

Uni Gliding

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In this issue...

Focus on the Falke
Thermalling for Cross-Country Pilots
Know Your Winchie
...And Much More!

The Official Journal of the Adelaide University Gliding Club Inc.

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Editorial

Hi all!

Welcome to summer! The Bureau of Meteorology tells us that it's going to be a super-hot summer this time around, which is bad news for some but GREAT news for soaring pilots hoping to achieve some top cross-country flights. In that spirit, this edition of *UG* has a detailed article about the secrets of advanced thermalling for cross-country pilots. Even if you're not there yet, do check it out as it's chock-full of useful tips and advice to make the best of those booming summer thermals.

We also have an in-depth article exploring the history of a sometimes-overlooked but interesting and versatile aircraft, the mighty Falke! Specifically, it spells out the history of *our* Falke, VH-FQW, from its manufacture in Germany in the late 70s right up to Derek's world-famous 543km cross country flight in it last year.

And of course we also bring you all the usual news and info about club events and achievements.

See you all on the airfield (or in the workshop) soon!

Teal

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Image Credits

All photos and artwork by T. Evans except where otherwise noted (excluding the chocolate fountain pic, which I swiped off the internet).

Cover image: AUGC's Falke motorglider lurking in the Big Hangar at Stonefield

Uni Gliding

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AUGC News & Achievements

Good news everybody! Due to mammoth efforts by Leigh, our Astir VH-KYR (which we purchased earlier this year) is now AIRWORTHY! So come and give it some love - it's waiting at Stonefield for YOU to fly!



Congratulations to James Hobson who recently went solo. Since I wasn't on the airfield that day I don't have any photos of the happy event, so you'll just have to imagine it. Well done, James!

Derek's K8 Challenges

Derek would like to remind everyone that his K8 Challenges (which he originally offered when AUGC first acquired the K8s back in 2012) have as yet had no claimants. Will YOU be the person to claim one of these? The challenges are:

* If you are the first person to fly at least 300kms in a K8, Derek will personally credit \$300 to your flying account.

* If you are the first person to fly at least 500kms in a K8, he'll credit \$500 to your flying account.

What are you waiting for, folks?

AUGC gets a Gold Star!

The GFA have recently introduced membership Diversity Targets with the intention of encouraging gliding clubs to broaden their member base to include more female and younger members. And I'm delighted to announce that AUGC is the **only** gliding club in Australia that has scored a GOLD star!

The GFA Diversity Target levels are as follows:

Bronze: 10-15% female and junior membership (5 clubs)

Silver: 15-20% female and junior membership (2 clubs)

Gold: 20-25% female and junior membership (1 club: AUGC!)

We can give ourselves a nice big pat on the back for that! Well done, everyone. The GFA haven't yet told us what the official rewards are for achieving these targets, but I for one am hoping they include a chocolate fountain.

Onward and upward: the highest level of Diversity Target (Platinum) is for over 25% female and junior members.

Lets see if we can be the first club in Australia to manage that as well!



Suggested Diversity Award Prize

Fleet & Equipment Status

Aircraft

Janus (VU): Operational

K-13 (QC): Operational

K-13 (QS): At West Beach in pieces being rebagged and overhauled. Wings are half re-covered; most of the maintenance work for the fuselage is complete, and once the last few bits are done it will be re-covered. Soon it will fly again! (Even sooner, with more help at the workshop from members who hope to fly her...)

Ka-8 (AQ): Operational

Ka-8 (QU): Operational

Pik-20 (WVA): Full survey underway, which will likely take a couple of months to complete, but is on hold due to more urgent projects being worked on at present.

Motorfalke (FQW): Operational

Astir (KYR): Operational! However, Derek's still hard at work building a trailer for it, so no outlandings in this bird until we can go get it!

Astir (WUA): This aircraft was loaned to AUGC for 12 months by the Australian Junior Gliding Club and had to go back to the Juniors for some repairs, which have now been finished; WUA will shortly return to AUGC until April 2019.

Arrow (GNF): Goes No Further. Needs more work than AUGC can manage at present to get it flying again (plz to observe the LOONG list of other aircraft currently being worked on by AUGC members) so instead will be advertised for sale.

Winches

Tost winch: Operational.

Truck winch: Offline for truck engine work completion

Trailer winch: The motor runs really well, but the cable heads need a redesign. Leigh is working on this.

Aircraft Hire Rate Change

A little birdie tells me that the (astonishingly cheap) hire rates for AUGC aircraft are expected to be updated in early February 2019. So now would be a really good time to take advantage of both summer soaring conditions and our super-cheap current rates, and get some flying hours under your belt!



Focus on the Falke

We've all seen AUGC's motor glider, the Motorfalke (aka Scheibe Falke, SF-25C, or VH-FQW) lurking quietly in the hangar. Many of us have also had the pleasure of flying in it. But how much do you know about our Falke's history? It's more interesting than you might think...

First, a bit of background:

The SF-25 Falke prototype first flew in 1963, and was originally based on the Scheibe Bergfalke trainer, which dated back to the early 1950s. Older AUGC members may recall our own Bergfalke IV, VH-GZM, that trained many new pilots from the 80s through to the early 2000s. Both of these aircraft types were designed by Egon Scheibe, who started building gliders in the mid-1930s. He developed new aircraft for the Luftwaffe during the Second World War, and then went on to found Scheibe Flugzeugbau in Dachau in 1951, creating the first Bergfalke that same year. A few years later Scheibe decided there was a need for a



SF-25A (Photo: Uli Elch, Wikipedia)

superior motor glider to replace their somewhat uninspiring SF-24 Motor Spatz. And thus the first Falke was born, based on the comparatively high-performance (for the time) Bergfalke, with an entirely new forward fuselage designed to hold an engine, and with a side-by-side seating arrangement rather than the tandem setup of the Bergfalke. Early Falkes had a high-wing configuration and looked rather different to our Falke, as can be seen from this photo of an SF-25A.

The Dachau factory wasn't the only place that Falkes were built. Scheibe also licensed them to be built by Sportavia-Putzer (Germany), Aeronautica Umbra (Italy), Loravia (France) and Slingsby (UK). Ron Smith, who (along with his twin brother Jim) worked at the Sportavia-Putzer factory assembling Falkes in the early 1970s, has this to say about the assembly process:

Possibly the most demanding single task was installing the propellers. Their attachment bolts were wire-locked in pairs in opposition to each other with the locking wire in a tight 'S' shape between the bolt pairs, so that each bolt secured its neighbour. This is a neat trick that takes a lot of practice as you need exactly the right number of turns to achieve a tight 'S'. I mostly needed about three tries for each bolt pair!



A Falke parked outside the Sportavia factory
(Photo: Ron Smith)

Focus on the Falke (cont.)

Our Falke was built in 1978 at the Scheibe factory in Dachau, Germany. Originally registered D-KDBE, it lived in Germany for a couple of years before being imported to Australia in late 1981, presumably by its first Australian owner Manfred Merkel, and it gained its Australian registration of VH-FQW in early 1982. Five years later it was purchased from Manfred Merkel by Bob Giles, formerly an AUGC member but at that time with Balaklava GC, and Bruno Krapez, also of Balaklava GC. The January 1989 edition of Uni Gliding notes a surprise AUGC visit from Bob, who flew the Falke over to our then-home at Lochiel and apparently took the then-newsletter editor for a pleasant flight.

