



A world record breaking Astir in the Air and Space Museum. (Photo Brenton Wait)

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Thought For The Month

"Kookaburras aren't worth much."

In Next Month's Edition...

"A Night Day at the Museum 2 - A trip to the RAAF Museum at Pt. Cook."



Howdy,

Welcome to another edition of 'Uni Gliding'. This month Brenton Wait has provided us with a glimpse of some powered and unpowered aircraft from the National Air & Space Museum in the United States with an article and accompanying photos.

Some less enlightened individuals may argue that this is not suitable material for Uni Gliding, I would beg to differ in three small, but important, ways:

1. Articles about anything that can fly is perfectly acceptable for the Uni Gliding audience.
2. Some of this stuff is really really cool. and most importantly ...
3. I edit this publication and what I like is what goes in it!

(Not to mention that I'm not normally blessed with an abundance of material.)

Thanks also to Mark and David who have submitted some photos this month (some of these they may already have been published on augc-people but that still counts as sending them to the editor...)

Until next month...

Mr. Ed.



David Conway took this rare and technically challenging photo of KRO celebrating the 40th Anniversary of the lunar landing by, well, trying to jump over it.

[Where's the funny looking guy with the bicycle gone? Ed.]

Uni Gliding

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Printed in Australia on recycled paper - assuming you print it at all. It's pretty much your choice, but if you do please consider the environment. Copyright of articles and images published herein remain the property of their originators. No gliders were harmed in the production of this periodical, but a number of winches were spoken to sternly.

Advertising rates available from editor@augc.on.net.





From the Prez...

Redmond Quinn



Once again I find myself sitting in the Stonefield clubhouse on a Saturday night creating a President's report.

We are in the middle of our "Big Boy's Toys" weekend. The hangar site is gradually

coming together. Hopefully by Sunday night it will look like a billiards table.

Now that we have the hangar site and footings sorted we are about to start actual erection of our new hangar. Please help where you can.

I would like to welcome Cath Conway to the committee. She has taken on the important role of treasurer. Over the next period our books will be brought up to date. Then I and all our other members will be able to square away what we owe the club for recent flying.

In September we will hold our annual dinner. Be

there or be square. Hopefully we will be able to round up a few of our ancient members to come along and swap lies with our current members. It should be a good night. Watch out for details.

Now is a good time to start thinking ahead to the coming summer. Give consideration to setting some goals for what you want to achieve with your flying over the coming summer season.

Have a yarn to our instructors and coaches to help establish some effective plans to achieve your goals.

If you have any questions about the club or our operations please catch up with our committee members or instructors and coaches. Hopefully they should be able to give you the good oil!

See you around the airfield.

Fly safe

Redmond



Welcome!

Please welcome these recent new members to AUGC:

Keith Wright
Lisa Murphy

STOP PRESS!

Congratulations to Keith Wright and Lisa Murphy of the Griffith University Soaring Society who both took up the AUGC Solo Package and went solo after 2 weeks solid training at Stonefield over July.

Thanks to Derek Spencer who did their training and gave up his time to train them!



It Happened on Our Airfield....

19 July 2009

Sunday started out bright and early with an enthusiastic Derek scanning the skies for signs of wave with the NW winds. There was wave, but a long way up.

Flying started at around 1030 with KRO with around 15 kts NW. The wind stayed pretty consistent the whole day and allowed some great launches to over 2000 ft all day. ZQ had been partially rigged on Saturday night and joined in the fun at lunchtime. Thermals were going to around 4500 ft although they tended to be narrow and a bit broken up by the wind. However, thermal activity continued to well into the

afternoon with climbs to ~3000 ft still around after 3pm.

There were two AEFs – Keith's sister and her partner Michael, both of whom enjoyed their flights in GZQ. Keith and Lisa also practiced some spins in GZQ. KRO pumped out training flights all day with a lot of work done on landings. Huge thanks to Mark Tyler for driving the winch and producing some great launches.

Chief Flying Instructor's Comments

Dennis Medlow



Breathing Easy?

The need for the periodic replacement of FQW's Carbon Monoxide (CO) detector started me thinking about the number of ways that CO can kill you, and how we need to ensure we

have adequate defences against this risk (of which the detector is just one). Let me explain.

