

# Uni Gliding

Vol 41 Number 2 - April 2018



## In this issue...

Know Your Trainee  
Formation: Flying with Friends  
AUGC Logo Competition Closing Soon  
...And Much More!

The Official Journal of the Adelaide University Gliding Club Inc.

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# Editorial

Hi all!

It's been a busy couple of months at Stonefield, with AUGC members going solo, working on FAI achievement badges, and flying awesome cross-country flights. We've also run a mini-Grand Prix event series, introduced a number of new members (and friends) to the joy of gliding, and done quite a bit of flight training. The unseasonal April heat has certainly been great, but as we move into cooler and more wintry weather long flights will become more challenging. On the bright side, fire ban season is now over, so we can expect plenty of those legendary Stonefield Saturday night bonfires illuminating the night after a good Saturday's flying. If you haven't seen one of these mighty conflagrations yet, head on up to the airfield and check it out. You won't regret it!

On a more practical note, as we move toward winter we also approach the time when the majority of our fleet need to undergo Annual Inspections, so why not put your hand up to help when the request for help goes out? You'll be flying these aircraft afterward, and helping with maintenance is a great way to get to know them inside and out!

Keep up the good work, folks! Fly safe, and have fun!

Teal

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### **Image Credits**

*Cover photo:*

*AUGC's Janus two-seater landing (photo: T. Evans)*

*Original artwork: T. Evans*

*Other photos and images by T. Evans except in guest articles, or where otherwise noted.*

# Uni Gliding

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# AUGC News & Achievements

## **New AUGC Committee**

As a result of the Annual General Meeting on 4th April, please welcome AUGC's new Committee! The new Exec team is as follows:

President: Cath Conway  
Secretary: Leigh Stokes  
Treasurer: Redmond Quinn  
Social Convenor: Nicola Lieff  
Fifth Member: Derek Spencer

While the other Committee positions have mostly stayed the same as last year, there have also been some minor reshuffles in a couple of spots. See the "Club Contacts and Who's Who" on the back page of this mighty magazine for details regarding who is now doing what (to whom? We surely don't want to know about that...)

## **Stonefield Grand Prix Series**

In other news, AUGC successfully ran a series of (well, two) mini-Grand Prix events at Stonefield in February and March. For those who are unfamiliar with Sailplane Grand Prix events, this is a racing format that is quick, simple, and designed to maximise fun while being great for spectators as well. Instead of the big flying tasks, complicated scoring systems and flying strategies used in some other types of gliding competitions, the Grand Prix format is very simple: the first plane over the finish line wins! There is no handicapping system, tasks are relatively short, the gliders all start at the same time (rather than staggered starts used in many competitions), and the start and finish lines are close to the airfield to maximise watchability for spectators.

Thanks to lots of work by the event organisers, both of the Stonefield Grand Prix events ran smoothly and successfully. Visiting pilots from other South Australian clubs competed with AUGC members to be first over the line, and by all accounts both events were a lot of fun for those involved. Kudos to all involved! Check out the photo album for the February GP event on AUGC's Facebook page: there are lots of stunning pics of the event to be found there.

## **Astir on Loan**

The Australian Junior Gliding Club (who run Joeyglide every year for under-25 pilots) have an Astir (single-seat fibreglass glider) that gets loaned out to various clubs around Australia for a year at a time. This year it's AUGC's turn! VH-WUA has arrived at Stonefield and is ready to be flown by AUGC pilots. For insurance purposes, AUGC members will need to join the Australian Junior Gliding Club before flying the Astir (\$25 for under-25s, \$50 for others). AJGC membership forms can be obtained from Leigh Stokes (see back page for contact info). What are you waiting for?



*Since I don't yet have a pic of WUA, here's another Astir that looks very similar, probably.*

## AUGC News & Achievements (cont.)

### Achievements

There have been several excellent achievements by AUGC pilots during the last couple of months. First up, congratulations to Nicola Lieff, who went solo in early March after many months of hard work and flight training. Well done, Nicola! With any luck this will be the first of many fine gliding achievements for you.



*Nicola achieves her first solo flight in the K13*



*Darren launches Robertstown-ward*

Secondly, both Ben Carter and Darren Alcoe achieved their Silver distance flights (straight line of at least 50kms out from the launchpoint) during March with successful flights to Robertstown.

