 3rd.

Day 4: Mt Emu to Mt Beauty via Gundowring North and Kancoona South – 91km. Gerolf gambled with an early launch and bombed. Oleg won the day with a speed of 37.3km/h, followed by Rohan and Attila. Only 5 pilots made goal.

Day 5: Mt Emu to Dederang via Gundowring North and Red Bank – 96km. Seventeen in goal. Oleg wins yet again with a speed of 36.9km/h. Gerolf was 2nd and Joel Rebbechi 3rd.

Day 6: Mt Buffalo to Bullioh – 73km. No-one pushed on launch. 15 pilots made it, led by Gerolf with a speed of 36.7km/h, followed by Kraig and Joel.

Results:

A Grade	1	Oleg Bondarchuk
	2	Attila Bertok
	3	Kraig Coomber
B Grade	1	Jon Durand Jr
C Grade	1	John Mills

Thanks to Carol Binder for organising the prizes; Jorg Adamson, Rob van der Klooster and Brian Rebbechi for helping on launch; Jen Rebbechi and James Freeman for assisting with the GPS software; Monica Plohberger and Ralph for doing goal; Jeanette McLaren for doing most of the organising; Airborne and Moyes for hats and T-shirts; Daryl and Jan for use of the HQ at the Bogong Hotel and Phil and Annette for the BBQs at the Mountain Creek Lodge.

Wesley Hill

FAI News

New FAI Records and Claims

The FAI has now ratified the following hang gliding record:

Claim number 5535:

Sub-class: 0-2 (hang gliders with rigid primary structure and aerodynamic control surfaces)

Category: General

Type of record: Straight distance

Course: Hobbs, NM (USA) to Texline, TX (USA)

Performance: 404.7km

Pilot: Ramy Yanetz (Israel)

Hang Glider: Bright Star Millennium

Date: 3/7/98

Previous record: 230.2km (Woodruff, USA, 26/6/93)

The following hang gliding and paragliding claims have been submitted to the FAI for ratification:

Sub-class: 0-1 (Class 1 hang glider)

Category: Feminine

Claim number 5924 :

Type of record: Speed over a 100km triangle

Place: Forbes, NSW (Australia)

Performance: 31.7km/h

Pilot: Tascha McLelland (New Zealand)

Hang Glider: Moyes CSX-4

Date: 31/12/98

Current record: No record registered yet

Claim number 5925:

Type of record: Out and Return Distance

Place: Forbes, NSW (Australia)

Performance: 143.8km

Pilot: Tascha McLelland (New Zealand)

Hang Glider: Moyes CSX-4

Date: 3/1/99

Current record: 135.9km (Nichola Hamilton, UK, 9/1/98)

Sub-class: 0-3 (Paragliders)

Category: Multiplace

Claim number 5914:

Type of record: Speed over an out-and-return course of 100km

Place: Eucla (Australia)

Performance: 23.81km/h

Pilot: Howard Travers (UK)

Paraglider: Apco Futura Tandem 42

Date: 25/1/99

Current record: No record set yet

Claim number 5915:

Type of record: Out-and-return distance

Place: Eucla (Australia)

Performance: 104km

Pilot: Howard Travers (UK)

Paraglider: Apco Futura Tandem 42

Date: 25/1/99

Current record: 73.5km (Roland Würzler, Switzerland)

In addition, there have been five claims submitted for speed over a 100km triangle. All five claims arise from times set during the third round of this year's Flatlands competition at Forbes. The claimants are Rohan Holtkamp (41.1km/h), Oleg Bondarchuk (40.9km/h), Joel Rebbechi (38.1km/h), Gerolf Heinrichs (39km/h) and Tomas Suchanek (35.4km/h). The claims are contesting the previous record of 34.81km/h set by Martin Henri in July 1998. The fastest time to successfully pass FAI requirements will be ratified.

FAI Office moves to Lausanne

The Fédération Aéronautique Internationale's new offices in the Olympic capital of Lausanne, Switzerland, were officially inaugurated on 21 January 1999 with a reception attended by IOC senior representatives and leading authorities from the Lausanne municipality and Swiss aviation circles.

A special guest was Lausanne resident Bertrand Piccard, pilot of the Breitling Orbiter 3, who hopes to be the first to fly non-stop round the world in a balloon. He was presented with a first edition 2nd World Air Games special commemorative medal depicting his balloon.

FAI 1st Vice President, Wolfgang Weinreich, told guests that the move to Lausanne was the start of a new era for the FAI, in which air sports would find their rightful place on TV, and perhaps one day in the Olympic programme. The 2nd World Air Games, in Andalusia (June 2001) would be given wide media coverage throughout the world.

The FAI has taken on three new staff members in Lausanne, in addition to the three who moved from Paris. The offices will provide facilities for small meetings as well as normal office functions, and this meeting room will sometimes be available to air sport groups who wish to meet in the Olympic capital.

For further information contact:

FAI, Avenue Mon-Repos 24, CH-1005

Lausanne, Switzerland, email: press@fai.org,

web: www.fai.org, ph: +41 21 3451070, fax:

+41 21 3451077.

CIVL World Pilot Ranking List

There are new leaders for the new year in the CIVL World Pilot Ranking List.

Competitions over 18 months old have been deleted, and the last results from 1998 (the Norwegian Open) included. Tamegger and Bondarchuk now head the rankings.

In hang gliding, Oleg Bondarchuk is occupying the number 1 position, 9 points ahead of Guido Gehrmann, with Gerolf Heinrichs maintaining 3rd place. New pilots to the top 10 are Allan Barnes (9) and Bernardi Ignazio (10). Gerard Woll (12) and Josef Zweckmayr (13) have dropped out of the top 10. The top 5 female rankings are unchanged.

There has also been a change at the top in the paragliding rankings, with Christian Tamegger now leading by 15 points from Jimmy Pacher, with Denis Cortella in 3rd place. New pilots to the top 10 are Mads Syndergaard, Robbie Whittall and Kaspar Henny. The following have dropped out of the top 10: Bruce Goldsmith (11), Peter Brinkeby (12) and Peter Luethi (17). The top 5 female rankings are unchanged.

Full rankings are on the CIVL website: www.fai.org/hang_gliding/rankings/ or the British League site: www.theleague.force9.co.uk

FAI 'netzine'

The February 1999 issue of Air Sports International is on the net. You can see it at: <http://airsports.fai.org>.

This issue of the netzine has some very interesting and thought provoking stories and articles, including a piece on 'blimps', an account of the 1998 US National Aerobatics Championships, a technical article on the physics of lift, and a testament to the late Oran Nicks by Tor Johannessen, President of the International Gliding Commission of FAI.



1999 Forbes Flat

TIM CUMMINGS

This year

the Flatties turned it on for those pilots lucky enough to be there, with favourable weather conditions setting the stage for some classic flatlands flying (and a few world records along the way). The competition attracted 26 internationals and 48 Australian pilots, most of whom clocked up considerable flying time and cross-country miles over the course of the eight day event. Once again, those who missed the Flatties this year will have to shake their heads ruefully and listen to the stories of heroic feats of endurance and aerial daring second-hand. Many of those competing were rewarded with personal bests thanks to the exceptional conditions.

Day 1

The first day sees Austrian Gerolf Heinrichs get off to a, err..., flying start, shaking those camera problems that plagued him during last year's World Championships (Gerolf believes Australia's innovative use of GPS instead of cameras is a welcome improvement to competition flying). Blue thermals to 8,000ft and a 10kt WSW paves the way for a 141km dogleg to Blayney then Eglington. Gerolf's winning time is closely followed by Australia's Joel Rebbechi and Ukrainian Oleg Bondarchuk.



Leading from the start, Austrian Gerolf Heinrichs

Day 2

Again, a blue day with an inversion at 8,000ft. Molong to Bodongarra airstrip (156km) is the call, and once again Gerolf takes out line honours, followed by Tomas Suchanek and Oleg. Pilots launching later in the day were able to take advantage of the convection set up by the Japanese team's Tarago van, which was on fire at the time.

Day 3 – World record attempt: 100km triangle

Forbes starts really turning it on. Despite some high cloud cover enough heat and instability exists to produce good thermals, and with a light breeze blowing conditions are perfect for a 100km triangle world record attempt. The course is set from Forbes to Gooloogong, then to Grenfell and back to Forbes. The five fastest competitors all beat Martin Henry's previous world record speed (set in July 1998), while the fastest 23 competitors manage to beat the Australian record. The fastest male, Aussie Rohan Holtkamp averages 41.04km/h and is first across the goal line. Although camera problems will probably disqualify Rohan from claiming a record, he was able to score for the purposes of the competition thanks to the new GPS Flight Verification System used for scoring.

Tascha McLelland (Tish the Flying Fish) from New Zealand is the first woman to finish the gruelling task with an average speed of 31.7km/h which, if verified, would be a new Feminine Category World Record.

Day 4

The day is cancelled due to morning rain and the possibility of dangerous thunderstorms. At this stage Gerolf Heinrichs is still leading.

Day 5 – More world records

The weather is getting better and better for flying. Today a very ambitious 150km triangle is set. This has not been attempted since the celebrated 1997 Australian Nationals in Hay NSW, when Tomas Suchanek set a world record of 44.60km/h. Today, two years later, sees Tomas again win the day, but at 40.12km/h he is not quite world record pace. However, second placed Rohan Holtkamp smashes the Australian record of 26.31km/h (set ten years ago in Austria by Drew Cooper) by completing the course with a speed of 37.73km/h.



Tommy the Czech, never to be ignored.

In the overall scores, first place is now held by Oleg Bondarchuk. Previous leader, Gerolf Heinrichs, had planned to start the day early, but zipper problems on his undersurface forced him to fly back to the tow paddock to fix the problem and then launch again. He only lost 30 minutes doing this, but it meant he was no longer flying during the optimum time of the day. Oleg needed to beat Gerolf, and his match racing tactics paid off; only coming fourth on the day, but taking the overall lead.

Day 6 – A third day of world records

Just before the task was set the SE wind backed off from the 15kt that had been blowing all morning, and the thermal strength was sufficient to resist much drift. The task committee quickly realised conditions were such that an out and return record was possible. The orig-

lands



inal task to Tottenham was revised to a course to Trundle and back, a total distance of 142.9km. The existing world distance record in the Feminine Category for an out and return task stands at 134km. This was set by Nicky Hamilton from the UK when she was at Eucla, ridge racing the Great Australian Bight last year. Today, Tascha McLelland was able to complete the task after more than five and a half hours of flying. This gives Tascha the new World Distance Record for an Out and Return Declared Task in the Feminine Category (WDRORDTFC?).

The task proves to be very challenging, and several pilots spend more than seven hours flying trying to make goal. Joel Rebbechi wins the day, scoring a rare maximum possible score of 1,000 points. This notable feat can only be achieved by scoring the trifecta of first to start, first to finish and fastest on the day. The first five pilots all finish the three and three-quarter hour race with less than 55 seconds between first and fifth, indicating the closeness of this competition. There are a total of ten pilots at goal. Overall the first four places remain unchanged.

Day 7 – Fastest day of the competition

After several days of tasks including headwind legs, which tend to favour the low drag, kingpostless gliders, today sees a straight line cross-tailwind task to Tottenham, 153km to the NW. The temperature in the shade peaks at 40°C in Forbes, and an estimated 45°C in the tow paddock. Tomas wins the day in just over two hours (with an average speed of over 64km/h), putting him in second position overall. Oleg is second, also with a speed of over 64 km/h. Third place goes to the top placed Australian, Rohan Holtkamp, with a speed only 1km/h slower than Tomas'. Joel Rebbechi is able to maintain his overall fourth position with a fourth place finish today. Goal was a happy place for 24 competitors today, who were all pleased to achieve a 150+km flight.

Day 8

The last day's flying sees a straight line task to Calleen, 96km to the SW. An early inversion is broken by ground temperatures of 40°C, making for a quick task of less than two hours despite the crosswind.

The final day of any competition (no cameras or start gates), calls for a different strategy in the tow paddock. In this case, Tomas and Oleg were both towing up behind

different dragonflies. Tomas wanted a later start time, so released and flew back for another tow. Oleg was quick to follow and got back to the paddock first. They then both towed up at the same time. The tug drivers attempted to avoid another confrontation by towing Oleg and Tomas to opposite ends of the paddock. Tomas released first but still Oleg managed to get into goal 13 seconds earlier, giving him the final trophy (although at a cost of \$15 for that extra tow).



Best placed Australian Joel Rebbechi.

The day is won by the Aussies however, with Joel Rebbechi from Sydney winning the day for the second time this comp with a time of 54.6km/h. Rohan Holtkamp from Beaufort, Victoria comes in second, also faster than 50km/h. (By way of comparison, Joel's father, Brian Rebbechi, who learnt to fly at the same time as Joel, was able to complete the course with a respectable, if not competitive, speed of 20.2km/h.)