CO is a colourless, tasteless and odourless gas - which pretty much means that you won't know you are inhaling it. What makes it worse is that it has such an affinity for human hemoglobin that it binds to red blood cells way more effectively (240 times greater) than the common garden variety oxygen and effectively starts to shut down the body's ability to get oxygen from the lungs to all the other bits that need it - and one of those bits is your brain. CO is one by product of burning hydrocarbons as fuel and it can be encountered around the exhaust systems of our cars, winches and motor gliders AND from cigarette smoking. It is calculated that a 1.5L petrol engine idling in an enclosed single car garage can produce a lethal CO concentration in only 10 minutes. In the big wide open spaces it may not pose a significant hazard, however in the confined space of a cockpit it can be quite deadly. CO poisoning is cumulative even at low concentrations so with chronic CO exposure, your body's oxygen handling ability (especially at higher altitudes) becomes seriously compromised. Heavy smokers will be dangerously oxygen deprived at 10,000' altitude due to CO buildup in their bodies.

Early symptoms of CO poisoning are feelings of sluggishness, being too warm, and tightness across the forehead. The early symptoms may be followed by more intense feelings such as headache, throbbing or pressure in the temples, and ringing in the ears. These in turn may be followed by severe headache, general weakness, dizziness, and gradual dimming of vision. Large accumulations of CO in the body result in loss of muscular power, vomiting, convulsions, and coma. Finally, there is a gradual weakening of the pulse, a slowing of the respiratory rate, and ...

death! (Source: FAA Advisory Circular AC 20-32B).

The clinical symptoms of CO poisoning and alcohol intoxication can be quite similar. The problem with CO poisoning is that the symptoms can be mild to start with and progress so rapidly that victims have reported 'falling asleep' without any prior indication of approaching unconsciousness. These are of course the reports from pilots that were fortunate enough to wake up again....



Where does the CO gas come from? The main producers of CO gas are on field vehicles and the motor glider engine. The remainder of this article focusses on CO produced when the Falke's engine is running.

What defences do we have against this problem gas in our motor glider?

Firstly the aircraft designer will have designed an exhaust system to transfer exhaust gases from the engine to vent outside the aircraft away from fresh air sources for the cockpit. There will also be a firewall and other structures to keep exhaust gases out of the cockpit.

Secondly we have a maintenance and inspection defence - our Motorfalke has a regular 25 engine hour inspection of the exhaust system that checks for cracks, holes and other defects that can allow the gas to enter the cockpit.

Thirdly we have a CO detector in the cockpit that must be checked regularly by the pilot when the engine is operating.

Lastly we have an awareness of the problem by the pilot that means if exhaust fumes are smelt or the CO detector moves out of the NORMAL indication then cabin heat should be turned off, all fresh air vents opened, the engine should be stopped and the aircraft landed at the first safe opportunity.

Note that once on the ground you may still need to seek medical attention as once the CO is in your body it stays there for a long time (it stays bonded to the hemoglobin in the blood).

The CO detector is a small card that is affixed to the instrument panel (see photo). It has a small central indicator that changes colour according to the level of CO in the surrounding air. Normally it will be a yellow colour indicating normal levels of CO. When CO is present the colour will change to a green and as dangerous CO levels become present it will change to a dark green/blue. The colours of each stage are printed on the card to enable you to compare the central indicator to each stage.

See the image below as an example of the type of CO detector we use in FQW.



The detector itself must be replaced every 18 months and the date of replacement must be written on the front of the card. If there is no date on the card then the detector **must be assumed to be out-of-date** and removed from the aircraft. According to the manufacturer's web site a detector will regenerate itself (i.e. return to a no CO or NORMAL indication) from a CAUTION state after 2 hours in a clean (CO free) atmosphere (or in 6 hours from a DANGER state).

It goes without saying that you must not operate the motorglider with an expired, missing or unserviceable (meaning that the detector does not indicate NORMAL at the start of the flight) CO detector in place.

Using these defences and ensuring we maintain awareness of the risks associated with engines in aircraft will mean that CO will not pose a risk to our safety on the ground or in the air. If you would like to read what the US Federal Aviation Administration has to say about CO and aviation visit

<http://www.faa.gov/pilots/safety/pilotsafetybrochures/media/CObroforweb.pdf>.

Fly safe.

AUGC CFI

Acknowledgement is made of input and review of content in this article by Dr. Michael Texler.

Further reading: Saukko P. and Knight, B. (2004) Chapter 29 Carbon Monoxide Poisoning in Knight's Forensic Pathology (Third Edition), pp. 560-5 [Arnold Publishers - London].



