

Uni Gliding

The Official Journal of the Adelaide University Gliding Club

MEETINGS

The October General Meeting has been cancelled, as so many people are away. At the November meeting Peter Temple will talk about Cross Country Flying. In December we will have a talk by David Conway about radio procedures, and people who are interested will be able to take their radio operators licence tests.

Executive Meeting on Wednesday 16 October, at Greg Newbold's; 100 Gage St Firlie at 7.30pm.

EVENTS

Flinders Ranges, Barossa Valley Club have organised a camp from 30 September to Monday 7 October (Public Holiday). Contact Greg Newbold for more details. The club's Libelle is going and the Barossa Valley Blanik will be available.

Balaklava Competition, the Super Arrow and the Bergfalke will be competing at Balaklava over the long weekend. Contact Michael Texler for more details, if you're interested.

Welcome Home

Peter Cassidy is back from Canada, and has already frightened a few; sheep, eagles, students and instructors so watch out.

Sterling Ranges WA, several club members are heading West for this camp between 28 September and 7 October.

Lochiel; it is possible there will be no flying over the long weekend at Lochiel due to lack of Instructors and Aircraft, but phone the contact person as normal to check.

SOCIAL

Saturday 28 September BBQ at Greg Newbold's 100 Gage St Firlie. Starts at 5pm.

Wednesday 9 October. Leaving do for Martyn Roberts. 7pm at the Lanna Thai 310 Pultney St. Adelaide. He's off overseas for a few months.

ON FIELD

- The club is buying some thicker winch cable. It will be 4.8mm, rather than the current 4mm. We intend to put it on only one drum as needed and monitor it's strength. After 2-3 months we will count repairs on each drum and decide if it would be better if it were all changed over.
- So if you add cable at any time check it's the correct size, and use the correct swages.
- The club's mobile phone is not intended for outgoing calls. It is on a cheap plan (\$10 / Month), but if we use it for outgoing calls it is very expensive.

CONGRATS

- ☺ Dave George flew his Silver C distance.
- ☺ Florian Kosche went Solo.
- ☺ Michael Texler upgraded to a Level 2 Instructor.
- ☺ Mark Tingay has his A Certificate.
- ☺ John Dunstall flew his five hour flight to gain his 'Silver C', and Independant Operators.
- ☺ Andrew Huggins and Greg Newbold have qualified as Level 1 Instructors.

In this issue

- ◆ David flies to Crystal Brook
- ◆ Greg flies the wave in Cooma
- ◆ Part 4 of the Cross Country Series; The weather.
- ◆ Results of the Questionnaire
- ◆ A visitor flies the ridge and lives to tell the tale.

Next Month

- ◆ Report from the Stirling Ranges in WA.
- ◆ Report of the Flinders Ranges camp over the October long weekend.
- ◆ Details of the Comp. at Balaklava.
- ◆ John Dunstall writes about his epic 5 hour flight in CY.
- ◆ Part 5 of the Cross Country Series; Competition flying.

BVGC Ridge Soaring at Lochiel 17 August 1996 or Five New Experiences

Last Thursday night a little later than I calculated, I rang the CFI about Lochiel ridge-flying.

"Yes it's still on, I'll be there on Saturday". Friday nights weather forecast was not promising, but we fly at Stonefield in 30 knot breezes.

After attending to my house and animals, my wife still in bed, I set forth for Lochiel. Two hours plus I arrived at Lochiel, looking for the signpost. It pointed north, up a dirt road. Misgivings?

"I'm getting to the other side of the Hummocks before I find the place" Yes, through the other side, I saw a windsock in the distance, and I was on the other side of the Hummocks.

The gate to the airfield was no problem; the hanger and gliders were in the distance, but how did I get there? It was time for the winch to be positioned; it drove parallel to the road! I drove down the runway towards it's track, reasoning I would meet it at the cross-strip which I did. (That was the right thing to do.) I reported to the familiar face of Dr Michael Texler.

