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Uni Gliding

O'Week 2007

The Official Journal of the Adelaide University Gliding Club



Sarah Allen doing a competition finish in the Pik at Stonefield.

Photo Anthony Smith

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QUOTE OF THE MONTH

"Its time to get the dildo out"

Yet another mystifying statement from Redmond Quinn, our airworthiness officer...

Editorial

Welcome to O'Week 2007!

Ever thought about learning to fly? Always thought the cost put it beyond reach? Well you're about to be pleasantly surprised...

The Adelaide University Gliding Club was formed in 1976 and has a long standing tradition of providing affordable, safe and fun flying for all, in particular university students.

So what is gliding? The articles in this newsletter cover the basics for you but to put it simply gliding is the 'art' of unpowered flight. The aeroplanes are specially designed to make the most of uprising air currents and produce as little drag as possible, making them very efficient. We use the uprising air currents to climb up through the air, then we can glide forwards under the weight of the glider until another climb is found - this is soaring.

Once you have learnt to fly solo you can then begin to learn how to use these rising currents to fly further away from the airfield, the furthest I've flown is 500km, the world record is over 3000km, which is almost as far as Sydney to Perth - not a bad effort even if you had an engine!

The best thing about gliding is it can be anything to anyone - you can try your luck at a 1000km flight, get the adrenalin going by trying out some aerobatics, or just enjoy a relaxing flight near the airfield on a Sunday afternoon.

Many members are also into the competition side of gliding, the big competition of the year for AUGC is the Australian Junior Nationals, JoeyGlide, where glider pilots under the age of 26 battle it out for the title of 'Australian Junior Champion' and selection for the World Team. Having a few competitions under my belt I would say JoeyGlide is by far the best week of your life, the flying is awesome and the parties legendary.



AUGC isn't just about the flying, its also has a great social atmosphere, many of the members are uni students, or ex uni students, so the weekend atmosphere is always fun, the pyrotechnic abilities of some of our members is legendary and there is some debate to their interest in aviation at all.

Many of the club members have vast experience in the maintenance side of gliding and the club has a maintenance facility at West Beach. This allows us to work on our gliders and other infrastructure during the week, and also gain invaluable experience for when one day you own your own glider!

If you are interested in flying as a possible career, you will receive no better grounding than in gliding. It is common knowledge that glider pilots make excellent power plane pilots. Not only will you receive invaluable experience, but you can also save money as the hours you accumulate gliding count towards your Private Pilots Licence and your Commercial Pilots Licence. I started with, and still love, gliding and from this I am now working as flying instructor and saved thousands of dollars from my gliding experience. (Trust me though - gliding is much better than power plane flying :)

So I guess what I'm trying to tell you all is that you should at least give gliding a go. If you've ever thought about learning to fly you will never again have an opportunity like this to learn from the best instructors around, in some great aircraft, at the lowest cost around. If nothing else you should at least head along for the FREE BEER and pizza night on Wednesday the 28th of Feb at the Bragg Lecture Theatre.

Sarah Allen

Newsletter Editor

March 2007



Anne Philcox and Mark Newton preparing to launch



The Pik doing a comp finish



Gliders on the grid at Gawler



Our clubhouse at Stonefield



TX on final approach to land

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
		1	2	3	4 Go Gliding! 'Try n Fly Day'	5 Go Gliding! 'Try n Fly Day'
6 Help at West Beach	7 Help at West Beach	8	9	10	11 Go Gliding! SAGA Coaching Weekend	12 Go Gliding! SAGA Coaching Weekend
13 Help at West Beach	14 Help at West Beach	15	16	17	18 Go Gliding!	19 Go Gliding!
20 West Beach BBQ Help at West Beach	21 West Beach BBQ Help at West Beach	22	23	24	25 Go Gliding!	26 Go Gliding!
27 Help at West Beach	28 Help at West Beach	29	30	31		

Presidents Report

Derek Spencer

If you are joining the club for the first time this year, then WELCOME to the Adelaide University Gliding Club. Gliding is an exciting, challenging and rewarding sport. Unlike many other sports, you don't need to be strong or fast in order to do well. The key to achieving success is practice. The more you practice and the more often you practice, the better you get.