At the end of the meet it was pilot Oleg Bondarchuk who took out winner's honours, followed by Tommy the Czech and Australia's own Joel Rebbechi, who nudged aside Gerolf Heinrichs to take out third place overall.

Results

1	Oleg Bondarchuk	UKR	Aeros Stealth	6,209
2	Tomas Suchanek	CZE	Moyes CSX4	6,106
3	Joel Rebbechi	AUS	Moyes CSX4	6,002
4	Gerolf Heinrichs	AUT	Moyes CSX5	5,857
5	Rohan Holtkamp	AUS	Moyes CSX5	5,844
6	Attila Bertok	HUN	Moyes CSX5	5,598
7	Bob Baier	GER	Moyes CSX5	5,194
8	Grant Heaney	AUS	Moyes CSX5	4,943
9	Kraig Coomber	AUS	Moyes CSX5	4,896
10	Len Paton	AUS	La Mouette Topless	4,666

Women's

11	Tove Heaney	AUS	Moyes CSX4	4,504
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Thanks to Vicki from Moyes and all those involved in organising the event for expending their time and resources on such a worthwhile project.

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Gliding SIZZLING

SAGA State Comps at Renmark – January 1999

GRAHAM PARKER

For the first time in many years the SA comps this year reverted from a regatta system to a single week long event in an attempt to reverse declining attendances over recent years. Those who turned up at Renmark this year had a ball. All classes were represented, but with only two open class gliders entered, (both ASH25) all the 15m gliders were promoted to open class and also scored separately for 15m class. All FAI gliders flew fixed tasks under FAI Nationals rules and Club class flew POST tasks under Club Class Nationals rules.



Above: Graham Parker – Winner S.A. State Comps Open and 15m Classes, Renmark, January 1999.

Practice Day – 2/1/99

Typical practice day weather. Cumulus at 12,500ft. Unfortunately there was a trough on the doorstep which was going to move through overnight and spoil the fun.

Day 1 – 3/1/99

As predicted the trough moved through to the east and Renmark was left with a hot, stable south-easterly wind, with blue thermals predicted to go 4,500ft at 40°C. With these conditions this was always going to be a tough day at the office, and the winning speeds reflected this.

Results

Open & 15m	317km	G. Parker	92kph
Standard	258km	A. Wright	73kph
Club	225km	P. Clift	59kph

(H'cap speed)

Day 2 – 4/1/99

A new trough was forming to the west and this gave a much more promising temp trace with predicted maximum of 43°C. A late start to convection meant only moderate tasks were set. As it turned out contestants had to start in similar conditions to the previous day, but late in the day the sky lit up with beautifully formed cumulus at 12,500ft. A sign of things to come.

All of south-eastern Australia was sizzling today. Late in the day Harry Medlicott passed overhead on his record breaking flight from Lake Keepit to Gawler, and 1,000km flights were done from Temora, including Bob Ward who has been attempting it for 20 years but has finally seen the light and headed south.

Results

Open & 15m	346km	G. Parker	134kph
Standard	263km	P. Rosewarne	107kph
Club	256km	R. Tuncks	84kph

(H'cap speed)

Day 3 – 5/1/99

When Renmark turns on a good day it is as good as it gets anywhere. Now more under the influence of the trough lying almost stationary to the west, the temp trace was a classic. First thermals predicted to go to 10,000ft at 40°C with maximum of 43°C predicted. Strong climbs and fast speeds under 13,000ft cumulus streets were the order of the day. Dion Weston's (ASH25) datalogger revealed that he only took two

climbs in the first 300km, both 10kt, to set up the fastest flight of the competition.

Results

Open	544km	D. Weston	151kph
15m	544km	G. Parker	141kph
Standard	470km	S. Nankivell	130kph
Club	380km	B. Tuncks	92kph

(H'cap speed)



Peter Robinson (Whyalla and Districts Club) at the S.A. State Comps, Renmark, January 1999.

Day 4 – 6/1/99

More of the same. 44°C predicted, but possibility of showers and storms later in the day. Pilots (and crews) were beginning to wilt after 5 straight days of 40°C+ heat. Chief task setter had to be physically restrained and similar sized tasks to yesterday were set. If anything, the day turned out even stronger than yesterday, with large cumulus at 12,000ft, but all classes had to make sizeable detours to avoid showers which slowed things down a bit. Those doing POST tasks were able to pick the best of the weather and do very good speeds.

Rob Lillywhite, who was crewing for his son, managed to commandeer Adelaide Soaring Club's Hornet today and, undeterred by the fact that its water ballast system was unserviceable, declared a completed 750km. 750km in an empty Hornet is a pretty neat trick. Harry Medlicott also lobbied in near dark. He had declared 1,080km O/R from Waikerie in his Nimbus 3DM and actually had final glide to Waikerie but was confronted

March 1999

SOARING

by rain west of Renmark and elected to turn back and land here.

Results

Open & 15m	494km	G. Parker	136kph
Standard	508km	S. Nankivell	120kph
Club	371km	P. Clift	103kph

(H'cap speed)

7/1/99 and 8/1/99

All good things must end. The trough finally got mobile and wiped out the competition for a couple of days with heavy cloud and rain. A pilots meeting was held on 7/1/99 at which the current week long format of the SA comps was emphatically endorsed. Harry Medicott also gave a talk, describing his Lake Keepit to Gawler flight.



Phil Rosewarne – Winner Standard Class, S. A. State Comps, Renmark, January 1999.

Day 5 – 9/1/99

The trough moved through and Renmark was left with a very moist, tropical easterly, which is very unusual for this part of Australia. It was like being at Kingaroy, with cumulus starting at about 1,500ft at 08:30 and gradually rising to about 6,000ft, at a very sticky 35°C. Modest tasks were set to enable verification to be finished prior to the presentation dinner. Most contestants actually found the day quite tricky with weak, hard to centre thermals.

Results

Open	248km	B. Eckey	117kph
15m	248km	G. Parker	108kph
Standard	186km	C. Lillywhite	98kph
Club	146km	P. Clift	73kph

(H'cap speed)

The presentation dinner that night was well attended and there was almost unanimous support for continuing the SA comps as a week long competition at the height of the soaring season. Many pilots flew higher, further and faster than they had ever done before and are already looking forward to next year, wherever the comps are held.

Overall Winners

Open & 15m	G. Parker	ASW27
Standard	P. Rosewarne	LS4
Club	P. Clift	Ka6e
15m League 2	P. Goodale	Mosquito
Standard League 2	C. Lillywhite	Libelle
Bond Trophy*	E. Prelgauskas	Super Arrow

*(awarded to the pilot displaying greatest determination and meritorious effort)



Rob Lillywhite (Adelaide Soaring Club), points to a turnpoint of his 750km task, Renmark, January 1999.



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Profile: Tomas Suchanek

JUSTIN BEPLATE

In the sport of hang gliding there has probably been no pilot who has so comprehensively dominated competitions over a given period as Tomas Suchanek. The 'flying Czech' began making an impact in this country during the late 80s, starting with an appearance at the 1986 Worlds staged at Mt Buffalo in Victoria, and by the early 1990s he was all but unbeatable in the Australian trifecta of summer competitions. Now, with his sights set on the wider horizons of sailplane competitions, the gliding fraternity would do well to take notice of this formidable talent. It seemed only fitting, in this first joint publication of the new magazine, that we profile a pilot who has so successfully straddled the separate disciplines of gliding, hang gliding and triking.

Tomas seemed to bring with him a new level of professionalism in his approach to the sport of hang gliding. It was an attitude perhaps somewhat foreign to the prevailing culture of competitive hang gliding; the work hard, party hard, fly by the seat of your pants and rely on your instincts approach to competition. There were many talented and committed pilots belonging to this school; Rick Duncan, Drew Cooper, Mark Newland and Steve Moyes amongst others. It did not take long, however, before Tomas was systematically eliminating all opposition in competitions; occasionally winning every day of a 6-8 day meet.

The thing which seemed to set Tomas apart from his rivals was the discipline with which he honed his existing talent for flying. This discipline was manifest in all areas of his flying; his comprehensive grasp of aerodynamics and speed-to-fly theory, his attention to detail in maximising the performance of his equipment, his mental preparation before launch, and the calculated efficiency of his decisions in the air. It wasn't long before it became apparent that this 'ice

Above: Tomas at Narromine, February 1999.

man' approach had the potential to set course times ablaze, and many pilots discovered a newly awakened enthusiasm for parabolic curves, vectors and the finer points of aerodynamics theory.

And yet, there has been a tendency to over-emphasise the machine-like efficiency of Tomas, as if he were merely mechanically applying some complex scientific formula to his flying. Those pilots, however, who competed with Tomas at the peak of his powers will attest to the almost uncanny knack he had for reading the air and finding good lift when it was really needed. Time and again you would hear stories of pilots following Tomas along course, flying through one thermal (not quite strong enough), pulling the bar in, flying through yet another, then finally decking it in a flurry of half-bewildered expletives, only to look up and see him climbing out 500m further along course. The current women's world champion, Corinna Schwiegershausen, has made the observation that whenever Tomas found himself desperately low in uninviting terrain he would always be saved by the sudden appearance of a bird marking the lift. (There are more things in heaven and earth, Horatio...?)

All this is not to suggest that Tomas is in the service of supernatural powers (tempting though this explanation may be); rather, it is to underscore the difficulty of singling out certain characteristics as decisive in the success of Tomas Suchanek. There is no doubting the technical expertise of Tomas, however it takes more than technical expertise to forge a three-times world champion. It is the combination of a myriad of attributes, preferences, skills and idiosyncrasies working together in concert to produce the desired result. Those who aspire to emulate Tomas by focusing on only one aspect of his flying will, in all probability, suffer the same fate as our hapless pilots mentioned earlier, resolutely riding his wake all the way to the ground.

I had to resist the impulse, in the following interview with Tomas, to ask the time worn question of what it takes to become a three-time world champion. I recall, with some glee, an episode halfway through the '93 Bogong Cup, when Tomas was invited to deliver a short talk at the morning briefing on how to successfully cross the gap at Coral Bank (as the dismal success rate thus far was threatening to lower the overall validity of the comp). There was considerable interest amongst pilots in finally discovering this sought after secret, and the hush that descended when Tomas rose to speak was profound. 'Ze vay to cross Coral Bank,'

intoned Tomas in his familiar deadpan style, 'is to get high.' It was all we could have hoped for. And when I think of how Tomas might reply to my question, were I foolish enough to ask it, I think it might just run something like: 'Ze vay to be three-times world champion is to vin ze world championship three times.'

Do you recall the circumstances that first prompted your interest in flying? How old were you and what was your situation when you first became aware of hang gliding, and how quickly did you take up the sport?

I was interested in flying from childhood. I remember building my first paper models of planes when I was four. When I was fourteen I visited a local gliding club, but the political situation in Czechoslovakia did not allow much freedom. Then, in 1980, a friend of mine told me, quite by accident, to try hang gliding. We had to build our first hang glider by ourselves, which included sewing the sail. For the first two years I took it easy with my flying, having high school and some other sports on my mind.

I am sure many of our readers would be interested to get a glimpse of your flying career as a young Czech pilot in the early 80s, before you began achieving success overseas. Could you briefly chart the events that led to your

Tomas Suchanek

Age: 34

Married: Yes

Children: Two sons, Peter (7 years) and Jan (8 months)

Qualifications: Overeducated in aeronautical engineering at Prague University; graduated 1990. Hang glider pilot since 1981, trike and ultralight pilot since 1987, sailplane pilot since 1996.

Competition results: Participated in close to 90 competitions since 1981. Approximately 35 victories, including:

Hang Gliding

1989 World Championships, Switzerland – 2nd
1991 World Championships, Brazil – 1st
1993 World Championships, USA – 1st
1995 World Championships, Spain – 1st
1992 European Championships, Norway – 2nd
1994 European Championships, France – 1st
1996 European Championships, Hungary – 1st

Trikes

1993 European Microlight Championships, Czech Republic – 1st
1994 World Microlight Championships, Poland – 1st

Sailplanes

1998 European Club Class Championships, – 2nd

professional career, including any repercussions resulting from your pursuit of an activity like hang gliding in what must have been a climate of close bureaucratic scrutiny.

I used to design and to build a new glider every winter to have it ready for the upcoming season, and then sell it in autumn to have enough cash to build a new one next spring. Regarding the political climate at the time: The communist government was not allowing us to travel freely at all and the pressure on hang gliding, as a relatively free sport, was enormous, including secret police monitoring, persecution and strict rules minimising the risk of defection from the country. We were, for example, not allowed to fly higher than 50m above the hill, and cross-country flights were forbidden altogether.

You and Manfred Rubmer have been very closely matched competitors in past years, with the result being some very hotly contested titles. I am interested to hear your views on the way in which onlookers have tended to polarise the difference in your respective flying styles.