In 1994 Bob and Bruno sold FQW to our very own Simon Hackett, who was encouraged to buy it by Cath Conway. According to Simon, Bruno had a fairly relaxed attitude to daily inspections:

I remember David Conway and I going to see the aircraft when I was planning to buy it - and David checked the engine oil level as the first thing he did while Bruno and I watched. He then asked Bruno if there was anything special about the daily inspection, to which Bruno said (in reference to the oil level check in terms of daily inspection): "You want to do it (the daily) again?"



Simon puts the Falke through its paces (Photos: Simon Hackett)

Simon happily flew the Falke for many years, operating from a private airstrip at Monarto owned by Emilis Prelgauskas (another former AUGC member) and logging over 560 hours in it. During the early days nobody there was qualified to perform Falke maintenance, so it got taken to Benalla for its first Form 2 (annual inspection). Simon and Cath ferried it back to South Australia when the inspection was complete, and unfortunately Cath was pregnant with Michael at the time and suffering from morning sickness. In Cath's words: *I chucked six times on that flight and Simon got good at sideslipping while I disposed of the bags out the window!*

That wasn't the only puking incident associated with the Falke during this period: it got taken to Temora to be refabricked a few years later, and when it was ready to return home Simon, Derek, Cath and Michael (aged 4 at the time) flew back over to collect the Falke in a Grumman Traveller, whereupon Michael proceeded to throw up all over Simon shortly before they arrived at Temora.

Focus on the Falke (cont.)

Simon flew the Falke in the 1995/96 sports/two-seater Nationals out of Renmark, and while he did so another competitor, Noel Matthews, took the rather splendid photo shown below. Since Noel was at that time the editor of Australian Gliding (which later became Gliding Australia), he used this photo as the cover for the March 1996 edition. Please also note the top insert photo on the back cover that shows three notable women in gliding – particularly the woman on the right! About the contest itself, Simon comments: *I had an absolute ball doing that, noting that I didn't achieve my (then) goal of a 300 in the Falke in the process. I have nothing but huge respect for the fact that this feat -has- since been achieved in her (and not by me!)*



Apparently not everyone in aviation is familiar with Falkes. Cath used to fly FQW out of Parafield Airport from time to time, and on one occasion the ground traffic controller, noticing the Falke's under-wing "outrigger" wheels, said to her *Since you've successfully completed some circuits, are you going to take the training wheels off?*

Simon sold the Falke to AUGC in September 2003 when he upgraded to a Stemme S10. A while after, FQW was grounded after some concerns by the RTO/A (Regional Technical Officer/Airworthiness). He had spotted damage to the underside fabric, which had been heavily scratched up by sticks and rough foliage both at Stonefield and from outlandings, and he was concerned about the fabric's structural integrity. Since the Falke was going to be "undressed" while the fuselage and rudder fabric was being replaced, it was a good opportunity to perform a full survey and get it "ship shape". Anything that could be removed and tested/repared/replaced/cleaned up was seen to. Cath performed a top overhaul of the

Focus on the Falke (cont.)

engine (with the assistance of John Viney, who had come over from Melbourne to help) because the heads were warped from overheating as the Falke did not at the time have a cylinder head temperature indicator. Since the baffles that the Falke was fitted with weren't the best, Derek built a new set in an attempt to improve them. Baffle design is rather an exact science, but since AUGC lacked fancy CAD equipment, Derek figured out the new baffle design using cardboard cut-outs bent into shape as a pattern to base the final aluminium version on.

It should be noted that a lot of Falkes have heating issues, as air cooling is less effective when the air itself is at 40°C. For example, there are hot summer days when the Scouts' Falke is unable to climb higher than 500 feet under power, and that's as far as they can go unless they can find a thermal. Our Falke copes with hot weather a bit better than that, but there are further things that can be done to improve its cooling, and these are currently under



Redmond starts the Falke's engine for the first time post-overhaul

investigation. Derek notes that good engine management is crucial to keeping the Falke in good condition over the long term, and he emphasises that when pilots convert to the Falke it is really important that they are capable of handling both normal engine management and any overheating problems that can arise while flying FQW.

After a huge amount of work the Falke returned to the air in August 2016. One of its jobs was as an outlanding trainer. On one occasion Derek was tasked with testing a particular pilot's reactions to stressful situations during landing. Obviously he had to be sneaky and not let the pilot know in advance that they were going to be doing some outlanding practice. Here's Derek's account of what happened next:

The opportunity arose where there was a very light westerly, and I said to this person "Hey, lets go and ridge soar Black Springs Ridge!" So off we went, and we flew over to Black Springs. But because it was a very light westerly, the ridge wasn't working particularly well. We actually needed idle throttle to stay up. What I wanted to do was to force an outlanding, and the way I thought of to do that was to turn the fuel off. But given that the fuel tap is right between the two pilots, it's very difficult to get the fuel turned off while the other person doesn't notice. So I had my hand between my legs and under my left leg (I was sitting on the right hand side), and trying to reach under my left knee to get to the fuel tap without them noticing.

Focus on the Falke (cont.)

I managed to actually turn the fuel off in flight, and then I had to sit there and wait for this engine on idle to run out of fuel, which took ages. And when it finally ran out of fuel, the pilot's exact words were "Shit! Shit! Shit!"

They then proceeded to pick a suitable paddock, and executed the outlanding very well. And after we rolled to a halt they said "Oh my gosh, we've just had an engine failure. What do we do?" So I said "Why don't we see if we can start it again?" They immediately kicked into their start routine and the first thing they checked was the fuel. The fuel is off!

So they looked at me, and I subsequently got a right back hand into the chest! Because I couldn't escape, I just had to wear it. But I tell you, it was worth it!