SAGA Coaching Sessions

Coaching activities for 2009/2010 have been announced. Each night will feature two topics from a variety of experienced speakers. All pilots are encouraged to attend these sessions.

Tuesday 11 August Parachute Handling & Care / Wave Flying in South America

Wednesday 16 September Flight Analysis / Outlanding & outlanding techniques

Thursday 15 October Thermal Sources & Triggers / New Sporting code.

All sessions will be held in the Adelaide University Engineering North building, room N123 on the First Floor (Chemical Engineering) and start at 19:30 (7:30pm).

Pop Quiz...



Mark Newton took this photo of Michael Schutter demonstrating drag, however he looks like he's wearing mens clothing?

This man appears to be on fire, would you:

- A. Use a Type A extinguisher
- B. Evacuate the airfield
- C. Advise him to remove his jacket.
- D. Ask him to close his mouth.
- E. All of the above.



News You Can Use

New Glider Training Scheme

GFA has announced that from Q4 2009 a new glider pilot qualification will be introduced called the Glider Pilot Certificate (GPC). For more information see page 30 of the May 2009 edition of Australian Soaring.

The Instructors Panel will be considering how to incorporate these changes into our training processes and logbooks.

Fleet Notes

Please note that TX has been taken off line.

WVA and MI are only insured for ground risks.

ZM has been sold to a Club syndicate.

FQW can only be flown by a pilot with > 100 hours GLIDING time. General aviation (GA) hours cannot be counted in this total.

Club Promotion

There will be a Club gliding promotion on the Adelaide Uni grounds on August the 5th. The Pik (WVA) will be brought back from Stonefield. Anne Philcox is organising this event and will need lots of help, please contact her at

secretary@augc.on.net to offer assistance.

Coming Events

The Social Convenor (Derek) is probably still planning a bowling night.

Check the on-line calendar on www.augc.on.net for more Club events.

SAGA AGM Dinner at Waikerie

Pack up a little early than usual on the 15th of August and head up to Waikerie for the SAGA AGM Dinner. Waikerie do excellent dinners!

Club Annual Dinner

The Club Annual Dinner will be held on a Friday in September at the Buckingham Arms at Walkerville. The date will be published closer to the event and announced on the augc-announce mailing list.

We Have a Weiner!

Justine Thompson wins last month's caption competition with her entry of "Where the bloody hell are we?". Her prize is a full time position at the Australian Tourism Commission and a choccy bar of her choice courtesy of the Editor.



A Visit to the Smithsonian Air and Space Museum

Brenton Wait

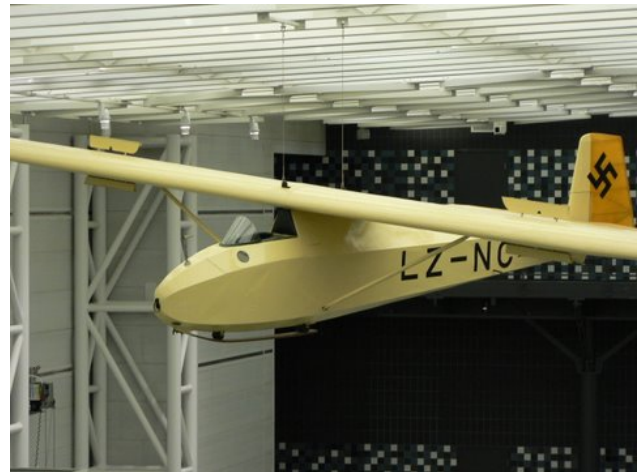


An Australian Soaring article last year gave a comprehensive and enthusiastic wrap of the Washington D.C. based National Air and Space Museum. This certainly caught my attention, but at

that stage I had not travel plans. As it turned out, I traded the best soaring weather last season for a trip to the USA, UK and Paris, and was able to visit DC in person. And that meant dragging a somewhat less enthusiastic family to both parts of the Air and Space Museum! At least the Smithsonian museums are all free.

