

Uni Gliding

Vol 35 Number 1 - January 2010



New Decade Edition

The Official Journal of the Adelaide University Gliding Club Inc.

<http://www.augc.on.net>

Editorial

The Editor

What's Inside...

Its a New Year, a New Decade so everything old is (you guessed it) New Again. I've given Uni Gliding a bit of a makeover, pulled out the heavy rouge and mascara and tarted up the old girl ready to party like its ... er ... 1999.

Quality reformatting like this doesn't come cheap though, I had to spend squillions on expensive consultants and type designers, with a couple of long overseas trips to see how contemporary University Gliding Club Newsletter Design is done in other countries (with particular reference to the French Riviera). So don't be surprised if your renewal fee is a little higher this year - just consider how it will be worth it in the end. (It's a good thing then that I supply all my own fonts...)

Lastly as this is the time of year to make lists of things we'd like to see the Club achieve this year. Here are mine:

1. The AUGC Hanger erected (again)
2. The Motorfalke T Hanger doors fixed.
3. At least 10 new members that stay on.
4. At least 5 Gold C distance flights flown.

Lets make it happen...

Mr. Ed.



| | |
|---------------------------------|---------|
| Editorial | Page 2 |
| Cross Country Competition | Page 3 |
| Diary Dates | Page 4 |
| New Trailer Fittings | Page 4 |
| CFI's Message | Page 5 |
| Reporting Accidents+Incidents | Page 7 |
| An Eventful Landing | Page 8 |
| Know Your Checks | Page 10 |
| Runway Guide | Page 10 |
| Aircraft & Airfield Maintenance | Page 11 |
| Gliding Calendar | Page 13 |
| Stay In Touch | Page 14 |
| Fly This Weekend! | Page 14 |
| Help at West Beach! | Page 14 |
| Club Contacts | Page 14 |

Next Month...

We describe the post-Xmas fly-in at Stonefield.

Cover photo - Derek in WVA (Photo A. Smith)

Uni Gliding

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Cross-Country Competition Announced



The competition will be based on each calendar month. Whoever can achieve the greatest handicapped distance in that particular month, that is better than any other handicapped distance achieved in previous years for that month, will win the award for that month. For example, if the April 2010 Award went for a handicapped distance of 180km, then in order to win the April 2011 Award, a handicapped distance more than 180km will need to be achieved.

The following guidelines will apply:

1. It is open to all club members flying either Club aircraft or private aircraft owned (or part owned) by that Club member.
2. All flights must be from Stonefield and finish at Stonefield (there are additional criteria to be considered for outlandings).
3. The task does NOT have to be declared.
4. Up to 4 turn points (of your choice) can be selected from the task in order to maximise distance.
5. Any logging device can be used (Volkslogger, FLARM, GPS etc) as long as we can get a trace and coordinates from the device.

There will be a separate award for FQW and the guidelines are a little different:

1. The start can be anywhere within a 5 km radius of the airfield.
2. The start can be done any time after the engine has been turned off.
3. Turning the engine on counts as an outlanding.
4. The finish height must be within 1000m of the start height.

There are other guidelines, but these are the basics and all you really need in order to get out there and start winning those awards. The idea is to present the awards for each month at the next Annual Dinner.

If you do happen to outland, then you could still claim the distance flown but there are some additional guidelines that need to be met. I don't want to go into too much detail and bore everyone, but what we call 'dirty down-wind dashes' will not be allowed. In other words, you cannot take off in a roaring westerly in the middle of June and fly 250 km downwind, outland and claim it. If you do go somewhere and outland, download your trace and pass it on to me and I can see if it is claimable or not.

As both GMI and WVA have FLARMS, it should just be a simple matter of downloading the data after the flight and getting the trace to me to make a claim. I will try to put together a document which details how to download tasks from a FLARM.

As always, the referees' decision is final :-)

Good luck, have fun and stay safe.