Darren wound up doing it twice: he made the first attempt (verified by Spot Tracker) successfully, but due to an issue with the logger

(which produces the "official" flight trace used for claiming badges and so on), he couldn't claim the distance. His second attempt was successful (no logger dramas!) and he also achieved a successful and safe outlanding. Good work, Darren!

The logger issue was avoided by Ben when he tried for his Silver distance a week or so later (See! We do learn from experience here at AUGC!) and he achieved his Silver distance flight first time and then flew the Ka-8 all the way back to Stonefield. And then to top it all off, he also converted to the Pik-20 later on in the month. Nice!



*Ben completes his Silver distance flight*

As you may know if you've checked out the whiteboard in the clubhouse lately, there is an ongoing project to fly a 300km+ cross country flight for each month of the year from Stonefield. This has been achieved for most months, but there are still a few gaps for some of the more challenging months of the year. Well, April has now been checked off: Leigh Stokes flew 353kms cross-country on 8 April. The day was windy and difficult to fly, but Leigh took his ASW-20 out anyway, and showed his mettle. Go Leigh!



*Leigh overflies the airfield as he returns from his 353km cross-country flight*

# Miscellaneous Important Stuff!

## Fire Safety Equipment

There was a small incident on the airfield in December, which led to a review of AUGC's fire management system. One outcome of this is that AUGC has recently invested in new fire safety equipment at Stonefield. Not only do we now have a number of new dry powder fire extinguishers on-field, but we also have new smoke alarms installed in the accommodation buildings (i.e. the bunkhouse and huts) and fire blankets (for extinguishing flames quickly) placed in each cooking location. The dry powder fire extinguishers can be found in the following locations:

- In the Pie cart (9kg)
- By the Fuel Bunker (9kg)
- Between the accommodation huts (4.5kg)
- On the winch (4.5kg)

We are also hoping to hold fire safety training at Stonefield during the coming winter. Details will be announced on the AUGC-People mailing list, and in the next issue of *UniGliding* (should timing permit).

Speaking of which, if you fly at Stonefield (or intend to do so), PLEASE sign up to the **AUGC-People mailing list!** It's where a lot of week-by-week operational planning takes place: things like "who wants a bonfire and 3-course meal after flying next Saturday?" or "there's no flying this weekend because half the club is off at flying camp in the Flinders" or "we seem to be missing a radio handset; did anyone accidentally drive off with it in their car last weekend?". Everyone who flies with AUGC really needs to be on this mailing list so that you know what's going on. If you're not yet signed up, details on how to do so can be found on Page 22 of this Issue.

Please note that we have a **new AUGC website address**: we're switching from <https://augc.internode.on.net> to **<https://augc.org.net.au>**. The old one will be forwarded for a while (so you can still use it for now), but it's best to update your bookmarks to avoid future confusion when the old one stops working. :-)

## Committee Meeting Minutes

Speaking of the AUGC website, did you know that our monthly Committee meeting minutes can be found on the website? If you would like to know more about the inner workings of how your club is run but can't make it to the Committee Meetings, you can read all about it online! They are located on the Documents page on the Media tab of the website (along with many other useful docs): **<https://www.augc.org.au/Document.php>**

## Landing on Airstrip Crossings

One of the great things about Stonefield airfield is that we have a lot of landing strips as well as the main airstrips to make it easy to land safely while other aircraft are sitting at the launch point. However, if an aircraft lands right on the spots where two airstrips cross, this makes *both* of these strips unusable for other aircraft to land on until it has been retrieved. If there are only one or two aircraft operating at the time this is only a minor problem, but when the airfield is busy, landing on airstrip crossings can make things very difficult. Please try to get

## Miscellaneous Important Stuff! (cont.)

into the habit of NOT landing on crossings if at all possible, for safety's sake and for operational efficiency!

Reminder: the **competition to design a new AUGC Logo** closes SOON on the 31st of May. Full details can be found on Page 10. Considering the great prize that's being offered, why not give it a go?

## Fleet & Equipment Status

### Aircraft

Janus (VU): Operational

K-13 (QC): Operational

K-13 (QS): At West Beach in pieces being rebagged and overhauled; still lots of work to be done

Ka-8 (AQ): Operational

Ka-8 (QU): Annual Inspection (aka Form 2) underway. This needs to be completed before it can be flown again.