Your own technique has been characterised as coolly calculating and machine-like in its efficiency – the 'science' of flying you might say – whereas Manfred is sometimes portrayed as a more free-wheeling and intuitive exponent of the 'art' of flying. Do you think such characterisations are useful in understanding the possible ways of succeeding in competition, or are you and Manfred, in truth, much closer in terms of your technique and overall approach to competitive flying?

Manfred belongs to the period of 'defending' my position, and that was hard. Anyway, your description of our differences matches the reality well enough. At that time I had enough background, including education, to appear as you have described, while Manfred was still relatively young in the business and had to use his natural feeling. In the end though, when we flew together we both had a similar view of where to go, we both made similar decisions and opted for similar routes to fly.

The last few seasons have seen the widespread emergence of kingpostless hang gliders on the competition circuit, and along with this trend there has arisen an element of discontent with what some perceive to be the growing 'elitism' of competition in recent years. Do you think this sentiment is going to pose an ongoing problem for competition organisers? In this regard, can hang gliding learn from the experience of the gliding community, who have instituted a handicap scheme extending to even the most elite forms of competition such as the World Championships?



The serious competitor – Above: Tomas during his recent gliding speed around a 1,000km triangle World record attempt... and right during this year's Australian hang gliding summer competition circuit.

I think Australians do a good job encouraging young pilots to compete in newcomer, advanced and other categories, as a way of keeping everyone keen on completing the task set. Sure, the sailplane community made its decision a decade before us and under circumstances similar to those now facing us.

Can you outline some of the reasons that have led you to devote more of your energy to sailplanes recently? Are there specific features about flying a sailplane that you find more enjoyable or perhaps more challenging at this stage, or is it more the sense of rejuvenation that comes with a change of scene?

Flying sailplanes allows me to learn new things about flying again, and I can try to improve myself in many ways. Plus some stuff is new to me, like wave flying or being airborne from the beginning to the end of the thermal day; situations which I rarely experience in a hang glider. Flying the glider is interesting because usually a larger area is covered. I have to have a larger picture about the weather and the country, and it's flying on a bigger scale. Also, as I am getting older and more lazy I usually come back home in the evening. I still enjoy hang gliding, with its pure contact with the air, terrain and nature, and there is nothing comparable to that feeling so far.

Could you describe briefly the circumstances of your recent attempt on the world record for speed around a 1,000km triangle? Do you feel conditions on the day were such that a record was possible, and if so, what strategies would you adopt to ensure success next time?

I did a 1,019km triangle attempt on 7 January 1999. I completed the course, but missed the first turnpoint FAI sector by some 40m. I was a little bit unorganised that day, sitting in a sailplane cockpit for the first time after a two month break. Well, we all have to pay some price for our mistakes, don't we? Then I did four flights of over 750km, being better able to control all the electronic instruments by

then. The weather has been excellent this season and I think there is a huge potential to establish new world records in Australia next season, both for hang gliders and gliders.

As an aeronautical engineer and someone who has been involved in the research and development side of hang gliders, you are probably more aware than most of the obstacles facing any radical improvement in glider performance in the future. Are you optimistic about the possibility for new technologies to continue to improve the performance of aircraft across the gliding spectrum (including hang gliders, paragliders and sailplanes)?

The new technologies will, of course, affect the development of hang gliders in the future, and allow an increased performance together with improvements in handling, coordination, weight, etc. On the other hand, the established categories of sailplanes, hang gliders and paragliders will probably continue to be separate in the near future, and I don't expect too much crossing. Who will, perhaps, be crossing from one to the other are the pilots.

What activities, other than flying and sex, do you regard as important in your life right now?

Other sports like biking, snow skiing, family life and so on.

Do you think you will continue to be competitive in the future, whether flying sailplanes or hang gliders? Is competition an intrinsic part of your basic drive to fly these days, or do you continue to derive a sense of wonder whenever you take to the air?

I may be still trying to reach the peak in the sailplane world; that 'grand slam' of three



different crowns is still some sort of challenge. I may keep competing in hang gliding if I am enjoying it, and if they let me win sometimes. I prefer to fly records because it is a pure competition with the time on course, and there are none of those annoying gaggles. Of course, fun flying will continue to be a part of my life.





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1,000 kilometres...



R. W. WARD

Ventus 2CM "BW" at Tocumwal after the flight.

As long ago as 1978, Dennis McCaffrey and myself completed a 750km FAI triangle flight out of our club site at Jondaryan, Dennis in his Hornet, and myself in my then brand new Pik 20D. On that flight, we left after a 1,000ft winch launch, both chock full of water, and were on our way after 10.30 am, far later than we could have left, in hindsight. The day boomed, and I was back at the club soon after five pm, with two hours of soaring remaining, so Dennis and I concluded that a 1,000km flight was indeed possible, although very few pilots were thinking 1,000k at that time. An interesting aside to this flight was the appearance of a true sea breeze front at Jondaryan, one of the very few times I have seen this phenomenon, and on this occasion, certainly the most spectacular I have ever seen at our site. After completing 750km in under seven hours, I was able to climb away after crossing the finish line and spend the next two hours running this front between Jondaryan and Millmeran at up to 10,000ft without the need for a turn. The cloud shelf was simply spectacular.

However, I digress.

I have lost count of how many times since that flight that I have tried 1,000k, mostly out of Jondaryan but also from Dalby, Narromine and even Tennant Creek in the Northern Territory. Several times I have seemingly had 'defeat snatched from the jaws of victory', the most notable being the Tennant Creek flight, when three of us, on the way back from Darwin by trailer, took the opportunity to launch at Tennant for a straight out 1,000k attempt to Winton in

Western Queensland. For the first several hours, the day seemed heaven sent for a long flight. Pushed along by a 15kt westerly, we were able to complete 750km in under six hours, only to be frustrated by a completely impenetrable line of storms at Cloncurry, which prevented any further progress.

Another memorable failure was Christmas Eve 1996. All on my lonesome, I declared a multiple out and return, DDSC, Roma, Bell Wallumbilla DDSC. The weather was the typical north-easterly stream trough conditions which were experience, which usually give very early starts, high cloudbases, but sometimes with spectacular overdevelopment to frustrate the flight at the end of the day. I was able to start very early, at 9am and was happy to make steady progress toward Roma, with the light tailwind, and completely blue climbs, egged on at every climb with haze domes in the distance, giving hope of a break in the inversion which would give cumulus climbs and high cloudbases, so necessary for these distance attempts. Well the inversion never did break early as expected, and I did the first 300km to Roma under 3,000ft agl before the day finally boomed. Frustratingly, despite a dream run for the rest of the flight, I simply ran out of day and reluctantly cut the flight short at Chinchilla on the second round, to post a distance of approximately 900k.

Needless to say, the next day, Christmas day, which I had pledged to spend with my family produced high cumulus from 9am to dark, a 1,000k day if ever I saw one.

The last few seasons have been particularly frustrating for 1,000k attempts, Australia-wide, without a single successful attempt for

I think four years, but this season has changed all of that.

I was keeping touch with the conditions in the south via my son Andrew, who is this season, Operations Director at the full time gliding operation at Benalla in Northern Victoria. Up to and including Christmas day there were seven 1,000k plus flights done out of Benalla and Tocumwal, and one out of Narromine. That included a 1,250km FAI triangle flight by Gerrit Kerstens of Holland, done out of Tocumwal on Christmas day. The same day, Pam Hawkins did 1,000km, breaking several women's records. Both of these flights were in Nimbus fours.

With two sons and two grandchildren in Victoria to visit, and with my Ventus already at Tocumwal, Jan and I decided to go to Tocumwal straight after Christmas, in the hope that the good weather would last.

The first few days were very mediocre for flying, so we went straight on to Benalla and then to Melbourne to fulfil family commitments.

We returned to Tocumwal just before New Year, to find that a lovely heat wave/ trough was establishing, just what is needed for long distance attempts. Ironically this was the very same trough which frustrated flying plans at DDSC during this period. Up here it was accompanied by heavy cirrus cloud and little convection, but down south by instability, early starts and high cumulus cloudbases.

During the heat wave conditions in the south, it is quite impossible to be sure which is likely to be "the day". Some days do not start early enough, which can result in an early outlanding or extended struggle,

at last!

Gliding



followed by booming conditions for the remainder of the day. Other days start OK, but can be cut off in several sectors by thunderstorms. It is not unusual for tasks in one direction to be successful while in another, result in failure or even outlandings. In this regard, it must be realised the enormity of the task area out of Tocumwal. It is possible to choose two different 1,000k FAI triangles which do not even overlap. In many respects, getting the task choice right is the key to success, and is largely pure luck.

The general rule for distance flying is to be on the grid early and completely ready on any day of the heat wave/trough. This I did, from before new year onwards.

For the first few attempts, I elected to try only FAI triangles, as although the chances of success are less, the flights count in the Barron Hilton Cup contest. A 1,000k triangle is likely to win the contest in any year, and the prize is a fortnight flying at the Barron Hilton ranch in Nevada, a Mecca for glider pilots. They even pay you to take a friend!

The 3rd of January looked promising, although the northerly stream was somewhat stronger than desirable for an early start into the north. For this reason, I decided to do the first leg towards Benalla, which although towards irrigation country, is at least downwind. Well 20 minutes after starting I was to find myself on the ground with a distance for the day of less than 40 kilometres. It turned out that those who had elected to go north struggled for the first hour, but the day then boomed, and at the end of the day there were three more 1,000k flights on the board, to accompany my 40km attempt. Needless to say, that night, Jan had to lock

up the razorblades and knives, as it was definitely wrist slashing time.

However, the trough was still firmly established, but with only a couple of days left in my stay, I elected to abandon triangle attempts in favour of multiple out and returns.

On the 4th of January, I declared Tocumwal, West Wyalong, Tocumwal, Hillston, Tocumwal, all four legs just slightly over 250km.

After the previous day's experience, I decided not to be the first to launch, but allowed the other two who were trying this same task to go first. They reported lift to 4,000ft at 4kt 20km out, so I launched just before midday. This is rather late for a 1,000k attempt, even with daylight saving, but as the previous days had gone until 9pm, it was still very much on if the day developed.

The first hour gave reliable climbs between 2,500 and 5,000ft, and steady progress was made against the light northerly. Cumulus then formed, and cloudbases steadily rose up to 13,000ft, although strengths were seldom over eight knots average.

I was back at Tocumwal by 4:10pm with just over 500km remaining. One does not often consider starting a 500k flight at this hour of the day, but by this time I was averaging over 140km/h so the equation did indeed compute, so long as the day was to last. Despite the time of day, I was really very confident, as by then I was operating largely between 9,000 and 13,000ft, and on oxygen much of the time. My confidence was also improved by the fact that I had caught and passed the other two who had left before me.

I rounded Hillston at 5:50pm which was 250km in one hour and 40 minutes, or over

150km/h into the wind. A quick calculation showed that my average speed was in fact increasing despite the time of day.

All that remained was the small matter of completing the last 255km before the sun went down! On this leg, I was determined to stay high and out of trouble, being haunted by all those memories of previous near misses. Well, the day did last. I was able to start final glide about 70km out after crossing a long patch of overdevelopment to my lowest point for many hours, 5,000ft above ground. This glide slowed the flight a little, but I crossed the line at Tocumwal at about 8pm for an elapsed time of just over eight hours.

1,000km at last, after 20 years of trying. Indeed on this day an even greater distance was possible, as one of the other two pilots finished at 9pm, so in hindsight there was plenty of day left.

Despite the almost eight and a half hours in the air, after finishing, I felt as fresh as a daisy, which is a great tribute to the comfort of the Ventus, and I guess to the use of oxygen when cruising at such high altitudes.

In summary, there is no substitute for day length available when seeking to do such long flights. Our site at Jondaryan has year round average weather, which would be hard to equal anywhere in the world, but 1,000km days are very rare, indeed, only one has ever been done from our site. In contrast, the three 1,000k flights done this day brought to 13 the number out of Tocumwal, for the season, and I understand there have been a few more since we came home.

It is really a great gliding year in the south! Roll out those lazy, hazy days of summer!





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Navigating with GPS

HAKIM MENTES

Global Positioning Systems in general

It seems to me that many pilots are opting for buying GPSs without understanding them or spending enough time learning how to use them properly. Unlike other instruments we utilise for flying, using the GPS requires extra information which does not come with the user's manual. We have to know how to read maps and to match GPS settings with the map.

The GPS system was established and funded by the US Department of Defence, thanks to the US tax payers (the Russian system is similar, but less reliable,). The system consists of 24-25 satellites orbiting around the world. Unless you are using the Precise Positioning System (available to the US military and some limited civil agencies) the accuracy of the system is as follows: horizontal accuracy 100m; vertical accuracy 156m; time accuracy 340 nanoseconds. It is guaranteed that these accuracies are correct 95% of the time; the remaining 5%, hell knows.

