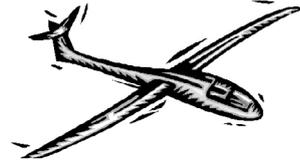


# Uni Gliding



The Official Journal of the Adelaide University Gliding Club



*A view of the airfield and surrounding area from a Boomerang. Photo: Derek Spencer*

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### STOP PRESS

The Annual General Meeting is on Wednesday 3 April at 7:30 pm in the Little Cinema, Union Building. All club members should attend.

### QUOTE OF THE MONTH

"I went through Clement's Gap the other day!" David Conway talking about driving... not about Claire (or Fiona).

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## EDITORIAL

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Hi everyone,

Welcome to the O'week edition of Uni Gliding. There will be plenty going on within the gliding club this year, so come along and be part of the fun. Like anything else in life, the more you put into something, the more you get out of it. Gliding is no exception, so the more you participate the more you will enjoy it.

So what is so great about gliding? Well for starters it is affordable. The Adelaide Uni Gliding Club is the cheapest way for an Adelaide Uni student to get into the air. It is also a challenge and a skill. Because we are using the weather to stay up for long periods it takes an acquired skill. You get a huge sense of achievement at the end of your first big flight by yourself. Have a read of [Page 6](#) to read how it all works.

The first of the General Meetings for the year is the post O'Week introduction night on Wednesday 6 March. You can come along and meet everyone in the club and enjoy beer, pizza and watch some gliding videos (dare we initiate the new people with a screening of the old classic 'Dawn Flight'?). The General Meetings are held regularly on the first Wednesday of each month. Future General Meetings will cover Flying Theory and Aerodynamics, Basic Aircraft Structures as well as Cross-Country Flying, Aerobatics and more.

The club's Annual General Meeting is on Wednesday 3 April at 7:30 pm in the Little Cinema, Union Building. This is where all the reports for last year are tabled and the new committee for this year is elected. All club members should attend this meeting.

The club also organises regular social events as you can see from [the back page](#) of this newsletter. If you have any good ideas for a social event, please talk to David Hichens, the clubs social convener.

In recent news, the weather actually has started to show signs of actually being summer and March is looking like having some half decent weather on the weekends. By the time people read this, the Puchatek and the Arrow will both have finished their annual inspections and be back at the airfield.

Congratulations this month go to **Matt Learmonth** for achieving his Silver C distance. Also to **Cathy Conway** and **Ian Linke** for negotiating with the Engineering Department to allow engineering students to count their time in the workshop at West Beach as work experience.

I hope to see you all up at the airfield soon,

*Anthony*

Editor

Only one more edition to go till the AGM!

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## MEMBERSHIP RENEWAL

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If you want to remain a member of the club, you must inform Dennis Medlow that you wish to rejoin for this year. Non student members will also need to go to the Sports Association and rejoin them as well (Dennis cannot do that for you). If you do not join the Sports Assoc, you are not a proper member of the club. If you are not a proper member of a club, you are not a proper member of the GFA and you will not be covered if anything goes wrong.

## MARCH



*A nice sunset at the airfield after a day of summer soaring. Photo: Christian Medlow*

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
25	26 <b>Movie Night</b> 'Blackhawk Down' 6:30 pm Norwood	27	28	1 <i>O'week</i>	2 <i>Go gliding</i>	3 <i>Go gliding</i>
4	5	6 <b>General Meeting</b> Beer, pizza and videos. 7:00 pm Canon-Poole Room	7	8	9 <b>Balaklava Fly-In</b> <i>Go gliding</i>	10 <b>Balaklava Fly-In</b> <i>Go gliding</i>
11	12	13 Dinner then <b>The Four Noels</b> 8:30 pm , Dining Room, Level 4 Union Building	14	15	16 <i>Go gliding</i>	17 <i>Go gliding</i>
18	19	20 <b>Exec Meeting</b> Dennis's place 7:30 pm	21	22	23 <i>Go gliding</i>	24 <i>Go gliding</i>
25	26 <b>Movie Night</b> 'Ali' To be announced	27	28	29 <b>Easter Regatta Gawler</b> <i>Go gliding</i>	30 <b>Easter Regatta Gawler</b> <i>Go gliding</i>	31 <b>Easter Regatta Gawler</b> <i>Go gliding</i>

## PRESIDENT'S WELCOME

**Welcome** to a new year at University and a new year with the Adelaide University Gliding Club. We look forward to meeting many of you and introducing you to the challenges of motorless flight.

Gliding is one of the most cost effective methods of learning to fly. **If you've always wanted to learn to fly but thought you couldn't afford it, then the Gliding Club can help you.**