Pik-20 (WVA): Operational

Motorfalke (FQW): Operational, although it still has some ongoing engine overheating issues in some situations that are being investigated.

Arrow (GNF): Goes No Further. The Arrow is currently stored in the club hangar awaiting interest and attention. Work to get it flying again would include a survey, some wood repairs on the wing, and new fabric for the wing.

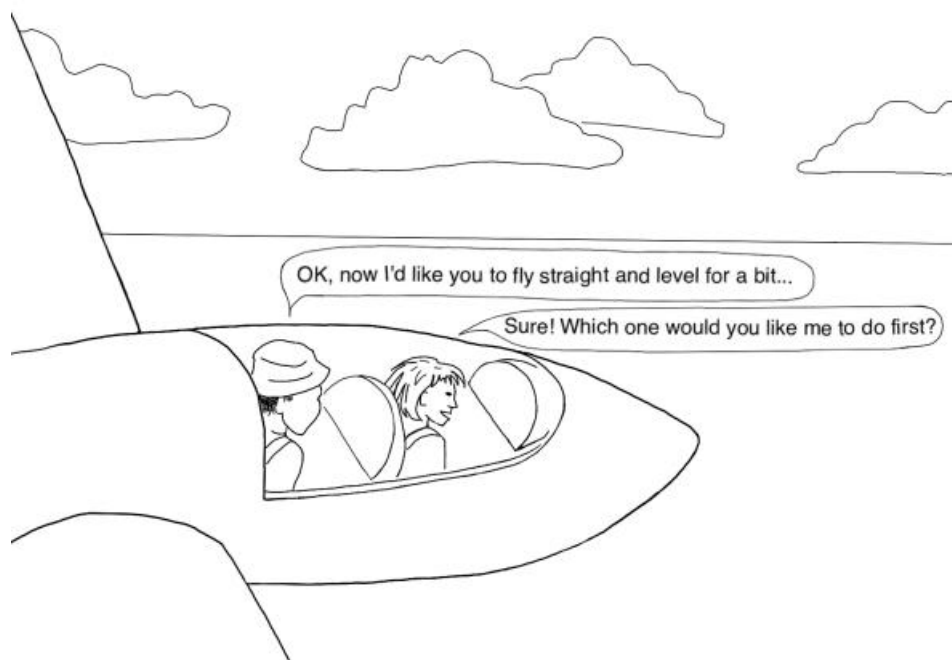
Astir (WUA): (on loan from Junior Gliding Club) Operational

### Winches

Truck winch: Offline for truck engine work completion

Tost winch: Operational

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



# Formation: Flying with Friends

*By Mark Newton*

I haven't done a lot of gliding since I moved to Sydney. The closest club is Southern Cross at Camden, 50 minutes drive away, which is a large Gawler-like club with almost no cross-country options because it's hemmed in by the Sydney Metropolitan Area on one side and the Blue Mountains tiger country on virtually all other sides. One of those things that really makes you appreciate that soaring assets back at Stonefield.

But quite aside from that, I have my own General Aviation (GA) airplane in a hangar at Bankstown. VH-SOL is a Vans RV-6. For those who aren't in the know, it's legal to build your own aircraft in Australia. If you buy a brand spanking new RV from Vans, it shows up on your doorstep in a flat-pack like a bit of Ikea furniture, and you spend the next 6 - 8 years in the garage assembling it. Truck it out to the airport when it's done, strap yourself in, hold your breath, squeeze your eyes shut, and take it for its first flight. Easy!



My RV-6 was built by a guy in Albany in WA. I bought it in a syndicate with Steve Kittel and Wilfrid Jaksic in 2011 when I was still an AUGC member, then bought them out and



ferried it to Bankstown when I moved to Sydney in mid-2013. It has two seats, five hours endurance, cruises at about 145 knots with a Vne of 190 knots, is aerobatic with a +6/-3 maneuvering envelope, and is equipped for flying IFR. When I come to Adelaide each October I typically plan 4¾ hours with a fuel stop in Deniliquin, but with a brisk springtime frontal tailwind I can fly from Adelaide to Sydney non-stop in 4 hours.

