July '96 Volume 21.7

Uni Gliding

The Official Journal of the Adelaide University Gliding Club Inc.

MEETINGS

Wednesday 7 August
General Meeting
Film Show plus Official Observer Course

The meeting is to be held in the Margaret Murray Room at Adelaide Uni. The meeting will start at 7.30PM and we will have dinner first in the Uni Bistro from about 6.30PM

Wednesday 21 August
Executive Meeting

7.30PM at Stephen Were's house, 148 Sherriff Court,Underdale.

EVENTS

- **Adelaide Uni Sports Assn Centenary Ball** on Saturday 3 August. At 7.30pm for 8pm. The Upper Refectory Union House. Cost is $10 for AU Students $20 for others. Dress is Black tie or Club Sports Blazer.

- **Uni Open Day** on Sunday 4 and Monday 5 August. This leads into Sports Week at the Uni where the Gliding Club will be represented. We hope to use this as an opportunity to attract new members to the club. The Uni Gliding Club will have a glider rigged on Sunday Monday and Tuesday and information will be available for new members. If you can help out at all contact Greg or Mary.

- **Bowling** at Norwood Bowl on Friday 9 August. No experience necessary. We will have tea first details later. Cost is $12.40 including shoe hire. Contact Mary Willmott if you're interested in going.

- 17 and 18 August the Barossa Club are visiting Lochiel for a **ridge camp**. There will be a BBQ at Lochiel on Saturday night.

- There is a **flying camp** at the Bluff in the Flinders ranges, during the school holidays, from the 28 September for two weeks. It will probably be winch launching only. There is camping available at the site, or there is a holiday park nearby.

- **General Meetings;** The August meeting will be a film night following on from Sports Week. We hope to have the second New Zealand Video to show. After that Gary Hollands will explain the ins and outs of being an Official Observer. The September General Meeting on 4 September will be an introduction to cross country flying. In October we will have an advanced cross country course with details of competition flying. (The October meeting will probably be on 9 October as a lot of people will be away in early October . In November we hope to have a speaker from the Bureau of Meteorology to talk about the weather. We plan to open this meeting to other gliding clubs in SA.

CONGRATS

- ☺ **Doug Shields** converted to the Libelle
- ☺ **Andrew McGrath** gained his CPL

THE JOEY BAROGRAPH

The club has recently acquired a new Borgelt BJ1 Joey Barograph. This is an electronic device small enough to fit in your pocket.
The Barograph is reliable and robust so it should suit our operations. Unfortunately the unit has two potential problems:
The small size makes it easy for some Dodo to inadvertently remove it from the airfield and not notice till they clean their car out the following year.
The user interface leaves a lot to be desired. ie you will have to learn how to operate the device.
The first problem will be solved by liberal application of boot to Dodos.
The second problem will require those interested in cross country flying and in particular those who hold FAI Observer ratings to become familiar with the toy between now and the soaring season.
To assist with this the following 3 people have been given copies of the instructions (14 pages!):
Mandy Wilson, John Dunstall, Kevin Zeitz
It is intended that any club member should be able to approach one of the above and organise further copies as needed.
Data gathered by the Barograph can be dumped directly to paper by any Epson compatible printer with a parallel interface. A suitable printer will reside at Lochiel.
The unit has been supplied complete with a Serial cable and a disk of software so that data can be dumped from the Barograph to a PC and plotted/analysed using the software. This will require taking the Barograph and associated Serial cable off field. Great care will have to be taken that this doesn't lead to a Dodo situation!
Once downloaded to a PC, output can be readily loaded into an Excel spreadsheet and reorganised/plotted any way you wish. This bit is not covered by the instructions but it works fine.