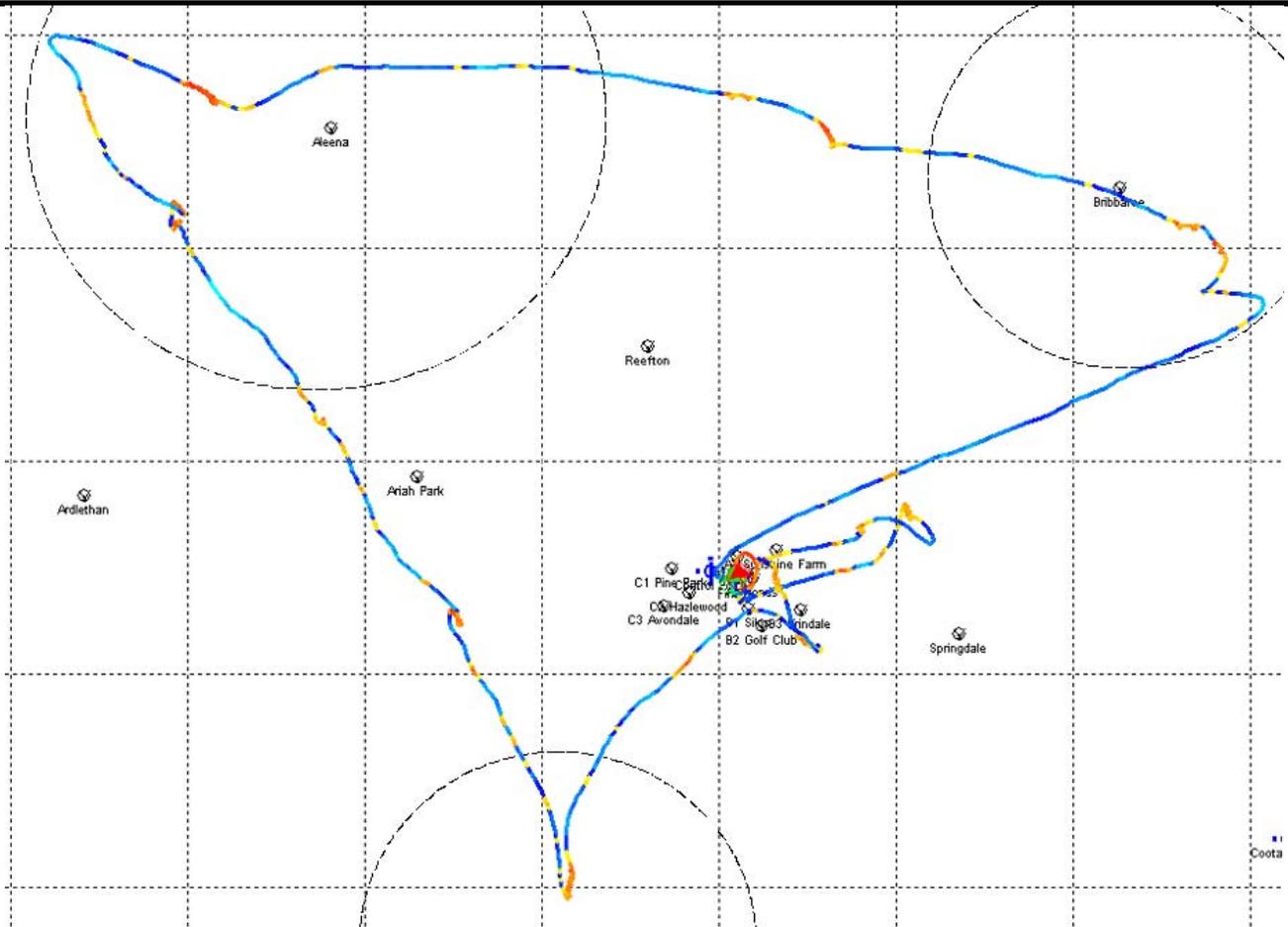
Gliding hours, after a certain standard has been attained, can also be counted as flying experience towards a Private Pilot's Licence with powered aircraft.

The club operates 2 two-seater training gliders and 3 single seater gliders of increasing performance and complexity (see page 8). We are a member club of the South Australian Gliding Association and the Gliding Federation of Australia and our instructors and airworthiness people are trained by the Gliding Federation under a delegation from the Civil Aviation Safety Authority (CASA).



Brett Collier ready to launch in the Arrow, the club's 'basic' single seat glider. Photo: David Conway

But gliding is also a sport and features regular competitions. Club members compete in both the National and State level championships. Gliders race around courses and are awarded points for speed. Loggers record the gliders ground track and height using GPS. Each aircraft is handicapped according to its performance. The pilot who consistently has the fastest handicapped speed wins the competition.



A GPS trace of a competition flight by Cathy. The circles represent areas that the glider must visit. The orange/yellow parts of the track are where she was climbing in thermals.

In addition to learning to fly, there are many other activities both on and off the airfield. Some of these provide excellent opportunities for learning skills for your future careers. These include:

- Becoming involved in building and maintaining the club winches
- Learning airworthiness skills to help maintain the club gliders
- Learning to manage an organization with significant assets and turnover through involvement with the club executive committee

Other related areas of learning skills include: Meteorology, Aerodynamics, and GPS and mapping software

**This year, we can offer Engineering Students the chance to complete their required work experience with the club in the club's workshop under the supervision of qualified engineers.**

There are many social opportunities within the club. We have a clubhouse at the airfield near Lochiel with accommodation available. There are BBQs and campfires held after flying. There is a regular calendar of social activities which have included activities such as go-kart racing, paintball, pistol shooting, lots of movie nights, video nights, parties etc.

If you are looking for a fun club with a good mix of people and a new challenging activity, then come and try gliding.

See you there

*Catherine Conway*

President.

## WHAT IS GLIDING?

Gliding is the art of flying an aircraft without using an engine. A glider is simply an aeroplane without an engine. It has all the same controls and instruments as a powered aircraft.

Contrary to popular belief, engines do not make aeroplanes fly: wings do! For wings to work they must be moving forward through the air. Engines are used in powered aircraft to supply this forward speed in a steady, convenient form. Gliders use gravity - they are always gliding downwards through the air, but through their efficient design, they glide at a shallow angle, typically 30 meters forward for only 1 meter down. A light aircraft such as a single-engine Cessna with its engine off will glide around 8 meters forward for every 1 meter down - still controllable, but nowhere near as efficient as a glider.

**How does a glider stay up?** The air is rarely still. It moves laterally as wind and it also moves vertically. The 'magic' starts when the glider is in air that is rising faster than the glider is descending. The glider will then be carried up by circling in the rising air, exactly the same way as eagles and other soaring birds. When the glider leaves the rising air it will resume its slow descent again. Using this rising air is called 'soaring'. Provided that there is enough rising air around, a glider can stay up indefinitely.

Of course air is invisible and it can't be directly seen when it is rising. Although, there is much theory and also some instruments to help the pilot to find rising air, it is here that gliding passes into the nether world between science and art. The challenge of using rising air to the best advantage is akin to a sailor using the winds and currents of the ocean and this challenge is what keeps most enthusiasts coming back.

Rising air (also called 'lift' by glider pilots) can be found in the form of bubbles of hot air called 'thermals'. These bubbles can go very high during the summer. Rising air can also be found where the wind blows over a ridge or range of hills. The air is forced up over the face of the hill which provides continuous, predictable rising air called 'ridge lift'. Unfortunately this lift is limited to near the hill and doesn't go very high unless the wind is strong and it is a big hill. One of the advantages that the Adelaide Uni Gliding Club has at its airfield near Lochiel is the Hummocks range which is ideal for ridge lift. All that is required is a reasonable Westerly wind. The club is fortunate that westerly winds are fairly common in winter and the club can get soaring flights all year round. Most gliding clubs suffer in winter when the thermals are few and weak.

**How does a glider take off?** There are a number of ways to get a glider airborne. The most well known is to simply tow the glider behind a powered aeroplane (called a 'tug'). This process is called 'aerotowing' and has the advantage that the glider can be towed to any height or position in the sky. But the downside is the cost. The maintenance, fuel costs etc associated with the tugs makes aerotowing an expensive method of take-off, one that is most likely to be outside of the price affordable by most students.