In general the accuracy of the GPS is better than 100m; the figures given above are the worst cases. As a matter of fact, a simple handheld GPS unit is capable of producing a horizontal accuracy of around 20m, however the US military deliberately induces random errors into the satellite signals to reduce the accuracy for civilian users. This is called Selective Availability (SA), which is ON most of the time, but on some odd occasions (the US Panama invasion and the Gulf war) it was turned OFF due to the shortage of military GPSs.

Benefits of having a GPS

GPSs can be used in many ways. They are invaluable safety tools to throw at the dogs attacking you just after a landing while you are still attached to the harness and not able to run away. Preferably throw the mobile phone first (more durable and less expensive), then the GPS followed by the radio and vario. Given the accuracy of 340 nanoseconds (0.000000340 of a second) they are perfect tools for time conscious pilots who consider time to be very important.

It is a bit awkward wandering around with the GPS dangling on your wrist, but it looks cool! GPS is the easiest way of determining the wind direction and speed while flying up high. They give accurate ground speed readings, accurate enough to calibrate your vehicle's speedometer. They are most useful when it comes to navigation, however this is the hardest part to master amongst the other usages.

In this article I will try to explain how to configure the initial settings, enter coordinates and outline the differences between various maps. (Entering routes and point-to-point navigation will be the subject of upcoming articles.)

If you ever end up entering a flying competition, the comp director may hand out a piece of paper listing the coordinates of turnpoints and accepting no responsibility for the correctness of the information. Sounds like Microsoft. He or she won't even bother telling you what map datum these coordinates are based on. The map datum describes how features on the earth's surface are positioned on the map in relation to grid lines. Using a wrong map datum may put you hundreds of metres off the course!



Figure 1 – Minor Map Information

The map I am looking at right now is based on Australian Geodetic Datum 1966 (AGD-66). Luckily my Garmin 38 has this map datum built in, so to use this map I need to change the GPS map datum to AGD-66. If you happen to have the coordinates, but not the map datum then use AGD-66 in Victoria. The other states may use the Australian Geodetic Datum 1984, but this shouldn't worry us as the difference between the two datums is only a few metres. However, elsewhere around the world, change the GPS's datum to World Geodetic System 84 (WGS-84) to be safe. Most GPSs should have WGS-84 map datum built in. How to change the map datum of the GPS should be described in the user's manual. If you intend to have serious cross-country flights then go and buy proper topographic maps, not HEMA tourist maps as they are next to useless for our purposes unless you are a masochist. On the topographic maps the map datum information is printed in the minor information section adjacent to the scale of the map, as illustrated in Figure 1.

Maps

We have the map and the map datum in the GPS is set accordingly; now it is time to enter

the coordinates of the points we want to visit. I emphasise again: Go and get a proper 1:50,000 scale (or 1:25,000) topographic map, not a tourist map. Topographic maps are sold in special map shops or in some outdoor equipment shops. All Australian topographic maps (at least, all I have seen) are grided in accordance with the Universal Transverse Mercator (UTM) grid system. They also show latitudes and longitudes. Tourist maps use latitudes and longitudes (degrees, minutes and seconds) only, which are a pain to work with. If UTM grided maps are available don't waste your time fooling around with latitudes and longitudes.

As illustrated in Figure 2, all grid lines on the map are numbered. The vertical grid lines (eastings) (1) are numbered from left to right (west to east) and horizontal grid lines (northings) (2) are numbered from bottom to top (south to north). (By the way, the top end of maps, without exception, wherever you go, always points north!) If you look at the eastings (1) they are numbered with three digits, the first digit being smaller than the second and third digits. Similarly, the northings (2) are numbered with four digits, the first and second digits being smaller than the third and fourth digits. When navigating by the aid of a compass we are interested in the larger digits, but in the case of GPS all digits are needed.

A practical example

Let's choose a point on the map and enter the coordinate of the location into the GPS. If you look at the road intersection (3) of Reedy Creek Road and Strath Creek Road (near to Tyaak) in figure 2, it is located on the right hand side of the easting 334 and above the northing 5878. The coordinate of the location can be given as 334 5878. In practice only four digits (large digits, 34 78) are required, given that everybody uses the same map. This is called four digits grid reference (coordinate), and gives only 1,000m accuracy (which is far from what we really need). The important thing is to always give the eastings (vertical line's number) first, then the northings (horizontal line's number). If you mix them up you stuff it up in a big way (usually the other party knows you have stuffed it up anyway).

For military and most other navigational purposes a six digit grid reference is the standard, which identifies objects with 100m accuracy. This is really what we are after, given that the GPS has only 100m horizontal

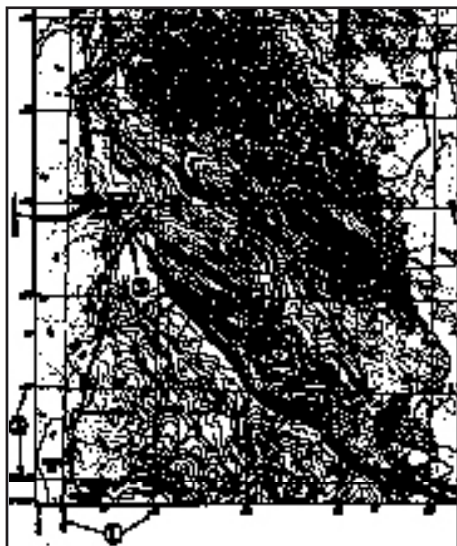


Figure 2: Topographic Map

positioning accuracy. To give a six digit grid reference we measure the distance of the object from the grid lines. Normally grid lines are spaced 1,000m apart, which is the case for the map in Figure 2. The intersection (3) is 700m away from the easting 34, and 800m above the northing 78. Then the six digits grid reference for the intersection is 347 788. With the aid of special devices it is possible to give eight digits grid references on

topographic maps which gives 10m accuracy, however that degree of accuracy is not necessary for our purposes.

Identifying the grid references of objects on maps is the crux of any navigation. Once turnpoints are correctly identified the rest is handled by the GPS. To enter the coordinates of the road intersection (3) into the GPS we have to find the 14 digit grid reference, which is 0334700 for the easting and 5878800 for the northing. In the easting the first digit (0) is added just to make up the numbers, the 2nd, 3rd and 4th digits (334) are the easting for the intersection read from the map, and the 5th digit (7) is the distance from the easting to the intersection. The northing 5878700 is made up similarly. The first four digits (5878) are read from the map, the 5th digit (8) is the distance to the intersection from the northing. Since we are only interested in 100m accuracy, the 6th and 7th digits are left as zero.

The method for entering this coordinate in the GPS differs between various brands. The following explanation is for Garmin 38. Press PAGE or QUIT buttons until MENU page is displayed. In MENU page using arrow keys move the cursor over WAYPOINT option

and press ENTER. Move the cursor over the NAME field and press ENTER. Type in a name using arrow keys and press ENTER to exit. The cursor moves onto the coordinate field. Press ENTER to access the edit mode. Using the arrow buttons enter the required coordinate. Don't worry about 55 H. It is the zone indicator, DO NOT touch it. Enter easting into the first line then the northing to the second line. The screen should read: 55 H 0334700 UTM 5878800. When finished entering the coordinate press ENTER to exit edit mode. When the cursor moves onto the DONE field press ENTER and your coordinate is in the GPS. To enter more coordinates repeat the same steps. To visit a point you have entered, just press GOTO and choose the name of the point.

More information regarding establishing routes and navigation with compasses will be discussed in the next article.

The information provided above must be used cautiously. I accept no responsibility for any errors or omissions. If you are not sure, just ask!



HGFA Events Calendar

Australia

'99 Australian PG Nationals & Trans-Tasman Challenge

6-13 March 1999

Manilla, NSW. AA Sanction. UHF radio, reserve, camera & adequate thermalling experience required. Registration 5 March 8-9:30pm & 6 March 8.30-9am at Manilla Town Hall HQ. Entry fee \$180 incl: films, hill transport, map, prizes, trophies, T-shirt, presentation dinner & band. Payments to Manilla Comps "The Mountain", Manilla NSW 2346", credit card ph/fax payments also accepted. Over \$2,000 in prizes for open, int, nov & female classes plus day prizes. 150 pilots max. Pilots must organise own retrieves. Contact: Godfrey Wenness, ph: 02 67856545, fax: 02 67856546, email: SkyGodfrey@aol.com

1999 Victorian HG Open

7-13 March 1999

Corryong, VIC. Contact: Wesley Hill 018 305943, email: whill@nm.com

Women's Skills Clinic

15-20 March 1999

Canungra, QLD. All women pilots are encouraged to attend. Contact: Barb Utech, ph: 07 55437113 or Peta Roberts, ph: 02 42943941.

Bright Autumn Festival Fly-in

7-8 March 1999

Bright Alpine Fly-in 27-28 March 1999

Porepunkah, VIC. Both events are held at the Porepunkah airfield (36° 43.2 min S, 46° 53.3min E), 4 Nm ENE of Mt Buffalo. Come & enjoy our friendly fly-ins & experience the colours & calm autumn air – a magic time to fly in this area.

Contact: Greg or Rosemary Withers (Bright Microlight Centre), ph: 03 57501555, Don Walpole, ph: 03 57535250 or Coach House, ph: 1800 813992.

1999 NSW HG State Titles

21-27 March 1999

Manilla, NSW. A-grade. Registration: Imperial Hotel 20 March. Limited to 50 pilots, adv rating or int with inland experience. UHF optional. radio, parachute & databack camera required. Entry fee: \$120, incl. all primary films, T shirt & presentation dinner. HGFA rules & scoring apply. Maps, GPS or GPS coordinates not provided. Payments to NSW HG State Titles, 18 Heshbon St, Gateshead NSW 2290; email: BOLIVE@DOH.HEALTH.NSW.GOV.AU ph: 02 49213804 (w), answering machine after hours.

Paragliding Flatlands

20-27 March 1999 (28 Mar reserve day)

Birchip, VIC. Sanction: B. The dates have changed due to unavailability of the tow paddock on previous dates. Entry fee \$145 incl: basic map, BBQs, band & lots of prizes. \$30 per day fee (must register interest before start of comp). Men's and women's awards for Open & Stand. Class, B & C Grade. Registration: Lake Chum, 19 & 20 March. Payments to Rob

Lithgow 5/21 Felix Crs, Torquay VIC 3225. Contact: Rob Lithgow 03 52612895.

1999 Flatter than the Flatlands

Easter 1999

Birchip, VIC. Official webpage has moved to: <http://www.users.bigpond.com/warwick>.

duncan/ Contact: Warwick Duncan email: warwick.duncan@bigpond.com

Mangalore 1999

2-5 April 1999

Mangalore, VIC. Annual convention: 2-5 April. Public Airshow: Sunday 4 April. Contact: John Liddell, SAAA, ph: 03 94824716, fax: 03 94823936.

Overseas

Torrey Pines Gliderport Air Races

21-25 April 1999

Torrey Pines, CA, USA. This event features ridge racing in a XC format over the Torrey Pines Ocean cliffs. Each race is approx. 13 miles (20km). 2 classes: open & int., awards are presented each day & a grand champion is chosen for each class at the end of the event. Entry fee: US\$250. Contact: David Jebb +619 4529858, email: aircal@ix.netcom.com

PWC Slovenia

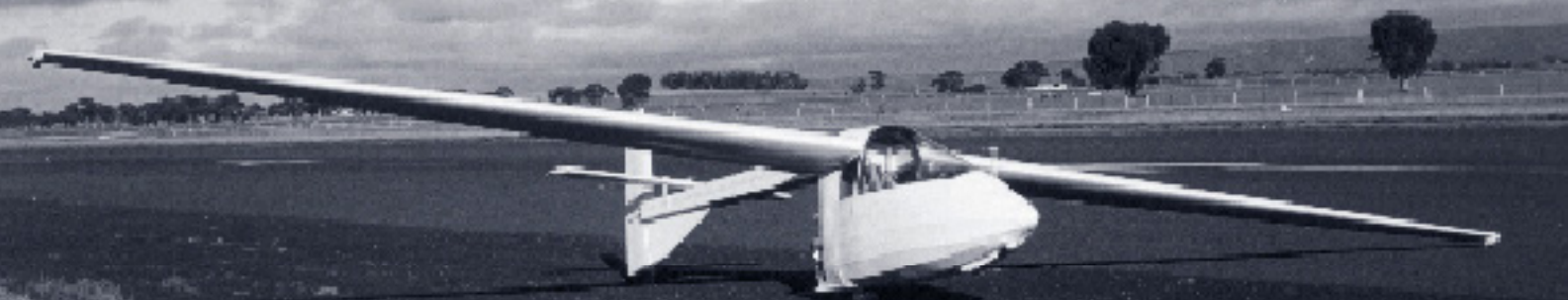
8-13 June 1999

Kobarid, Slovenia. Registration deadline: 8 April 1999. Contact: mandy@pwca.org



Gliding

Home Building



Alive and well in Australia

JOHN ASHFORD



Readers of *Australian Gliding* will have noticed a report in the Jan/Feb issue from the Australian Homebuilt Sailplane Association. In that report there are a number of people crawling all over a powered sailplane called the "Windrose". A more appealing photo of it and the owner/builder/test pilot Paul Johnson is shown here. This was taken just after Paul had completed his first flight (can't you tell?) of this interesting Jim Maupin/Irv Culver design. This duo were responsible for the Woodstock and the Carbon Dragon. More about this in a moment.