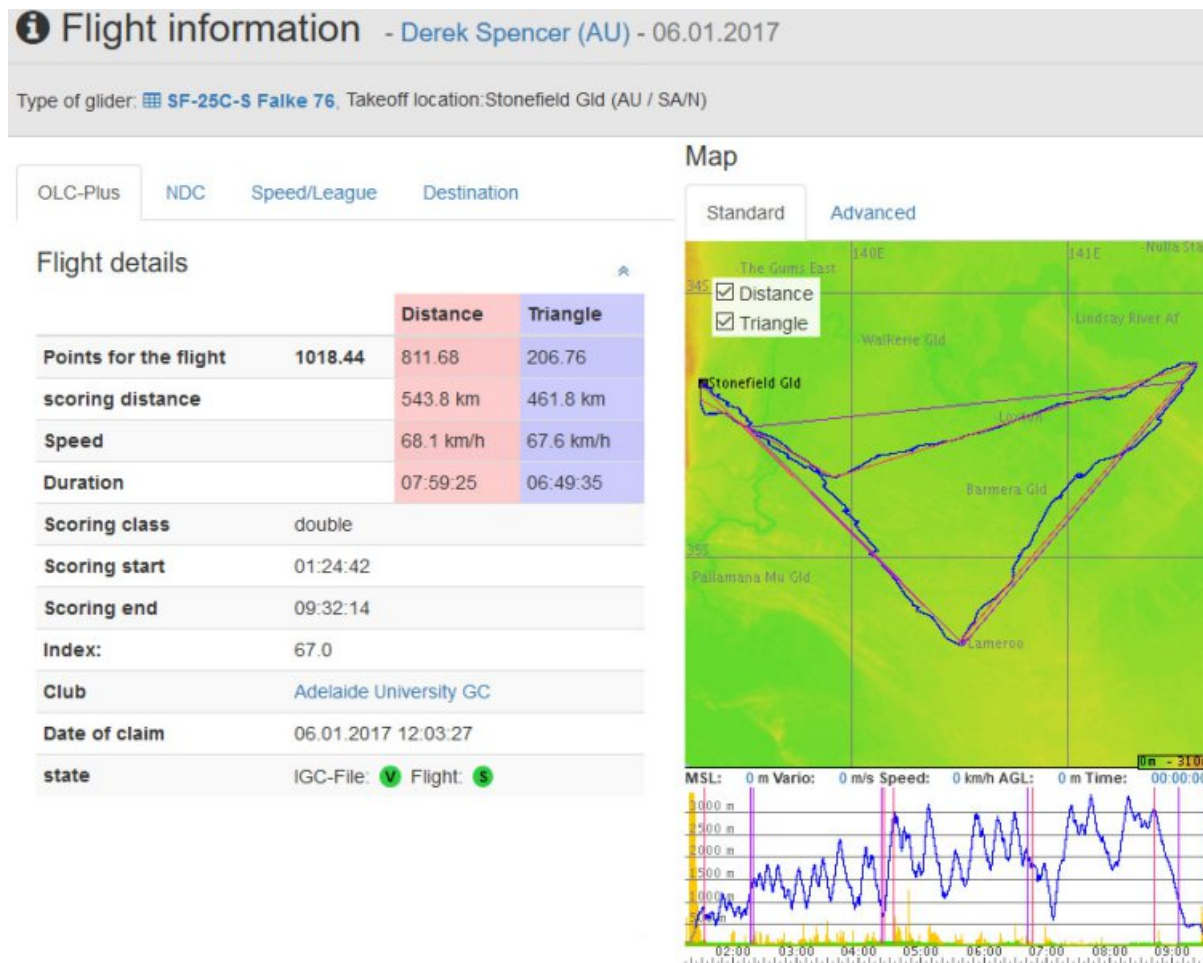


The very first soaring season after the Falke returned to the air after the overhaul, Derek really showed the world what it could do in suitably skilled hands, with a 497km flight on Christmas day of 2016. This flight included a "technical outlanding" (which is to say that he prepared for an outlanding, but started the engine up and departed without actually landing). And then...

Two weeks later, after swearing that I would never do that again because my butt was so sore after spending eight hours in an airplane that is not really meant for tall buggers like me, the opportunity arose to go and do it again. I actually planned a bit more than 500 kilometres this time, but I didn't actually make the full distance. I had a technical outlanding again. I was following a line of clouds which was probably a convergence line at the end of the day, all the way back to the airfield. So I got over the scrub, and I parked in a thermal which was a bit east of Truro Flats, trying to gain height. But I couldn't get any height, so I basically just sat there in this thermal drifting to the point where I was just south of the airfield, not going up, not going down, and I thought "Well, I'm not getting anywhere, and I'm 10 kilometres from the airfield. I'm over a landable area, so oh well, I'd better start the engine and fly the last bit home."

Focus on the Falke (cont.)

In the end, I managed to close the triangle at 543 kilometres, which gave me over a thousand points on OLC. So I beat an ASG-29 that day! It was an epic flight.



This epic second flight achieved an OLC rank of 5th *in the world* for that day, based on points (1018.4), and won Derek not only the “Fred’s Finial” trophy from SAGA for the best single flight in a “rag and tube” glider for the year, but a fair bit of international (well, German) attention as well. Commenters on a German Facebook page wrote *How can you stand 8 hours in a Falke?* and *Skills instead of glide angle!* Another person summed up Derek's achievement thus:

I think you have so much adrenaline that you could ride on a broomstick. Anyway, that's an honestly earned 1000 points.



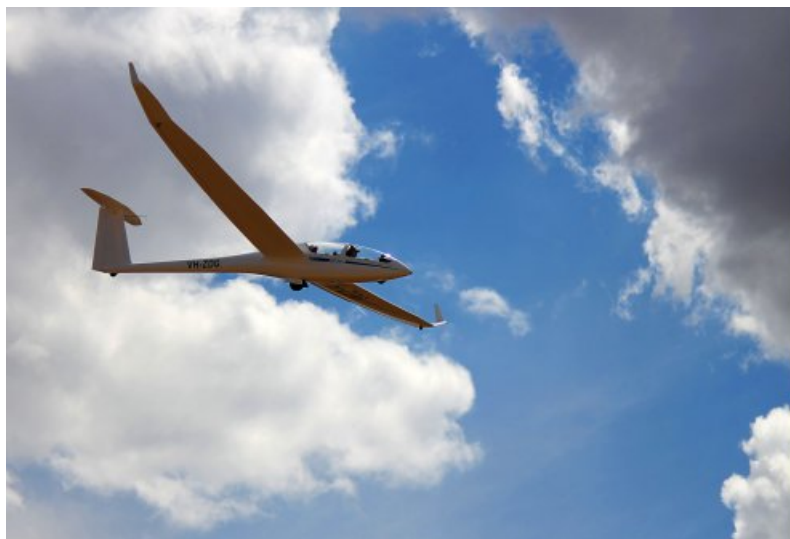
Guest Article

Thermalling for Cross Country Pilots

By Frank Johann

Adelaide Soaring Club, Level 2 Instructor and Coach

This article is based on Frank's notes for his SAGA Winter Lecture on thermalling technique, presented on 12th July 2017.



ASC's DG1000 arrives at Stonefield for Coaching Week

This article assumes pilots have had some exposure to thermalling, and have experienced doing this in a two-seater as a minimum, and/or are flying single seaters with view to wanting to experience cross-country soaring. This is not aimed at pilots that are at (or seeking to become) a State or National Champion or a Record Holder... but it is a good starting point if you have this as a goal. It's

about some relatively simple techniques in thermalling that will help pilots that want to move beyond their basic training and are looking at attaining goals such as Gold C, Diamond Goal, Diamond Distance, etc... or even simply staying up while local flying, when others are doing this and you are having trouble staying airborne! This article covers matters that are typically beyond the scope of what is traditionally done during basic flight training, as pre-solo flight training needs to be kept simple for good reasons. (Note: Silver C is relatively easy to do in today's (relatively) modern single seaters. I would also say that Gold C distance is an easy flight, even if you get the technique wrong but have relatively a good soaring day.

Local Soaring

When soaring locally many early-solo pilots probably take every thermal they find regardless of the thermal strength and/or height they are at (relative to the height band of thermal activity). During training with instructors, the instructors themselves may not have much (or recent) cross-country soaring experience; and the techniques taught by the instructors may serve to suit local soaring, but often do not serve prospective cross-country pilots who wish to go cross-country. Even though the intent of GFA glider pilot training is aimed at cross-country flying, likely most instructors don't actively participate in cross-country or have not done so for a long time. Going cross-country makes you 'work the glider harder' than what you need to do with local soaring, so you will be getting further away from your comfort zone.

Flying with a Coach

One of the big things that can be gained by a prospective (or any) cross-country pilot is flying with a coach. The pilot receiving coaching can gain considerable soaring skill

Thermalling for Cross Country Pilots (cont.)

techniques from the coach who is observing their flying, but also the coachee can learn by observing what the coach does (in ideally a two-seater coaching flight). Once the pilot has gained some cross-country experience, "lead and follow" cross-country soaring is also possible. When they have gained suitable flying and soaring skills, going on coaching flights can help the prospective cross-country pilot to gain confidence in going cross-country. Going to events like Coaching Week is also an excellent way of getting some focussed training on aspects of cross-country flight and putting what you learn into practice.

During the early to mid-1980's when I was cutting my teeth in cross-country, there was no coaching available as such, so you went out the 'hard way' (a number of outlandings later); and just learned by observing other pilots in local regattas flying in 'fixed' racing tasks, and that is how you would learn how the game was done. It's much better now that we have a focus on coaching at all levels, and are not making it a 'secret business' as it was then.