It's great fun. But there's a catch:

One of the features that GA misses is camaraderie. On a gliding field, you end up with a bunch of people with shared interests all getting together and socializing. That doesn't happen so much in the GA universe: GA pilots arrive, preflight, and depart, with very little of

## Formation: Flying with Friends (cont.)

the “standing around aimlessly and gasbagging” that consumes so much time on a gliding field, and yet also provides so much of the reason for being there.

So I fixed the glitch.

Skipping a few steps: I rounded up three other Sydney RV owners, and we attended a formation flying training course in late 2016; following up with an advanced course in June 2017.

Formation is far and away the most intense flying I’ve ever done. Flying next to three other aircraft with as little as a metre of wingtip separation, the demands for precision are just outrageous. Every tiny bump is important, every skerrick of relative movement demands



compensatory action. Drift in one direction and you lose position (one must *never* lose position!), drift in the other direction and you’re swapping paint (one must *never* sw-- ...). Total immersion in the moment, all-consuming focus. The airplane has full freedom in 3 dimensions, but only one trajectory (which is always changing) will cause it to maintain position, and the entire flight from startup to shutdown is a fight to achieve that trajectory.

Flying as a wingman is so demanding that task saturation is normal, and you don’t have mental bandwidth for anything else. You can’t navigate, you can’t have a cogent conversation on the radio, you can’t look out for traffic; all you can do is fight for position and occasionally look at the gauges to monitor your aircraft’s systems. If your concentration lapses, it generally means you’ve dropped out of position, and you should redouble your efforts to fight, fight, fight for position, until you can see how fast you’re going by reading the ASI through the canopy of the aircraft in front of you.

Each pilot in a formation has a well-defined role: Pilots flying on wing are responsible for not hitting anyone in the formation in front of them, and maintaining their relative position against the leader. Lead is responsible for everything else: Lookout, navigation, communications, diversions for traffic, pre-flight planning, post-flight debriefing, and issuing orders to the other pilots in the formation. The group can’t think for themselves, so Lead has to think for them.

In my group, we’re all trained to lead, and we rotate the duty. We all rely on each other for success, with an intensity I’ve rarely felt anywhere else. We brief and debrief every flight,



## Formation: Flying with Friends (cont.)

offering each other frank and brutally direct feedback on safety, lapses in skill or judgement, and areas of improvement. Every flight is a powerful learning experience, and we can observe changes as we become more aware of our limitations, and become more precise, safer, better pilots.

That whole “gliding is social but GA is solitary” thing? Smashed. Ancient history.



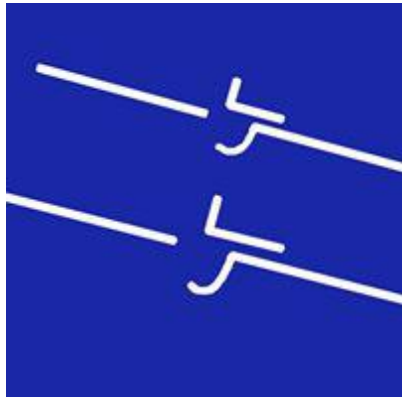
Even better: We take passengers, who have cameras, who take thousands of excellent close-up air to air photographs and videos of our airplanes for AUGC newsletters, which is very considerate of them. *(This makes the Newsletter Editor very happy! Ed.)*

So, open invitation to AUGC members: If you're coming to Sydney, and you have a day free on a weekend, get my address from **augc-people** and email me with some advance notice and I'll do my best to coordinate a couple of other pilots for a formation. We don't have to go far: The Hunter Valley is only half an hour North of Bankstown, and there are about half a dozen restaurants within ten minutes walk of Cessnock Airport, so we'll make a day of it: I'll buy the fuel if you buy the lunch.



# AUGC Logo Competition!

**You could be the designer of our new club logo!**



This is our current club logo. It's not a bad logo, but we reckon it could be improved and it's time for an update. Do you think you might be able to design a better logo for us? If so, now's the time to give your creative side free rein and show us what you can do!

## **What the judges will be looking for**

- 1) Keep it simple!
- 2) No more than 3 colours, please.
- 3) Gliding related, obviously!

## **The Prize**

This should get you motivated: the winner will receive a FREE CROSS-COUNTRY FLIGHT in our high-performance 2-seat glider (the Janus) with our Club Coach Leigh Stokes (launch cost and aircraft hire included). While the exact duration of the flight will depend on the weather conditions of the day, it's safe to assume that you'll probably be in the air for a couple of hours at least.