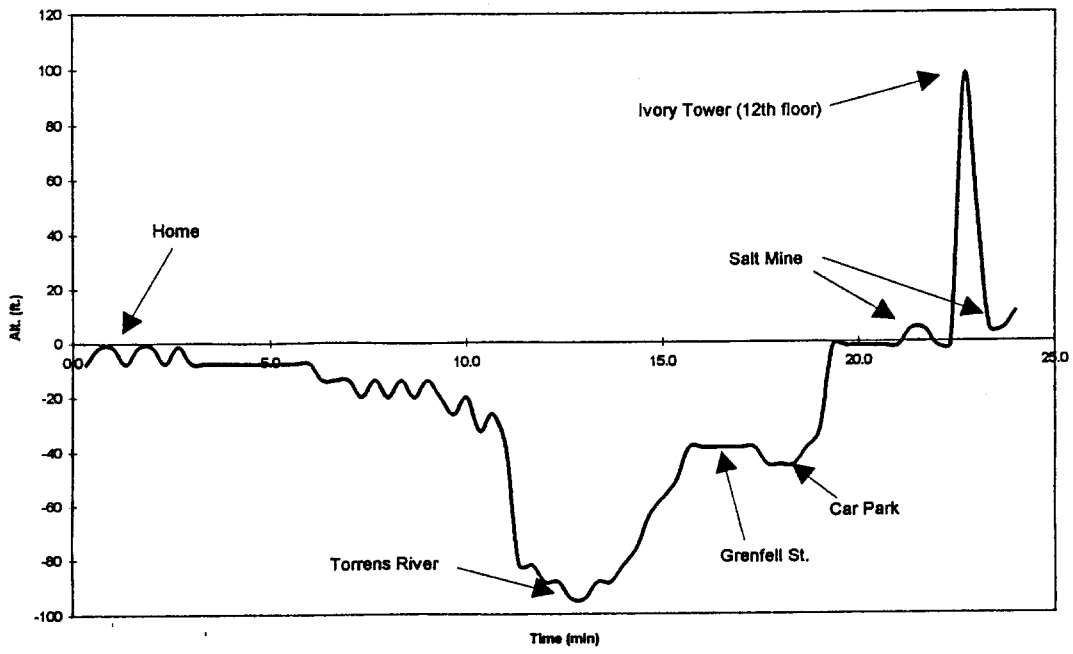
Redmond

SOLO

"THE REAR HARNESS IS FASTENED SECURE" (wasn't that supposed to be "MY HARNESS IS TIGHT AND SECURE ", coming from the back seat). It's fair enough to start the checks with out the instructor in the glider but to see THE INSTRUCTOR STANDING behind me OUTSIDE the glider! "You will be all right won't you" -" off you go." GULP dry mouth, do pre take off check, HERE GOES, thumb up - take up slack, all out, NO voice from the back seat just a voice in my own head - "watch the speed", "not too steep" - SURPRISE made it to top of launch. (Yes the cable "BROKE" 2 out of three times during the previous launches, several excuses had been used to "limit" permissible landing sites not to mention we now have a PLOUGHED PADDOCK) Trim set I'M FLYING!!! Not a fantastic launch and no lift - so get the pre landing check out of the way (that's right out loud even though the back seat can't hear me) another voice in the head "don't drift in and cramp the base leg" (the correction was not quite enough but it did prevent the situation getting worse), turn on to final - "speed stable" "am I over shooting", YES "am I sure" YES - air brakes, "check speed", "hold aiming point" "check speed", - "get the flair right", "HOLD IT OFF" "HOLD IT OFF even more", said the voice in my head. Touch down was gentle and I STAYED DOWN! "steering - keep it on the strip", nose skid came down - roll to stop. Landing felt GOOD. Only things left to do - get out, (SMILE) and await the crew to help push VH-KRO back to launch. So that's what it is like to "Go Solo". The flight lasted 4 minutes. A relatively busy 4 minutes - particularly knowing, in the back of my mind, that I was being "watched" from the ground and I had to make ALL of the decisions. I have been perhaps slower than many to get to this stage, it was my 91st flight in a glider, but I have had many short flights and many breaks due to significant family and work commitments.

Kevin Zeitz

REDMOND GOING TO WORK TRACE



New Airspace

The airspace in SA has changed. At Lochiel we may now fly to 12,500' (previously only 6,000'), however the airspace to the South is lower than it was. For example Nantawarra is now limited to 4,500'. Snowtown is limited to 9,500'. There is a map of the new airspace on the notice board at Lochiel.

Joey

The charge for the new Joey will be $1, the same as for the old barograph. This charge is to cover the cost of the battery. It will be reviewed and adjusted as necessary. Pilots should put their $1 in the cash box at Lochiel. Official observers are urged to remind pilots of the charge when coding the Joey.

Course Funding

AUGC receives money each year for training but this has not been distributed as intended. It was decided at the last Executive meeting to refund any AUGC member 50% of costs incurred in attending courses. The pilot must submit receipts to the Treasurer, and only course costs will be subsidised, not travel or accommodation costs.