Well, I was not disappointed. This is truly the most amazing and extensive collection of historically important aircraft anywhere in the world, and quite a few other items besides. I went first to the (Virginia based) Dulles campus, which is on the grounds of Dulles airport. This campus includes a range of gliders to complement larger beasts such as a Concorde, Lockheed Blackbird, and the space shuttle Enterprise. I enjoyed seeing

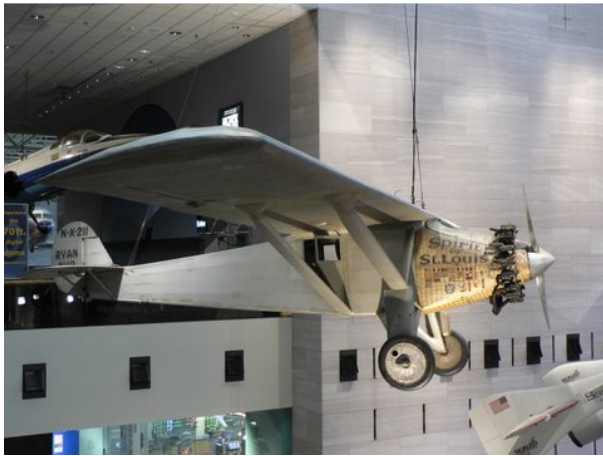
the Gossamer Albatross, used to cross the English Channel under human power, and was sobered to see the B-29 Superfortress Enola Gay that dropped the atomic bomb on Hiroshima. You can also pay tribute to the Astir that in 1986 took Robert Harris to 49,009 feet- a world altitude record that broke the existing 1961 record by 2,700 feet. [See photo on Front Cover : Ed] Harris's record stood for nearly as long, up to 2006 when Steve Fossett and Einar Enevoldson



A Grunau Baby 2 glider in interesting attire.



Air and Space Museum, Dulles Steven F. Udvar-Hazy Center



The Spirit of St. Louis

went to 50,699 feet over the Andes. But I have respect for Harris with his humble Astir and the leaking oxygen mask that forced him to descend. Fossett and co. were in borrowed NASA high altitude suits! Of course, Fossett also deserves a tribute and you can see amongst other things his record breaking round the world jet (which he flew solo).

Mark Newton wrote previously about the main campus in DC itself, which is set up to be more interactive, and has the most prized items. I felt some obligation to be in awe of the original Wright Flyer of 1903, but having been re-covered



Waterman Aeromobile

it looked so much like the replica at Kitty Hawk it failed to surprise (and I got to touch the replica!); the Wright bicycle next to it highlighted the origin of the Wright aircraft. The museum really came alive for me on a tour with a docent, who was an ex-pilot himself and full of interesting stories about the men and women behind the many records. For some reason, seeing the Spirit of St. Louis was one of my most special moments- I guess it was a story I that had captured my imagination as a child.

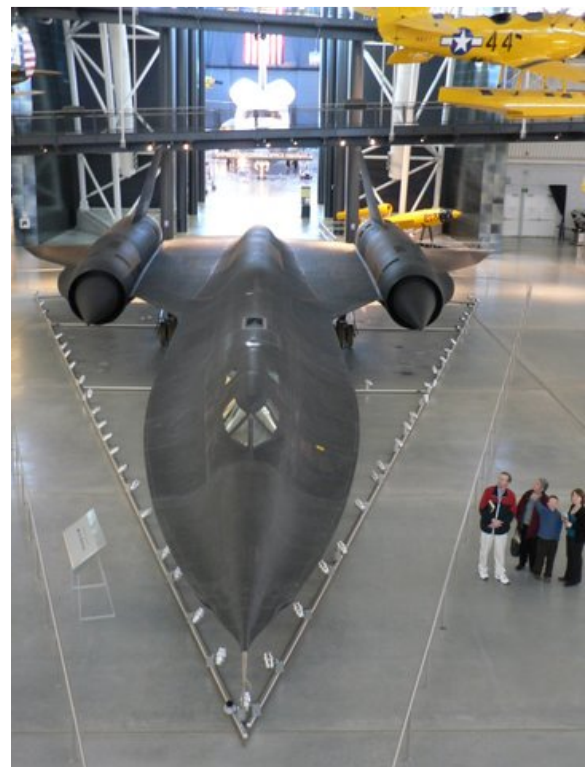
This museum truly is a “must see” (though there are many others in DC!) and may have become my new “favourite” museum, displacing the Science Museum in London. Have a look next time you are missing soaring Down Under.

Brenton Wait

[Ed's Note: Another great US Aviation museum is the USAF Museum in Dayton Ohio (you may recall that Dayton was the famous home of a couple of bicycle builders). It's only a 4 hour drive from Fort Wayne Indiana, don't ask me how I know that...]