The competition closes by **31 May 2018**, and the AUGC Executive will select the winning entry.

You can enter this contest as many times as you wish. For ideas regarding the sort of logo that could work well, check out the AU Sports Association club list, which shows logos for other AU sports clubs ( <https://www.theblacks.com.au/Clubs/ClubList.aspx?S=1> )

The winning logo will become intellectual property of AUGC. The club reserves the right to further develop the winning logo (e.g. to tweak it for easy printing, for example); if no entries are suitable for our needs, it's possible we may decline to choose a winner.

Good luck, and may the best logo win!



*Not a Logo*

## *In the Workshop*

# You've Got To Have Standards

*By Steve Kittel*

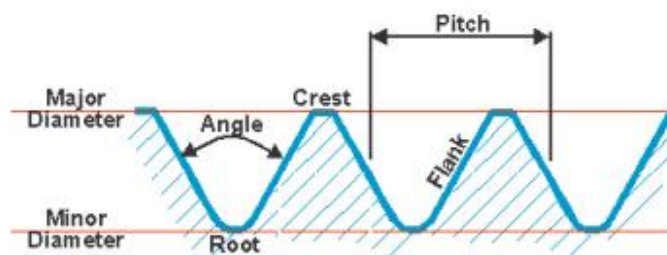
It's enough to drive you nuts.

Nuts and bolts, that is. Back in the day (the 19th century day) anyone making stuff usually made their own bolts and nuts, more or less by hand. So if you needed a replacement bolt for your piece of machinery from the AM and SP Hygienic Railway Company, only they would have that particular bolt in stock, if you were lucky. You could of course measure what you had and get someone else to make an exact copy of it of course, but these were the only two options you had. Then this bloke called Joseph Whitworth had this blindingly brilliant idea. "Why don't we all make the same bolts?". And all the non imaginary railway companies of England of the time said, "what a blindingly brilliant idea!". So they did, and old Joe was showered with honours and made a Baronet and died at a ripe old age in Monte Carlo while playing at the casino (which is all true, except maybe the bit about the casino). An engineer's life, eh?

So, anyway, that thread standard was so good, everyone else thought that they should have one as well. Consequently, there are lots (!) of standards. To be fair though, there are a lot less than there could have been, and within any one country there aren't that many common ones.

So, what do we see in gliders, which come to Australia from those various countries with their various standards, and what about Australia itself for that matter.

Now we need to get (a bit) technical. Some people will tell you there are only three basic types of machines. The lever, the wheel and the inclined plane. How is an inclined plane a machine? Conceptually the inclined plane is a ramp, which allows someone to lift a load. By pushing an object along a ramp it goes up, the steeper the ramp, the faster it goes up but the harder it is to push. A bolt is an inclined plane wrapped around a cylinder and the "steepness" of the ramp is the pitch of the thread. Now time to look at the diagram.



The bigger the pitch (the steeper the ramp) the quicker the bolt will do up (fewer turns) but the more effort will be involved to tighten it. Most thread systems have a coarse pitch and a fine pitch for any given size of bolt. In imperial systems the pitch is given in thread per inch.

## You've Got To Have Standards (cont.)

In metric systems the pitch is the measure of one thread, given in mm. Except where they are not. And the pitch varies as the bolt size varies, smaller diameter bolts have finer (smaller) pitches than big bolts. To measure the pitch you need a pitch gauge.



The other thing to know about bolts is their size. I'll loosely use the words "size" or "diameter" when I mean the major diameter of the bolt. In both the imperial and metric systems the bolt size is given as a measure in inches or mm. Whole mm for metric and increments of 1/32 or 1/16 inch for imperial sizes. Mostly. Some imperial systems use a gauge size. The measure, accurately, the bolt size you must use a vernier calliper or a micrometer. The difference in, say, a 1/4 inch bolt and a 6mm bolt is less than 0.5mm and even if they had the same thread, they wouldn't fit together.

One minor thing that it is handy to know also is the thread angle. On Whitworth threads the angle is 55 degrees, on almost everything else it is 60 degrees. Knowing the exact size and the thread pitch of the bolt will allow you to identify the correct nut and bolt to use together. Almost every time...