Hypobaric Chamber

Four AUGC pilots attended the Hypobaric Chamber course at RAAF Edinburgh to have the 'Hypoxic Experience', as they call it. The course lasted all day and was very informative. The group running it were very safety conscious, and we had to pre-breath oxygen for 30mins before decompression, to reduce the amount of of Nitrogen in our blood and reduce the risk of the 'bends'. We were then decompressed slowly to 8,000', and quickly (50,000' per minute) to 25,000'. We removed our masks and become hypoxic in turn. Reactions varied from turning blue to becoming totally preoccupied with (incorrect) mental arithmetic. It was a very interesting experience.

We had spent all day looking at a door behind our instructor marked 'Disorientation Chamber', and we just had to ask; it was a simulator for one of their trainers, and we all had a go. The 'Graveyard Spin' was a popular run.

Cathy may be organising another trip at the end of the year, let her know if you're interested.

Mandy

Questionnaire

There is a two page Questionnaire included with this newsletter. Please take the time to fill it out and let us know your views. The executive are keen to improve the club and make the club what people want it to be. We want to be sure we're moving in the right direction and we need your input to enable us to do that. We would welcome suggestions at any time from anyone.

Help Needed

The Adelaide Uni has Open Days on 4,5 and 6 of August, followed by Sports week. AUGC will be represented, but we need help on the Tuesday. Mary will be there on the Sunday and Monday, but again if anyone else is available, help would be appreciated. Contact Mary if you can help.

Development Meeting 2

A second club development meeting was held to try to define the future direction of the club over the next five years. The meeting was again chaired by Emilis, and continued the process of trying to define the club's niche, and objectives. The following notes are a summary of what was discussed;

Club Actions

Progressive

- Anyone Welcomed on field
- Everyone Encouraged to ask for what they want to achieve/do.
- Senior people available to advise, on request.
- Middle sector of the club takes responsibility
- Succession actively put in place
- Ab initio's enthusiastically welcomed

Instructors

- Senior Instructors take on other duties; coaching
- A new generation in place in 12 months
- A third generation in place in 36 months

All levels

- To be offered a progression path

Club Fleet

Should be **fun** to fly and should consist of;

- Ab initio 2 seater
- Ab initio 1 seater
- Early XC 1 seater
- XC 2 Seater
- XC 1 seater of competition standard.

Cross Country Techniques

Part 2. Fly Efficiently

The aim is to fly more efficiently, and that means converting the energy available in the air into speed across country with the least amount of waste.

Now many club pilots have no aspirations toward future world championships (some do who should know better!) many have no intention of entering competition, and some never even want to lose sight of the home airfield.

To each their own, but I will say this, aviation as a pastime is terribly unforgiving of mistakes or inadequacies in a pilot's judgement, probably more than any other sport. Extending your performance can only improve your understanding of the air and your aircraft's capabilities. You must become a safer pilot as a result.

So, we begin by setting out to achieve something which is towards the limits of our ability. For early pilots this will certainly mean asking the advice of a more experienced person, as it invoives many variables in weather, glider type and pilot ability.

> "Aviation as a pastime is terribly unforgiving of mistakes or inadequacies in a pilots judgement."

As you progress you will soon get a feel for your performance - try to reach out a little further each time. Keep a record of your tasks and average speeds and aim to better them, either in outright distance or speed. Early on it is probably better to keep distances moderate and try to achieve higher speeds, as the level of concentration needed for longer flights takes some time to come to grips with.

You will most likely gain more out of doing 200km at 80km/hr than 400km at 60km/hr, as after 6 hours your brain may well have slipped into neutral.

Get your own maps, put a sheet of clear contact on them and having decided on a task, draw it on your map. You can quite easily work out the magnetic headings if you feel that way inclined - I rarely find a need to actually use them.

In Australia we are generally blessed with such good visibility that navigation is pretty easy. I would suggest some means of checking your progress against time. If you aim to complete a task using most of the available soaring day, mark in hourly checkpoints on track. It is then easy to decide whether you are making better time than you planned, or are falling so far behind that to continue will mean a certain outlanding.

The best part of the day usually happens at 1600 hours (summer time) so if this time arrives and you show no sign of maintaining or catching up to your schedule it may be best to change you task. Don't wimp out! Remember the aim is to fly a challenging task.

On the other hand, conditions may mean you romp home early. It's a good idea to have perhaps another 100km triangle marked on your map to complete if this is the case, to make full use of the day.