Fossett's round the world solo jet



Lockheed Blackbird - Flew from LA to Dulles in just over one hour to deliver the plane to the Museum (a trans-US record)



Concorde, Gossamer Albatross, Fossett's round the world plane



1934 Bowlus 1-S-2100 Senior Albatross Falcon, USA



Know Your Checks

Pre Take Off Check - CHAOTIC

Performed by Pilot in Command.

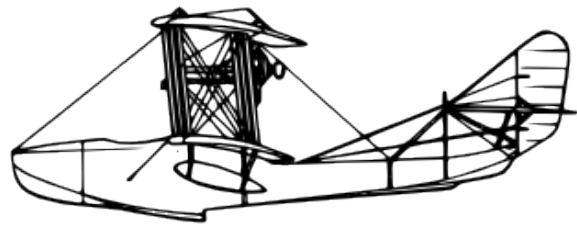
- C** Controls work in correct sense.
- H** Harness/es tight and secure.
- A** Airbrakes cycled, closed and locked.
Flaps set for take-off.
- O** Outside launch area clear.
Wind speed & direction.
Ground crew ready.
Options on launch failure
- T** Trim set for take-off.
Ballast secure.
Tail dolly removed.
- I** Instruments reading normally, no damage.
Altimeter set to QNH.
Radio set to correct frequency.
- C** Canopies closed and locked.
Undercarriage down and locked.
Controls have full and free movement.

Pre Hook-On Check - CARD

Performed by Launch Crew.

- C** Canopies closed and locked.
- A** Airbrakes closed and locked.
Flaps set for take-off.
- R** Radio on and set.
- D** Wing and tail dollies removed.

Refer to the back of the GFA Logbook for a list of GFA Standard Checks.

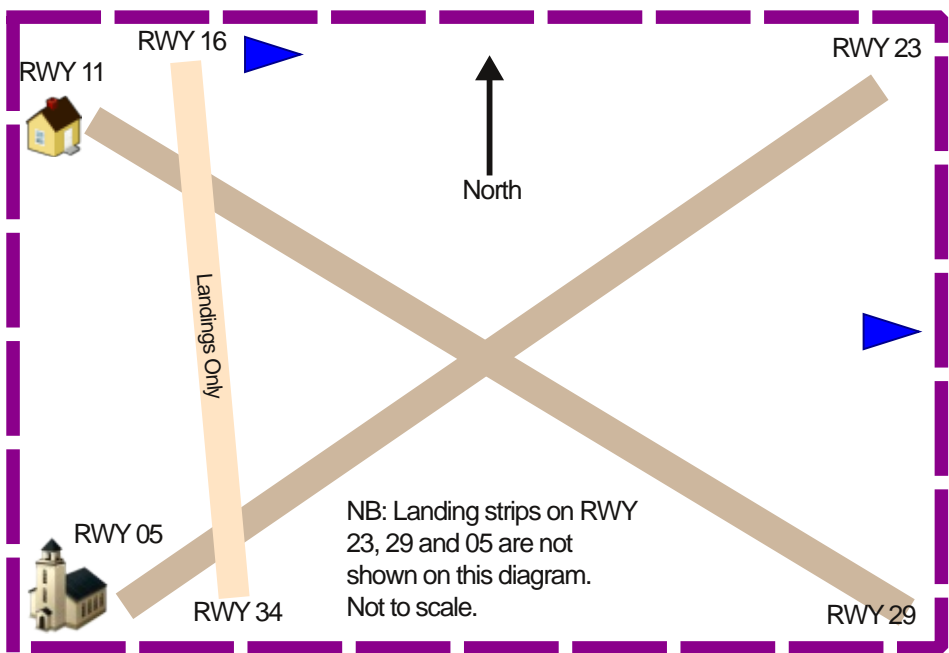


ATTENTION FQW PILOTS

The Club's insurance on FQW means that it can only be flown by a pilot in command with more than 100 GLIDING HOURS. GA hours cannot be counted for this purpose.



Runway Quick Reference Guide



Cut out and keep this diagram handy to prevent on-field embarassments.



Aircraft Maintenance Program

Please lend a hand with the following tasks...

Pukatek (KRO)

Form 2 due 26th September 2009. The main wheel has a slow leak, PLEASE check tyre pressure each day before operating to avoid damaging the wheel and the aircraft,

The main wheel oleo will need recharging.