Cables were laid, and five launches were made before the weather caught up with flying. The aircraft landed in the rain, and were towed back to the hanger area; and yes, those walking the gliders were soaked.

About an hour later, the rain eased, gliders were wiped down, and we towed them back up the slope, keeping out of the mud as much as possible. There was one washout near the cross-strip that I couldn't steer around; the wheels were slipping so three people helped push the car, I got out and also pushed; (my Rodeo has a very low bottom gear that drives the vehicle about 2kph with no throttle): we arrived at the take-off point with no further problems.

My turn! I climbed into the Puchatek and completed the Chaotics, with Michael in behind. (Both of us were soaked to the skin, the bottom half anyway.) The launch was really uneventful, except from the back, "Not so steep not so steep". We flew out to the ridge. What ridge? The canopy was steamed up! Opening vents didn't help much. The front vent made a 20 degree vee viewing area. Michael suggested wiping the inside of the canopy with the hand (no

chamois up there!)

"Can you see?" "Yes."

"Then could you wipe a bit so I can see too?" I think Michael appreciated being able to see where we were going! For the next hour or so that was one of my chores.

Flying the ridge made one a little apprehensive about the closeness of the ground, and later the other aircraft, along with their pet eagle. The ridge gave us 2 to 3 knots lift, but with no real gain in height. A few sloppy turns and any height gained was lost; so we maintained about 1500 QNH.

After one and a half hours ridge flying, we came about to land. The ridge was used as the downwind leg; the final approach was over high tension power lines! My aiming point was just past the tree at their tree end. Nothing too startling but it was a downhill slope; Michael assisted?

Soaring with the eagles, even friendly ones, needs to be taken with some caution, so keeping a glider width away is the thing to do. However if the eagle is above keep well clear!

The Puchatek? If there is no fog inside the visibility is good, the control column feels 'right', but the rudder, to me was quite heavy, with the consequence of not enough rudder sometimes. My landing was not spectacular, I probably started my flare too high (my excuse is the ground was falling away...)

As I was helping the girls untangle the cable, a multistrand type that I found had biting teeth (with the cold and wet I was dripping blood, even from a minute wound), a call came over the radio looking for another pilot to take the Bergfalke up for the last flight of the day. No takers so I volunteered as an inexperienced pilot.

Steve Were an instructor climbed in behind me. To the ridge once more; this time with 4 to 5 knot of lift. The Bergfalke felt big and clumsy alongside the Puchatek, probably because it has high sides and controls; the control column is about 40mm in diameter? After a beatup looking for kangaroos along the ridge, half hour later, (and the airfield getting harder to see) we

landed near the hangers, (well, three quarters along the strip, well past the washaway). All gliders were suitably hangered.

After paying my respects, and flying account, it was time for me to part, (the Lochiel crowd were spending the night there) as I was getting into my car it started to rain. I knew that if I went into the crop it meant leaving the car there until the ground dried out probably next week. If I stopped in the mud it would be a 'tomorrow' job, so I had to keep moving and keep to the grassed area. The problem was, it was raining so hard my headlights only penetrated 20 feet or so! It was all up hill! I dare not let the car stop or I would be there for the night, at least. So I followed the tyre tracks. Eventually the now familiar washout bump told me to throw a right. Luckily the tyre tracks were still there; and I kept going. Where's the gate? Where's the windsock? Where's the tyre tracks? Oh shit there's the crop! A quick wrench to the left found me pointing down hill! A mad swing to the right brought me back on line; no crop in front and I was again pointing up hill. Finally the rain eased a little to reveal a white flag in the distance, the windsock. Navigating the gate was really uneventful, compared to getting there. The puddle in the gateway was traversed and the car was stopped in the middle of the road before I was game to leave it and close the gate.

I didn't get lost going home, but it was a long wet day, but an enjoyable one.

Thanks Michael. Thanks Steve.

The new experiences?

Flying the ridge

Flying the Puchatek

Flying the Bergfalke

Flying with eagles

Landing on a sloping airfield.

And driving around on an unfamiliar airfield, at night in heavy rain.

