



Uni Gliding

October 2005

The Official Journal of the Adelaide University Gliding Club



*Derek S waves as he and Ish pass GZQ on their return from Maggea to Waikerie during the coaching weekend.
Photo: Justine Thompson*

What's Inside

- | | | | |
|-----------------------------|----------|-----------------------------------|-----------|
| → Editorial | - Page 2 | → The Flinders Ranges in October | - Page 10 |
| → Calendar | - Page 3 | → Tips and Tricks in the Workshop | - Page 12 |
| → President's Report | - Page 4 | → Want to fly this weekend? | - Page 15 |
| → Treasurer's Report | - Page 5 | → Want to help at West Beach? | - Page 15 |
| → CFI Report | - Page 6 | → Contact List | - Page 15 |
| → Safety Seminar Summary | - Page 7 | → Upcoming Events | - Page 16 |
| → Launch Point Organisation | - Page 8 | | |

QUOTE OF THE MONTH

"Everyone has trouble finding the hole... It's even harder with the rubber on"

A variation on the rather obvious double entendre referring to the Puchatek's sheathed cable release.

Editorial

G'day everyone,

Firstly, I should make a few corrections to some erroneous information that appeared in the previous newsletter. A critical alteration to the airfield decision making process was agreed upon at the airfield selection meeting in September. AUGC members will not be compelled to vote at a SGM, but will be presented with a questionnaire that will aid the executive committee in making a choice that best reflects the ideals of the club. Scrapping the vote was motivated by the necessity to make a decision by consensus rather than by creating a possibly fatal rift within the club.

All club members are encouraged to attend the airfield meeting arranged for October 12 in place of the SGM to get a first look at the questions to be posed.

The second correction relates to the top right picture in the September newsletter's Editorial: standing next to Derek was Tom, not Brenton as I was led to believe. Brenton had in fact converted to the Puchatek over ten years ago!

Murray Bridge hosted a Safety Seminar on the first weekend of September that was well attended, as you can see on the following page. Mark Newton has submitted a summary of the seminar for the benefit of those who had other commitments. I must say it was an enthralling presentation and sparked a lot of debate, as you would expect from any meeting about gliding.

In mind of pursuing the options of moving away from Stonefield, negotiations with Waikerie and Balaklava Gliding Clubs were stepped up last month. The outcomes of some intensive discussion were the elimination of Balaklava as a potential site for our club and the rejuvenation of hopes to finalise an amenable contract with Waikerie.



Mark Newton all alone in the Puchatek.
Photo: Anthony Smith



Derek S gleefully in the process of extracting FQW's engine.
Photo: Redmond Quinn

September provided us with a few awesome soaring opportunities at Stonefield that affirmed that remaining at this site is still a perfectly valid option for our club. On one Saturday, the entire airworthy fleet was in the air and pilots were only landing to give others a go. David Conway flew across from Waikerie in a Discus (HP) to claim the 'Come and Get it' trophy on this day. Weather like this is valuable and I certainly hope there are many more booming days this spring so that I can develop some thermalling (or wave flying!) skills.

Cross-country skills were honed on task on the Saturday of the coaching weekend at Waikerie last month. A team of pilots including Tom in the Pik, Sarah, David C and, for some of the way, Derek S and Ish in the Bergfalke flew out from Waikerie and reaped the benefits of thermal-marking and close radio contact. Everyone in the team also had some more outlanding practice, except for Derek and Ish who returned to Waikerie to donate the Bergfalke to the aerotow training operation. Unfortunately this training was cut short after just two launches when the tug left to retrieve Tom and David!

The following day was rained out and was not quite as enjoyable as we all had to help de-rig and rig a lot of gliders, including a hefty Twin Astir.

Stonefield will be the base for the next dedicated cross-country weekend to be held early in November, after our super instructors get back from Khancoban.

Arien Centa proved that he was ready to be sent solo on the first weekend of October, so congratulations are due to him. Well done! Flying solo gives you an unrivalled sense of achievement.

Yours truly,

Anne

October 2005



A crowd at the Safety Seminar at Murray Bridge.