Diary Dates

| | |
|-----------------------|---------------------|
| Australia Day Holiday | Tues 26 January |
| Uni Semester Dates | 1 March - 18 June |
| Adelaide Cup Day | Mon 8 March |
| Adelaide Uni O-Week | 22 - 26 March |
| AUGC AGM | Sometime in April |
| Easter Weekend | Fri 2 - Mon 5 April |
| Anzac Day Holiday | Mon 26 April |

New Fittings for WVA's Trailer...



Derek Spencer has been busy with the welder, grinder and other assorted elements of mass construction. The result is a new wing walker, towing bar and jockey wheel mount for WVA's trailer.



Thanks Derek!



Chief Flying Instructor's Comments

Every great flight (and even those that are not so great) begins with a launch.



In AUGC we use a winch to launch our (non-motorised) aircraft into the sky.

As each flight must by definition start from the earth's surface I thought I would discuss some of the issues regarding the first few stages of the (winch) launch.

Depending on the aircraft, it will normally have either its nose skid (e.g. Pukatech) or tail wheel (e.g. Libelle) on the ground at the start of the launch. In the first stages of the launch the pilot must ensure the aircraft is running on the main wheel, in the direction of the runway, on the ground. This will require some slight forward or aft movement of the stick but the pilot is NOT trying to lift the aircraft off by too much rear stick movement. As the cable is wound in the aircraft is rolling along the ground at an increasing speed. The lift generated by the wings increases and this eventually exceeds the aircraft's mass, thus allowing the aircraft to separate from the ground. This occurs without the pilot having to do anything other than ensure the aircraft is running on the main wheel (and correcting for drift if this is required.)

Too many times I have seen (from both inside and outside the aircraft) the stick move back or the elevator lift as the pilot attempts to hasten the takeoff by applying excess aft stick. Why is this a problem?

Firstly this often results in the tail slamming back on the runway, an inelegant and potentially damaging start to the launch. Secondly (and most importantly) the pilot is commencing the pull back into the launch without the safety margin of airspeed that would be there if s/he waited for the aircraft to take off naturally.

There is also the case where an over enthusiastic winch driver who applies considerable power when starting the launch with a nose dragger aircraft (such as the Pukatek) can create a nose-high situation due to the geometry of the winch hook on the

The last place you as a pilot should want to be is at the start of the launch close to the ground in a nose high position with marginal airspeed.

aircraft pulling the nose up and the tail down. In this case the airspeed is often below that needed for the launch and the pilot must maintain positive control of the aircraft, lower the nose until the aircraft's airspeed has been positively identified as safe (i.e. above $1.3 \times V_s$ and below $V_{\max \text{ winch}}$) to continue through initial and on to full climb.

