

# Out of the Blue

Waikerie Gliding Club Newsletter

October 2003

Introducing our new Office Manager

*Mike Valentine*

By John Hudson

Mike Valentine has now started with us at Waikerie in his new role as Office Manager. I would like to extend a warm welcome to Mike on behalf of all members.

Mike will be well known to many people because of his long involvement in flying and the gliding movement. However, by way of introduction, I would like to share with everyone in the club just some of his history and celebrated achievements.

Mike's flying experience extends over 46 years, logging around 14000 hours total time. He has also been intimately involved at Club, Association and the controlling body (GFA level) Administration.

A brief review of Mike's flying experience is summarised below:

## Gliding

- 9,800 hours total.
- 29,000 launches.
- 8,500 hours instructing.

- Experienced in all launch types including bungy.
- 750 hours powered sailplane time, mostly instructional.
- FAI Diamond badge.
- Professional instructor with four clubs (Long Mynd, Lasham, Cairngorm, Adelaide).
- Experienced CFI and tugmaster.
- RTO/Ops SAGA 1975 to 1978.
- 18 years as GFA National Coach/Director of Operations.
- Author of GFA Operations training manuals.

## General aviation

- Private pilot licence, 3,000 hours, with night VFR, tail wheel, retractable and constant speed endorsements.
- Lapsed towing rating and Approved Person authority
- Approx 2,000 hours aero towing.
- Current owner of a Cessna 175(Licence is currently invalid due to temporary medical setback. Hopes to get it back within 6 – 12 months).

## Ultra lights

- 600 hours total time.
- AUF senior instructor with instructor training authorisation.
- Part-time staff instructor/acting CFI at a busy Victorian ultra light school up to time of move to SA.

## Airworthiness

### Gliding

- G1109 endorsed for minor repairs all types.
- Major repairs wood, airworthiness surveys all types.
- Repaired and/or restored 8 gliders.

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## DIARY DATES

<b>Next Committee Meeting</b>	Friday 17 Oct. 03, 7.30 PM
<b>Member's Flying Day</b>	Saturday 28 Oct. 03
<b>Cross Country Course</b>	Early December 03
<b>Sports Class Nationals</b>	11-23 January 2004

**Phone** (08) 8541 2644

**Fax** (08) 8541 2761

**E-mail** [wisc@riverland.net.au](mailto:wisc@riverland.net.au)

**Web** [www.waikerieglidingclub.com.au](http://www.waikerieglidingclub.com.au)

- Airworthiness officer Woomera GC 1975 to 1978 (much repair work!).
- GFA STO/A from 12 June 2000 until 21 August 2003.

#### Ultra lights

- AUF Level 2 maintenance authority (airframe only).
- In current practice in maintenance and repair of Drifter, Skyfox and Gazelle aircraft.

#### Gliding Administration

GFA Secretary from 1979 to 1982.  
 Australian Air League Air Activities Commissioner for Victorian Group from 1982 to 1992.

#### Other

- RAF-trained as radar/radio technician (5 years RAF service).
- Approximately 10 years industry experience in avionics maintenance and repair (unlicensed). Mike says he hates radios.
- Accredited aircraft accident investigator (BASI-trained, 1987).
- Member of OSTIV Training and Safety Panel 1984 to 1997; Vice-Chairman 1994 to 1997.

This is an impressive history in flying and in particular in gliding. I am sure all members, customers and friends join me in welcoming Mike (and Tess) to Waikerie.

#### Flying activities

##### From Mark Morgan

##### *Sports Extraveganza*

Thursday 25th August WGC flew a group of high school students who showed an interest in the sport of gliding. Thanks must go to those that gave their time to make this happen. John Hudson for flying the tug & Shirley Mudge for running the Log.

##### *Japanese Uni Student program.*

This ran for 4 weeks in August and September. In all we flew 12 students. Some already solo but gaining their Aerotowing Ratings and others whom had not yet reached solo status.

There was some very good weather as well as a bit of rain. In all the majority of the students reported they

had enjoyed their visit to Waikerie. Thanks must go to Kieske Eguchi for his efforts in Japan for organising the students and then coming out to Waikerie to fly with them as their instructor.



Aiden Baker also joined the last group, and on Friday 12 of September, Aiden managed to make his first SOLO flight. He also made his dad Nigel very proud. Congratulations Aiden, well done!



##### *New members*

Two new members have joined the Waikerie Gliding Club.