Paul's Windrose is the 120th home-building project on the GFA books. They did not all get completed but then to offset this there are gliders in the ordinary part of the register which were made from plans or kits. My own K8b was constructed from a kit made by Schemmp Hirth! and the superlative and beautifully restored K2b of Mike Valentine's was built from plans by the Illawarra Gliding Club (club not existing now).

In the early days of gliding in Australia many clubs got into existence by building their own gliders either from scratch or from kits. Judging from the ever increasing price of modern gliders we may well see a return to kit building. Some of the powered stuff around like the Europa show what a good kit design can achieve. Some of our glider pilots have built the Europa and are impressed by the quality of the kit and the finished product. When does some enterprising designer come up with a good kit built 2 seater? When you consider that an ordinary factory built 2 seater will set you back in the vicinity of AUD80,000 and a really good one nearer to AUD180,000 there has to be plenty of scope for someone out there.

The Carbon Dragon.

At the last OSTIV conference we were visited by some of the leading USA hang gliding and lightweight gliding experts and one of the highlights was an address by Gary Osoba. Gary is an out and out gliding guru who it is said tried at 12 years old to get airborne on a pair of cardboard wings by jumping off the house roof. 30 years later and Gary is setting records in a 3 axis control glider which weighs 70kg empty, the Carbon Dragon another

Maupin Inspiration. The Carbon Dragon does not have much carbon in it really and is built from plans but not recommended for someone trying home building for the first time unless they have a lot of aeromodelling experience with large models.

What Osoba has discovered is what he calls "microlift" and has found that on days when everyone else sits on the ground or just does circuits he is flying very long distances without even turning. This starts early in the morning, it would want to, for a glider that he says should not be flown faster than 40kt, flights of 500km or more (already achieved) are going to take quite a while. A lot of this goes on at less than 400ft so it is not for the fainthearted or unskilled.

There are 3 Carbon Dragons in Australia only one of which is operated by a GFA member although two pilots were trained by a gliding club. Whether these realise what potential this lightweight machine has remains to be seen. It would be interesting to see one of our outstanding cross country pilots from either the gliding or hang gliding disciplines see what they could do with one of these gliders.

For more info about the Carbon Dragon try www.jcpress.com/JMaupinLtd/home.htm

Good contacts have now been established with a variety of people in the USA where all sorts of interesting things to do with lightweight gliders are happening. All of these, by necessity, are homebuilt. Maybe a new age is dawning where people design build and fly gliders just for their fun and edification and we cannot see it just yet. Between myself and James Garay we will try and keep everyone in both the GFA and HGFA informed.



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Exploring the Explorer

STEVE CARLSSON

This little story has a couple of messages.

It is about how good flying can be and how

easy it is to make a simple mistake which

not only made my flying dangerous and

unenjoyable but should have been spotted

far sooner. So, if this story makes you think

about your safety when flying...good!



About 12 months ago, being disheartened by standing around the paddock in light and variable conditions waiting for the wind to come on, myself and a flying buddy, Ken, each purchased an Explorer harness from Airtime Products in Queensland. Based on the research we had done (and some finger crossing) we were looking forward to launching on those light and variable days without waiting on the end of the rope for the wind to decide to blow from something like the direction of the tow strip: an exciting prospect!

Having sent our cash to Bob and Bud at Airtime (who, by the way, have provided top after sales support) we eagerly awaited the arrival of our means of escaping the paddock while everyone else queued up for a car tow. With much joy and rapture we (like a couple of kids at Christmas) tore open the freight box and looked at our new toys with gleaming eyes. A quick unpack followed, during which the resident rodent from Bob and Buds' premises showed its relief at being released from the confines of the packing case by relocating to my patio flower pots. Other than that, all was well.

OK, so we have the new toys, now all we have to do is figure out how to fly them. Having watched the video and read the manual I headed for the paddock. The theory was simple enough: keep the bar in, run like hell with full power on, don't let the nose pop on take off, and enjoy. Well, I ran like hell with full power on and after popping the nose (it happens pretty quickly) proceeded to pull the bar in just in time to avoid the ensuing stall at 15-20ft. In fact, just after launch I looked down and noticed that I had almost zero ground speed (but just enough air speed given the headwind at the time) and thought: this is not good! So I pulled in, and thankfully the glider gained some additional speed and started to climb.

The next take off I overcompensated for the nose popping routine (the wind had dropped off as the day went on) and flew along with the basebar too close to the ground for comfort prior to easing it out and climbing away. At least this time there was plenty of ground and airspeed. Phew!... two out of two successful, if eventful, take offs.

The landings are the easy bit; at least I think so. Simply set up the approach as normal, pull on lots of speed and wait for the landing skids to contact terra firma. The skids assist in slowing the glider as does the free wheeling prop, so in nil wind conditions landing is not too fast. In fact, due to the free wheeling prop acting as a big air

break one needs to keep the bar in to avoid flying too slow (this is no longer an issue as Bob and Bud have produced a prop brake). Flare hard right on stall and the glider will stop on a dime. The danger lies in letting a wing drop due to a late flare. This means you potentially run through an arc towards the dropped wing and could end up with the prop in the sail. However, the side limiting lines should prevent this if they are correctly set up – another learning curve.

After the first few flights, and until just recently, I have been ruing the day I'd start flying the Explorer. In fact I have been close to selling all my gear and getting out of hang gliding altogether. Why? Well, for most of my flights in the harness I have felt a disturbing lack of control over the glider. This, added to the unusual flight dynamics of the glider, I thought, put me at considerable risk of losing control in anything but the smoothest conditions. The annoying thing being that Ken was enjoying his glider and harness and clocking up some good hours, and other pilots seemed to be reporting good results too. So, what was the problem for me? This is where the point of writing this article comes in. I recalled a comment by Dennis Pagan about emotional readiness to fly which prompted me to put this piece together.

A couple of nasty events led up to a lot of concern. Just prior to purchasing the Explorer harness I had a mishap while thermalling in a Shark 144. At about 4,500ft agl I made a gentle left turn in smooth 400 up and, Pow!, next thing I knew I was diving head first towards the ground. My heart rate accelerated, to say the least. To this day I can only assume that I hit something akin to wind shear. There were no warning bumps, no indication of the day being rough, just a sudden roll to the left that felt like someone had dropped a couple of thousand kilos on the left wing tip. The glider rolled and inverted into a dive during which I lost around 700ft. I have been told since that I was lucky not to end up on the silk that day. This little incident was followed by a second similar incident an hour later and during the same flight, only this time I simply went over the falls in what was close to a tuck and tumble at about 2,800ft: one second the glider was straight and level, the next it was nose first and totally stalled. Again, a huge loss of height was followed by relatively smooth flight. What made the situation worse for me was that these events occurred the day prior to a fatal trike crash which claimed the life of WA pilot and instructor Andrew Humphries. Now, although the two events

may be totally unrelated, it bought home to me just how close we are to the edge when challenging the elements in our sport.

So, now that I had the proverbial scared out of me, I was flying an Explorer which felt decidedly wrong. Some serious thought had to go into finding a solution. I had Ken fly my harness which he thought was OK ...mmm was it just me? I had another pilot fly the harness... he thought it was OK, but did not feel comfortable. OK, so I went back to regular flying for a while (in my Sting 154) to see if I could rebuild some confidence. The Sting felt pretty good, but a quick flight in the Shark still felt wrong, too twitchy and not enough control.

After a period of not flying I got back into the Explorer and, yep, nothing had changed; it still felt wrong. Each time a thermal or any-thing like turbulence

was encountered the glider simply went wherever it wanted to, and certainly not where I wanted it to. Pulling on speed did not seem to help, in fact pulling on speed was difficult as the basebar seemed too far away. Ah... a light

bulb flicked on: perhaps the basebar was too far away. I did a hang check and the bar was two fists below the harness (which is how I normally fly), so that appeared to be OK. After landing I checked Ken's set up and found his hang loops to be 120mm longer than mine. Another hang check, this time with the others watching and contemplating, and there it was: a too-simple solution. The harness had a chest mounted chute, not a side mount as I am accustomed to, and it was packed such that it was very thick. So two fists (and a bit) in this harness is actually a chute (about two and a bit fists) plus two fists. Add to this the fact that when the motor is at full power the pilot is pushed through the A frame, placing the basebar even further away. I was flying way too high in the A frame. Hence, the feeling of a lack of control was in fact a real lack of control. The catch is that from the pilot's perspective the basebar appeared to be correct relative to the harness during the hang check. Compared to my regular



harness, however, I was now flying with at least four and a half to five fists of clearance from the basebar. This fact, added to the design of the Explorer (which tends to place the pilot further forward of the basebar than occurs in a regular harness due to the need to compensate



Above: The Explorer harness.

Left and far left: The Explorer during flight.

for the weight of the motor), created a situation where I was barely able to control the glider because of a loss of weight shift control and reduced arm reach (Must invest in longer arms!).

A few minutes after this discovery the harness was hung lower by attaching a second carabiner to the longer reserve hang loop. This allowed the secondary hang loop to become the primary hang loop. Also moving the hang point back a few centimetres brought the bar forward at trim. A quick test fly with the new configuration proved the point. The glider was now smooth and responsive, it was able to turn, was controllable, and felt good. More testing will be required to ensure the very best flight position is obtained, but all indications are that the Explorer harness will now be virtually the same to fly as a regular glider (which it should have been from the start), the main difference being the need to have a little extra speed on to compensate for the increased stall speed resulting from the extra weight of the harness.

As it turns out my hang position for both the Shark and the Sting have always been on the high side, it's just the way it was. So, the lesson learned here is to look at the obvious and assume nothing. While I am still cautious about flying with the harness on strong thermal days, it is now very comfortable to fly. The harness is most pleasant on scenic coastal flights; it will take you to cloudbase and through blue holes to fly above the clouds (very nice) on winter days when regular flying is not even contemplated and opens up a whole range of new flying from sites which would otherwise be out of the question.



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Selecting the Right Material

Hoop Pine for Gliders

GARY SUNDERLAND

Hoop Pine is a local timber, from Queensland, that has been used for the construction and repair of aircraft in Australia since WWII. In recent times there has been some difficulty in obtaining selected grades of Hoop Pine, suitable for use in aircraft, but a new organisation has been set up to provide local timbers for aircraft construction and repair.

Graham Kevin is the proprietor of Pro-Mark (Queensland) Pty Ltd, a CASA Approved Organisation, number C541685, who select, test and distribute the best Hoop Pine timber obtained through the local industry. Not plantation timber, this bush timber is some 20% heavier, and stronger, than spruce, and is a direct substitute for Douglas Fir (Oregon) and American Mahogany, European Redwood (Polish Pine) or Kiefer, and African Mahogany (Gaboon).

Many of these original timbers are now difficult to obtain in Australia, so that Hoop Pine may become an important alternative timber in construction and repair.

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Test results from Pro-Mark indicate that their selected Hoop Pine may be used as a direct substitute for Douglas Fir (BG-12 and Woodstock timber) and Kiefer (ES49 and Ka6), or Polish Pine (Bocian, etc.). It may be possible to obtain lower density timber for use as Spruce substitutes, where weight is a factor. (As it usually is with gliders!)

Pro-Mark are also starting the manufacture of plywood, in conjunction with a local plywood manufacturer, and can now provide the equivalent of USA marine grade mahogany ply, as used in the construction of the BG-12 and Woodstock.

For more information on Hoop Pine timber and ply contact:

Mr Graham Kevin,
PRO-MARK (Queensland) Pty Ltd,
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Phone: (07) 3812 5122, fax: (07) 3812 5133.



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The selected planks are then taken to our factory where they are stripped out and stacked and allowed to air dry naturally. It will take 6 to 9 months before the timber has stabilised and the moisture content of each plank has equalised with the ambient M.C. In Southern Queensland, this is around 10%. Further West or South and the ambient M.C. will be reduced to about 8% depending on conditions.

At this point each plank assumes its own identity and is given a separate number to ensure traceability in the system. When the timber has reached the required M.C. levels, samples are then cut from each plank and are subjected to various mechanical tests to determine its suitability for use in aircraft construction. These mechanical tests are carried out in accordance with another standard called Emergency Standard (E) CD.800 – 1944.