Thermalling "wastes time" in terms of going cross-country – it is better to practically minimise the amount of thermalling you can do in a flight. As Giorgio Galetto once said: "We fly gliders - not thermallers"! While you are thermalling you might be climbing (hopefully! If not, then that's a total waste of time!) but you are not making progress in terms of covering ground and distance (unless your task is 100% tailwind component, or part of the task you are on is in a tailwind direction). The more time you spend thermalling, in particular the percentage of the flight time taken to thermal, the worse it is! You want to aim to thermal the least amount you practically can.

Common Thermalling Errors by Early Cross-country Pilots

It can be a mistake when flying cross-country to use the same soaring techniques you use for local flying, such as taking every thermal that comes along. This wastes time, as when you are trying to centre the thermal the climb rate is lower than what you get when it is centred. Also, not all thermals give the same climb rate – there is a mixture of climb rates. Taking slower climb rates gives you a lower average climb rate (you're spending more time thermalling) so you spend less time 'cruising'. If you try to centre every thermal you come across, that will also slow you down – try to go for better climbs if you can. The stronger and faster the climb, the better!

Thermalling with too shallow an angle of bank moves you away from the core of the thermal where the climb is stronger. The flatter your bank angle, the lower your climb rate. Likewise, thermalling too fast moves you away from the core of the thermal where the climb is stronger. The faster you fly, the lower your climb rate. If you are doing both (flying fast, with a shallow angle of bank) they both add up the wrong way, and this makes it very hard to get anywhere near the thermal core.

Accepting inconsistent lift around a thermal turn

In this situation you are probably either not centred to start with, or are not re-centring as you thermal, as most thermals will need some sort of re-centring during the climb. Always be prepared to re-centre if lift is not evenly experienced (as near as practical) around the thermal. It is very rare to initially centre thermal and then have to do nothing at all to keep centred until you leave the thermal, being centred all the way! You won't climb as well if you are not centred – Trying to be centred all the time should be a key goal.

Thermalling for Cross Country Pilots (cont.)

Staying in the thermal too long after the best climb rate has dropped off

This really puts a dent into your average climb rate. For example, say you had a 5 knot climb for most of a thermal, and then for last 500 feet the climb rate rapidly drops off and now you're only getting 2 knots or less of lift. This might happen when you are getting near an inversion layer, for example. It happens to all pilots, and is easy enough to get fooled by if you just focus on what the vario is telling you (when you in particular ignore 'seat of your pants'). When you do get a good thermal you can feel it push you up. If it looks good on the vario (e.g. 4 knots plus) and you don't feel anything like an acceleration 'kick in the pants' via the backside, it is probably a horizontal gust (a.k.a. the phantom or Claytons thermal!).

Roll rate variations

This next aspect is not an easy one to detect and takes a bit of experience to be able to experience it, but is worth observing as you are flying. In order to notice the roll rate of the glider when rolling (turning) into a thermal you need to calibrate your control input and speed you are flying at versus the still air roll rate. If the glider rolls faster than normal and you see reduced lift or more sink, you are turning the wrong way (away from the thermal). Conversely, if the glider rolls slower than normal and is more sluggish in the roll, likely you have turned the right way! This will be confirmed when you also notice lift increasing and feel the upward surge. Each glider type behaves differently with this, but with actual good thermals you will notice the difference. This is something I've been working on, and it's not a common practice that pilots are aware of. It's subtle, and becomes easier to determine the more flying you do in a particular glider. If you have 100+ hours on a type you really get to have a feel for it.

Centring the thermal

It is a mistake to fail to re-centre when the consistency of the lift changes around a thermal. You want to aim at approximately equal strength of lift all way around, if possible. When centring a thermal, many pilots straighten up in lift, and they do this when the lift is at its best. They are in fact doing this too late: this will very soon fly them out of the thermal, and they will be left wondering where the thermal has gone! Many pilots use the re-centring technique taught to them pre-solo by their instructors: straightening out so that their wings are 'flat' and then counting 1-2-3 seconds and turning back in again. Unfortunately, if you're out a bit this just murders the thermal; and you can also go too far the other way, and in no time lose the thermal all together, particularly if the direction you are turning is incorrect. This technique typically is too much manoeuvring: you'll never get centred using this method! Better methods for centring can be found further down in this article.

Headings, crosswinds and tracks

Something to consider when flying cross-country is wind direction while thermalling. Specifically, consider the direction that you will drift when thermalling, and how it aligns with your desired track. If you have a cross wind track, it is better to cruise on the upwind side of the track (unless conditions advise otherwise) so that when thermalling you are drifting in the direction you want to fly. At worst case, after you've climbed you will still be 'on track' to your next turn point.

Thermalling for Cross Country Pilots (cont.)

Water Ballast – Is it the Magic Bullet to help you go Cross-country?

Using water ballast for early cross-country pilots is more of a handicap than a benefit. It's best to get your soaring/thermallng technique up to a reasonable standard before using water ballast. The very latest generation of gliders handle reasonably well with water ballast. However earlier generations of gliders can be more challenging to fly "wet". For example, even with likes of a Discus (or a glider with similar performance) you want to be able to do a 300km flight at an average speed of 90km/h or higher "dry" before considering using water ballast. As at least if you are achieving that sort of cross-country speed with that sort of distance you have got a reasonable thermalling and cruise technique sorted out. Then when you are able to do faster cross-country flights (over 100 km/hr average speed) you then might (with likes of a Discus) fly it with more than 100 Litres of water. The same glider will climb faster empty in the same thermal with the same pilot than it will with water ballast in the glider. Can you prove that you will be better off with water ballast? You need to have a good soaring technique to make flying with water ballast worthwhile.

Examples of how having good thermalling skills can play out in practice

Flying a track and ignoring what's going on outside of the cockpit

This occurred at Gawler, on the day that the 1000km task was flown at Waikerie Nationals during the 1980's. I was duty instructor at Gawler, and that Nationals was the first competition in the world where a 1000km task was set and flown. At Gawler two single-seater pilots headed off to Jamestown for their Gold C Distance (and Gold Height attempt). The pilot that flew right on track (as marked on his map) outlanded before he even got to his goal of Jamestown, as he wasn't under any cumulus clouds. There were very few thermals around so he didn't thermal much, but wasn't able to cruise either. The other pilot flew approximately 40km to the east of the track under cumulus, and completed the task in 3 hours. He then flew up to Burra and back to get his 5 hours as well. The first pilot didn't look at what the sky was doing, which resulted in him not completing his task (which was easily done by the other pilot). If one part of the sky has cumulus and another area has no cumulus... you have to think that it might not be as good! Cumulus clouds are the easy markers you can use to find thermals, as cumulus also makes where you might fly into lift more productive.

Thermalling in one direction only can work against you in competitions

I took advantage of this at a Horsham week in 1980's, flying a Discus. Another pilot (also in a Discus) was flying with me initially, but I started the turn and went left. I noticed he started falling away from me in the thermal, and I thought he might be having trouble going left. So for the next and subsequent thermals I deliberately turned left when entering. This was a big competitive advantage for me: by the end of the task he was a thermal behind me. I won that day in Standard Class, and that pilot later came up to me and asked me "Why did you go left?" I replied "It looked like it was your Achilles Heel." It is worth trying to practice thermalling in the direction that is not your preference. My thermal average direction is nearly 50/50, so I'm happy to go either way and I like going to the left! I do know of one pilot who is exceptional cross-country pilot and only thermals to the right – he's also a past Australian Record Holder. So this isn't something that will stop you going cross-country (or even flying very well), but I recommended you work on it if you do have that habit.