OK, we're organised an on tow. Start getting a feel for the day right now. If your tow pilot is any good you'll fly through two or three thermals on the way up. Remember where they are (with reference to ground features) and feel how strong they are. If the air is silky smooth all the way up you may as well leave the wheel down! And for heavens sake don't get off too early as you'll most likely fall down again or wear yourself out trying to stay up. Go to 2,000ft.

You may be in lift when release time comes, or you might have to refer back to one of those thermals you felt on the way up. Try to be positive in your search for lift - don't wander about hoping you'll run into something decide on your next likely source of lift and go there.

At this height clouds may be helpful (if there are any!) but ground features are a lot closer to you. Try to link a likely hot spot (high ground, slopes facing the sun, ploughed paddocks etc) with a cumulus, which will be some distance downwind and go and look between the two. You will be downwind of the ground feature, and upwind of the cloud.

Assuming you have somehow bumped into a suitable area of rising air, try and centre yourself in the best bit and start taking note of the things around you, what is your relation to the likely source of your thermal and (especially while you are low) to the cloud above you.

Note any change as you gain altitude and how much the wind is drifting you. If your thermal suddenly moves or disappears when it appears obvious that they are going much higher, it has most likely been affected by a wind shear. Persevere, your thermal is there somewhere! Widen your circle if necessary and when you find it, note which direction you moved, how far and at what height this all happened. Continue your climb all the way to cloud base still noting which part of the cloud the best lift is under. This exercise is quite important because generally speaking all these things you have noted will remain the same for the whole flight.

You will be arriving in thermals at various heights during the flight and having a good idea of where they are will save much time. You may be able to avoid difficult shears in thermals by staying above or below them. Many times you have to live with constant re-centring, but knowing where to move is extremely helpful.

At this point you may head off on task if you have set a long one (note the time) and proceed to learn more about the day as you go. Or, if aiming at a shorter task you can explore more thermals before you begin, as is often the case when flying in competitions.

After a few climbs you will know what strength lift to expect, and in what height band the lift is best. Remember we want efficiency - the most time in the strongest lift and least time in the heaviest sink.

For most beginners this translates into being far more selective in which climbs you stop and take, leaving the climb as soon as the lift begins tapering off, and conserving that hard won altitude in the following glide.

Next month Part 3; The Art of Efficient XC

This Month on Field

Sat 29 June
We flew the ridge in the rain, everyone flew for at least two hours. Stephen Were flew for over four hours in his Pik.

Sun 30 June
It was a nice sunny day, but, we flew circuits. Andrew Huggins had the longest flight; 49 mins.

Sat 6 July
Another great ridge day. Greg where were you?

Sun 7 July
A circuit day. The longest flight was 9 minutes.

Sat 13 July
There were a few weak thermals for about two hours and the ridge almost worked. The longest flight was 61mins by Andrew Huggins who thermaled to 3,800'.

Sun 14 July
No flying

Sat 20 July
Another booming ridge day, with strong thermals under the clouds, someone said they saw 10kts indicated, there were certainly plenty of 4 and 6kt thermals, to about 3,000'. David took IJ cross country to Merriton, and found a paddock that wasn't muddy to land in.

Sun 21 July
No flying

Aircraft Stats (mins)

	BUDGET	JAN	FEB	MAR	APR	MAY	JUNE	YTD
GCV	8000	2101	561	378	1551	239	1301	6131
GNF	4800	463	912	1305	1263	242	133	4318
GTJ	5600	57	448	746	782	282	911	3226
GZM	11100	1949	11460	747	1402	200	235	5993
KRO	9400	622	1199	1234	1083	448	829	5415
TOTAL	36900	5192	4580	4410	6081	1411	3409	250832

So you want to fly this weekend?

- You must ring the club contact person, Mary Willmott, on the Thursday before, between 8.00pm and 10.00pm on 349 5407, so that she can organise instructors and transport for those intending to fly.
- A lift is available from the Adelaide University footbridge at 7.00am, or from the Caltex service station on Port Wakefield Road at Bolivar (just outbound from the White Horse Inn on your left) at 7.30am.
- Further directions to the airfield are available from the contact person.
- For those with e-mail access you may wish to use that instead. Mary will reply to your e-mail when she receives it, so if you don't get a reply ring on Thursday night to check.
- Remember to ring the contact person, or you could find yourself forgotten!

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