The Adelaide Uni Gliding Club uses a cheaper method known as 'winch launching'. Many people would argue that this is a more fun way of taking off as well as being safer. Winch launching is where a large engine, mounted on the back of a stationary truck, is used to wind in a cable at high speed. The glider is attached to the other end of the cable and is pulled into the air like a kite. An average launch gets the glider to 1400 feet above the ground, although heights in excess of 2000 feet can be gained in the right conditions. At the top of the launch the cable is either released by the pilot or automatically dropped by the glider itself.

**How safe is gliding?** Gliding is a very safe sport. Like driving a car, it is only as safe as you make it to be. Yes, there are risks just like in any other activity, but the risks are fully understood and catered for - procedures are put in place and religiously followed to make sure that the risks are minimised to

the lowest extent humanly possible. Our self preservation instincts are just as strong as yours.

Before a glider is permitted to fly on any particular day, it must be carefully inspected by a qualified inspector. Furthermore the gliders are put through a thorough inspection every year where the gliders are disassembled and checked.

All of the clubs instructors are experienced pilots that have undergone rigorous training and testing that is supervised by the Gliding Federation of Australia. You can read about them on [Page 9](#). You learn to fly at your own pace and the more advanced aspects of flying are only introduced as you are ready for them. The club's aim is to produce a safety conscious and competent pilot. Someone who flies regularly (around once per fortnight) can expect to go solo at around 10 hours of flying. There are no minimum time requirements - once your instructor is satisfied that you have reached the required ability, you are given the opportunity to go it alone!



## CAPTION CONTEST



Yet another photo from the history of the club has yet again surfaced (*isn't it strange how all the old photos featuring me doing something stupid don't make it into the newsletter...the joys of being Editor*). It features Andrew McGrath looking a tad precarious on the gate windsock pole, Martin Roberts at the base of the ladder, Steve Were standing on the front cab and a rather youthful yours truly standing on top of the winch drivers cage. The truck I am standing on is Thunderbird 1, the club's previous winch. We had just finished installing the new windsock at the gate end. The photo was taken by Michael Texler.

Anyway, put some funny words together for the photo and submit them to the newsletter editor for judging. There will be a suitable prize (depending on what I can scrounge out of Dennis) and will probably depend on how funny the winning caption is.

## THE CLUB'S AIRCRAFT

**The Puchatek:** This is a Polish built, aluminium two seater that was bought brand new by the club back in 1994. Whilst only of average performance, it is excellent for basic flight training and also has the advantage of being rated for aerobatics for those that tire of straight and level flight. Puchatek apparently is Polish for 'fluffy bear' and is their nick name for 'Winnie the Pooh'.



**The Bergfalke:** This German built two seater is constructed of steel tube and fabric with wooden wings. Whilst it is an older two seater, it has surprisingly good cross country performance – surprising for other clubs when it beats their fibreglass two seaters at local competitions. The Bergfalke has been the mainstay of the club for many years and is so good that Anthony Smith bought one too. There is a rumour that only real pilots do their first solo in the Bergfalke.

**The Arrow:** Built at Parafield in 1963 by Australia's only glider manufacturer, ES Schneider Pty Ltd, the Arrow is a lovely, light, easy to fly single seater. Pilots fly the Arrow a short time after going solo in the two seat trainers. Most then fall in love with it and become very possessive of it before their fickle attentions pass to the higher performance fibreglass single seaters – but the Arrow doesn't mind, it looks after the next generation of pilots.



**The Club Libelle:** This is the club's intermediate single seater and the first fibreglass glider. As such it is extremely popular with its smooth lines. It is easy to fly yet has good performance making it a great club glider for local flying and early cross country training.

**The Pik:** The Pik-20D is the high performance glider in the fleet. Equipped with camber-changing flaps, it is capable of flights in excess of 500km. This glider has represented the club at the National Club class championships finishing 6<sup>th</sup> on one day and in the top 12 most days. It has also represented Slovenia in the World club Class championships held January 2001 at Gawler, where we were shown just how fast it could go!



## INSTRUCTOR PROFILES

**David Conway (Chief Flying Instructor):** David first flew with the club in 1983 but didn't become active until March 1984, when he had a great flight with Redmond and then continued his training in earnest. (So it's all Redmond's fault).

Like all real pilots David was sent solo in the Bergfalke by Guy Harley in July of that year; he was very nearly sent solo by Redmond the day before, but fortunately the winch exploded and curtailed flying for the rest of that day.... a close call.

David soon became actively involved in the club, helping maintain the original winch (Thunderbird 1), progressing the clubhouse project and was on the executive committee including 3 terms as President, and more significantly none as Treasurer. David also spent a lot of time building the current winch, Thunderbird 2.

David has a Form 2 rating, and a minor repair rating in fibreglass and wooden structures, and is often found at the West Beach workshop weeknights helping with airworthiness work.

In a futile effort to curtail David's growing interest in low level aerobatics, he was made an instructor in 1987. He has approximately 1000 hours gliding time, of which 350 hours are instructing.

David has had many adventures in the club, but most of these have faded into the mists of history and will not be spoken of again. (*I doubt that very much! Ed*)

David was awarded Life Membership in 1987, and in a curious twist, became the Chief Flying Instructor in 1998.

He is the proud owner of a Ventus B VH-GQH, and is looking forward to a decent ridge season this year. David is married to Catherine and they have two boys, Michael and Peter.



**Redmond Quinn:** Redmond joined the club a very long time ago in 1980 and still hasn't given up yet. He has been instructing since 1983 and was the club's Chief Flying Instructor for the decade or so before David Conway.

Redmond is an engineer who works for Santos during the day and maintains and repairs the club's aircraft during the evenings at the West Beach shed. Redmond has a Form 2 rating, a minor repair rating in fibreglass and a major repair rating for wooden structures. He also holds weight and balance and major airworthiness survey ratings for gliders.

Redmond was awarded Life Membership in 2000 and was awarded an Australian Sports Medallion in 2000 for his contribution to Australian Gliding. Flying Hours: 600 Instructing Hours: 300

**Catherine Conway:** Catherine Conway has been flying for 15 years, having started in 1986 while still a university student. She has been instructing since 1989. Cath competes regularly in State and National Club Class championships.