Once all testing has been completed, those planks which have met every requirement are then strip-stacked to await re-cutting into different sizes for aircraft construction. Any plank which fails to meet even one requirement or test, is immediately rejected.

The finished component which a customer buys from us is Grade A and Class 1.

Since 1942, Hoop Pine has been recognised as a substitute for Sitka Spruce and indeed Douglas Fir. Its structural properties have been well documented for over 55 years, but until now its value in terms of aircraft construction have not been fully realised. Most certainly it has not enjoyed the same prominence or promotion as other aircraft grade timbers. Its density is about 18% greater than Spruce or about the same as Douglas Fir. At the same time, it is about 20% stronger than Spruce. It is also some 14% stronger than aircraft grade aluminium, with respect to strength to weight ratio.

The following values are representative of the timber we sell:

<i>Moisture content:</i>	10-13%
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<i>Compression parallel to grain</i>	57MPa
<i>Modulus of Rupture</i>	100MPa
<i>Modulus of Elasticity</i>	13770MPa

The publication, 'Wood in Australia' – K. Bootle, reported MOE averages for Hoop Pine of 13000MPa and MOR averages of 90MPa.

Why settle for less, when the best is available locally?



Providing Information

EMILIS PRELGAUSKAS

Numerous requests from glider pilots seeking information are forwarded to me. Sometimes the material involved in that particular query is already available elsewhere (say on an internet site), and is retrievable by the enquirer direct, which speeds up response time and minimises cost.

Sometimes the material is already compiled in hard copy form at my 'fingertips' because the request is a FAQ (cyberjargon for 'frequently asked question'), and the time and cost involved is limited to that of copying and forwarding. The time delay involved at my end then comes from my need to give priority to earning a living, and the gliding information search is conducted in free time.

Sometimes the material is there in stocks, but has never been collated. Pilots in gliding know that I have access to arguably Australia's most extensive publication stock about sport aviation. It is collected under the F.McD. Library banner, but also draws on other private sources like the SA Gliding History Trust, and various hard copy and electronic archives.

Glider pilots have come to know that I happily provide my own time at no cost to search out material. However, from the comments I've made, some pilots don't seem to realise that when asking for information, they should also be praying for cold, wet weather. When it's flyable, I'm involved in my home club's gliding operation, and/or the weather suits epoxy or dope curing. Searching gliding information takes its place in the queue.

Similarly, enquirers often seem puzzled by my request for contributing funds. The last pack I sent out, the postage alone was more than \$6. Then there are the consumables (large format envelopes, the paper – often hard to get foolscap for copying old publications, and so on). The photocopying I charge at cost, even though the nearest photocopier is a 30km round trip from my home to the nearest town.

I don't want to look too closely at my request for direct expenses of \$10, because I suspect I am still out of pocket in the transaction. Tick over several hundred enquiries each year, and the out of pocket cost begins to become a noticeable irritation. And then there are out-going material such as a full magazine edition in several boxes.

F.McD. Library started at home in 1977. Now it has its own shed at the gliding field. The capital development expenses have been borne locally. People continue to offer hard

copy material here when they are cleaning up their homes, and we continue to pay transport our end. In the early years of operation I was able to discuss trade for trade for the information from myself in return for materials from the enquirer. Then I was able to send out material knowing that many glider pilots are honest and would promptly reimburse direct expenses at my end. But times change, and people have become smarter.

I don't send material off shore anymore. And for similar reasons I now need the contribution to direct expenses sent to me in advance.

I feel unhappy having to have to be that way, but my own experience and what others tell me is that is how the world now is.

Similarly (contrary to the hopes of a past president of my home club), F.McD. does not make a surplus. Nor is it owned by the sport. It has no membership fees.

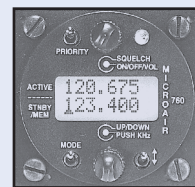
It doesn't replace official channels. It is simply one of the many informal mutual help things done by many individuals in the sport which make the sport work. It will continue while everyone keeps the 'mutual' part in mind.

Gliding



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OLD TIMER

GILBERT GRIFFITH

Once upon a time, many years ago, possibly when Steve Moyes was still in nappies, I taught myself to hang glide. The standard Rogallos of the time had an 80 degree nose angle and most of them didn't have any battens; they were pretty good at parachuting too.

A friend and I shared the \$275 (Oz) cost of our second hand Wings Condor, which was made in Melbourne and even had three or four plastic conduit battens in either side. Wheels were attached to steel mounts on either corner of the A-frame; this made it easy to drag up hills when learning. Maybe we were too stupid and eager to think of landing on them. Our Condor never saw the coast or flew in a seabreeze because we lived 300km north of Melbourne, surrounded by mountains.

Dozens of weekends and hundreds of slope glides later, we took ourselves up the nearest hill for our first high flights. Take-off was 500ft higher than the LZ. After a few dozen flights from a firebreak halfway up the hill, we reckoned we had mastered turns and learned to control airspeed and landing approaches. We started to think about soaring. Remember, this is inland, OK? I can't remember exactly how it was decided, but it fell upon me to be the first to attempt to soar. Probably because I had experience in GA aircraft, and had spent more of my spare time hanging in the garage practising, but possibly just because I was the least scared.

The day chosen had a steady wind from the west at about 30mph; we had already flown in lighter winds and not managed to stay up at all. For the attempt we set up on the middle of the ridge top, just in front of a line of tall pines which covered the area behind the ridge road and down the hill towards Bright. The front of the hill had only just been cleared of its crop of pines, and all that was left standing were a few gums and wattles that the loggers and bulldozers had left.

Everything pre-flighted, I hooked in with the nose on the ground and the wind pushing the glider backwards on its wheels towards the pine trees. I lifted the nose and everything seemed OK until a slightly stronger gust popped the nose and everything started to fly. Unfortunately I didn't have any forward speed at this point and the nose continued to rise, lifting me up off the ground as I pulled the bar in, frantically trying to get some airspeed. At this point I mentally invented the idea of a nosewire man. Seconds later, after a half loop,

the glider crashed into the pine tree trunks just a few feet above the ground with me tangled in sail and wires, wondering if there was going to be any blood. Fortunately I was perfectly OK, but the glider was a mess. The keel had broken and bent in two places and punched holes through the sail. One leading edge and associated spreader were broken as well as the all the A-frame tubes. We were heartbroken.

A couple of weeks later all was safely repaired. My mate had bought a later model glider for himself (a Ranger), and we were ready to try again. In the meantime I had built a prone pad and been hanging around in the garage again practising. This time we went to the top of the hill, now known as Porepunkah hill and covered in pines again. You remember the T-shirts, 'London, New York, Paris, Porepunkah'? That Porepunkah. We chopped down a launch area in the 8ft high blackberries leaving plenty of room for the glider, about 4ft wider than the wingspan. Wind was again steady, this is inland, remember, and we didn't know what 'steady' really meant (unlike coastal pilots), but anyway it was blowing in from the west at about 25mph and things looked really good.

This time I was careful about the nose angle and we carried the glider over logs and blackberry remnants to the top of our launch window. Launch itself was quick

and uneventful, and a few seconds later I was in the air, prone for the first time, and climbing. Climbing fast, almost too fast. The feeling of prone flying still outweighs the other details of that flight back in 1976, so only the impression of being Superman and Buck Rogers rolled into one remains today. I remember fanning across the ridge using high banked 180s to stay pointed towards the wind, and zooming across the face of the hill, grabbing into the

wind, at warp speeds of 30mph plus.

Much in the same manner that I still enjoy today. Just wanging about in the lift.

There were still many adventures to come though. Landings in three year old pine forests where the glider was supported and my feet dangled inches above the ground. Landings on stumps. Landings on both sides of barbed wire fences, the A frame on one side and me on the other. Parachuting from 30ft up to keep from flying into a line of trees at the far end of the LZ. The first 360s way, way out in front of the ridge, doing them over and over until they were easy to do right in front of take-off.

I remember one scary flight. The wind was strong, about what a sailor would call a half gale. I was soaring above the ridge and the lift band was getting bigger and higher as the strength increased. I was even slightly behind the ridge and still climbing. Until I decided to go back in front, and then I found that pulling in the bar only made the glider sink straight down towards the trees. What to do? I was



thinking either tree land in the rotor, or turn tailwind and try for a paddock way down behind the hill; something we had never considered, never even thought about before. All these thoughts flashed before me. Anyway, with my knees pushing the control bar back as far as possible, somehow I managed to squeak forward into the wind and pop out over the front of the ridge, missing the tops of the 80ft pines by only a few feet on the way. I wish I could forget that one, but it taught me a lot. All my lessons did.

A few months later I bought another second hand glider, a Wings Kestrel; one of the earliest gliders in Oz with deflexors, one-third double surface and a real airfoil shaped keel batten. With this glider I spent the '77 season learning about bumps (they were thermals!), staying up, getting up to 1,000ft over the hill, and even experiencing an hour on the coast where the air was so smooth

I still don't believe it. Boring after only half an hour, and only repeated once since.

Later in the year the Kestrel and I had our first flight off Mt Buffalo. I took off at 9.03am and the flight lasted seven and a half minutes. I can't remember a second of that flight, but it's in my logbook. Going back through my logbook it seems we were quite happy flying in 15-30mph winds, but 40mph was a bit hairy. I think my limit today is around 20-25mph, but now the gliders stay up much easier and flying in 40mph winds would be called suicidal. Some of the log comments reflect this, for example: 'very bumpy, flew through rotor at north end of ridge and nearly inverted, too

gusty'; 'bumpy, landed on fence'; 'landed on fence, rained for 10 minutes'; 'crashed on ridge with new harness'; 'chased by farmer on tractor' and so on.

Beginners these days have it too easy. Nice gliders. Training schools with instructors and radios. Towing systems that don't kill you. Tandem flights and trike flights to show you how the controls work and to give you a feel for the air. Wheels to land on, yeah, I know we had wheels too, but they were for dragging the glider up the hill, not for landing. It costs a bit more now but all the convenience and safety is bound to cost, (thankfully the only cost is money) and there are

fewer casualties.

To finish: my absolutely scariest flight.

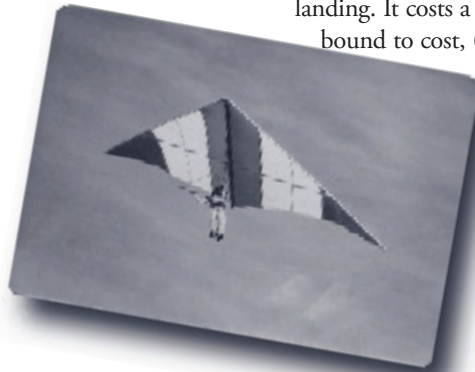
Can you guess what it was? It was only last year, and it wasn't even me doing the flying.

My son Marc had only had two days instruction on the training hill and graduated to Mystic Hill, about 1,800ft above the LZ. Watching that flight was almost as memorable as my first solo 30 years before. You may remember yourself, that butterflies in the guts feeling you had just before your first flight, or your first high flight. I had it when I watched his flight. The feeling of being a

proud parent is so unusual that I have trouble mentioning it even here in print; you sort of choke up. Now Marc has over 35 hours logged and his landings are atrocious. I plan on still being around and flying, when his kids learn to fly too.



Pictured are two early hang glider pilots still flying today: left, Terry Anderson on a Rogallo and above, Nick Gardner who has been flying for 23 years.