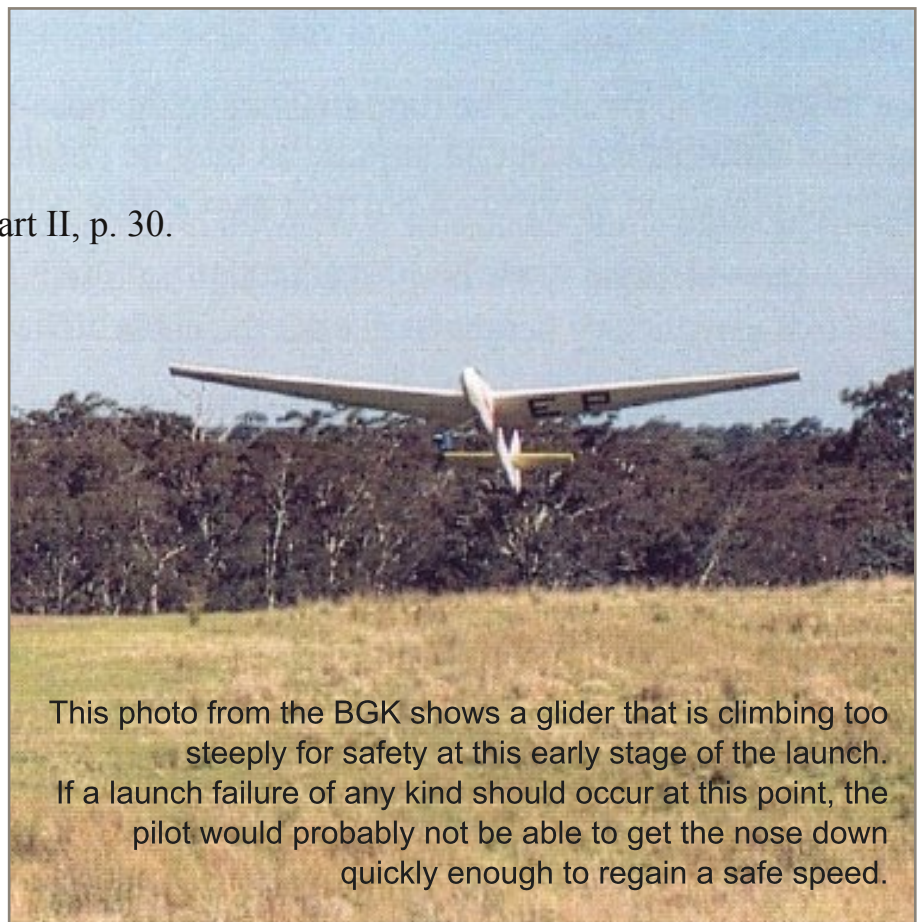
The GFA Instructors Manual puts it quite clearly..."Because of the pitching moment which may be imparted to the glider during the initial acceleration, the pilot must exercise very close control over the climb angle at the start of the launch and must adhere strictly to the minimum speed requirement before steepening the climb."

The last place you as a pilot should want to be is at the start of the launch close to the ground in a nose high position with marginal airspeed. It would only take one thing to go wrong (weaklink break, cable break, winch malfunction - any of which are quite possible on every launch) for the aircraft to rapidly enter a situation that the pilot cannot control it.

SAFE AIRSPEED - Don't leave the ground without it.

Fly Safe
CFI

References :
BGK chapter 5, p. 55.
GFA Instructor's Handbook Part II, p. 30.



This photo from the BGK shows a glider that is climbing too steeply for safety at this early stage of the launch. If a launch failure of any kind should occur at this point, the pilot would probably not be able to get the nose down quickly enough to regain a safe speed.

REIMBURSEMENT OF CLUB EXPENSES

If you need to spend money on behalf of the Club please:

1. Ensure the expense is endorsed by a Club Exec member (use the phone numbers on the back page if necessary).
2. Ensure you GET A RECEIPT.
3. Download and complete the Reimbursement Spreadsheet from [http:// www.augc.on.net](http://www.augc.on.net).
4. Attach the receipt to an A4 sheet, staple the reimbursement form to it.
5. Send the form and receipt/s to the Treasurer.

PAYMENT OF FOOD & FLYING

Everyone please note that:

Payment for FLYING goes into the beige cash tin.

Payment for FOOD & DRINK goes into the black cash drawer near the sink.

AUGC Members can use the tick sheets located on the fridge doors to have their purchases charged to their AUGC account.



Reporting Accidents and Incidents (from the RTO/Ops)

Reporting aircraft accidents and incidents is not an activity sailplane pilots enjoy, however the information gathered from these reports is very useful to the gliding movement. There is a reporting obligation under the Transport Safety Investigation Act 2003.