Cath is currently the South Australian State Sports Coach and is keen to further develop the sporting side of gliding (ie competition flying) in the club. Catherine is married to David with two boys, two gliders and a power plane in the family. She has around 950 gliding hours and 110 hours in powered aircraft.





**Dennis Medlow:** Dennis Medlow first joined the gliding club and started flying in 1982 whilst a student at Adelaide Uni. He eventually married the daughter of the CFI of the club at the time (see where gliding can take you?). He became an instructor in 1984 and has notched up nearly 800 gliding and 120 power hours since.

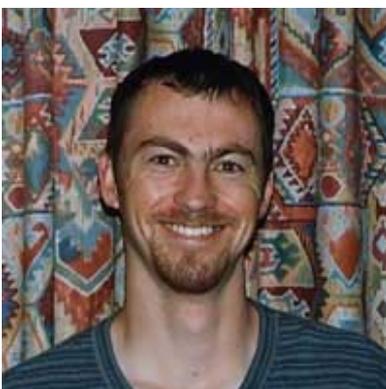
He part owns a Boomerang glider (VH-GQZ) and a Grumman Traveller power plane (VH-ETT) with the Conways. Dennis works for Saab Systems at Mawson Lakes as a Systems Engineer and has been Treasurer of the club for the past 2 years.

**Anthony Smith:** Anthony started gliding in 1987 as a first year Mech Eng student. He did a lot of his early training with Andrew McGrath (which explains a lot of things about his flying) and was sent solo in the Bergfalke in early 1988 by Dennis Medlow. He joined the Air Force in 1989 and became an Aeronautical Engineer. He spent a number of years to-ing and fro-ing between Adelaide and Melbourne with the Air Force but was eventually returned to Adelaide at the end of 1997.



He was finally cornered by the club and became an instructor in 1998. At the same time he also became heavily involved in running the club as President of the executive committee. Anthony resigned from the Air Force in 2000 to become a civilian but was promptly contracted back to the RAAF at Edinburgh for more money.

Anthony was awarded life membership in 2001 (but has no intention of following David's example and become CFI). Anthony owns a Bergfalke 4 two seat glider, VH-GZQ and enjoys out-landing as far away as possible when flying cross country. Gliding Hours: 763 Instructing Hours: 200.



**Bradley Gould:** Bradley started flying in 1988 and has been an instructor since 1991. He unexpectedly became State Champion in 1991 as well, much to everyone's surprise and Bradley's extreme embarrassment.

Brad works with Catherine Conway in the same internet communications company. Bradley is believed to be the only instructor that owns a copy of 'Top Gun'.

Brad specialises in teaching people to land. He also enjoys driving his WRX and then relaxing with 'a few' beers afterwards. Gliding Hours: 420 Instructing Hours: 225

**Michael Texler:** Michael started gliding March 1987 and went solo in the Bergfalke in May 1987 (after only 8 hours of flying time). In early 1996, he became a Level 1 instructor and was upgraded to Level 2 a year later.

Michael instructs at Adelaide University Gliding Club as well as at the Adelaide Soaring Club at Gawler, and thus has recent experience in teaching both winch and aerotow launches. Michael also flies powered aircraft (single engine as well as twin engine, day or night) and also has an aerotow rating (i.e. he is allowed to tow gliders with a power plane).

He maintains "that only real pilots go solo in the Bergfalke!". Gliding Hours: 550. Instructing Hours: 150





**Greg Newbold:** Greg has been flying since 1992 and instructing since 1997. He is a mechanical engineer who is working for the CSIRO. He flies regularly, about every second weekend and sometime brings his son Jarrad along (aged 10).

Greg drives a Commodore, which has been known to catch fire when long grass on the airfield was scooped up and wrapped around the exhaust manifold. He is also well known for a series of motion sickness related antics, mostly self induced.

**Peter Cassidy:** Peter C started flying in 1987, went solo in April that year, and no-one, especially Dennis (who sent him solo), will ever forget that. Peter is a software programmer for a local software company.

Peter also flies powered aircraft and is frequently found tugging (i.e. towing gliders) at Waikerie. Peter owns a Standard Libelle glider (VH-GTX) and is another part owner of the Grumman Traveler (VH-ETT) power plane.

Peter has also had many adventures in the club, but most of these have faded into the mists of history and will not be spoken of again. (*I also doubt that very much!* Ed)



Peter enjoys low-level flying, picking up hitch-hikers and taking them flying, collecting speeding fines, and the odd game of volleyball. He has been an instructor (gliding, not volleyball) since 1991. Gliding Hours: 912 Instructing Hours: 300 Powered aircraft hours: 340



**Raj Bholanath:** Raj began flying in 1995 and became an instructor in 1999. Raj works as an engineer at Tri-Star Electronics.

Raj's claim to fame is his inability to find thermals (when they are going to 10,000 feet) but still being able to find anything that has been lost in the airfield, no matter how small.

Raj also enjoys beating all the other two seaters in the Gawler Regatta whilst flying the Bergfalke. Raj has around 200 gliding hours, of which 48 of them are instructing.



## TURNING 50 (KILOMETERS NOT YEARS)

In early December 2001, I participated in a cross-country course at Waikerie, the same course that Mark Newton took MI on (read the January 2002 newsletter 'Silver Distance (and Height)'). I had recently bought a share in an ES 60 Boomerang and was looking forward to expanding my skills and experience in cross-country flying. I had high expectations of the course and completing my first 50km flight was on top of the list.

On the first day, I flew in a Twin Astir with an instructor and Mark Newton followed in GMI. Apart from turning short of the first turn point, even though we were at 7000', then turning back for Waikerie 3km short of the second turn point and still romping it home with several thousand feet to spare, I learned a lot. I think my instructor had a little yellow stripe down his back, but that's another story and I'll save that for the clubhouse :-).

On the second day, I flew the Boomerang and was paired up with an instructor flying a PW5. The PW5 is supposed to be of similar performance to the Boomerang and was the best aircraft to be paired with. With clouds marking the thermals and going to 6500', we completed 134km.

On the third day, the instructors suggested I attempt my Silver Distance, Waikerie to the Loxton Wheat (Grain) Bunkers and back, 116km in total. Attempt was the keyword. The weather wasn't as good as I had hoped. When I was about half way there, I was seriously lower than I wanted to be and decided that if I was to outland, I might as well outland closer to Waikerie (the aero-tow retrieve would be a lot cheaper then). As it turned out, I made it home - just!