J. D. Ingram

PS So now you know. You weren't visited by a UFO, just me trying to get home for the night. (Those unidentified circles near the gate.)

Flying High. A Lesson in Preparation.

I left Adelaide with just about everything organised for a trip to the Canberra gliding club wave camp at Bunyan.

It is a 1200km haul over there, completed by a hike over the Snowy Mountains, which is Silver height gain in itself.

First morning of the camp and the locals were sure the wave is on.

The morning briefing interrupts rigging TeX.

And finally, at 1pm, after much messing around to set the glider up, I'm ready to fly.

Reports of wave to 12,000ft AMSL suggest it's not the big day that was hoped.

I'm the only glider left at the launch point.

The airspace here is 20,000ft, to go higher in the wave area requires a clearance from Melbourne Centre.

The tug pilot suggests we try the local area and then hop to the next valley up-

wind in search of lift.

So we climb away, and without any signs of lift I decide to release at 3000ft AGL (5500ft AMSL) about 5km upwind of the airfield.

Nothing here.

The audio-vario goes "beep-beep-burr-burr", it is cycling +10kts to 10kts.

Problem: battery fault; Consequence: No Vario/No radio/no clearance.

Can I really expect to get to 20,000ft anyway?

So I turn the audio down and now have to keep one eye on the mechanical vario.

Now at 1500ft AGL and back near the airfield, I've to consider starting my circuit here?

A \$40 tow for 15 minutes, this is ridiculous.....WHAM!

A 6kt thermal, with just enough turbulence to tell it's not wave.

I'll take any lift, thank you!

Definitely not as

(violently) rough as the rotor I have experienced before.

The lift would surely be much more broken up than this.

At 7000ft AMSL it goes smooth, this IS wave, but it's already weakening.

Time to stop circling, slow down to 40 kts and point into wind.

This is only a couple of knots now, but I'm still climbing quite happily.

Up at 10,000ft I get the oxygen mask out, only to discover the webbing has come undone and naturally lose I the lift rearranging it.

Two gliders come across the valley heading upwind.

I could follow them, ... local knowledge and all that.

They are out-climbing me to the south, but they continue off upwind.

Not good enough lift for them I guess.

I don't have a map, there is cloud upwind, and if it closes in on me.... I'm not leaving this valley, I'll stay close to the airfield.

Everything's OK.

I managed to drift back into 2kt lift and the oxygen goes on at 11,500ft

and I briefly lose the lift playing with the flow rate. For nearly an hour in total I held onto this weak lift.

It got very cold indeed and my toes went well and truly numb.

I was only wearing light thermals under my jeans and a jumper, beanie and gloves too.

Touch the side of the glider and get a sharp chill.

Now why didn't I bring a barograph.

I hadn't been bothered to read the manual this morning.

Gold height gain was in the bag somewhere about 14000ft AMSL.

Another Libelle climbed up below me.

It ruined the poor guys day when he eventually looked up and saw me. I'm king for a day.

At 20,000ft I had to give it away.

Plan: head north, kill some height and get warmer.

Flying at 60kts and not losing any height.

At 80kts I arrived at Bredbo (20 kms north) still at 20,000ft.

Peter Temple got his Diamond at this spot last year, this is the far northern edge of the wave area.

There's not much point pulling up and climbing, as much as I would like to, as there's no barograph.

I'll be infringing airspace if I do anyway.

Turn into wind, I want to thaw out, get lower, and soon.

80 kts past Lake Mudah, out to Lake Eucumbene and still above cloud. I don't want to discover how rough conditions might be below, so I stay above the cloud and head back.

3 hours of freezing cold, my toes are still numb by the time I land.

I've done a 16,000ft height gain and can't prove it for a Gold climb.

I very nearly did a Diamond climb.

Be prepared.

Never fly without a barograph, always prepare for the coldest conditions and make sure the gliders electric's are 100%.

Things always go wrong in threes.