Thermalling for Cross Country Pilots (cont.)

Poor thermalling skills are annoying to other pilots flying nearby and can be a safety risk

During local flying at Gawler some 20 years ago on a 5000ft blue day, I came in under a glider that was at about 3000 ft while I was at 1500 ft. Both gliders had the same sort of climb performance (in fact the other was a bit better off as it was flapped). He was flying at around 20 degrees of bank and fast, while I was at 45 degrees of bank and just under 50 knots. By the time I got to 5000ft the other glider was about 4000 ft below me. So in the time that I had climbed 3500 ft he only climbed 1000 ft! That other pilot unfortunately didn't want to take advice from other experienced pilots; he later sold the glider he owned before and got out of the sport. If that pilot was trying to go cross-country, then the principle of spending the least amount of time in a thermal would have worked against him, as he clearly spent too much time for little height gain in that case. The same pilot was a pain at an Easter Regatta: we'd find a climb and this guy would follow in behind us and do really wide and relatively fast turns. It was really frustrating not being able to get into the thermal core - we couldn't crank in steeply, as we would have turned inside of him and gotten too close to being unsafe in that case.

Things you can do to improve your cross-country performance

Timing yourself in a thermal turn (i.e. how long it takes you to complete a turn). Ideally this should be no more than about 20 seconds (as the speed you are flying and your angle of bank will determine how long it takes). This is a reasonable bench mark to aim for. If you want to train harder at steeper bank angle and if you can handle 15 to 16 second turns and even climb at those values, then you'll find it easier when doing turns that are say 18 to 20 seconds. The turning and bank aspect can be practiced with an instructor and/or coach that is able to work on this with you.

Ask yourself: what can I do to minimise time in 'weak lift' and find the better climbs?

If you can make use of cumulus then this improves the odds. Is there any streeting? Cumulus streets are very obvious, but also blue streets occur. Know what the wind doing is, as the streets will line up with the wind. If you are in lift flying with or down wind and the lift drops off, try going back other way with the wind alignment. Likewise, if the sink gets worse go the other way. If there are cumulus streets don't spend lots of time flying between the streets and parallel to the streets in sinking air – this will require you to spend more time thermalling later. If you suspect you are in a sink street then change your track: fly into the wind (considering the drift effect after you've changed track, and which way you want to go) and then when you are in lift again fly back into (or down) wind as appropriate. This is what the poms call 'threading the needle'. If you are thermalling and then leaving a thermal, use 'threading the needle' again as you may find more good air to climb as you are gliding, and that's a good thing to do.

Train by flying at steep angles of bank (say 60 degrees) in thermals. Get comfortable thermalling at this angle of bank at (that's 2 g in a turn). This is not a practical angle of bank that you'll use when flying cross-country. But if you train yourself to be able to fly at steeper angles of bank, then when you are thermalling at say 40 to 45 degrees of bank (a typical bank angle for effective cross-country soaring) you will find this easier to do and less fatiguing that if you have previously only ever flown at a 25-30 degree angle of bank.

Thermalling for Cross Country Pilots (cont.)

Learn about height bands and cruising. This is important when considering decision about thermals and when to thermal.

Thermal selection

If you find a thermal that is stronger than what you've had so far and you are able to take it, then it's worth taking. You will see this as the day gets better. Do this unless there is evidence to suggest that you can easily achieve an even better climb rate as this will in effect reduce the total time you will spend thermalling. On the other hand, if you are lower (i.e. in a lower height band) then taking a weaker climb is fine if you cannot avoid it. It is better than an outlanding, as outlanding doesn't give you any further cross-country capability on that day.

Feel the air

Let the accelerometer you were born with (the seat of your pants) be of use to you in telling you what the air is doing. An example - at an early coaching week in the early 1990's at Waikerie, Hugh Sparrow was flying ASCs Hornet GEY, and during the flight lost both his electric vario and his mechanical vario (he had an actual mechanical failure of the vario). He flew the bulk of the task just by 'feel' only. He found that when the lift dropped off (down to say 2 knots) was he unable to find and centre the thermals, but Hugh did an otherwise excellent job of keeping up with the likes of LS4s for bulk of the flight just using 'feel' alone in the cockpit, and observing the behaviour of other gliders outside.

Before you find lift, there is a good chance that you will be surrounded by sink – this can be felt with a turbulent boundary layer. This can be quite subtle. This will give that feeling of 'activity' or 'liveliness' to the air. Then if the lift is on your current track you'll experience some degree of climb! If you don't find any lift but experience this turbulent boundary in the transition zones, particularly if you are in the lower height band and need lift, you might want to do some "S" manoeuvres, weaving left and right. When doing this you should be feeling the air and also noting the roll rate as compared to amount of control input. If it's faster and easier immediately go the other way (particularly if you find sink). On the other hand, if the roll is sluggish going in and lift gets better, this could be the way to go - continue trying in that direction.

Thermal centring and re-centring

You need to gather a mental picture of where the lift is relative to where you are flying. The idea is to shift your turn towards where the lift is – obvious isn't it? If you have other glider(s) in the thermal with you (ideally opposite you) they are the best variometer in terms of showing you where the lift is. You can learn an enormous amount by observing their climbs and making use of it. Notice the locations where they are moving up relative to you, where they are accelerating upwards, and when the peak of the acceleration stops. That side of the circle is the direction you want to be moving your thermal centre to.

What you need to do is to 'shift your circle' in the direction of where the lift is. Notice where you are at peak lift in reference to direction of your outer wing in the turn, and where that's pointing. Then note where the worst sink and/or least lift is in reference to the direction your inner wing is pointing in the turn. They should both be very close to the same direction. If they are not, then you might be in a lopsided thermal, and getting a true even centre on it may

Thermalling for Cross Country Pilots (cont.)

not be possible to achieve. Move your thermalling circle in the direction indicated. If anything, make the correction a bit earlier as there is a delay in the information you get from your vario (with electric audio and more so with mechanical). Use your accelerometer (seat of pants) 'feel' with this as well (never ignore that input).

When re-centring, it is better to make a minimal correction rather than going too far. That is, if you are only a little bit out just give the glider a quick flick: reduce bank a bit and then turn back in again. It is better to do this a few times in the same direction than to adjust too much and fly out the other side of the thermal! When I've been coaching others this is without doubt one of the main things I've got pilots to work on.

If you are off-centre a little bit then definitely use this technique. However, if you are significantly out of the thermal centre, then you might do better to roll out to flat and then roll back in, or even use a 'half way between' variation of these methods. In-between is still better than 'over doing it'. It is better to centre and re-centre in same direction with small 'flick' corrections than to overdo it and confuse yourself as to where the lift is – takes a lot longer to get it re-centred (if you are able to again at all).

Does the wing going up on one side of the glider indicate where the thermal is?

It is often said that this happens if you are off to one side of a thermal when entering, telling you which way to turn to fly into the thermal. I've rarely experienced this – don't worry if you cannot detect this either! I've found that the bigger the wingspan of the glider, the easier it is to experience this. I've experienced this sometimes in 20m gliders (I probably can count the number of times on one hand and have fingers left over.....) but cannot recall this happening to me in a 15m glider. It's not a reliable technique for me, and I think that if you are relying on this you would most likely be frustrated and think that there is something wrong with you. You're no orphan, and there is nothing wrong with you! What I do find more reliable (as I probably put subtle control inputs in without knowing to counter any such effects) is this: if in doubt and the situation allows it, just let go of the stick and see which way the glider 'wanders' (assuming the glider is correctly trimmed). If it goes to the left (ever so slightly), then I roll to the right as the direction to try in the thermal! I do this in particular if I feel turbulence rumbles (like driving over a cobblestone road) and am just getting into better air but have no sense of which side the thermal might be on. Also when I am rolling after doing this I note the 'calibrated roll rate' of the glider. If it feels like the glider is going slow while rolling in then I've likely gone the right way. Give it a go some time!!!!