All the instructors in the club are qualified and trained to a high standard. The Gliding Federation of Australia (GFA) has set out a training syllabus which the instructors will guide you through. When you start training, you will need a log-book to keep track of the flights you do and a training book to show how you are progressing through the syllabus.



Your first major goal will be to go solo. This is where you get to leave the instructor on the ground and fly the glider by yourself. It's an exciting and exhilarating feeling. Something you will never forget!

Going solo is really only the first step. There are many more challenges to look forward to, such as cross-country flying. Cross-country is the challenge of flying from one place to another (usually with the intention of returning to the starting location) by using bubbles of rising air called thermals. Distances over 500km are easily achievable with good soaring conditions. Most gliding competitions are cross-country races where you fly around a course as fast as you can.

There's also aerobatics. Most of our gliders are capable of doing some form of aerobatics. In our twin seater training glider (the Puchatek), we can do stalls, spins, loops, wing-overs and stall turns. Some instructors are quite keen on aerobatics and are more than willing to show and teach you these maneuvers (like me!).

The club is not all about flying though. We are a very sociable club. We try to hold regular events such as go-carting and movie nights. Members regularly stay overnight at the airfield. We have a TV and DVD player, and for the more energetic, we have a table-tennis table. We often go on nature walks too (lots of wombats live in the area) and during the winter months, we have a fire going to warm ourselves while enjoying a nice drink or two.

If you have an interest in how gliders are put together, what they are made of and how to maintain them, then you are more than welcome to come down to our maintenance shed at West Beach and find out more.

If you are unsure that this is for you, then why not come along for an Air Experience Flight (AEF) on our first Try 'n' Fly weekend (3rd/4th March). This will enable you to give gliding a go and see if you like it, although I'm sure that once you've tried it, you'll love it and want more.



During O'Week, the gliding club will have a display at the University and we'll be selling \$20 ½ price vouchers for AEFs which are valid for three months. While we can redeem vouchers on almost any weekend in this period, keep an eye out for upcoming Try 'n' Fly days where we will make running AEFs our highest priority.

Cheers,
Derek Spencer

AUGC President

Give Gliding a Go!

Tom Wilksch

It's that time of year again. O'week is here, and we all sit back and watch as Clubs scramble madly for members. The Gliding Club joins in of course. We will try pretty much anything, falling just short of jumping on people and beating them with a clipboard until they say yes. Interestingly, it seems to matter very little what we say. One year, instead of the usual promise of enormous fun, myself and a few others loudly and proudly told anyone who would listen that they would die a horrible and grizzly death should they join up. We got about the same numbers. So really this article is meant to give people an idea of what it is you are signing up for (and why gliding is so much better than all the other clubs!)

But firstly, what you're not going to get. And believe me, I wish this wasn't the case. You won't get the adoration of friends and co workers. You won't get attractive members of the opposite sex offering to buy you drinks at the bar when they find out you fly gliders (this one particularly sucks). You probably won't even get much more than polite interest when you try and explain to people why last weekend was one of the best of your life.

I have been flying since I was 17, and I still have trouble explaining to people exactly why it is I enjoy it so much. I yak away about heights and strong climbs and average speeds, and pretty soon my audience has a dazed look.

So instead, try to picture this. You have been towed up in your glider and then released from tow and found some lift to climb in. Now you are 6000 feet above the ground. Overhead are big puffy white clouds. Each one represents a potential climb that you can take to stay high. Below you the ground stretches away. The view is fantastic. From this height you can see hundreds of kilometres in every direction.

Ok, pause there, and think about this for a second. Let's say you join the footy club. You get to play on a field that's what – 100m long? Ok now how about the water skiing club. A lake that may be a few kilometres across? How about speeds? I guess with the football it depends on how fast you can run. The water ski boats are pretty quick. Or maybe join up with the student race car project. That would maybe get to 150kph?