Greg Newbold

Questionnaire Results

- Of 121 Questionnaires sent out 21 were returned (21%)
- The main reason both new and regular members gave for not flying more often was lack of time.
- Low cost, location, and club atmosphere all rated highly as reasons people chose to fly at Lochiel.
- Additional comments included; good rules, if I don't others don't, age group, and female members.
- KRO was the most popular aircraft(14 votes), GTJ the least (1 vote).
- 18 of the 21 respondents said they wanted to help with aircraft maintenance, on one day per week.
- 14 wanted some organised training
- There were lots of negative comments about poor organisation, and time wasting at West Beach.
- Only 7 wanted to help with club administration.
- Comments on how the club can be improved included; start earlier and better ground co-ordination.

The executive hope to take all these points on board and use them to improve the club, airworthiness, and organisation as much as possible.

My Second Cross Country (or They Told me not to Waste my Time).

Its Friday Morning: I'm at work, and Mary phones, "Do you want to go cross country on Saturday? Its the last chance for an entry in the winter de-centralised competition", that was all the excuse I needed.

Friday night I get the maps out, I may as well do my Silver distance, so I'd better make the first leg over 50km. It's meant to be a good day; 20 Deg C forecast, light winds, good temp trace, etc. A total distance of 150-200km sounds reasonable, so I choose a task; Lochiel, Hamley Bridge, Blyth, Lochiel. Pack anything I think may be useful and go off to the cinema.

Saturday morning: Driving to Lochiel we hit thick fog south of Port Wakefield which continues north of Lochiel. The eastern side of the ridge is clear. I need a new task, no point trying to fly south of the airfield today. I declare Lochiel, Crystal Brook, Blyth, Lochiel. John Dunstall was also intending to head off south in CY but changes his task to Crystal Brook, Brinkworth. The aircraft are DI'd, winch fixed, official observer and Crew found, get encouragement from the experienced pilots, and I'm all ready to go.

Saturday Midday: John takes the first cable and heads off north, I take the second cable, head towards a bank of cloud over the northern end of the ridge. I arrive there just above ridge top height and head back to the airfield. The Puchatek takes the next cable and launches straight into a thermal. Once the cable is repaired I launch into 5kts of sink down to the ground, I hope things don't get any worse. Launch three, and I manage to find some zero sink which I circle in for a couple of minutes. I decide to head for the closest cloud and find myself back at circuit joining height. Once on the ground I remembered seeing a tyre kicking dance that an instructor had performed after a number of re-lights, if it worked for him then maybe....
Having kicked some suitable tyres I launch again. Another 1800'

launch, I really should learn how to launch TJ. It is now 1:45pm. I fly into a very weak thermal. I manage to gain two hundred feet before the vario stops beeping. The Puchatek is thermaling over the ridge so I set off to join them. I am down to 1700' feet when I get there but decide to hang in. The Puchatek starts flying across my tail, are they trying to tell me something? I'm not leaving this lift, its the best I have seen all day. I manage to scrape up to cloud base, which was 3500', and decide to set off. There were clouds forming up by the microwave tower and the rest of the sky was clear, so I headed north.

"who knows, the certificates officer may accept my claim if I can get a written confession from my official observer."

Not much lift on the way so I was getting a bit low when I arrived at the clouds, scratched about for a bit, made 500' or so and headed for some more clouds that were starting to form to the east.

This general pattern continued, flying between 2000' and 2500' until I got to Redhill, where I found some reasonable lift which took me back to 3400'. I should have looked down at Redhill as John saw me flying over from his paddock (maybe he set off too early :-). The next 10km were fairly easy under a cloud street heading north. At the end of the street was a big blue hole, going on past Crystal Brook, so I gained as much height as I could and set off across the blue hole. Half way across and I realised I was falling out of the sky quickly. There were a few clouds out to the west so I deviated to them, which gained me enough height to make the Turn point and get back to the clouds (I hoped).

I arrived at the silos at about 2000', took my photo, I'm going up!, another couple of turns (and another couple of photos) and I set off towards my clouds. They are not working too well when I get back to them :-(. I gain 100' and head off back towards Redhill, I figure that I should be able to get that far, which should please the ground crew.