Keep trying to improve!

There are many different things to do and try – just don't keep doing same old same old if you are not getting the results you are after. If in doubt, please consult a coach or an instructor who has cross-country experience and an interest in cross-country soaring. Go to coaching clinics, and if your club has coaching flights available, see about getting some coaching time.

You never stop practicing (honing your skills, observations and techniques); you are always learning something when flying gliders (even if sometimes it's something subtle). No matter how much experience you may have, there is probably a better way of doing something, so aim toward continual improvement!

Thermalling for Cross Country Pilots (cont.)

Key points

Go flying with a coach – they will see how you fly and what you do but just as importantly you can see what a coach does and how they fly. They can give you particular tips on your thermalling technique and what you can work on to get more out of your flying (towards goals you'd like to achieve).

Remember keep asking yourself these questions in flight:

Do I really need a climb?

Do I need to stop for a thermal yet? Maybe you don't if you've just left a climb, are in the upper part of your height band, and there's no evidence the day is shutting down.

Is this climb appropriate for me to be in?

Do I need to be in it? Could it be not strong enough to take? Do I have a good chance of finding a better climb further on?

Am I getting the best climb rate I can out of it?

Am I centred, at a suitable bank angle and airspeed? Can I turn a moderate climb (say, 4 knots) into a better one (5 or 6 knots, or even better)? Even if you get a 10 knot thermal, ask yourself "Can I get 12 knots out of it?" No matter the situation, keep challenging yourself to see if the thermal is worth working, and whether you can get any more out of it.

Should I leave it and just go?

Don't muck around in a thermal that is no longer efficient to be in. Be ruthless in making that call and don't procrastinate.

On the other hand, if you see evidence that the thermal you are in might be the last climb (either for the day, or for an area you need to cross that isn't looking as good) then you may need to milk what height you can out of it, if that height is needed (e.g. if you're at the edge of an area with cumulus, and are looking to fly into a blue area and/or an area with high cloud shadow).

Where are you going to get your next best thermal(s) from?

You should be thinking ahead before you even leave a thermal. (Remember to re-assess when cruising as well). On a 'big' day I'm assessing the sky as far off as I can (even up to several hundred km away): I am checking where the sky is looking better with plenty of cumulus activity, versus any route that might yield minimal thermalling and fastest cross-country speed toward my objective.

Is the day starting to die off?

If this is the case, what might be the reason for this? Or does it still feel like there is activity in the day, with the possibility of more thermals?

What about times when conditions are good but I shouldn't go cross-country?

You can still practice your cross-country skills when you aren't intending to go cross-country. For example, you don't fly a passenger or AEF cross-country as this is likely to make them sick, and that flight is about them and not to show how good you might be. However, you can still attempt to find the best climb rates and practice good cross-country flying techniques.

Thermalling for Cross Country Pilots (cont.)

Improving your flying with a logger

Take a logger with you when you fly, and then look at the logged data to see what your flight details are like. Run your flight trace past a coach to get comments on your flying. Ideally look at the flight trace on the same day that you flew; and if the coach flew as well, they can add comments on how they found conditions, what looked good, and what needs working on. Flight Analysis!

I was told in my early days of cross-country flying: “Stay High, Fly Fast and Don’t Turn”. When I thought about the words alone, I thought they contradicted each other – I thought this was a silly saying. But “Fly Fast” is really about not just flying at best L/D (i.e. slowly) between thermals, which early cross-country pilots tend to do. It is about the intent of the speed: it’s better to fly at the ‘optimum’ speed (or even block speed). “Don’t Turn” is saying that you should do what you can to minimise the amount of turning done in thermals. So do what you can to work stronger climbs and fly in better air in the cruise. By doing this, you will be turning less, and spending more time cruising. And “Stay High” means that if you can work better air in the cruise, you spend less time in thermals, which again saves time.

There are a lot of different aspects to improving your thermalling. But if you can focus on a different aspect each time you fly, eventually these things become more like second nature to you. Then when you are doing them, you will be able to assign more of your efforts to ‘tactical’ thoughts of where you are going so that you won’t have to spend so much time thermalling, and you will get more out of your flight!



The Pik returns home to Stonefield after a successful flight

Know Your Winchie

Continuing our series of airfield wildlife identification guides, we offer this resource describing several common species of an often-overlooked gliding airfield inhabitant, the winch driver (or winchie). An essential part of many gliding ecosystems, the winchie's low-key and unremarkable plumage belies its critical role in keeping other airfield denizens happy. Learning to recognise the various species of winchie can be very helpful when attempting to encourage the presence and retention of these useful species in any gliding environment.

Rocket Scientist (*Launchemuppus stratospheris*)

The primary motivation – nay, the passion – of the Rocket Scientist is to launch gliders to ever-increasingly staggering heights. This species greets 50kt winds with wide-eyed glee (“We’re gonna get such great launches today!”). A Rocket Scientist considers any winch launch that achieves less than diamond height to be an opportunity wasted, and will confidently assert that if the Perlan Project people *really* knew what they were doing, they’d use an *extra big* winch to launch their experimental high-altitude glider. Airfields with resident Rocket Scientists are easy to identify by the trail of broken weak links scattered along the airstrip.

Nervous Nellie (*Launchemuppus timorous-mousius*)

The quietest and most timid of *Launchemuppus* species, the Nervous Nellie seems perpetually terrified of breaking something, be it the winch, the cable, or the glider being launched. Very diffident on the throttle, a Nervous Nellie's distinctive winching technique is clearly apparent to the pilot of the aircraft being launched – the characteristic long ground run is a product of the Nellie's terror of launching too fast and pulling the nose off of the glider. It has been suggested that the continual speed oscillations produced by the Nellie during launch are in fact a new form of communication that this species has developed, but it is as yet unclear what, or to whom, the Nellie is trying to communicate. If something unexpected occurs during the launch process (such as a sudden gust of wind, or maybe a bird flying past near the cable) the Nervous Nellie may flee mid-launch, abandoning the winch cabin to hide whimpering underneath the truck, to the vast disgruntlement of the pilot being launched.

Oily-Spotted Mechanic (*Launchemuppus tweakus-maximus*)

Always fiddling with winch innards, this species will repair winch problems as they occur; but its real passion is winch improvement. You can easily detect a winch that has been cared for by an Oily-Spotted Mechanic – the winching cabin is air-conditioned, the engine is a marvel of smoothness and efficiency so clean you could eat lunch off it, the cables are made of some high-tech polymer that is so new and experimental that it has its own security rating, and the cable drums are ex-NASA (don't ask). One local club's Oily-Spotted Mechanic was recently observed carefully measuring the angle of the cable exiting the heads during launches. When questioned about this, the Mechanic replied that launches were producing cable angles significantly different to the range of angles it had calculated to be optimum, and it was considering how best to redesign the heads for maximum efficiency. This Oily-Spotted Mechanic was later observed adding Teflon, Kevlar (and apparently strawberry jam) to the winch heads in an attempt to achieve this.

Know Your Winchie (cont.)