Whitworth's standard from around 1850 is still in use. Today it is called BSW (British Standard Whitworth). Australia commonly used them as we followed British standards. If you go to the Big Green Shed and buy imperial size nuts and bolts this is the sort you will get. They are pretty much never used on gliders but you might find them on old trailers, hangars and other home made things. The matching "fine" thread in this system is BSF (British Standard Fine) which you will never see.

The most common thread system on AUGC gliders is the metric system, since they are mostly from Germany. You'll see these variously described as ISO (International Standard Organisation) or DIN (Deutsches Institut fuer Normung), which are slightly different standards, but are the same bolts for practical purposes. The actual metric thread used is the Metric coarse system and these are the same threads as you can buy as "metric" in the hardware shop. HOWEVER, the hardware shop metric bolts are not certified for aircraft use and must *not* be used in aircraft.

The other main system likely to be seen on the airfield is the US system which has UNC and UNF (Unified National Coarse and Fine respectively). They are imperial sizes and are measured in fractions of an inch, except for the smaller ones which use a gauge measurement, based on 1/80 inch, to tell how big the bolts are. These will be in most (US built) powered aircraft, like the Pawnee and in some homebuilt gliders. The very most common size used in US aircraft is 1/4 inch UNF which are usually called AN-4 in reference to an old US certification requirement from the military.

## You've Got To Have Standards (cont.)

Still with us?

### Traps

Pretty nearly any bolt or nut from one system won't fit on any other system. There are a couple of exceptions. A few do go close, if you use the wrong ones together and force them there is a good chance you will damage the threads on either or both. Don't do this.

One exception is UNC and Whitworth. In a number of sizes they use the same diameters and thread pitch. However, the difference in thread angle, 60 vs 55 degrees, means that a Whitworth bolt will screw into a UNC nut but the thread surfaces don't match so any bolts loads will not be transferred properly. Some Whitworth bolts (notably ¼ and ½) will screw into UNC holes on US aircraft, eg tie down points. Don't do this.

Some gliders built in Australia by Harry Schneider were copied off German plans which used eg 4mm DIN threads. At that time aircraft grade metric bolts were not readily available in Australia. I believe Harry used a near size and pitch so you might find BSF (even though I said you wouldn't) or UNF in these gliders.

If this article really lights your fire (!), there is a bit more in chapter 5 of the Basic Sailplane Engineering document on the GFA website. It also contains a lot of other good stuff about the things you fly. You should read it, really.

### Basic Sailplane Engineering:

[http://www.doc.glidingaustralia.org/index.php?option=com\\_docman&view=document&slug=bse-2&layout=default&alias=1847-bse-2&category\\_slug=basic-sailplane-engineering&Itemid=101](http://www.doc.glidingaustralia.org/index.php?option=com_docman&view=document&slug=bse-2&layout=default&alias=1847-bse-2&category_slug=basic-sailplane-engineering&Itemid=101)



*It's the nuts in the cockpit that you really have to watch out for...*

# Know Your Trainee

Continuing our series of airfield wildlife identification guides, we offer this resource describing species of that common gliding airfield inhabitant, the Trainee. There are a number of types of Trainee, each with unique identifying characteristics. Learning to identify some of the species that you are most likely to meet (and to recognise their characteristic calls) will substantially enrich your airfield experience.

## **The Skittish Warbler (*Neophytus tremulus*)**

This timid creature can sometimes be difficult to spot as it tends to hide behind hangars or under piecards. If persuaded to get into the cockpit it starts shaking nervously as soon as the “take up slack” call is given, and often faints as the glider goes into full climb. This fainting behaviour happens with little warning in a variety of stressful flying situations (e.g. being asked to plan a circuit, or seeing a bird in flight 7 kilometres away) and can be rather disturbing for the Instructor. Should a Skittish Warbler manage to eventually reach solo standard, it tends toward a very risk-avoidant flying style, such as refusing to fly when any other aircraft are in the air within a 35km radius, or insisting on wearing three parachutes simultaneously (“Parachutes have been known to fail, so why take the chance?”). Very long flight times can be expected of this species, as it finds the landing process especially terrifying.