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GFA Australian Club Class Championships Results

TEMORA 1999

Club Class Daily Scores – Day 1, Day 2, Day 3, Day 4, Day 5, Day 6, Day 7, Day 8, Day 9, Day 10

2 Seat Class Daily Scores – Day 1, Day 2, Day 3, Day 4, Day 5, Day 6, Day 7, Day 8, Day 9

2 Seat Class did not fly on Day 10

Club Class Aggregate Results – as at end of comp

Pl	Pilot	Rego	Type*	H'cap	Ave	Day: 1	2	3	4	5	6	7	8	9	10
1	Taylor B	KS	Hornet /w	1.00	985	1,000	1,000	1,000	1,000	878	1,000	1,000	989	980	1,000
2	Cubley T	UKA	LS 4a	0.94	893	951	893	796	901	895	898	949	880	914	854
3	Dunn H	UKE	ASW 19B	0.98	892	915	974	848	898	779	896	969	951	837	857
4	Gilbert T	CK	Std Libelle	1.02	891	974	992	482	935	832	1,000	960	1,000	822	912
5	Sanders R	XF		0.92	879	907	923	834	918	824	882	940	851	912	797
6	Campbell B	AM	Std Cirrus	1.00	870	853	932	742	903	845	915	932	960	785	834
7	Bradney M	EB	LS 1-f	1.00	867	914	970	860	866	833	848	980	804	720	872
8	Turner L	HDK	LS 4a	0.94	865	918	907	744	904	805	876	904	826	914	854
9	Buetler R	WQF	Pik 20B	0.94	865	880	835	820	917	840	912	853	890	944	754
10	Hearne P	BP	Std Libelle	1.01	860	942	935	688	787	937	846	989	677	970	833
11	Durrant M	OD		0.90	853	878	821	824	903	834	827	906	864	880	788
12	Tugnett B	UL		1.00	852	943	814	826	848	833	832	947	813	828	833
13	Buskens P	XJG	ASW 24E	0.92	851	912	871	748	860	924	926	973	867	741	691
14	Shand J	XH	Libelle	1.00	845	844	888	805	913	456	915	951	914	922	844
15	Temple P	WUZ	DG200	0.92	843	872	871	0	0	0	0	0	849	837	783
16	Prelgauskas E	QZ	Boomerang	1.16	841	0	690	0	861	0	936	0	885	0	837
17	Huggins A	CY	Std Libelle	1.02	836	923	325	854	947	907	888	974	916	892	733
18	West T	UKJ	ASW 20B	0.90	835	914	803	732	861	707	872	902	841	887	837
19	Ritchie P	XB		0.92	810	839	987	812	919	1,000	859	923	843	177	833
20	Tuncks R	SG	Mosquito	0.92	806	831	940	778	873	731	853	993	590	970	504
21	Bland M	UK		1.00	800	867	797	775	867	687	830	916	895	649	716
22	Lennon S	ZK		1.02	797	886	884	729	824	777	973	892	480	692	835
23	Matthew P	XJO	LS 4a	0.94	797	943	775	770	832	883	896	912	882	295	778
24	Burnett N	VH		0.93	781	863	762	798	827	422	817	944	787	0	811
25	Nicholls J	OQ		1.00	764	794	793	718	811	919	906	876	498	599	724
26	Smith S	ZAD	Pik 20E	0.92	760	923	916	772	908	825	874	860	0	0	0
27	Sweeney G	VF		0.94	758	895	861	231	809	876	853	886	785	499	888
28	Stevenson G	BL	Std Libelle	1.02	748	822	879	385	866	783	850	865	879	345	816
29	Brown S	VE		1.00	731	866	760	0	0	0	759	832	474	736	690
30	Wilkinson B	XOT	Discus B	0.92	723	881	0	295	0	863	0	888	618	794	0
31	Orrsiter B	CQO	LS4-a	0.94	720	841	864	190	682	861	834	945	482	689	816
32	Horlock K	HQ	PIK-20D	0.94	712	827	838	826	731	375	775	818	502	0	0
33	Hatfield W	JCV	PW-5	1.16	687	933	868	0	795	381	841	836	550	914	748
34	Walker R	IZJ	LS 3a	0.92	680	378	876	421	778	0	0	712	784	768	725
35	Willis K	ZAW	PW5	1.16	671	701	760	597	677	525	808	742	707	534	661
36	McCready R	DD	DG200	0.88	653	732	769	656	785	589	768	737	724	766	0
37	Rickert G	GB	HP-14V	1.02	649	653	824	351	501	0	765	851	471	778	0
38	Wilkinson V	XOT	Discus B	0.92	646	543	0	633	0	675	0	626	0	755	0
39	Connell D	ZF		1.02	640	741	781	563	661	380	803	0	641	445	743
40	Eldridge P	UKD	ASW 19B	0.98	635	767	734	231	748	575	732	820	423	566	753
41	Nolan K	FW	Olympia	1.34	620	711	783	548	716	255	733	740	663	407	656
42	Conway C	QZ	Boomerang	1.16	604	730	0	0	0	784	0	747	0	761	0

*Note: Details from comp on entrants was limited

Aircraft Type was extracted from published information, where possible, using the part REGO used at the comps. No guarantee is given of accuracy.

2 Seat Aggregate Results

Pl	Pilot	Rego	Type*	Days Flt	Ave	Day: 1	2	3	4	5	6	7	8	9
1	Medlicott	XOZ	Nimbus 3DM	5	1,000	1,000	1,000	0	1,000	0	0	1,000	1,000	0
2	Cleaver	XQC	Puchacz	3	920.4	0	0	0	0	0	0	848	933	980
3	O'Donnell	UIU	Janus B	9	868.9	850	935	1,000	889	835	971	695	793	851
4	Persson	HNX	Janus C	9	822.9	819	680	758	702	1,000	905	920	868	754
5	McPhee	TP	Bergfalke 3	9	737.2	838	364	520	631	982	1,000	894	708	699
6	Thompson	GAS	Puchacz	9	584.5	640	720	0	785	553	913	807	842	0
7	Cleland	XON	DG-500M	4	454.0	0	407	805	605	0	0	0	0	0

New Badges & Certificates



Congratulations to all the pilots who have flown outstanding personal best flights this summer. Notable are the number of 750km flights in 30 year old gliders. Please keep sending in your claims and I will make every attempt to deal with them within a week of receiving. I have been receiving numerous phone calls each day in regarding to sporting code requirements. You can also contact me on fax 02 6889 2933.

Unfortunately many claims are not valid as a number of pilots are unaware of the requirements for badge and record flights. The move by the International Gliding Commission to simplify the sporting code is overdue however there is assistance at hand now with the sporting code available on the net and a simple recommendation for flight publication available on the GFA web page. Ask your club secretary to down-load the two pages from the web and put them on the notice board and in the club newsletter.

FAI Badges & Certificates summary for January 1999

A Certificate

MURRAY Stephen Midge	10215	Lake Keepit
BOUTLAND David William	10217	Central Coast
FOUET Guillaume	10220	Lake Keepit
VERGES Christophe	10221	Lake Keepit
MILLER Daniel Matthew	10227	NSW AIR TC
SNELL Simone Margaret	10233	QLD AIR TC
CLEMENTS Claire Deirdre	10234	Adelaide University

B Certificate

O'NEILL Cameron Thomas	10187	NSW AIR TC
JOHNSON Tristram Richard	10166	NSW AIR TC

A & B Certificate

COOK Darren Ross	10223	Geelong
WELSH Lauren Maree	10225	NSW AIR TC
ALLBUTT John Lester	10226	Bathurst
ARANTZ Mark Terence	10231	NSW AIR TC
NAYLOR William Harvey	10232	Boonah
JACOB Robert	10236	Bendigo

B & C Certificate

THOMAS Peter	10105	Darling Downs
O'DONNELL Kane Michael	10913	NSW AIR TC

C Certificate

JOHNSON Kelly Jean	10178	Boonah
BEATSON Craig Paul	10079	NSW AIR TC
WATSON Glyn James	10016	NSW AIR TC
UNDERHILL Maxwell Gordon	9661	RAAF Richmond
COOK Darren Ross	10223	Geelong
LEONARD Andrew Rodney	10129	NSW AIR TC

A, B & C Certificate

CHAPMAN Rory Summerville	10216	Grafton
BAROIR Neville Robert	10218	Gympie
WATSON Gary Alfred Samuel	10219	Canberra
McLAUGHLIN Roy Hamilton	10222	Caboolture
GILES Alaric	10224	Lake Keepit
SHADLER Brian	10228	Caboolture
GASC Andrew Peter	10229	V.M.F.G.
WALLIS Scott James	10230	NSW AIR TC
DAVIES Simon Richard Palmer	10235	Lake Keepit
JOWETT Andrew Charles	10237	Lake Keepit
HEDLEY Stephen	10239	Lake Keepit

Silver C Certificate

GODDE James Anthony	4216	Albury/Corowa
BRAUN John (Hans Peter)	4218	Bathurst
CHANOT Axel	4217	Bathurst
PAULSON Alan	4219	Lake Keepit
JOHNSON Troy	4220	Bordertown/Keith
RANNER Kevin David	4221	Geelong
COLEMAN Peter Randall	4222	Adelaide Soaring
KERR Donald John	4223	Adelaide Soaring
WELLINGTON David Brian	4224	Beverley
QUAIFE Brendon James	4225	NSW AIR TC
HISS Erwin Josef	4226	Geelong
DAVIES Simon Richard Palmer	4227	Lake Keepit
BLAND Adam Ward	4228	Albury/Corowa

Gold C Certificate

GRAY Peter	1494	GCV
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Diamond Distance

SUTTON Norm	Canberra
HANLEY Susan Elizabeth	Canberra
SZABOLICS Ludwig Kurt	Temora

Diamond Goal

MARBOT George	Bathurst
JOWETT Andrew Charles	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@www.crt.net.au

Decentralised Competition entries to:

Gary Hollands

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Westbourne Park SA 5041

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HGFA Operations Manager's Report



I have attended several competitions over recent weeks – and managed to fly in one of them. Participation in most events this year has been pleasing, with

many European pilots coming for our summer season despite there being no major international events this year. As usual the Corryong Cup was well supported and very well run by the Blue Mountains Hang Gliding Club – thanx guys and gals. The flying was good too!

Competition Accidents

It is pleasing that to date there have been few injuries during this season's competitions. One exception was the Flatlands hang gliding event where two pilots were injured during the first round. Both were out-landing accidents and thankfully indications are that the pilots will fully recover from their injuries.

There is a tendency for accidents to occur early in competitions. Perhaps this is due to the enthusiasm of pilots early in events – with added adrenaline levels, pilots will sometimes take chances that they would not normally take. It is also apparent that in their enthusiasm to maximise their score for any particular round, pilots will often neglect to complete an adequate circuit. In the past we have had pilots seriously injured due to a wire strike when attempting a 'straight-in' approach to an unfamiliar paddock.

ALWAYS MAKE A PROPER CIRCUIT; CHECK THE WIND DIRECTION; AND MOST IMPORTANTLY – CHECK FOR WIRES.

More on Circuits

It has been pointed out to me by a pilot studying the paragliding landing accident causes listed in my December report that 13% were due to landing short, 23% were due to incorrect approach, and 11% were due to stall on final. This represents almost half of all landing accident causes. Few of our paraglider pilots are carrying out an appropriate, standard aircraft circuit approach; most prefer a figure eight approach. Given the limited speed range of a paraglider, I suggest that a standard aircraft approach is preferable and would remove the likelihood of landing short of the

chosen landing site. The standard circuit pattern also enables the pilot to adjust the approach to allow an adequate final – which would reduce the likelihood of a stall and allow the pilot time to set up for the round-out and flare.

Towing Fatality

A hang gliding aerotowing fatality occurred in the USA which carries a message for all pilots. The pilot was flying a hired glider which was fitted with custom made brackets for wheels, with the wheels fitting underneath the brackets and the basebar sliding in above the wheels into the corner brackets of the control frame. The pilot assembled the glider and used a launch dolly. Somewhere between 15 and 45 feet the base tube pulled out of one of the brackets, the wings folded and the aircraft fell to the ground; resulting in massive head injuries to the pilot. Inspection revealed that the base tube had not been fully pushed into the wheel mount extension. The bolt was in place through the wheel mount and corner bracket – but not through the base tube. The left leading edge had failed close to the nose plate and the keel was broken. The defect in assembly would not have been visible and would not pull apart under negative loads such as ground handling.

After considering these circumstances, the pilot reporting the accident made the following observations:

1. Flying HGs or PGs is risky business; as is any form of aviation.
2. Pilots have to be able to accept the risk or should not be in the air.
3. We need to protect one another when in the set-up area, when on launch and with all other aspects of flying.
4. It is imperative (Repeat... IMPERATIVE) that we check every flying wire and every bolt connection in our glider before flying.
5. It is complete bullsh** when a company says that a glider can be set up in 8 or 10 minutes. IGNORE this number and do not enter that race.
6. Build into your set-up time, time to pull on tubes, to step on flying wires to see if they can take your weight and to do a TRIPLE inspection on your glider.
7. If you carry on conversation when setting up, then that inspection does not count and you need to go back to step one and begin over again.
8. Have your friend and flying buddy do an inspection on your glider and you do one on his/hers.
9. Maybe flying with wheels is a good thing in most situations with most pilots but

not in all situations with all pilots. With each new variable enters new risk and risk management is the name of the game in flying.

10. The most important thing I learned: We must protect each other because when flying, we are mostly all we have. Don't get caught up in an EGO-thing because ego causes injury, pain and sometimes death. Hang gliding and paragliding is meant to be fun so protect it because it is pure and precious. Take the time to be safe and careful. If you are tired, be under no pressure to fly. Flying is not a competition, flying is a form of recreation (literally means: to re-create or re-make one's self.)

Motorised Hang Gliders and Paragliders

Further to my comments regarding incidents in motorised HG and PG operations which were questioned by Jeff Hoffmann in letters to the editor in the December Skysailor, please note that there is an established training syllabus for motorised operation endorsement training. The syllabus has been distributed to all instructors and Senior Safety Officers who are issuing the endorsement. Most of the incident reports to which I referred in my August report would have been passed on; any that carry a safety message for pilots would certainly be published.