On the fourth day, I decided that I would make another attempt at my Silver Distance. The thermals were predicted to go to about 5000', but, only if the high cirrus cloud didn't get in the way too much. The cloud cover meant the day was slow to get going and launching didn't start until 1:30pm. Even running two tugs, I didn't get into the air until well after 2:00pm.

After releasing from the tug at 2000', the problem was not finding the first thermal, it was notching the barograph! I had released in the middle of a good thermal and even after flying straight and level for at least 5 seconds, I was still going up. I was determined to ensure the barograph was notched, so after leaving the thermal, I flew away from it for several seconds before turning back.

Finding the thermal again was easy, as it was big to start with. After climbing to 4500', I set off on task. The forecast was for SE winds (head wind out, tail wind back) so my aim was to head for the silos at Wunkar. Any drift when thermalling would take me back towards the true track for the wheat bunkers.

I tried to follow the lines of best lift as I tracked in the general direction of the silos. For the first 15 to 20km I was probably being too cautious and took a couple of thermals that weren't really that good. I was more comfortable up high and wanted to stay that way.

After topping off from my third thermal, of which only one was a good climb, I decided that if I was to make good progress I need to only take the good thermals and just fly slow through the weak ones. With that in mind, I pushed on and on and on. As I was getting lower and lower, I was thinking of that decision I had made about only taking the good thermals, but I was passing down through 3000' and I was still waiting for it!

I decided that I was going to use the next thermal. I was getting lower than I wanted and the thermals were more broken and difficult to use the lower I got. I wandered through the next thermal, searching for the best lift before turning to thermal. Turning the wrong way and finding large amounts of sink is not a good thing, although I was hoping that it was an indication of strong lift nearby.

Then, I found it! The lift was strong and I was soon passing back through 3000'. Only slight corrections every few turns kept me climbing strongly up to 6500'. I just love the view from that height. It's

simply spectacular. Land lovers just don't know what they're missing!

Finding that thermal gave me a boost of confidence and spurred me on. As I left the thermal and headed for the wheat bunkers, the air was still and smooth. I realized that the thermal had broken through the inversion layer, which was probably down at about 5000' and now I had 1500' of smooth air before having to worry about thermals and lift.

I remembered from the course that when heading into wind and nearing a turn point, one should round the turn point first, then thermal. I was now in that situation. The turn point was only a few km's away and I was flying through a strong thermal. After the last thermal to 6500', I hadn't stopped for any more, only flown slowly through them, so I marked the position of the thermal against some distinguishable land marks below me and pushed on.

After passing the Wheat Bunkers and taking my turn point photo, I looked back to where I had marked the thermal. Even with a tail wind I was concerned about making the distance back and then finding the thermal, so I chickened out. I was in a thermal to take my turn point photo, so I continued to thermal some more and took another two photo's, just to be sure.

After climbing about 500' I bit the bullet and went for it. I was down to nearly 2000' before I found the thermal again, but it was worth it. Although slightly rough and disjointed at first, the thermal soon stabilized and I was again climbing strongly. On each turn, the nearby town of Loxton was getting smaller and smaller. It wasn't long before I was back up to 6500'. In 7 minutes I had climbed over 4300' at an average of 6.2 knots.

I didn't believe I had final glide back to Waikerie at the McCready ring setting I was using, so I needed at least one more good climb. I remembered where I had been when I caught the first thermal to 6500', so I headed off in that direction.

Thermal activity was still good, but I wanted to get a good time for the flight. I only needed one more good climb and I was sure I would make it home, so I kept pushing on through the small thermals, not stopping to turn, just flying slower through them. Nearing the spot I found the first good thermal, I found another one (or maybe it was the same one). It too climbed to over 6000' and I knew I definitely had final glide then.

Looking back on it now, I realize that I probably didn't need to take the last thermal or not so high at least. I got back to the airfield at 2500'. OK, I had got my final glide wrong, but I was glad it was wrong in the right way! I was one happy pilot. I had completed my first 50km cross-country and my average speed on task was 65 km/h. I even beat a Hornet that only averaged 40 km/h over 90 km's.

That night at the pub, I was telling Mark Newton, Dirk Seret and David Conway all about my flight that day (the only way I could get them to listen was to buy them all beers). The thermal I got near my turn point has a special significance, not only for me, but also for Mark Newton. If you haven't read his article in the January newsletter, then you'd better download it and find out why.

For all those that are considering taking on the challenges of cross-country flying, I would highly recommend participating in a course such as the one run from Waikerie. Mark Morgan and his fellow instructors did an excellent job (even though one of them might have been a little yellow J). The people you meet are great and the skills and experiences gained will last you a life time.

Happy and safe flying,

*Derek*

## CFI'S WORDS OF WISDOM

With what remains of summer, I suggest anyone who is ready to try for their Silver C - 50K distance should go for it!

Why? Because a Silver C is a requirement for an Independent Operations rating, and if we have enough people with those then we can operate on many days when instructors are not available, and also mid-week. So go get it!!

This month's topic is STALLS and SPINS.

Many people are uncomfortable with spinning, due to various reasons - bar talk from those pilots who don't like them; perhaps a less than satisfactory introduction and training; and perhaps because they are not done very often, perhaps only for their Annual Check Flight.

Whatever the reason, there are compelling reasons why we should be comfortable with the idea and practice of stalls and spins. Why? Because gliders can be stalled and spun inadvertently, and if this occurs near the ground then the consequences can be grave. The pilot must be proficient at firstly avoiding inadvertent stalls and spins, secondly recognising the symptoms as soon as they occur and alleviating the situation, and finally recovering from the stall / spin if it does develop. This proficiency can only be achieved by regular practice and I encourage pilots to practice various stall / spin scenarios regularly at altitude.

### SCENARIO 1 - SPIN OFF A CABLE BREAK

In a winch club, due to the frequency of cable breaks and the nose high attitude, poorly executed recoveries and turns from a cable break have caused many accidents including fatalities over the years. What happens is the pilot commences a turn before the glider has achieved a safe flying speed, the glider stalls, drops a wing and commences a spin. Recovery from these spins is unlikely before the glider impacts the ground. Also an issue with aerotow, but less so because of the infrequent cable breaks and that the glider already has safe speed and a normal attitude. Nonetheless an aerotow rope break in the non-maneuvring area can require the pilot to be doing low-level 180 degree turns to get back to the airfield, refer Scenario 2 below.