**Characteristic call:** *A high pitched quivering wail (particularly during launch)*

## **The Cock-A-Whoop (*Neophytus ilearnedthisoffyoutubus*)**

Unlike Timid Warblers, this Trainee species rarely displays any under-confidence issues while learning to fly. In fact, the real challenge can be restraining them as they enthusiastically hurl themselves into flying situations that they are ill-equipped to deal with, such as attempting an outside loop with a flick rollout at 50 feet above ground level after two and a half hours of flight instruction. While their confident attitude may seem appealing initially, it is not usually long before the weaknesses in their approach become evident: Instructors develop stress-related issues like hair loss and PTSD symptoms, other Trainees nearby start displaying signs of irritation such as sighing and eyerolling behaviour, and the training aircraft begin to fall apart due to excessive G-stresses.

**Characteristic call:** *“Stop nagging! I know what I’m doing!” (often followed by loud crashing noises)*

## **The Lesser Spotted Slacker (*Neophytus supinus*)**

This is one of the less-welcome species in the airfield ecosystem. In appearance and colouration it is similar to the Common Trainee (see below), but close observation will show major differences in behaviour between these two species. While other Trainees are washing aircraft, helping with Daily Inspections, or assisting with a myriad other tasks early in the day, the Lesser Spotted Slacker can usually be found lurking unobtrusively in the Clubhouse fiddling with a cellphone. If asked to assist with operations this species will demonstrate great reluctance; if pushed they will do the absolute minimum required to meet the terms of the request, often to a ludicrous degree. For example, if instructed to wash a glider’s wings, a Lesser Spotted Slacker will carefully wipe a damp cloth over a ten-square-centimetre patch of one wing and then quietly drift off hoping nobody notices. This species will *never* volunteer to help launch or retrieve aircraft, and if directly asked to do so they will express great offense at any implication that they might be accused of not be doing their share of the

## Know Your Trainee (cont.)

work. And yet they will be extremely vocal (and loud!) about getting what they consider to be their “fair share” of flying time, usually during the prime soaring hours of the day.

**Characteristic call:** *“Nah, someone else can do it.”*

### **The Natural (*Neophytus genius*)**

This species generates delight in Instructors and disgust in other Trainees. When they first lay eyes on a glider they are able to identify all its major components, and within an hour have figured out advanced aerodynamic theory from basic principles. When they take control of the aircraft in flight for the first time they hold the control column in a classic two-fingered grip, and they then proceed to execute perfectly coordinated turns with the greatest of ease. By their third flight they have achieved a good grasp of circuit planning, and they go solo after logging two or three hours of flight time. Their very next flight after going solo will probably earn them their Silver C, while the other Trainees who started flying around the same time as the Natural are likely still trying to figure out which foot to use on the rudder pedals when turning right.

**Characteristic call:** *“This is pretty easy, isn’t it?” (followed by dull thumping noises and cries of “OW! What did you do that for?” as other Trainees communicate their exasperation to the Natural via interpretive dance)*

### **The Unnatural (*Neophytus mediocris*)**

Also known as the Slow Learner, the Unnatural generates disgust in Instructors and mirth in other Trainees. Although it is often very keen and dedicated and flies at every opportunity, this dedication is only very slowly converted into actual flying skill. The Unnatural does not grasp flying concepts easily: typically it takes around 15 flights before it understands what “aileron” means, and another 10 flights before it understands what they do. If you observe a relatively high-hours Trainee struggling to identify the launch point from the air, or cheerfully explaining that the best way to perform a flare is to “close your eyes and hope for the best” you can be pretty sure that you have spotted an Unnatural in the wild. Nonetheless, despite all the confusion it carries on with cheerful plodding patience (often for many years) until it is finally sent solo by a frustrated Instructor who is utterly cheesed off and decides that anything important that the Unnatural doesn’t yet know will no doubt be figured out very quickly during their first solo flight.

**Characteristic call:** *None, as they are concentrating VERY HARD; however, frustrated grumbles and despairing moans can be heard from nearby Instructors whenever the Unnatural is present on the airfield.*

### **The Common Trainee (*Neophytus ordinarius*)**

This species constitutes the majority of Trainees seen on a typical airfield. They can be found washing glider wings early in the morning, or surrounding Instructors and plying them with barrages of questions later in the day. While neither as loud and dramatic as the Cock-A-Whoop nor as impressive as the Natural, the Common Trainee is a welcome member of the airfield ecosystem that contributes energetically to airfield operations while they attempt (mostly successfully) not to break gliders as they learn to fly. The Common Trainee’s pleasant temperament and keenness to learn is welcomed by the long-suffering Instructors, and after they are sent solo they often go on to develop all manner of gold, silver and diamond adornments to their plumage.