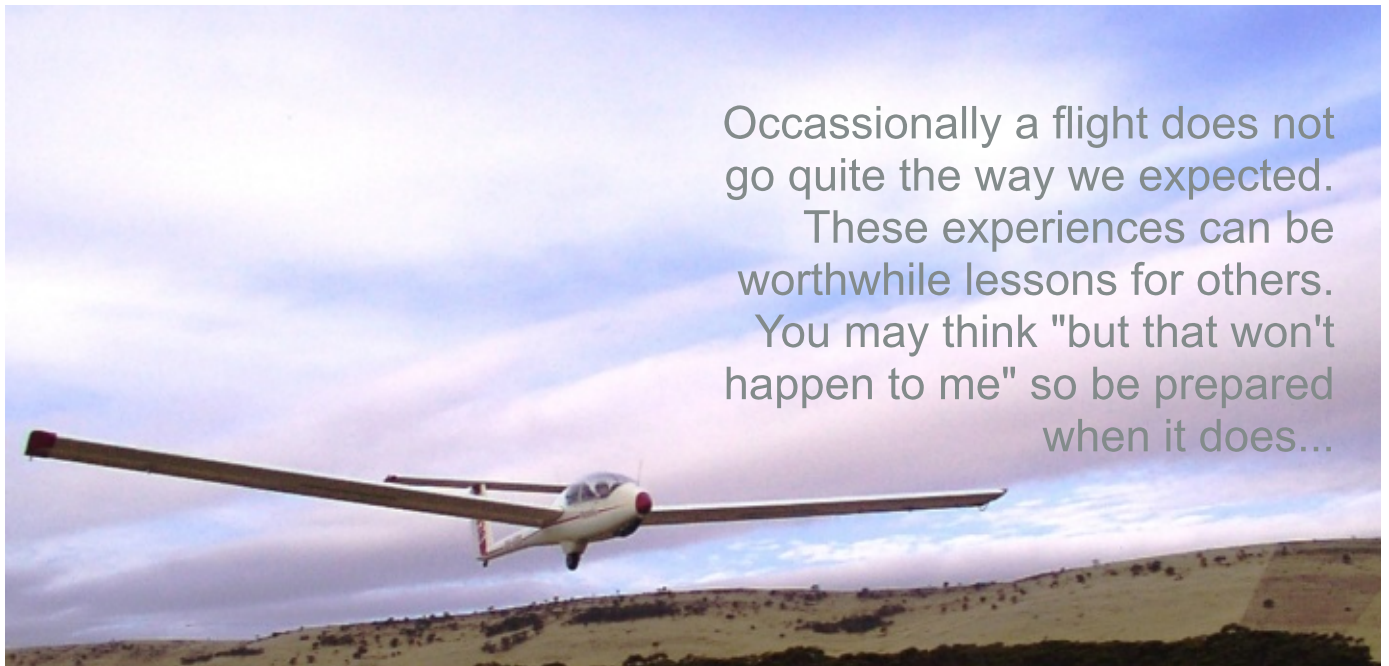
Accidents:

Aircraft related events which cause injury or death and/or significant damage to the glider(s) involved. If the police attend the accident, GFA members can offer to assist the police with their investigation. If the police do not attend, the Australian Transport Safety Bureau (ATSB) still needs to be advised, since they may wish to examine the accident site. ATSB must give approval for the aircraft wreck to be removed (ATSB 1800 011 034). Club CFI's (or delegate) need to contact the RTO/Ops within 24 hours of the event and a GFA accident report should be submitted to the RTO/Ops within a week or so. In the unfortunate event of serious injury or a fatality, the RTO/Ops should be contacted as soon as possible.

Incidents:

Aircraft related events which cause no injury and none or only minor damage to the glider(s) involved. For incidents, there is no need to contact the GFA Regional Technical Officer for Operations (RTO/Ops) immediately, however Club CFI's still need to forward the GFA Accident/Incident Report to the RTO/Ops within a few weeks.

An Eventful Landing



Occasionally a flight does not go quite the way we expected.

These experiences can be worthwhile lessons for others.

You may think "but that won't happen to me" so be prepared when it does...

The day was cloudy with some clear blue patches and 15 knots of wind.

Following a reasonable launch to 1400ft AGL and only limited success in 2 to 3 knot lift interspersed with more dramatic patches of sink a landing seemed the best option.