The easy solution here is to ensure that immediately following a cable break or launch failure, the stick is promptly and firmly pushed forward to lower the nose attitude and maintain a pitching down rate i.e. do not arrest the pitch rate - keep that nose going down. While it is not necessary to pull negative G's during this process, it is desirable that a definitely reduced G load should be achieved and maintained.

The point of this is that the reduced G load will reduce the stall speed substantially, providing a margin of safety even if the recovery was left late and the airspeed had decayed, and safe flying speed will be achieved quickly.

**DO NOT** arrest the pitch down rate (which will load up the wings and increase the stall speed) until you see safe speed indicated on the airspeed indicator, then pitch up to the safe speed attitude.

**DO NOT** attempt to commence a turn until you have recovered to at least safe airspeed. Then make your decision to land ahead if you can, or turn if you must.

Some exercises you can do (at altitude) is to see just how slowly you can recover from a cable break situation. From 70 knots or so, pitch up to a 45 degree climb attitude and practice recovering to level flight as the speed decays through 50, 45, 40, 35 knots. If you pitch down firmly and maintain a reduced G load, you can safely recover from 30, 25 and 20 knots (i.e. less than the level flight stall speed). Practice until you can do it comfortably, without excessive reduced G.

Next try turning off a simulated cable break, but commence the turn when the safe flying attitude is

achieved only but before the airspeed has had time to increase. This can produce some very exciting results in some aircraft. The Bergfalke, in some situations, will immediately give a shudder, roll over on to it's back and enter a spin. It is this sort of situation which can produce an aggressive spin entry in an aircraft that may otherwise demonstrate quite benign spin characteristics. And of course, near the ground is the last place you want to find out about it. Please practice this exercise - it is well worth the effort!

## SCENARIO 2 - SPIN OFF A LOW LEVEL TURN

As mentioned above, this can occur during an aerotow failure, but more frequently pilots have come to grief during the base or final turn, particularly during out landings.

There are a few things to note:

Firstly, if you maintain your safe flying speed the glider isn't going to stall or spin. So obviously the pilots that have come to grief have let their airspeed decay to the point where glider stalled and then entered a spin.

There may be contributory factors - after a long cross country, the pilot may be dehydrated, tired, and not performing well. Likewise a pilot who has misjudged the circuit and found themselves low, suddenly overloaded and under pressure.

In these situations, with the ground only a few hundred feet below, the pilot may make mistakes. Clearly it is most important to monitor and maintain SAFE SPEED near the ground.

A pilot turning low tends not to bank too steeply but to use rudder to turn. This is just inviting a spin. Most aircraft spin suddenly off a shallow banked, over-ruddered turn. DON'T DO IT. In any event you will lose less height doing a steeper turn than a shallow one, so there isn't much point. If you must turn low, faster and steeper is the safest way of doing it. PRACTICE shallow, over-ruddered turns at altitude. You will find yourself easing the stick back to maintain attitude. Gliders just love spinning from this configuration!

Also strong winds can deceive a pilot - a pilot flying a low down-wind in strong winds will have a high ground speed, giving the illusion of high airspeed - prompting a natural response to pull the stick back. Thus the turn on to base can be slow, again inviting a spin.

Be aware that airbrakes deployed will increase the stall speed slightly (except in MI), as does the increased G's pulled during a turn. Again, practice stalling the aircraft you fly in these different configurations.

Curiously, there is one scenario that actually eliminates the possibility of a stall or spin - and that is a decent side slip. With the cross flow of air across the elevator, you can't generate enough down-force even with full back stick to increase the angle of attack to the stalling angle. Try it - see if you can stall the glider in a decent sideslip.

You will note the repeated emphasis to practice - at altitude. This is the only way you will learn, become proficient and become comfortable with stall and spins under all possible scenarios.

Enjoy summer and safe flying,

*David Conway*

Chief Flying Instructor

## THE BLACK ACE

This article was first published in the American gliding magazine 'Sailplane and Soaring' a few years back and it highlights the dangers of cars and long grass or wheat stubble. It is still very relevant today and illustrates how careful you need to be driving a car into a stubble paddock. There have been two recent 'near misses' at the airfield. One was where Greg Newbold had a fire in the engine bay of his Commodore after enough stubble had been collected around the exhaust manifold and ignited... someone else had been driving the car around the paddock. The other was when I was driving home at night and noticed glowing embers streaming back from under my old Skyline. Long grass and weeds (fortunately green) had been caught on the exhaust pipe and was slowly smoldering through and then blowing off. Again several other people had driven my car during the day.

Please take care, no matter whose vehicle you are driving, when driving around the airfield or when retrieving a glider from a foreign paddock. The results of being careless can range from someone's car going up in flames, a large number of farmers seeking compensation from you for their burnt crops or possibly the worst of the lot, many of the club's aircraft getting burnt whilst on the ground at the launch-point from a fire on the airfield started by a nearby car.

Very few pilots hold the distinction of being declared a BLACK ACE. This title is awarded to only those distinguished airmen who have been responsible for the destruction of five of Their Own Aircraft.

I am a Black Ace, having been the first one on the scene of the following carnage; RF-4, F-111, ASW-20, DG-300 and Nimbus-3.

Let me tell you about my fourth 'victory', the DG-300.

We were flying in the regionals (*a bit like our State Comps... Ed*) at Little Field, Texas. The second day of the contest was weak and we scratched our way around two turn-points and then at about 6 o'clock in the evening, we were trying to make it back to the finish line. The gaggle was working a two knot thermal when I decided "there must be some thing better than this around."

I headed for some smoke that was rising from a field just a little right of course line. I often work rice stubble fires in the Sacramento Valley and three knots or better can be found, if you can stand the smell.

As I got closer it became clear that I didn't have enough altitude to get to the fire. I certainly didn't want to end up landing in a field that was burning.

At about 500 feet and one field short of the fire, I reluctantly decided I would have to land.

I was over a circular wheat field and the smoke drift showed that there was no real wind. My field had been harvested and I could clearly see deep ruts in the ground where the circular sprinkler wheels had been rolling in mud. I was quite concerned with the ruts because I didn't want to roll across them on landing. I set up my final approach with the sprinklers behind me and aimed between the ruts. I must have unconsciously tried to follow an imaginary center line around the arc of my circular runway.