Wooly Petrol Head (*Launchemuppus madmaximus*)

Sometimes mistaken for the Oily-Spotted Mechanic, this species has an over-abundance of enthusiasm rather than any actual mechanical skill. It will leap blithely into the winch and hurtle down the airstrip at 257km/h without first checking to confirm that the cables are attached to the pegs. Wooly Petrol Heads believe that brakes are for weenies, and that winches corner best using a barrel-roll-esque technique that makes bystanders run for cover and Oily-Spotted Mechanics cry. If left unattended for any length of time, Wooly Petrol Heads may paint go-fast-stripes all over the nearest winch, and have been known to add fairings and spoilers to winch arms “because they look kewl”.

Dates for your Diary

AUGC Events

Flying

Most Saturdays & Sundays at Stonefield. Check the flying roster on the AUGC website (<http://augc.org.au/FlyingRoster.php>) to make a booking.

Mini-Grand Prix Race Series 2018-19

At Stonefield on the following dates. (Full details TBA on AUGC-People mailing list)

February 16-17

March 23-24

April 13-14

Aircraft Maintenance

Most Monday nights at West Beach. See the second-to-last page of UniGliding for details.

Committee Meetings

More-or-less monthly, at Cath's place (21 Cardigan Ave, Felixstowe). Exact date and time TBA - ask on the AUGC-People mailing list if you're interested and would like to know more. All welcome! Come and get involved in the running of your club (or at least see how it is run...).

Other SA Events & Activities

SAGA Coaching Week (6-11 January 2019)

Waikerie, SA.

JoeyGlide Australian Junior Nationals (12-19 January 2019)

Waikerie, SA.

Dates for your Diary (cont.)

Further Afield...

(Unless otherwise specified, details for all of these events can be found in Gliding Australia or on the GFA Calendar here: <https://glidingaustralia.org/calendar>).

A wide variety of **GFA airworthiness courses** are being held interstate over the next few months. Rather than listing them all here, if you're interested check out the GFA Calendar.

Formula 1.0 Grand Prix (29 December 2018 - 6 January 2019), Leeton, NSW.

Women's Pre-World Gliding Championships (31 December 2018 - 11 January 2019), Lake Keepit, NSW.

Club Class Pre-Worlds (31 December 2018 - 11 January 2019), Lake Keepit, NSW.

2-Seater Regatta (13-19 January 2018), Temora, NSW.

NSW State Championships (19-26 January 2019), Narromine, NSW.

Horsham Week (2-9 February 2019), Horsham, VIC.

20m 2-Seater Championships (9-16 February 2019), Narromine, NSW.

Keepit Regatta (23 February - 2 March 2019), Lake Keepit, NSW.

WA State Competitions (27 February - 7 March 2019), Cunderdin, WA.

Alpine Coach Course w. G Dale (9-11 March 2019), Mount Beauty, VIC.

10th Womens' World Gliding Championships (3-17 January 2020), Lake Keepit, NSW.



Out and about in a Ka-8

Fees & Charges*

Aircraft & Airfield Charges

Aircraft Type	Club Rate (\$/min)	Student Rate (\$/min)	Visiting Pilot Rate (\$/min)
Janus (VH-GVU)	0.85	0.55	1.10
K-13 (VH-GQC, VH-GQS)	0.75	0.45	1.10
Motorfalke flying time (VH-FQW)	1.00	0.60	1.50
Motorfalke engine time (VH-FQW)	0.90	0.90	1.00
Ka-8 (VH-GQU, VH-GAQ)	0.50	0.30	0.75
PIK-20D (VH-WVA)	0.80	0.50	1.05
Astir (VH-WUA)	0.65	0.40	0.85

Winch Launches: Student \$7.00/launch, Non-Student \$8.00/launch

SAA Airfield Levy: \$8.00/person/day - applies to anyone that flies.

Memberships

To fly with the Adelaide University Gliding Club it is necessary to be a member of the Club, a member of the Adelaide University Sports Association (AUSA) and a member of the Gliding Federation of Australia (GFA). Membership rates are as follows:

AUGC: Student \$30/yr, Non-Student \$150/yr

AU Sports Association: AU Student \$Nil, Non-Student Junior (under 18yo) \$22/yr, Non-Student 18+yo \$88/yr,

GFA: Student \$143/yr, Non-Student \$275/yr, Introductory (see below under Air Experience Flights) \$40 (30 days)

GFA Membership is required to fly AUGC aircraft. Introductory membership can only be taken out once per person.

Air Experience Flights

Student \$100, Non-Student \$120

This covers up to 20 minutes flight time, GFA Intro M'ship, SAA Airfield levy, up to 2 winch launches. Time in excess of 25 minutes is charged at \$0.75/minute for K13, \$2.00/minute for Motorfalke. **Note:** the GFA introductory membership lasts for 30 days, so if you enjoy your introductory flight(s) you can come back and do it again for several weekends following, and only be charged the club rates for aircraft hire and launches!

Miscellaneous Items

Basic Gliding Knowledge Book: \$25

Pilots Logbook: \$5

DI Handbook: \$15

AUGC Training Book: No charge

Airways-Radio procedures: \$5

** All prices valid at the time of publication, but are expected to be updated by February 2019*

Special Deals & Discounts*

Air Experience Flight New Membership Deal

If someone who has gone for an Air Experience Flight (AEF) decides to learn to fly, and they sign up to become a 12 month Gliding Federation of Australia (GFA) member whilst their AEF membership (which lasts for 30 days) is still valid, \$40 will be credited back to them. Nice!

Pre Solo Packages

AU Student \$650, Other Student \$650, Non-Student \$900

This covers flying time, winch launches and airfield levy up to solo with the following limits: Includes 12 hours of aircraft hire and 1.5 hours Motorfalke engine time, OR 40 winch launches, OR 12 months, whichever occurs first. Includes logbook and training book. Club, Sports Association and GFA memberships are additional.

Declared Cross-Country Flight Discount

To encourage pilots to fly cross-country without worrying about pesky aircraft hire costs mounting up, this Cross Country Discount is as follows: If you fly a DECLARED cross country flight (i.e. you declare where you are planning to fly to before you launch) then if you are airborne for more than three hours, you will only be charged for three hours of aircraft hire. Bargain! Time to start planning those mighty 8-hour-plus flights!

Bulk Solo Package

If you're a solo pilot you may be interested in this one! For one single bulk payment, you get all aircraft hire covered for twelve months (unlimited hours). Note that this does NOT include launch costs or the airfield use fee, it MUST be paid up-front, and your flying account MUST be in credit for you to be eligible for this offer. Price on request.

GFA Weather Forecasting Software

This one's really handy once you've progressed in your flight training to the point where you're learning about how the weather affects thermals, and are starting to get your head around meteorology for glider pilots. All Gliding Federation members now have *FREE* access to a mini version of the popular Skysight weather forecasting model. The model covers all gliding sites in Australia, with a 4 day prediction and "point forecast" capability, on top of the normal thermal and weather predictions.

You can access the site in one of two ways.

1. Click <https://weather.glidingaustralia.org/> and just register with your GFA membership details.
2. On the GFA web page www.glidingaustralia.org, click on MyGFA and select GFAMet Weather Forecasts.

** All prices valid at the time of publication; may change sometime in the future*

Flying Checklists to Know

There are a number of safety checklists that you will need to learn that need to be performed in certain flying situations.