Peter Paine, from Kingston-On-Murray has joined and has commenced training. Peter had a very enjoyable flight on Saturday 27<sup>th</sup> September, with a flight of almost an hour during which a short cross country to Banrock Station was made.

Steve McGrath, from Darwin in the Northern Territory has also joined the Club.

Bernie Konopka has also recently rejoined the club.

Peter, Bernie and Steve, on behalf of the Committee and members, we extend a very warm welcome, and look forward to meeting and seeing you enjoy the activities at Waikerie.

## September Members Flying Day

### From Mark Morgan

Saturday 27<sup>th</sup> Aug

WVC (Grant Hudson) & WL (Mark Morgan) enjoyed an afternoon chasing interesting thermal streeting in a strong southerly. What made it interesting was that there was wave or thermal shear activity above which made the streeting line up cross wind at times during the cycle of the weather.

Some thermals were very strong with the best averaging between 7 & 8 kts for most of the climb to 6,000 feet. An area from 20km west, 20km S/E and 43km south were used with a race home from the southern most point.

The wind was quite strong at altitude as the GPS at one time indicated a ground speed of 244km/h. Rumour has it that

Sunday 28<sup>th</sup> Aug

Greg Jackson tried chasing the wave on Sunday. Apparently he was not successful but did manage to climb over 8,000 feet.

## Digging for buried treasure

Some activity s happening on the ground as well. You may see what appears to be Bugs Bunny trenches round the huts.

No, it is in fact some exploratory excavation looking for an old septic tank used during the world comps.

Craig Vinall won the prize with a hole in one through the water pipe. Trophy was the short length cut out containing the shovel gash in the pipe!

Not to be outdone, Bernie Konopka scored a pick hole in the same pipe the following day only 1.5m from Craig's point of entry!

## Airfield Matters

### *Log Sheets*

Could everybody please make sure all flight information is correctly and fully filled in on the log sheet. It becomes very uneconomical when office staff have to start chasing around tuggies, instructors and pilots to finalise log sheet information for charging.

### *Airfield.*

Last month saw rain fall on 8 days recording guagings of 14.25mm. The first 2 days of October rain fell over many hours and resulted in 23mm. This is very good as staff were in the process of gearing up to start irrigating the pads. This recent rain will postpone irrigating for another couple of weeks.

### *Strong weather front*

Mid September saw a strong front move through the region round midday. Winds could not be recorded but it was strong enough to blow over a large mallee tree alongside the new pump shed. This has since been cut up for fire wood and the rest moved to the burning heap.

The manager of Jubilee Almonds mentioned they had lost most of their large Gum & Pine trees around the houses and sheds.

27th September, a very cold morning. Many primary producers in low lying areas suffered severe crop losses from a very intense "Inversion Frost". Many vineyards have lost substantial percentage of the coming crops because the frost burnt the young shoots and forming grape bunches.

The frost alarms were going off at 3am in the morning, and by 6am the temperature had reached -5C. The extent of the damage will not fully be known for some time. Some growers are hoping the second shoots of some varieties have not been affected by this frost, but unfortunately the major damage has already been done.

Estimates by some growers state they may have lost between 35 to 45% of the coming crop of some varieties.

An Inversion frost is where the below zero temperature gets colder with height before warming up, instead of the first few feet being below zero and then warming up. Basically an inversion at very low altitude 10 to 20 feet. Normally the frost layer is only a few feet thick. By initiating air movement and mixing of the warmer &

colder layers or introducing water from the irrigation system is normally enough to keep the ground level air temperature above freezing point. Unfortunately with an Inversion Frost this is not possible because there is just too much cold air.

#### *Duo Discus*

The recent ADs from Shemp-Hirth requiring the spar to sparweb bond to be inspected following a Duo losing 3m of wing in flight has effected many gliders. Our member's Duo Discus VH-DDH was also effected and we were lucky that no defects significant enough were found to warrant any corrective action.

Many Discus have also been grounded following one losing 4m of wing in flight. Fortunately non of the Discus here are effected. Your Discus will only be effected if you own a Discus b or bT with a serial number above about 525 or any Discus CS. All owners have received or will soon receive an AD issued identifying the aircraft effected.

### Committee Happenings

By John Hudson

#### **Newsletter on the Web site**

Concern has been expressed about placing the Club newsletter "Out-of-the-Blue" on the Club's Website. It is recognized there are pro's and con's with this approach and overall the pro's outweigh the con's. Members who have a view are encouraged to make your thoughts known.