My runway was curving to the right and following it meant I was slightly banked to the right. I touched down with my right wing low about a foot, but that was enough, the wing caught in wheat stubble and we ground looped to the right just after touch down.

I heard the sound a fuselage makes as it fails under compression load. I sat motionless for a moment, not wanting to look. Finally I opened the canopy and saw my stabilizer and rudder laid over about forty-five degrees. The fuselage had snapped about half way back.

Just before landing I was able to get a quick call out to my wife Patricia and I knew she was on her

way to collect me. Totally dejected, I sat in the middle of my field and tried to figure out why this had happened.

It really started in the two knot thermal, I should have stayed there. My run for the smoke left me with no options and no time to plan my landing when my smoke idea didn't work out. Patience is a virtue my son.

To add insult to injury I was now treated to the sight of the gaggle sailing over my field on their way home. They were fortunate I didn't have a gun.

Pat arrived in about an hour. She has been crewing for me quite some time now and she knew from the look on my face that we were out of the contest. Pat drove into the field as I directed her around the ruts. I opened the trailer and started pulling tape off the elevator. About then I thought I smelled something. I asked Pat and she smelled something too. Then I saw a wisp of smoke coming from under our Van. Kneeling down I saw burning wheat stubble under the catalytic converter (muffler).

As I stood up I saw a trail of fires we had left as we drove onto the field. What to do? What can we do? We must move the Van very shortly or it will burn up where it sits! Just then a farmer and his son stopped on the county road and shouted "*GET OUT OF THAT FIELD, IT'S ON FIRE!*"

I shouted back "Can you help us with this sailplane?" As the farmer drove his pickup onto the field, I closed the trailer and told Pat to drive out using the same path we used coming in. The farmer had some rope and I quickly made a loop and slipped it in the tow hook. His son grabbed the wing tip and I took off my belt and used it to pull up on the broken fuselage. Holding the fuselage in one hand and supporting the elevator with the other, we started to move. It was a little caravan, Van, Trailer, Pickup and Sailplane. I shouted to Pat "*DRIVE THROUGH THE FIRE IF YOU HAVE TO, BUT STAY OUT OF THE RUTS*".

The farmer didn't like that "drive through the fire" business. He turned and drove right across one of the ruts. His pickup made it OK, but then the main wheel of my glider dropped into the rut, he pulled and the rope broke!

Pat didn't like that "drive through the fire" business either. The flames completely blocked our tracks (because we had lit them on our way in). She saw the farmer turn away and she turned too. Her front wheel dropped into rut and the Van didn't have the traction to keep going. I shouted "*BACK UP!*"

The wheels spun but the van didn't budge! Smoke started coming from under the Van as yet another fire was lit. About this time, my sweet wife Patricia stepped out of the van and screamed "*F\*\*\* THE SAILPLANE, RUN FOR YOUR LIFE!*" (F\*\*\* being a four letter word that means Patricia is no longer concerned with the well being of my sailplane).

I laid the elevator down, jumped in the van, straightened the wheels and was able to get across the rut. Meanwhile, the farmer had tied the rope and together we lifted and shoved the ship out of the rut as his son drove the pickup. Our little caravan then proceeded to the edge of the burning field without further incident. The farmer told us not to worry about the field we had lit, saying "we burn 'em anyway, but generally get out of 'em first". When Dick Johnson heard about this, he started calling Pat "The Torch" and the name stuck.

I never got your name, but " thank you. West Texas Farmer and thank you Torch".

*JJ Sinclair*

Black Ace

## TREASURER'S PLEADINGS

We have about \$1000 in the bank after paying the Airfield Lease for 2002. Unfortunately we have a \$4400 insurance bill due for payment by 28/02, plus another \$1500 or so in other accounts. Due to the number of claims we continue to make our insurance has risen by another 10% or so. Normally we would be drawing on the Sports Association grants for these, however there is a hiatus in this due to some arguments between the Sports Assn and the AU Union - however the way may be open for the Sports Assn to contribute to most of the Insurance bill which will ease the situation considerably.

Most end of year processing of accounts has been completed and current balances will be emailed shortly. I now have to prepare the 2001 account statements and AGM reports for the auditor. And speaking of the AGM, it's on in the first week of April - as I will not be continuing in the Treasurer's role there will need to be someone out there to take it on.

If you wish to renew your membership to AUGC you need to email or write to me, renewal is not currently automatic - however this may be an option in the future. Remember you will receive your GFA renewal notice direct from GFA and you pay that direct to GFA. The Club membership fee for 2002 has increased to \$10. We have not been advised of the final Sports Association fee yet, or whether the Union will add an additional fee onto that for non-AU students. As these matters are decided by the relevant bodies these will be passed on.

As of 1st March the flying fees will change. There will now be a two-tier system in order to keep cost increases for students as low as possible. The rates are as shown below:

Launches Full rate \$5 Concession \$4 (no increase for the concession rate)

Flying (all time in cents per minute)

Twins	Full rate 40c	Concession	30c
GNF	20c		15c
GMI	40c		30c
WVA	50c		40c

To qualify for the concessional rate you need to ensure your student number is recorded with the Club (if you're a full time student) or if you are on the aged pension that we have recorded that fact as well. These are the two categories the Executive has approved for the concession rates. Also note as of 1st March that the Clubhouse levy will be increased from \$ 1 to \$ 2 to help fund the Clubhouse extensions. This levy applies to everyone who flies - ie. if your name appears on the flight sheet, you're charged it!