All pilots **must** use these checks in the form specified here. For more information see the Manual Of Standard Procedures Vol 2 on the GFA website (<http://glidingaustralia.org/>)

Pre-Take Off Check (from **OUTSIDE** cockpit)

- A** AIRFRAME: walk around check for damage and/or defects. Maintenance Release checked, including DI validity.
- B** BALLAST: glider loading is within placarded limitations and trim ballast secure.
- C** CONTROLS: checked for correct sense and full deflections, including airbrakes and flaps.
- D** Check that all tail or wing DOLLIES (or other ground handling equipment) are removed.

Pre-Take Off Check (from **INSIDE** cockpit)

- C** CONTROLS checked for correct adjustment and comfortable access, and rudder pedals adjusted for reach (if applicable).
- H** HARNESS/ES tight and secure, lap belt low on hips (front and rear if applicable).
- A** AIRBRAKES closed and locked.
- A** FLAPS set for take-off.
- O** OUTSIDE: airspace and takeoff path clear, wind checked, ground crew available.
- O** OPTIONS: identify critical aircraft speeds, launch failure actions.
- T** TRIM: set for launch.
- I** INSTRUMENTS: altimeter set to QNH, intact, avionics on and working, radio set to 126.7 MHz.
- C** CANOPY closed, locked & clean.
- UNDERCART: down and locked.
- CONTROLS: full & free movement.

Pre-Landing Check

- F** FLAPS: set to landing position (if fitted).
- U** UNDERCART: down and locked.
- S** SPEED: set to safe speed near ground (1.5 x stalling speed).
- T** Aircraft TRIMMED for selected speed, disposable ballast drained (if present).

Pre-Aerobatic Check

- H** HEIGHT: Sufficient for recovery by 1,000ft AGL (2,000ft if within a 2 mile radius of a licenced aerodrome).
- A** AIRFRAME: Flaps, airbrakes, undercarriage set as required. Trim as required. Hatches and vents closed and locked as appropriate.
- S** SECURITY: Harness secure. Loose objects stowed.
- L** LOCATION: Clear of built up areas, cloud, controlled airspace
- LOOKOUT: 180° plus 90° turns checking carefully around, above and underneath. Do not do a 360° turn.

Cut this page out and have it handy.

So you want to fly this weekend?

If you want to fly this weekend, there are two ways to arrange it. The first (and best) way is to **put your name down on the flying roster!** It can be found at <http://augc.org.au/FlyingRoster.php> and is also a great way to see who else is going up to the airfield on the same day. (Note that in order to access the flying roster, you'll need to register on the AUGC website first; it's easy to do, and the registration page is here: <http://augc.org.au/Register.php>) The other way to book is to call the club contact person **on the Thursday beforehand, either by phone between 8pm and 10pm on 0412 870 963, or by email (contact@augc.org.au)**. Please don't just show up without booking: we need to know that you're attending so that instructors (and transport, if necessary) can be arranged.

OK, you've booked to fly; what now? If you have your own transport, it's easy: there is a map on the AUGC website that shows you how to find us (<http://augc.org.au/FindingUs.php>), or you can navigate your own way there. Note that Google Maps (and other navigation tools) have our location recorded as "**Steinfeld**", not "Stonefield". If you leave the city at 8am, you'll be at the airfield in plenty of time for the 10am pre-flight briefing. If you don't have your own transport, we can help! When you make your booking, either request transport from the contact person when you phone/email them, or if you book online make sure you mention that you need transport in the "Msg" field, and leave a contact phone number so that we can get back to you to arrange it.

There are a few other things you should plan before you head up to the airfield. The details are all spelled out on the website (<http://augc.org.au/ComeGliding.php>) but in brief, you will need:

- comfortable outdoorsy clothes, fully enclosed footwear... and expect to get dirty.
- water, and lots of it (yes, even in winter)
- a hat & sunblock
- lunch (you can bring your own or stop at the awesome Truro bakery on the way, but there is unlikely to be food available to purchase on the airfield)

If you have any questions, please feel free to either ask the contact person, or email the **AUGC-People mailing list**. (You *have* signed up to that, haven't you? If not, see page 32 for details on how to do so.)

See you soon!



Come and fly! You know you want to...

Other ways to be involved...

Stay in touch online

The club has Google Groups email mailing list that is used both for general gliding-related chat and for planning and arranging things within the club (and also sending you your copy of the latest newsletter!). It is very much recommended that members subscribe to this mailing list, which can be done by create a Google Groups profile as follows:

- Go to <https://groups.google.com/>
- Click on the blue "Sign in" button at the top right corner of the page
- Select "Create account", and the rest should be self-explanatory.

After you've done that, join the AUGC-People group here:

<https://groups.google.com/forum/#!forum/augc-people>

When your membership request has been approved by the moderator, you'll be good to go!

You can also stay up to date with club activities by keeping an eye on the following:

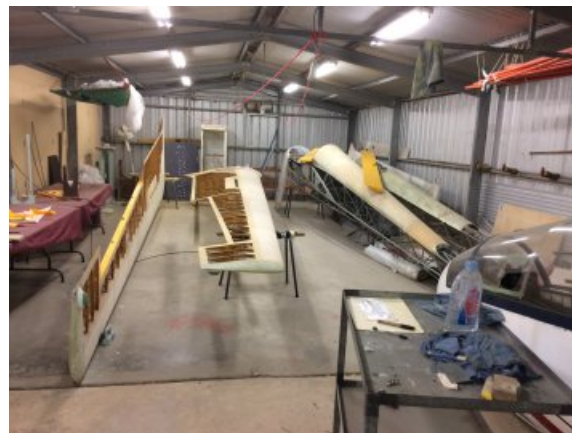
AUGC website: augc.org.au

AUGC Facebook: <https://www.facebook.com/AdelaideUniGliding/>

AUGC Twitter: <https://twitter.com/AdelUniGliding>

Get involved in aircraft maintenance at West Beach

The AUGC workshop at West Beach is where we carry out repairs and maintenance on our gliders and equipment. This can range from fixing or replacing small items through to complete strip-down and rebuild of aircraft. We welcome any extra assistance no matter your skill level - if you don't know how to do things, you'll get friendly advice and instruction from the more experienced people there. Getting up close and personal with the insides of a glider is a good way to learn how they work, and great for learning about glider airworthiness and repair techniques. There are members at the West Beach on most Monday evenings from around 7pm onward; if you want to check that people will be at the workshop before heading down, an email to the AUGC-People mailing list earlier in the day is a good way to be sure. If you want a lift to the workshop, that can also be arranged via the mailing list.



The workshop at West Beach

The AUGC workshop is located at the end of Foreman Street, West Beach (next to the AUGC sports grounds): drive through the gate, turn right and park on the grass (or mud during winter) and you'll see the workshop to your right.

Club Contacts and Who's Who

President: Cath Conway (president@augc.org.au)
Treasurer: Redmond Quinn (treasurer@augc.org.au)
Secretary: Leigh Stokes (secretary@augc.org.au)
Social Convenor: Nicola Lieff (social@augc.org.au)
Fifth Member: Derek Spencer (fifth-member@augc.org.au)

Chief Flying Instructor: Cath Conway (cfi@augc.org.au)
Airworthiness Officer: Redmond Quinn (airworthiness@augc.org.au)
Club Coach: Leigh Stokes (jimmytechnologies@yahoo.com.au)
Assistant Treasurer: Derek Spencer (derekspencer@internode.on.net)
Clubhouse Officer: Leigh Stokes (jimmytechnologies@yahoo.com.au)
Winch Officer: Leigh Stokes (jimmytechnologies@yahoo.com.au)
Grants Officer: Darren Alcoe (grants@augc.org.au)
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Public Officer: Derek Spencer (derekspencer@internode.on.net)

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