### Members Flying Days

Over recent months, organized "members flying days" have been arranged at Waikerie to coincide with Club Committee Meetings. These meetings generally occur on a Friday evening and the "flying day" on the Saturday.

Weather permitting, the "organized" flying day provides for members and friends to undertake some work around the Club before some flying. The day concludes early with a BBQ tea (provided by the Club social committee at a very reasonable rate) and a few ales or wines, allowing those who need to travel to do so and arrive home at a reasonable hour. Because the Committee are also present, the opportunity is provided to discuss aspects of the Clubs operations and activities.

Committee meeting dates are listed in the "Diary Dates" section of "Out-of-the-Blue". Weather permitting, come along and join in the jobs, the flying and friendship. I am sure you will enjoy the day. 18 members had an enjoyable day on Saturday 27<sup>th</sup> September, when the activities included locating some underground services, some good flying and an after flying BBQ. Thanks go to Allan and Marie Hudson who held the BBQ at their house.

The next member's flying day is Saturday 18 October. As mentioned previously, a safety briefing will be given if no flying is possible and there will be the opportunity to do a few jobs around the club house. A barbecue will be held at the club rooms after flying. Look forward to seeing you there.

#### **Ridgelif and Slope Soaring**

**By Bernard Eckey**

(This is the final instalment of Bernard's great article. The full version of the article will shortly be published in Aus. Soaring)

#### **Flying Tactics**

Having dealt with the fundamentals of ridge-lift we can now turn our attention to flying tactics and safety matters. In the normal course of events, we approach a slope below ridge-

top level and therefore I suggest we cover flying tactics while in fairly close proximity of the ground first. According to triple world champion H. Reichmann the best lift over smooth hills is found closer to the hill whereby rougher slopes tend to form a turbulent layer close to the surface resulting in better climb rates a little further from the ridge. That is very good news indeed, especially in view of the fact that most of the ridges I know in Australia can hardly be described as smooth. In any case, if we enter ridge lift fairly low, our utmost and undivided concentration is required. As long as we are within a few wingspans of rugged terrain we must expect eddies severe enough to unnerve quite seasoned and even highly experienced glider pilots. Operating close to the rocks means that we must be able to fly with only the occasional glance at the instruments and only for fractions of a second at a time. As we gain altitude and ascend above the summit, we can expect to get into somewhat smoother air, which often goes hand in hand with improving climb rates.

First we want to find the area of the strongest lift, which can be done by comparing the climb rates at different distances from the crest of the ridge. In the process we usually gain further altitude and soon we have a few thousand feet of buffer between us and the top of the ridge.

But let's turn our attention to safety matters and let's talk about speed for a while. The old saying that speed kills might hold true on the road, but when it comes to ridge-soaring this statement could not be further from the truth. In fact I know of hardly any aviation accident caused by excessive speed but sadly I know of a few resulting from insufficient airspeed close to the ground. Every self respecting glider pilot instinctively adds a few knots when descending to circuit level – something we were all taught during our first few flights in a glider. But flying faster in the relatively smooth air of the circuit dictates that we must be doing it even more so in an environment with severe turbulence. The reasons for that are well known. First and foremost we maintain a safety buffer above stall speed which allows us to convert speed into altitude if required. In addition speed does significantly improve the glider's control effectiveness – a highly welcome by product when it comes to ridge soaring.

To sum it up, in the interest of safety we must keep the speed up for as long as there is only a thin layer of air between us and the rocks below – it will save our bacon one day.

While in close proximity of the terrain we are exposed to rotor-like eddies with occasional severe downdraft. Usually such downdrafts are short-lived but gaining altitude only to lose it in next to no time is not at all uncommon. To prevent a close encounter with the ground we take advantage of the topography and execute an instant escape by rolling the glider away from the hill into clear air. Even shallower ridges do provide a fairly rapid increase in ground clearance and although it can not be denied that operating close to the ground contains a greater element of risk, we can almost completely eliminate such risks by doing the right thing and by wearing belt and braces. If you like, the

belt is our speed reserves, and the braces are the escape routes away from the ridge for increased ground clearance.

Now, that we all agree that turning away from the hill is paramount in terms of safety we should not be surprised that it is regarded as rule No.1 for ridge soaring. No ifs and no buts, unless we are well clear of the ridge we always turn outwards - **away from the ridge**.

Sorry for bringing up the subject of rules, but since we have started we might as well get on with it. The good news is that there are only 4 of them, they are easy to remember and mostly just plain common sense.