I arrived at Redhill at about 1500' and took a photo of the town. The day was starting to die, I was leaving thermals at lower and lower heights, 1600' seemed to be the top now. Should I press on or land here where there is civilisation? I headed on, following the main highway south, at least I can hitch a lift. I scratch from paddock to paddock, and finally decide to give it away at Lakeview, I found a nice paddock to land in, obviously not cropped as there were sheep in it, rest of the checks convinced me this was 'my' paddock.

It was now 4pm: I had managed about 90km. I tied the aircraft down, walked across the road to the pay-phone and called the club. The trailer was on it's way. John and Martyn arrived about 45mins later, which I thought was very good service. The aircraft was put away and we were back at the airfield before dark.

Back in the clubhouse I fill in the paperwork, return everything that I had borrowed and give the barograph to my official observer (who shall remain nameless). Lots of button pressing on the Joey, plug it into the printer and go. Nothing on the printout. Try again, and again,.... As some of you will know the Joey does not have a good user interface and this was probably the reason for the trace being lost. At least I had a good flight and who knows, the certificates officer may accept my claim if I can get a written confession from my official observer.

Dave George

Cross Country Techniques

Part 4. The Weather

Meteorology is one facet of our sport, about which we can never stop learning. Sadly one pilot with twice as many hours as another will, by definition, have twice the exposure to various different conditions as the other. Whether or not they use that experience is another question!

We must always be both observant and inquisitive, a new and different effect of the weather is often quite simply explained, and should be filed away for future reference.

For normal thermal flying we need a certain degree of instability present in that layer of air in which we fly. Usually this means the first 10,000 feet or so above the ground.

Very basically the instability varies with the movement of cold fronts across the continent, reaching a peak as the front passes through, then becoming more stable until the approach of the next one.

For gliding we are most interested in the days just before and just after the front. The more significant the cold change is the better the weather is likely to be.

Typical pre-frontal weather will have high ground temperatures, cumulus and high cloud bases. Watch for the approach of high cirrus cloud from the south west associated with the front, as this may cut off the ground heating and stop convection.

Post frontal weather usually means lower temperatures on the ground, lower cloud base but plenty of cumulus and days that start very early. There is often good streeting to be found on these days too and we all enjoy that.

So as you plan your flight, try to envisage which part of the weather cycle you are in, and thus what you may expect as the day goes on. You may or may not have the benefit of a temperature trace done at your club, as this will give an accurate indication of the level of stability in your area.

There are of course an infinite variety of conditions, and herein lies the challenge of the sport. A good day will have thermals of long duration and if you search under a cloud you will invariably find lift.

On days when there are only small wisps of cloud, that disappear quickly, you may arrive after the bubble feeding the cloud has risen above your level, and you will be greeted with only turbulence or worse still sink.

These conditions can be very frustrating and are often better treated like a blue day, noting likely hot spots on the ground, and only using the wisps as a guide to which spots on the ground seem to be working. Blue weather is a time to really work on the feel of your glider, and let it tell you which way the good air is.

Once again use every possible aid you can, birds, other gliders, dust or grass carried into the air, anything at all. Really get your mind and eyes outside the glider and be aware.

A good pair of sunglasses will help you see the haze domes where thermals are pushing into the inversion. These can be followed just like cumulus.

Usually thermals will tend to line up with the wind to some degree. Using this streeting in your efforts to pick the best

path through the sky is all important, and may enable you to fly straight for long periods maintaining height.

If there are plenty of clouds, it is usually much easier to plan your track a long way ahead in conditions with a lot of streeting.

Rarely will your intended goal lie directly along the streets, and in this case the best path is to fly along the street, then directly across wind to the next one to stay on track. Then turn along the next street and so on.

The reason that streets of good lift are separated by streets of heavy sink. An unplanned crossing of the sink in a diagonal path can cost lots of height.