A FUST check, trim for 55k, make the radio call then turn downwind, all looking good. Turn onto Base then a crisp turn onto Final. Accelerate and trim for 60k. Slightly lower than usual but still with ample height and no hint of undershoot. No airbrake needed at this point. Approaching the fence with good clearance but the air seems very buoyant so nose down a little and open the airbrakes to steepen the descent. The aircraft still wants to climb so apply more airbrake. There seems to be a lot of load on the stick and I am unable to understand why the aircraft is behaving contrary to what I expect. Heading further than intended down the strip so to get the aircraft on the ground apply more airbrake and settle on the runway. Finally on the deck and going faster than normal but at least we are down. Relax the pressure on the stick and breathe a sigh of relief as we head up the rise in the runway. What the hell? Airborne again and going up fast! Forget everything else, forward stick, fly the aircraft and land again after a couple of minor bounces. The aircraft is not damaged or stressed but the ego is severely dented. Sit for a while in the cockpit and ask myself "What just happened?" I had no idea. The retrieve crew arrived

and asked “Why didn’t you use the airbrakes.” I replied “I thought I had.”

Later that evening at home I wrote down in sequence what had happened and what actions I had taken as the events unfolded then tried to analyse where I had gone wrong.

It became obvious that I had mistakenly operated the trim lever instead of the airbrake and when pulling back on the trim the pressure of the trim spring had given the false impression that the air was very buoyant. The more I pulled the lever to increase the descent the more the aircraft wanted to climb and slow down. When firstly arriving on the ground at speed with the trim lever back, by relaxing my forward pressure on the stick the trim spring combined with the upslope on the strip increased the angle of attack and launched the aircraft back into the air.

There is a lesson here for me and I suspect for others. I could not believe that I had made such a basic error. A loss of familiarity caused by irregular attendance at the field and failing to identify/locate/operate the controls properly contributed to a potentially serious but ultimately very sobering experience. This experience underlines the importance of religiously adhering to the various check procedures we were taught during training and to visually confirm that the control we have our hand on is in fact the one we intend to operate.

I’m’ still here however, hoping you are the same.

Do you have a story that can help to educate others?
Email it to
cfi@augc.on.net
(you can remain anonymous).

Comments from the CFI:

I would like to thank the author for his contribution. It's easy to write about our brilliant accomplishments, but less easy to admit when we make mistakes. Yet we can probably learn just as many important lessons from the latter. Whilst this situation could have resulted in a high balloon, subsequent stall and nasty damage to the undercarriage and fuselage, the pilot remembered his training and re-landed the aircraft safely. Remember if the aircraft balloons up on landing, stick forward to maintain flying speed, close the airbrakes and then re-land the aircraft.

So how did this happen in the first place? It was not a long flight, nor a particularly hot day, so fatigue and dehydration are probably not major factors. Pilot currency may be a contributor in this case, but the greatest factor (as identified by the pilot himself) is that the pilot failed to positively identify the airbrake control in the circuit and hence flew his approach trying to adjust glide slope using trim lever.

The glider cockpit can have a number of levers and knobs, some of which may be painted the same colour and/or located in close proximity to one another. So when we use a control in the aircraft - whether it is the stick, trim, flap lever, release or undercarriage - we must positively identify the control before we use it. This is particularly true when we fly a new type of aircraft (or get back into one we have not flown for a while).

The key to remember for using any control is **LOCATE - IDENTIFY - OPERATE**.

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.