Now back to our glider. 6000 feet with nice clouds sounds like a good day. With these sorts of conditions the glider could pretty easily do a 300km distance, travelling over the countryside and turning at major features such as towns or lakes. You could probably manage 500km or 750km if food and drink were taken along, and you started early. And speeds? Well the glider could average 120kph round the whole course. Keep in mind that's an average and includes the time taken to stop and climb. You would cruise along at about 200kph. And the glider itself is speed limited to 300kph and aerobatic. And there are no speed limits. You have a vast playground spread beneath you and practically no limitations as to what you do with it or where you go.



It's a shame really that we can't actually see the air moving around us. If we could, most people would be amazed. There is the wind which we all feel and so most of us perceive. But it does more than just blow along the ground. It moves over the landscape and creates huge invisible waves that stretch into the sky. And then there's the sun. It heats the ground and the air and sends vast bubbles of warm air upwards. The entire atmosphere is moving around us. And all you have to do is put the glider in the right place! Powered pilots pay \$50/hr for fuel, and we get it for free!

So back to the point I'm trying to make. Why is gliding so special? Most of the other clubs can offer the same as we do to varying degrees. Meeting new people, trying something new, having a whole heap of fun etc etc. The reason gliding is so different is the sense of achievement that you get. It might not happen straight away, but at some point it will hit you. Whether it be on your first solo flight, or the first time you take the controls, you will realise that this really is something special, and you are one of the privileged few who get to do it. And it never really goes away. Your first flight, first solo flight, first one hour flight, first cross country, the list goes on and on. Being surrounded by like minded people getting to do something amazing. It really is fantastic.

And of course, one day a beautiful woman is going to walk up to me and say "Hey aren't you that guy who flies gliders? Let me buy you a drink". Then I will be a truly happy man!

What is Gliding?

Gliding is the art of flying an aircraft without using an engine. A glider is simply an aeroplane that doesn't rely on an engine to stay aloft; it has all the same generic 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 forwards relative to the air. Engines are used in powered aircraft to supply this forward thrust in a steady, convenient form. Gliders use gravity; they are always gliding downwards through the air, but they glide at a shallow angle typically equivalent to 30 metres forward for only 1 metre down through their efficient design. A light aircraft such as a single-engine Cessna with its engine off will glide around 8 metres forward for every 1 metre 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 due to density differences. 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, in exactly the same way as eagles and other soaring birds. When the glider leaves the rising air it will resume its slow descent. Utilising this rising air is called 'soaring'. Provided there is enough rising air around, a glider can stay up indefinitely.

Of course air currents are invisible and can't be seen rising directly. There are theories and instruments available to help the pilot find rising air, but it is here where 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 extend very high into the atmosphere during summer. A thermal is formed from a 'trigger point' on the ground, such as a quarry, shed roof or a clump of trees. 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. The Adelaide Uni Gliding Club (AUGC) had an advantage at its airfield near Lochiel as it was adjacent to the Hummocks range which is ideal for ridge lift. Prevailing westerly winds necessary to generate lift on the airfield side of the north-south range were common, particularly in the winter. At Stonefield, which has been our home since December 2004, members of the AUGC have utilised 'wave lift' rather than ridge lift. Prevailing westerly winds over distant ranges can set up standing waves in the air that extend to our airfield. Alternate lines of ascending and descending air are present, much like the ripples that form in the wake of an obstacle in the middle of a flowing river. Wave lift is generally found (or lost) at relatively high altitudes.

How does a glider take off?

There are a number of ways to get a glider airborne. The most well known method is to simply tow the glider behind a powered aeroplane (called a 'tug'). This process is called 'aero-towing' and has the advantage that the glider can be towed to any height or position in the sky. The downside is the cost. Maintenance, fuel costs etc. associated with tugs make aero-towing an expensive launching method, one that would not suit the modest budgets of most students.