*Dennis Medlow*

Treasurer AUGC

## CONTACT LIST

President:	Cathy Conway	8443 7535	conway@agile.com.au
Treasurer:	Dennis Medlow	8337 3265	dmedlow@adelaide.on.net
Secretary:	Derek Spencer	8322 6626	derek.spencer.geac.com.au
Social Convener:	David Hichens	8342 2956	dhichens@baea.com.au
Fifth Member:	Scott Lewis	8377 0893	lewistraining@ozemail.com.au
Chief Flying Instructor:	David Conway	8443 7535	dconway@adelaide.on.net
Airworthiness Officer:	Redmond Quinn	8344 5331	redmond.quinn@santos.com.au
Contact Person:	Mark Newton	0412 870 963	newton@atdot.dotat.org
Newsletter Editor:	Anthony Smith	8269 2687	anthony.smith@adelaide.on.net

## STAY IN TOUCH

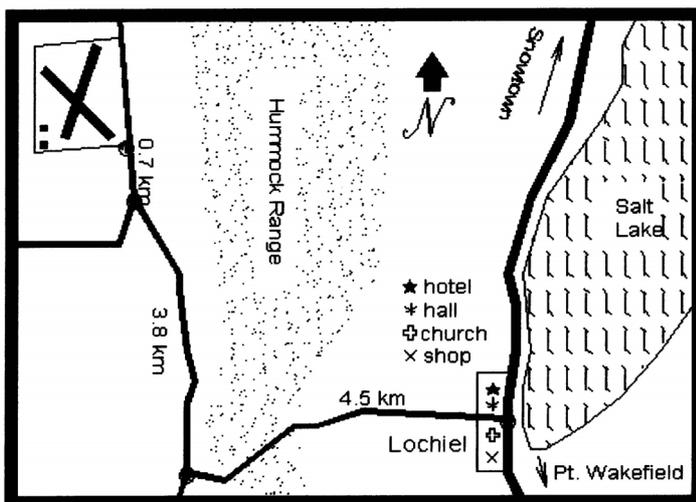
The club has an e-mail group address, [augc-people@lists.internode.on.net](mailto:augc-people@lists.internode.on.net), that is used to either discuss or arrange things within the club. If you want to stay in touch with the club, send a blank e-mail to [augc-people-request@lists.internode.on.net](mailto:augc-people-request@lists.internode.on.net) and it will send an automatic reply with instructions on how to join the group list. You can still send an e-mail to the list even if you have not subscribed to it.

You can also get the latest newsletter and up to date news on what is going on at the club's web page: <http://www.augc.aus-soaring.on.net/>

If your e-mail address is on the membership database, Dennis the club's highly esteemed Treasurer can send you your account updates over the internet, as well as receipts for payments. Send an e-mail to: [dmedlow@adelaide.on.net](mailto:dmedlow@adelaide.on.net)

## SO YOU WANT TO FLY THIS WEEKEND?

### LOCHIEL AIRFIELD



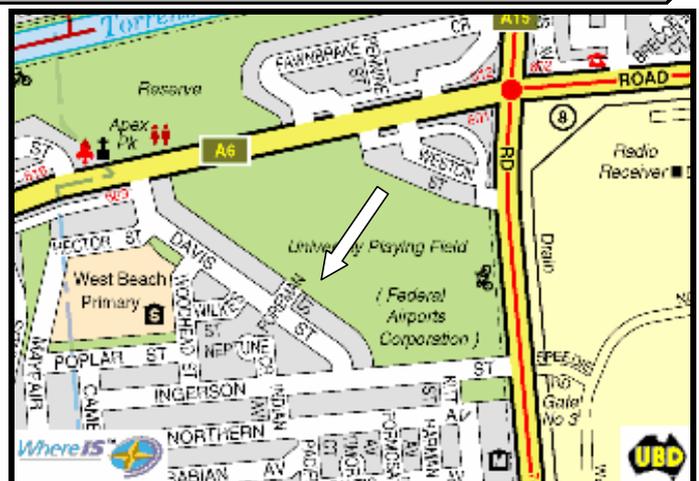
You want to go flying on the weekend? You must ring the club contact person, Mark, on the Thursday before, between 8.00pm and 10:00 pm, on 0412 870 963, (or by e-mail before) so that he can organise instructors and transport for those intending to fly.

You can either drive up yourself by following the map at left, or Scott can arrange a lift to Lochiel either from the Adelaide University footbridge (meet at 7.15am to leave at 7:30 am), or from the Caltex Service station on Port Wakefield road, Bolivar (meet at 7.45am to leave at 8:00 am)

## SO YOU WANT TO HELP AT WEST BEACH?

West Beach is where we carry out the maintenance and repair on our gliders and equipment. There are usually volunteers working down there on Monday, Tuesday and Wednesday evenings. The entrance is at the end of Foreman St, West Beach.

So you want to help fix the gliders at West Beach, but can't get there? A lift can be available from the Adelaide University footbridge at 7.30pm by arrangement. Ring Anthony on (wk) 8393 3319, (hm) 8269 2687 or E-mail: [Anthony.smith@adelaide.on.net](mailto:Anthony.smith@adelaide.on.net).



## WHAT IS GOING TO HAPPEN SOON

**Monday 25 February to Friday 1 March, O'week:** The club's major recruitment drive for another year. Volunteers need to help talk to potentially new club members at Adelaide Uni and tell them how great gliding is. Volunteers are also needed to help rig MI in the morning and de-rig it again in the afternoon.

**Tuesday 26 February, Movie Night:** Blackhawk Down, 6:30 pm Norwood Cinemas. Have dinner somewhere suitable afterwards.

**Wednesday 6 March, General Meeting: Video Night.** Come along and meet everyone in the gliding club over beer and pizzas and watch some videos on what this gliding thing is all about. From 7:00 pm onwards for pizza and beer, 7:30 pm for the videos. Canon-Poole Room, Union Building.

**Wednesday 13 March, The Four Noels.** Come along and see this Fringe show at 8:30pm, The Dining Room, Level 4, Union Building. Contact David H (the social convenor) if you want to have a group dinner somewhere first.

**Saturday 9 March to Sunday 10 March, Balaklava Sports and Ultralight Aircraft Fly-In.** A pilot get together at Balaklava Gliding Club. There will be flying displays and aerobatics. There will also be an evening barbeque with entertainment on the Saturday night. Call Balaklava Gliding Club on 8864 5062 for more information.

**Wednesday 20 March, Exec Meeting.** The Med-low residence. 90 River Drive, Athelstone. From 7:30 onwards. All welcome to come along and have a say in how the club is run.

**Friday 29 March to Monday 1 April, Gawler Easter Regatta:** Take an aircraft along and compete in a fun, local gliding competition. The Bergfalke traditionally does well against the Twin Astirs and Janus from Gawler as well as the ASK 21 from Balaklava.

**Tuesday 26 March, Movie Night:** Ali, at a time and place to be decided. Have dinner somewhere suitable before or afterwards. Contact David H if you are interested.

**Wednesday 3 April, Annual General Meeting:** Yep, its club election time again. Time to elect a new executive committee and other ancillary positions for the year (*even a new newsletter editor!*). All members should attend (or have a note from their mum). 7:30 pm Little Cinema, Union Building.

### Uni Gliding

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