Get your speed up in the lift, and fly directly across to your chosen cloud in the next street. Don't slow down till you find the lift again.

If you get low and lose contact with the clouds, remember that the lift/ sink is lining up with the wind. If in heavy sink don't continue up or down wind, turn across wind till you feel lift or promising turbulence with a decreased rate of sink, then turn up or down wind and continue your search.

Streeting also happens in blue, cloudless conditions, and in this case you are constantly in the same situation as losing contact with the clouds. If you are in good air try to keep yourself aligned, travelling up or down wind, and if everything is unwinding rapidly turn across the wind. This can be very difficult, but I never said it was easy.

Another phenomenon that can provide interesting conditions is wave. We often associate wave with mountains and high flights, but various types of atmospheric wave above our layer of convection can have a marked effect on thermal conditions below, even over flat country.

If you find yourself flying on a day when there are indications of wave above, beware! Torn ragged cumulus, lenticulars (often disappearing and reappearing within short time intervals) or cumulus lining up across wind can all point to wave activity.

It is true these conditions can help boost thermal lift below and provide huge areas of good air, but likewise the descending part of a wave can also suppress thermals over a similarly huge area.

When you find yourself caught in this spot it can be extremely difficult to unravel what is going on. Try to compare the look of the sky in your bad area with a previous good area and do your best to relocate yourself preferably not into a paddock.

On these days the thermals can be tight, rough and hard to work. Take heart that nobody else airborne on that day will be enjoying themselves either.

As I said earlier, the weather can toss an infinite variety of conditions at you. Jump into your flying machine and experience as many and as much as you can. Open your eyes and your mind and let it all soak in.

"Really get your mind and eyes outside the glider and be aware."

Next Month; Competition Flying

This month on Field

Sat 31 August

We had thermals to 3,500'. Dave George flew to Crystal Brook and half way back (90km).

Sun 1 September

Yet another great ridge day, as much flying as you wanted.

Sat 7 September

More instructors than students. Ridge and thermals to 3,000'. Florian went solo.

Sat 8 September

It looked like a great day, I declared a 50km and didn't get above 1800' (or leave the field) but it didn't rain. Michael Texler was upgraded to a Level 2 Instructor. It was a good day, with ridge and a few thermals. It was only spoiled by hearing Whyalla talking about thermals to 7,000' (we could see their Cu's).

Sat 14 September

Strong Northerly winds, with just enough Westerly to work. John Dunstall flew his five hours for Silver 'C'. Greg and Andrew did some instructor training, and Peter Cassidy just

back from Canada had a fly.

Sun 15 September

Strong Northerly winds, metfax reported 58kts at 2000'. Peter tried TLC on the winch, and Greg and Andrew had some more instruction, but there was no flying.

Sat 21 September

No interest and no flying.

Sun 22 September

Strong Northerly winds, no flying.

Top Ten Reasons to buy a glider rather than get involved with the opposite sex.

- 1 The glider will be far less expensive
- 2 A glider will do what you tell it to do
- 3 A glider will be there for you at weekends
- 4 A glider will never leave you for another glider after "finding itself"
- 5 Gliders are inspected for safety every year, and a log is kept of everything that is done to them
- 6 Gliders don't care if you go fast or slow
- 7 Once you're in a glider you're in charge
- 8 If you want a new glider you just write a new cheque
- 9 You can easily tell when a gliders shape is due to plastic
- 10 You and your glider will always finish together.

So you want to fly this weekend?

- You must ring the club contact person, Michael, on the Thursday before, strictly between 8.00pm and 10.00pm, on 018 810 963 or (08) 8345 4159, so that he can organise instructors and transport for those intending to fly. Please try the mobile number first.
- A lift is available from the Adelaide University footbridge at 7.15am, or from the Caltex Service station on Port Wakefield road, Bolivar at 7.30am
- Directions to the airfield are available from the contact person
- Remember to phone the contact person or you could be forgotten.

Uni Gliding

If undelivered please return to:
AUGC Inc.
c/o Sports Association
Adelaide University, SA 5005