**Rule No. 1:** *All turns must be made outwards, i.e. away from the hill.*

We never turn towards the ridge, even if we are a seemingly long distance away.

**Rule No. 2 :** *A glider overtaking another glider when hill soaring shall do so by passing between the overtaken glider and the hill.*

If the slower glider decides to turn away from the hill and the overtaking glider is between the overtaken glider and the hill there is no danger of a collision. Still, I suggest we all make it a habit to look over our shoulder and twist our neck as hard as we can before and while performing a turn. It must become second nature and should be done regardless whether we know the position of other gliders or not. **In aviation we never assume, we always check.**

**Rule No. 3 :** *If two gliders approach each other head-on while hill soaring, the glider which has the hill to its left shall give way by turning away from the hill.*

**Rule No. 4 :** *When hill soaring, a glider shall not be flown lower than 100 feet above ground when within 100 meters horizontally of a person, dwelling or public road.*

### **Flying well above ridge-top level**

Provided we are several thousand feet above the summit we can adopt tactics akin to flying in conditions of streeing. In other words, we are employing the classic MacCready theory of speeding up in bad air and slowing down again as soon as our backside senses an updraught. Flying in this fashion is called dolphin soaring because viewed from a distance it very much looks like the up and down swimming motion of a cruising dolphin. When we are doing it right it cuts down on time in sink but at the same time maximises time spend in updraughts and that tends to improve our cruising speed substantially. Just make sure the control inputs are not too severe as aerodynamic losses can otherwise cancel out any such gains.

Needless to say that dolphin flying does go hand in hand with quite major altitude variations and therefore it is essential to keep the eyes on other traffic and not on the instruments. After all, our backside and our audio-vario provide us with more than enough information on the vertical movement of air. That makes it totally unnecessary to keep a close look at the variometer. In fact a reliance on

the vario is counterproductive, as it gives us misleading information on the exact location of the strongest pockets of lift. The reason is the lag time in our instruments.

#### Other dangers

It is important to stress that ridge soaring pilots face danger if they under-estimate the strength of the upper wind and fail to realise that they are slowly drifting across the ridge and into sink on the downwind side. The sink downwind of the ridge is even stronger than the lift upwind of it because the additional sink rate of our glider needs to be included in the equation. As an example, we might enjoy ridge lift in the order of 5kt but can easily experience twice the rate of sink (or even more) downwind of the ridge. On top of that we always have to battle a strong headwind on the way back into rising air.

There are plenty of stories where pilots rapidly lost altitude in the down-wash of the mountain and got a very close look at the ridge from the wrong side. It even happened much quicker than they ever thought was possible. Imagine you see the variometer needle pushing hard against the bottom stop and your track back into lift is blocked by a rather frightening looking mountain. Your blood pressure would go up rapidly knowing that there is almost no chance of finding lift downwind of the ridge.

Let's not forget that ridge soaring is often conducted in some of the most inhospitable areas of the country. Yes, the countryside might be breathtakingly beautiful but the rather unforgiving nature of such terrain calls for extreme caution and dictates conservative safety margins at all times.

#### For sale

ASW19b VH-GWL – ½ share for sale. Mark Schultz  
0427793946

LS4a – VH-IYY. Rudi Gaissimaier. 8524 4595  
[rudiandanna@camtech.net.au](mailto:rudiandanna@camtech.net.au)

Diamant 17 – VH-GUV. Nigel Baker 0418 841 631  
[niglbaker30@hotmail.com](mailto:niglbaker30@hotmail.com)

201 Lebelle – VH-GBV. Ron Brock 8541 2809,  
fax 8541 4434

Zander SR820 Flight Computer Vario, Speed director,  
Final Glide Computer with separate Pots for Wind and  
McCreedy input.

Peter Robinson [robinsonp@onesteel.com](mailto:robinsonp@onesteel.com)  
0886404809 wk or 0886453794 hm

#### Articles for the Newsletter

Do you have any interesting news or views? If you do, then please consider writing something for our newsletter. Next month should see the start of a series of articles celebrating 100 years of powered flight.

Please send any material to [Craig@madderns.com.au](mailto:Craig@madderns.com.au).

## Flying Roster

Flying during winter will be on alternate weekends and will depend on flight crew availability. Flying will be on Saturday and Sunday. Each day will require a duty instructor for operations to proceed. Other days will be scheduled when possible. Please call the office to confirm that operations will proceed.

### Flying Weekends

11 & 12 October

18 October

25 & 26 October

8 & 9 November