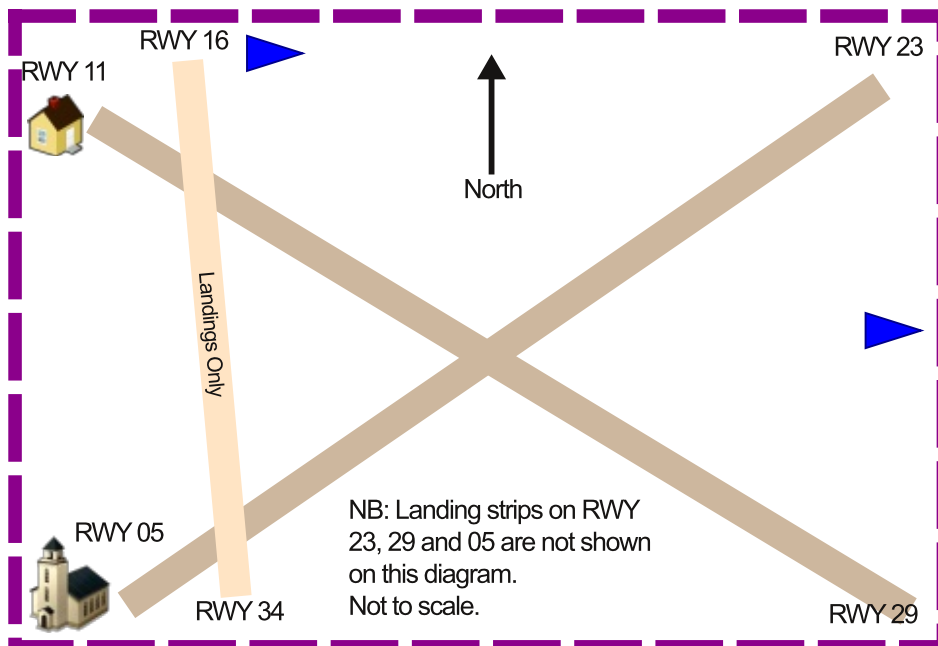
Refer to the back of the GFA Logbook for a list of GFA Standard Checks.

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.

Stonefield Runway Quick Reference Guide



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

NB: Landing strips on RWY 23, 29 and 05 are not shown on this diagram.
Not to scale.

Aircraft Maintenance Program



Please lend a hand with the following tasks...

Pukatek (KRO)

Form 2 (Annual Inspection) is now complete thanks to a brilliant effort by Derek, Redmond, Brenton and others. The oleo has been recharged in Emilus' workshop and the aircraft now rides noticeably higher. A new battery has been sourced by Anthony and this should be installed by the time you read this.

Club Libelle (GMI)

No known issues - Form 2 due Q1 2010.

Arrow (GNF)

Repair work will continue at West Beach in the New Year.

There are a number of woodwork repairs to complete - an excellent opportunity to gain skills in wood repair techniques.

MotorFalke (FQW)

The Motorfalke has completed the 30 year inspection and a subsequent 100 hourly inspection. Starter motor has been repaired.

Standard Libelle (GTX)

Currently off-line and not operational. Not to be flown.

Airfield Maintenance Program



Runway / Taxiway Marking

The tyres that were cut up and painted have now been placed to mark runways. More tyres need to be cut and painted.

Winch

A new mechanical fuel pump has been purchased for the back engine.

The Winch front engine is not running well, and may need a new head gasket (or perhaps a new engine). The fuel pump wiring in the front cabin is faulty - do not try to start the engine unless you hear the electric fuel pump operating (or your effort will just drain the battery).

Slash and Burn

The grass slasher has suffered a blade failure and is currently unserviceable.

Windsock

Both windsocks are servicable.

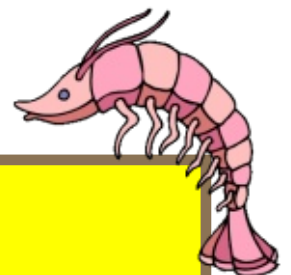
Fire Trailer

The fire trailer has been fitted with a new gasket and is operational.

PLEASE NOTE THE FIRE PUMP MUST RUN ON UNLEADED FUEL (ULP) NOT AVGAS.

New Hanger Construction

Now that the aircraft inspections are out of the way we will be looking to progress the main hanger construction.



SUMMER'S HERE
Don't be a prawn, remember:

- SLIP** - on a long sleeve UV protective shirt,
- SLOP** - on high SPF sunscreen and regularly reapply it
- SLAP** - on a wide brim hat that protects neck and ears as well,
- SEEK** - shade when you don't have to be in the sun, and
- SLIDE** - on UV filtered sunglasses.

Flying Calendar

January



Lightening at Waikerie (Photo M. Newton)

| Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|--------|---------|-----------|----------|--------|----------|--------|
| | | | | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |

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