Club Libelle (GMI)

No known issues - Form 2 due 2010.

Arrow (GNF)

Repair work will continue at West Beach once FQW's prop work is out of the way.

There are a number of woodwork repairs to

complete - an excellent opportunity to gain skills in wood repair techniques.

MotorFalke (FQW)

Propellor to be removed and sent back for repair with Agent.

25 hourly exhaust inspection has been done.

Form 2 due 6 Dec 2009.

Standard Libelle (GTX)

Currently off-line and not operational.



Airfield Maintenance Program

Runway / Taxiway Marking

We will be gradually marking the runway strips with the sidewalls of tyres. To make these stand out against the ground we paint them white (or whiteish). Using just the sidewalls for this purpose means we get 2 runway markers from each tyre and they do not protrude above the ground as much as a whole tyre - and therefore should not damage aircraft that run over them.

Assistance is needed in (1) cutting the side walls out and (2) painting the INSIDE of the tyre with white paint. We paint the inside because we place the sidewall on the ground with the outside part of the tyre facing downwards.

New Hanger Construction

The following has been completed:

- * Stripping of formwork
- * Cleanup of the southwestern quarter of the floor area
- * Quarry rubble spread over floor area.
- * Cut back the bank at the rear of the hangar and place the material at the front to improve the slope.
- * Clean out the other $\frac{3}{4}$ of the floor area and dump the material out the front
- * Compact the quarry rubble on the front slope
- * Spread the quarry rubble over the hangar and front slope

* Level and compact the quarry rubble

Now the floor is sorted we will be ready to build the hangar!



Derek tries his hand at leveling the strips - at night!

Winch

Both cables have been inspected and all swages cut out and reswaged with the appropriate 4mm or 5mm swages. A number of additional cable tie down loops have been made up and are in the Pic Cart.

A new set of Orange (660 Kg) weak links have been made and painted.



Flying Calendar

Visit <http://www.augc.on.net/Calendar.php> for the most up-to-date details on Club events.



*If you haven't been to Stonefield for a while you might be surprised at how green everything is.
(Photo: M. Newton)*

August

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
31					1 GO GLIDING!	2 GO GLIDING!
3	4	5 Glider Promo @ Adel Uni	6	7	8 GO GLIDING!	9 GO GLIDING! AEF DAY
10	11	12	13	14	15 GO GLIDING! SAGA Dinner	16 GO GLIDING!
17	18	19	20	21	22 GO GLIDING! AEF DAY	23 GO GLIDING!
24 Exec Meeting	25	26	27	28	29 GO GLIDING!	30 GO GLIDING!

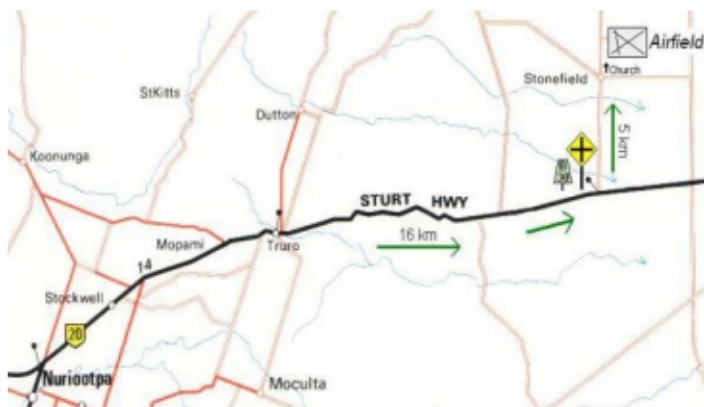
Stay In Touch

The Club has an email group address, augc-people@lists.internode.on.net, that is used to either discuss or arrange things within the club. If you want to stay in touch with the club, subscribe to the mailing list by filling out the online form at: <http://lists.internode.on.net/mailman/listinfo/augc-people>.

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

You can also get the latest newsletter and up to date news on what is going on at the Club's web page: <http://www.augc.on.net>. If your email address is on the membership database the Club's Assistant Treasurer can send you your account updates over the internet. Send an email to: accounts@augc.on.net.

Fly This Weekend!



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

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

Help at West Beach!

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

So you want to help fix the aircraft at West Beach, but can't get there? A lift can be arranged from the Adelaide University footbridge at 7.30pm via augc-people@lists.internode.on.net.



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