I have personally witnessed a few blown launches involving motorised harnesses. From my observation of these, most have stemmed from pilots overestimating the power available from what is definitely a minimum power plant. Motorised hang glider pilots in particular must allow for the minimum power available and be prepared to substantially extend their launch run. Nil or light wind launches should be avoided until considerable experience is gained.

National Instructor Conference

The HGFA National Instructor Conference will be held in Ararat, Western Victoria over three days: 4, 5 and 6 May, 1999. All instructors (other than Flight Experience Instructors) are reminded of their obligation to attend a conference at least once in any four year period. As the conferences are held bi-annually, it will be necessary for some instructors to attend this conference to ensure future instructor certificate renewal.

**Fly safely,
Craig Worth**

The Top End!

Hang Gliding

MARK LEESON

It goes like this... I love to fly! I grew up close to Coolangatta airport, had my pilot's license at 18 and joined the RAAF as an Air Traffic Controller (ATC) at 20. I've had the chance to fly in several military aircraft some of which are nothing short of exhilarating. But nothing comes as close for me as hang gliding. It's fun, environmentally friendly, safe (well, safe as you make it), gives you a whole new perspective of the world we live in and, in my opinion, it's non-discriminatory towards sex. Which is something I can never understand: Why do we have separate competitions for men and women? But I digress.

I learnt to fly hang gliders in WA with Darryl Speight and the late Andrew Humphreys. I was having a ball, and it was only at that point that the RAAF decided to halt my fun and post me somewhere like Darwin. Now there's a way to make friends with your wife! Ask her to marry you, then go and live in Darwin. Darwin, being primarily an international airport, makes you feel more like a civil controller in uniform working a 24 hour roster, seven days a week. No curfew here guys.

Now, those who know Darwin and the surrounding areas will appreciate the terrain and the climate: I appreciate neither of them. This in turn results in a lack of numbers of hang glider pilots. It's funny, but all the people who say they love this place are either backpackers here for the dry season, or visitors on holiday for a few weeks. They don't actually live here!

My burning question is: how many hang glider pilots are there in the Darwin area? Hopefully I'm not the only one. One guy who was only about 30km away did contact me, but I was travelling a lot

at the time and never did meet him. He is now a mere 250km ENE of Katherine (somewhere?).

I did find a reasonable area to fly: an airfield an hour south of Darwin called 'Batchelor'. It is an old WWII strip, 5,500ft x 90ft and sealed. It hosts a parachute club, a gliding club and a few small charter flights. The town is small but quite nice by Territory standards. I took a trip down there to meet some of the local operators on a Saturday but found the place deserted (not always a bad thing if you want to start hang gliding operations). The area is encompassed by a danger zone which may be activated by NOTAM up to A100 via a phone call to Darwin air traffic control.

Another place to fly on non-working days is Tindal air base near Katherine. However, I believe all the hang gliding pilots have now left due to postings and it is a three hour trip at best unless you own a Kawasaki 1100 (then it is only about an hour and a half). I'm sure there are a few other lonely spots around the area to investigate, but for now Batchelor has the infrastructure for success and is not too far away.

When time permits I would like to achieve my instructor's rating and plan on buying a trike. My wife is actually in favour of this. I am blessed! If I had my licence now then maybe I could train future 'top end' hang glider pilots.

In the not too distant future the NT may have its first hang gliding club. Standard issue for all members planning to leave the paddock will be a shotgun, compass and rations for a month. You just never know out here, and those bloody crocs might just think you're a big chicken!

If there are any dormant NT hang gliding pilots they can contact me on (08) 89415146 or email me at: mkleeson@dove.com.au





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Self-guiding Plane flies into Record Books

The gallant, Australian-designed "Aerosonde" pilotless aircraft has broken one of the most significant trans-Atlantic aviation records since Charles Lindbergh's non-stop solo crossing in 1927.

Photos: Courtesy of Aerosonde Project, Bureau of Meteorology.

A busy schedule of flights is in store next year for Australia's "Aerosonde" pilotless aircraft, which made world headlines in August by guiding itself across the Atlantic using its own global positioning satellite (GPS) navigation system.

The tiny carbon fibre and fibreglass aircraft entered the record books as the first unmanned plane ever to cross the Atlantic.

Weighing only 13 kilograms, and with a wingspan of three metres, it also became the smallest aircraft of any kind to make the crossing.

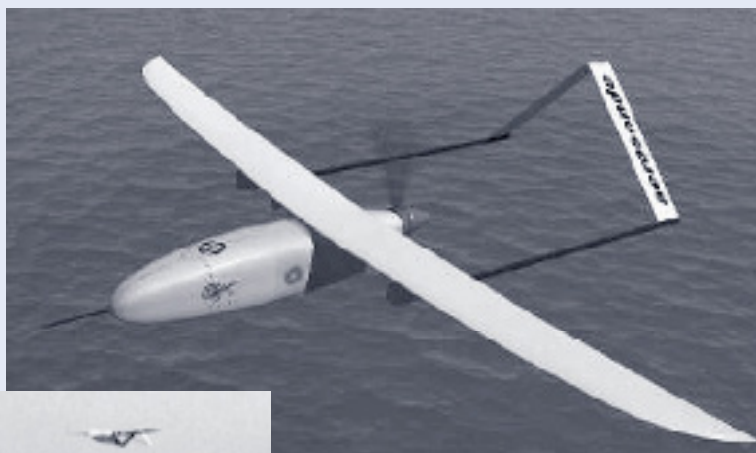
Self-guiding aircraft have now moved a step closer to fulfilling their promise as "aviation workhorses" of the next century.

Specialised miniature unmanned aircraft have until recently been so expensive that only the military has been able to afford them. But recent advances in IT&T, satellites and scientific instruments have dramatically lowered costs to the point where they are now a practical, affordable proposition.

A bright future is predicted for the Aerosonde, in particular, in areas such as weather data collection, mineral and oil exploration, coastal surveillance, land surveys, forest-fire spotting and other applications including the possible replacement of blimps at sporting events.

The Aerosonde achieved the Atlantic crossing well ahead of the US Teledyne Ryan Group, which is planning a similar feat with its \$10 million full-size unmanned reconnaissance aircraft, the Global Hawk, next year.

The Aerosonde cost only \$40,000 and used less than six litres of fuel during the 3,200km flight – 530km per litre, or 1,600 miles to the gallon!



Packed with computers, radio equipment, a GPS guidance system and meteorological instruments, the tiny aircraft was powered by a one-cylinder 20cc engine.

It was launched from an airstrip on Bell Island, off the Canadian east coast, and was tracked by computer for about 40km before flying beyond communications range.

Out of radio contact, it doggedly followed a specified flight path approved by aviation authorities, without human guidance.

Some 26 hours later, ground crew using a computer beacon picked up signals from the tiny craft at 1:15pm Scottish time.

When it approached shore 25 minutes later they took over with a remote control unit and landed the Aerosonde on a grass field at the Benbecula Military Range on the island of South Uist, in the Outer Hebrides.

The aim of the flight was to demonstrate the Aerosonde's capacity to operate over long distances in remote locations and make observations to improve the accuracy of weather forecasting.

The aircraft has been jointly developed by the Australian Bureau of Meteorology in collaboration with a Melbourne company, Environmental Systems and Services (ESS), and a US company, the Insitu Group.

The Atlantic crossing was conducted by the University of Washington and the Insitu Group, who purchased the aircraft from ESS with the assistance of a grant from the US Office of Naval Research.

It capped off a good year for the Aerosonde, which had extensive trials in Australia, Canada and Asia over the previous 12 months.

In January the Aerosonde survived a brush with Tropical Cyclone Tiffany near Port Hedland, Western Australia, testing its ability to fly into the eye of a cyclone to collect weather data.

In this and other trials the Aerosonde has shown it can endure severe conditions, including thunderstorms and strong winds, better than larger planes.

Next year, the Aerosonde is booked for extensive flights in Tasmania, Hawaii, the Arctic, Nauru, Kwodjilang and Guam.

Clients include the CSIRO, the US National Weather Service, the US Department of Energy, the US Army and weather forecasting authorities in Taiwan and Japan.

One of the aircraft's originators, Dr Greg Holland, said that in aviation history, Aerosonde's flight was "up there with the best".

"First came Alcock and Brown's flight in 1919. Then came Charles Lindbergh in 1927, with the first solo flight... and now we have the first flight without a person on board."

Contact: Dr Greg Holland
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13-14 March 1999

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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.

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

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

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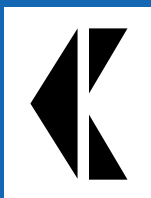
SOARING: Official monthly journal of the Soaring Society of America Inc., P.O. Box E, Hobbs, N.M. 88241 U.S.A. Foreign subscription rates: \$US43 surface delivery; \$US68 premium delivery. Annually.

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. P.O. Box 30, Tullamarine, Victoria 3043.

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

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Sec: Ron Huxhagen 07 49552913.

New South Wales HG Association

Sec: Steve Hocking, 19 Gladswood Gdns,
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ACT HG & PG Association

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7:30pm, "Sky Lounge" Yamba Sports Club,
Phillip.

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SSO: David Middleton 02 96236961; News-
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Trs: Tony O'Connor 02 49529146, SSO: Coastal
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Natasha Atkinson 07 49726840; PR: Brian
Duffy 07 49922676; SSO: Geoff Craig 07
49923137, Paul Barry 07 49922865, rbarry@
tpgi.com.au

Sunshine Coast Hang Gliding Club

53 Yungar St, Coolool QLD 4573; Pres: Geoff
Pettigrove 018 061595; Vice-Pres: Mal Price
0412 07450883; Sec/Trs: Cathy Edmunds 07
54463037; SSO: Dave Cookman 07 54498573.

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
Jeffree 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: Jeanette McLaren 03 57544910;
Trs: Bill Graham 03 57501828; SSO: Geoff
White 03 57501244. Meetings: 1st Thu/ month
7.30pm, Pinewood Hotel, Bright.
www.home.aone.net.au/gilbert/nevhc.htm

Sky High Paragliding Club

Pres: Adam Nienkemper 03 94811122 (w), 03
93057442 (h); Vice-Pres: Phil Savory
03 959772537 (h); Sec: Jeremy Torr
03 97702775 (h), 03 97705770 (w).
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: Tony Lowry 03 53356194;
Trs: Sandra Holtkamp 03 53492845;
Sec: Meg Bailey 03 53356194; 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

Pres: David Humphry 08 95745440; Sec:
Julian McPherson 08 92279266. Meetings: last
Wed/mth, 8pm at the Sportsman Association,
Mt Lawley.

Geralton & Midwest Hang Gliding Club

Pres: Des Hill 08 99216219; 231 Third Street,
Geraldton 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.

Western Soarers Hang Gliding Club

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

NARROMINE'S RESIDENTIAL SKYPARK

*AT ONE OF THE BEST INLAND AERODROMES
IN AUSTRALIA!*



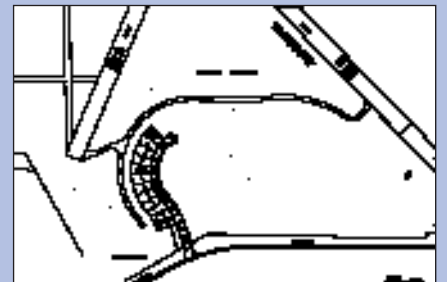
Photo courtesy of Marie Jeffery, Australian Ultralight Federation

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Build a house and hangar on your own block of land at Narromine Aerodrome with taxiway access from your backyard.

Narromine Council has released 11 Lots in Stage 1 of its Residential Skypark development at Narromine Aerodrome. Sizes in the first stage will be 'made to order'. 50m deep by whatever width you want. We can accommodate your needs.

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| • A totally unrestricted Aerodrome | • No landing fees | • 18 Hole Golf Course |
| • Squash Courts next door | • Licensed Clubs | next door |
| • Fishing, Water Skiing on | • Aviation Museum | • Big open skies |
| Macquarie River right next door | under construction | |



Why Narromine — it's a friendly efficient community, twice winner of prestigious Local Government AR Bluett Memorial Award for the most outstanding Shire in the State. Winner of Australia Day Award and Tidy Town Award.

To quote Doug Muir, President Australian Ultralight Federation regarding the town's support for flying activities *"The support from Council, the motels, the local service clubs, businesses and the community as a whole, as aviators we felt welcome and wanted."*

Narromine has outstanding flying conditions and the large airfield is adjacent to the town.

IT'S HAPPENING — MAKE YOUR ENQUIRIES NOW

Write to Mrs Vas Roberts, Narromine Shire Council, PO Box 115 Narromine NSW 2821, Australia
or telephone 0268 891322 or fax 0268 892579.

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