The Adelaide Uni Gliding Club uses a cheaper method known as 'winch launching'. Many people would argue that this is much more fun and, more importantly, inherently safer. A large engine (V8 in our case) mounted on the back of a stationary truck is used to wind steel cable onto a drum 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 takes the glider to 1400 feet above ground, although heights in excess of 2000 feet can be gained with a significant headwind. At the top of the launch the cable is either released by the pilot or by the glider automatically.



The Puchatek during a winch launch at Stonefield.

How safe is gliding?



Gliding is a very safe sport. Like driving a car, it is only as safe as you make it. 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. 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 Club's instructors are experienced pilots that have undergone rigorous training and testing that is supervised by the Gliding Federation of Australia. 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 safety conscious and competent pilots. Someone who flies regularly (about once per fortnight) can expect to go solo after around 10 hours of flying. There are no minimum time requirements; once your instructor is satisfied that you have reached the required standard, you are given the opportunity to go it alone!



Club Aircraft

Puchatek (KRO)

This is a Polish built, aluminium two-seater that was bought brand new by the Club back in 1994. Puchatek apparently is Polish for 'fluffy bear' and is their nick name for 'Winnie the Pooh'.

Whilst only of average performance, it is excellent for basic flight training and also has the advantage of being rated for aerobatics for those who tire of straight and level flight. Recently, the Puchatek was fitted with a G-meter so at least if you pass out while getting shown some aerobatics you'll know what G-loadings you can't withstand.



Bergfalke IV (GZM)



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.

Soon the aesthetics of the Bergfalke will be improved by replacing the canopy with a new one that doesn't have an ugly white spar in the middle. It will also have a cool blue tint to go with the rudder and wing tips.

Arrow (GNF)

Built at Parafield in 1963 by Australia's only glider manufacturer, ES Schneider Pty Ltd, the wooden Arrow is a lovely, light, easy to fly single-seater. Most pilots fall in love with it and become very possessive before their fickle attentions pass to the higher performance fibreglass single-seaters. While lacking the performance of other gliders, a skilled pilot can achieve flights of over 300km cross-country. In recent times a few pilots have taken to flying the Arrow without the canopy.

Sadly the Arrow is not airworthy in a severe way. It has suffered water damage and is very moldy at the moment.



Club Libelle (GMI)



This is the Club's 'intermediate' single-seater and the first fibreglass glider solo pilots get to fly. It is extremely popular with its smooth lines. The Club Libelle is easy to fly yet has good performance making it a great club glider for local flying and early cross-country training. Rigging and de-rigging is also a breeze.

The Club Libelle's red nose was cleaned up last year and now the aircraft is pristine white (at least in that area). With the Arrow's unfortunate demise, GMI is now the first single-seater that our solo pilots get to fly.

Pik 20D (WVA)

The Pik 20D is the high performance glider in the fleet and a source of inspiration for newly solo pilots. Equipped with camber-changing flaps, the Pik is capable of flights in excess of 500km. This glider has represented the Club at the National Club Class Championships on many occasions and is always eagerly transported to the annual advanced gliding retreats at Rawnsley Park and Khancoban. It has also represented Slovenia in the World Club Class Championships held in January 2001 at Gawler, where we were shown just how fast it could go!



Motorfalke (FQW)



The Motorfalke is the Club's two-seater powered glider, purchased only recently in 2003. It is similar to the Bergfalke in that it is constructed of steel tube and fabric with wooden wings, but it also has a small Volkswagen motor and propeller. This allows it to launch without the aid of a winch or tow-plane and, if necessary, to stay up when there are no thermals or other forms of natural lift.

Currently the Motorfalke is missing its engine as it was removed for a timely overhaul. Unfortunately the Club has had difficulty finding a qualified person to provide this service. Too bad FQW doesn't have a belly hook so we can winch it up!