**Characteristic call:** *“Am I doing this right?” repeated every 15 seconds through the day.*

# Dates for your Diary

## Recurring AUGC Events

### **Flying**

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

### **Aircraft Maintenance**

Most Monday nights at West Beach. See 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...).

## Flying Camps and other Major Events

### **Flinders Camp 2018**

June Long Weekend (9-11 June), possibly extending into the week beyond

### **Khancoban 2018**

Date TBA, but possibly in November?

### **Bunyan Wave Camp (15-23 September 2018)**

Bunyan, NSW.

## Other SA Events & Activities

### **GFA Safety Seminar (Sat 4 August 2018)**

Murray Bridge Gliding Club.

### **JoeyGlide Australian Junior Nationals (12-19 January 2019)**

Waikerie Gliding Club.

## Further Afield...

(Unless otherwise specified, details for all of these events can be found in Gliding Australia or on the GFA website)

### **20th FAI European Gliding Championships (11-25 May 2018)**

Turbia, Poland.

### **35th FAI World Gliding Championships (8-21 July 2018)**

Club, Standard & 15m classes

Ostrow Wielkopolski, Poland.



## Dates for your Diary (cont.)

**35th FAI World Gliding Championships** (28 July - 11 August 2018)

18m, 20m and Open classes  
Pribram, Czech Republic.

**Waikerie Orange Week** (17-24 November 2018)

Waikerie, SA.

**Multiclass Nationals** (26 November - 7 December 2018)

Narromine, NSW.

**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.

**NSW State Championships** (19-26 January 2019)

Narromine, NSW.

**Horsham Week** (2-9 February 2019)

Horsham, VIC.

**20m 2 Seat Championships** (9-16 February 2019)

Narromine, NSW.

**10th Womens' World Gliding Championships** (3-17 January 2020)

Lake Keepit, NSW.



**DID YOU KNOW** that there is an archive of UniGliding back-issues available on the web dating from 1976? As well as being a great repository of articles and wisdom from years gone by, they provide a window into the history of this splendid club, and are a great read as well! Check them out here: <https://www.augc.org.au/Newsletter.php>

# 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)	0.60**	0.60**	0.60**

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.

## Miscellaneous Items

Basic Gliding Knowledge Book: \$25

Pilots Logbook: \$5

D1 Handbook: \$15

AUGC Training Book: No charge

Airways-Radio procedures: \$5

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

*\*\* Capped at 3 hours per flight (so free after 3 hours in the air)*

# 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](http://www.glidingaustralia.org), click on MyGFA and select GFAMet Weather Forecasts.

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*\* 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.on.net/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.on.net/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.on.net](mailto:contact@augc.on.net) )**. 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.on.net/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.on.net/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, go here: <http://lists.internode.on.net/mailman/listinfo/augc-people> )

See you soon!



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

# Other ways to be involved...

## Stay in touch online

The club has an email mailing list ( [augc-people@lists.internode.on.net](mailto:augc-people@lists.internode.on.net) ) 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 completing the registration form at <http://lists.internode.on.net/mailman/listinfo/augc-people>

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

AUGC website: [augc.on.net](http://augc.on.net)

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 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.



*The workshop at West Beach*

# 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)  
Contact Person: Leigh Stokes (contact@augc.org.au)  
Website Officer: Heath L'Estrange (Heath@webadventures.com.au)

## SAGA Reps:

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Leigh Stokes (jimmytechnologies@yahoo.com.au)

## SAA Reps:

Redmond Quinn (rquinn@adelaide.on.net)  
Leigh Stokes (jimmytechnologies@yahoo.com.au)  
Derek Spencer (derekspencer@internode.on.net)

AU Sports Association Rep: Cath Conway (cath@internode.on.net)

Public Officer: Derek Spencer (derekspencer@internode.on.net)

Social Media (Facebook): Leigh Stokes (jimmytechnologies@yahoo.com.au)

Social Media (Twitter): Teal Evans (augc@chromatic-dragonfly.com)

Newsletter Editor: Teal Evans (newsletter@augc.org.au)