Gliding: The Cheap Way to Fly

The AUGC provides a safe and cost-effective way for students to learn how to fly. The club has endeavoured over the years to minimise the cost of flying. As a result, AUGC concession rates are now the lowest in Australia.

Students can try gliding for the first time by purchasing an Air Experience Flight (AEF) for \$40, which includes your first launch and up to 20 minutes of flying time in one of our winch-launched twin-seater gliders. Alternatively - generally if conditions are unfavourable for soaring flights on the arranged day - students can experience an equivalent flight in the Motorfalke at no extra cost. If you would like to continue your flight beyond 20 minutes, you can do so and commit to an extra 30c/min if you're in a winch-launched twin, or \$1/min if you're in the Motorfalke.

Subsequent flying (including training from our qualified instructors) can be obtained for 30c/min (\$18 per hour) in our winch-launched twin-seater gliders, with each additional launch costing \$5. For the Motorfalke, flying/training costs 45c/min plus 55c/min for the time that the engine is on. There is also a \$5/weekend fee for membership to the Gliding Federation of Australia (GFA). This is a legal requirement in Australia for insurance purposes. There is also a \$5/day clubhouse levy to assist with the upkeep of airfield facilities. Note that AEF recipients have their GFA membership and clubhouse levy included in the purchase price of the package.

If you try it out and enjoy it, you can choose to pay-as-you-go for ongoing hire of the aircraft you fly during your training and subsequent solo flying as outlined above, or you can pay a once-off fee for our 'Training Package'. This covers all of your aircraft hire, launches, clubhouse levy fees and your log book. The Training Package remains effective for either 12 months, 15 flying hours, 50 launches or until you reach solo standard (whichever occurs sooner), and is available to students for \$310. This represents a 30% saving on the 'typical' cost of training. Note that the Training Package doesn't cover GFA membership (either \$5/weekend or \$117.50/year). If you're flying with us more often than every three weeks it's cheaper to commit to the yearly payment, but it is a legal requirement that you *must* become a full GFA member before your first solo flight.

Pricing for students at institutions other than Adelaide University (including secondary schools) is identical provided you are studying full time, pay \$117.50/year for full GFA membership and join the Adelaide University Sports Association at a cost of \$66/year. Retirees are also eligible for the concession rates as described above.

Non-concession visitors are also welcome - their first gliding experience can be had for \$70 with the same (flexible) 20 minute limit, however subsequent flying costs for the winch-launched twins are double the concession rates. In order to mitigate these costs, a non-concession Training Package is available for \$475.

Once you have consolidated your skills as a solo pilot, you may want to consider opting in to our 'Bulk Flying Package'. This was developed to encourage budding pilots to fly more hours and to reduce costs for those pilots who already do. Essentially, you won't be liable for any aircraft hire charges, but you will need to pay for launches, clubhouse levies and Motorfalke engine time. The Package will be active for the 12 month period following the payment of \$1480 (\$1000 concession).

A complete description of fees and charges associated with the AUGC can be found on our website at www.augc.on.net under the 'Members: Document Archive' heading.



Australian built Boomerang, GQZ

Photo: Justine Thompson

Stay In Touch

The club has an email group address, 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, subscribe to the mailing list by filling out the online form at:

<http://lists.internode.on.net/mailman/listinfo/augc-people>

You can still send an email to the list even if you have not subscribed to it. There is also an 'augc-announce' list for official club announcements, courtesy of our friends at Internode. If you are an AUGC member and have provided your email address then you will already be on this list. If you want to join this list or want to change your subscription, go to:

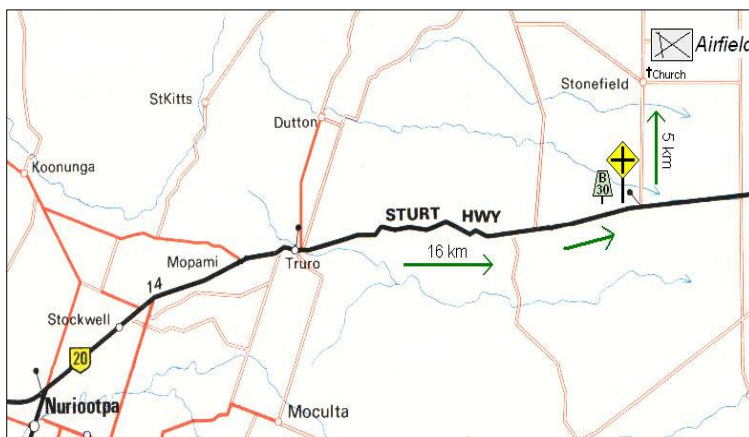
<http://lists.internode.on.net/mailman/listinfo/augc-announce>

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.on.net/>

If your email address is on the membership database the club's Assistant Treasurer can send you your account updates over the internet. Send an email to: accounts@augc.on.net

Want to fly this weekend?



Want to go flying on the weekend? You must ring the club contact person, Tom, on the Thursday before between 8.00pm and 10:00 pm on 0412 870 963, (or send an email: contact@augc.on.net) so that he can organise instructors and transport for those intending to fly. Members can book via the online booking system at:

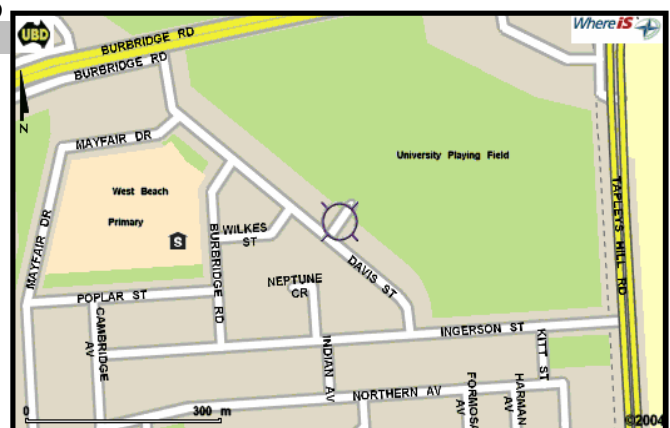
<http://www.harley.net.au/AUGC/index.asp>.

You can either drive up yourself by following the map at left, or Tom can arrange a lift to Stonefield either from the Adelaide University footbridge (meet at 7.15am to leave at 7:30 am), or from the Caltex Service station on the corner of Montague Road and Main North Road (meet at 7.45am to leave at 8:00 am).

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 and Tuesday 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 arranged from the Adelaide University footbridge at 7.30pm via augc-people@lists.internode.on.net.



Contact List

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Upcoming Events

19 - 23 February: Adelaide Uni Orientation Week

This is when we advertise ourselves to the Adelaide University and pique the interest of new students. Come down and help promote our club and the wonderful sport of gliding.

Contact Anne Philcox for more details.

24 - 25 February: SAGA Coaching Weekend

South Australian coaching weekend held at Waikerie Gliding Club.

A chance for all of us to get some great cross-country soaring coaching, and a chance to fly with some great pilots.

For more information contact Bernard Eckey.

24 February - 4 March: SA State Championships

The South Australian State Gliding Championships, held at Waikerie Gliding Club.

The best SA pilots fight it out for the title, bring a glider or just come along and soak up the atmosphere.

For more information contact Waikerie Gliding Club.

Wed 28 February: General Meeting

6–8 pm, Bragg Lecture Theatre, Adelaide Uni.

FREE beer and pizza will be provided. This is a great opportunity both for new members to meet and gather information from existing members, and for existing members to encourage those new members who attend the meeting. There will also be some great videos, as well as of course free beer :).

4 - 5 March: Try 'n' Fly Weekend

A weekend dedicated to AEF's, we will need all the help we can get running operations and the bbq to make sure we all have a fun day.

Come along and help out, meet some new members and go flying.

Contact the Contact Person Tom for more details.