Photo: Mark Newton

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
31 Help at West Beach					1 Go Gliding!	2 Go Gliding!
3 Help at West Beach	4 Help at West Beach	5	6	7	8 Go Gliding!	9 Go Gliding!
10 Help at West Beach	11 Help at West Beach	12 Airfield Meeting, 7pm, WP Rogers Room	13	14	15 Go Gliding!	16 Go Gliding!
17 Help at West Beach	18 West Beach Social BBQ Help at West Beach	19 Executive Committee Meeting, 7pm, venue TBA	20	21	22 Go Gliding!	23 Go Gliding!
24 Help at West Beach	25 Help at West Beach	26 SAGA Winter Lecture: Official Observers Course	27	28 Khancoban	29 Go Gliding! Khancoban	30 Go Gliding! Khancoban

President's Report

Derek Eilers

Hi all,

Again this month has disappeared amazingly quickly and I'm not sure if it's because of uni demands or if it's just a sign of getting older :). We had several things of note happen this month, such as changes in the airfield solutions, aircraft availability, club training and weekends away with coaching opportunities.

The first thing that most people are probably interested in is the changes we have made to the airfield selection process. Basically it was decided to cancel the Special General Meeting scheduled for the middle of this month. After much talking and sharing of ideas it was considered that such an event would be a divisive and destructive way of making such a decision. It was agreed that the club would be best served if the executive engaged in a course of consultation with the members and then applied this to the options available.

This process will happen over the next few months and everyone is welcome to contribute. The idea of this is that we need to gain a greater understanding of what is important to each member and then we can use this information to decide which airfield options best suit our members' needs. This will ensure that everyone gets a say in the final decision: when presented with your questionnaires, please ensure that you fill them out and get them back to us.

The original time scheduled for the SGM will be used to formulate initial questions that will be circulated to all members. Everyone interested in helping is welcome to come to the meeting at 7pm, October 12.

Just for an update, the options being considered by the executive for our future home include the Stonefield proposal, the possibility of moving to Waikerie and the possibility of a green-field sight which may yet present.

Further meetings will be conducted over the following months in which options, ideas and progress will be discussed and future directions will be determined. Announcements will be made so that you all can attend and contribute.

The next major event was the realisation that due to alternative interpretations of rulings from CASA and the GFA, we needed to pull the Motorfalke out of service for an engine rebuild. This has come some time before it was anticipated but will be dealt with according to the final rulings given to us. The good news is that we'll have an aircraft with a completely new engine and possibly some more horse power :). The bad news is that it will be expensive.

The next major aircraft issue is that we will be buying back the Arrow from the insurance company. The chance of obtaining another seat in the air for our members at low financial cost has too many benefits to give up. As everyone who has flown the Arrow knows, she's a good old girl to take for cruise, not zoomy, but delightful. Club members so inclined are welcome to help out with her restoration.

The weekend of the 24-25th of this month saw AUGC pack up operations from Stonefield and move over to Waikerie. This was done as part of the cross-country training and coaching movement that is being started in SA. I was very proud of the fact that this was supported by our members and a good weekend with much learning occurred. Several of our members took the opportunity to do some aerotow training and others took winch launches and flew singles around the Riverland.

Statements about the flights from that weekend were fantastic and I reckon that our young competition and cross-country pilots have had a good taste of group team flying. It was a shame that the weather was not the best, but I guess that's gliding. So thank you to all those who made this weekend happen, especially Sarah who did a lot of the organising.

At the time of writing this report (30/9) some of our members are travelling to the Flinders with our hosts BVGC. This is yet another opportunity for our members to experience some truly awesome flying in this unique environment. I trust that they will have a brilliant time and thank BVGC for their open invitation to our members.

Work down at West Beach has continued with the Pik getting its form-two done in quick time while the piecart saga continues. The old truck has been moved out of the shed and will soon be moved on to another home; this has given us much more room which is just as well because we now have a long term resident called NF. So thank you to all those involved in keeping the ball rolling down there and to everyone else, please help out when the calls are made.

So the story is that the club is battling on, our flying is down from last year but about average overall. The treasurer tells me that things are going to be tight at the end of the year, so let's make the next few months really happen. The weather is fining up and that unstable air is moving in. Don't forget unstable air goes up, even in cool to warm conditions. So get out there and have a zoom and support our club, but most of all, have a ball :).

Regards
Derek Eilers
AUGC President

Treasurer's Report

Anthony Smith

Hi all,

Only a brief report from the exalted office of Treasurer this month. The club bank account has begun its slide downhill as we continue to pay expenses without doing a huge amount of flying. The exact amount we will end up with in the bank will depend largely on how much the engine overhaul for FQW will cost.

One of the reasons why the bank account will be low at the end of the year is that we have paid approximately \$10,000 into the two loans that the club has. Of this, \$6,000 has been paying back the capital and approximately \$4,000 has been paid on the interest.

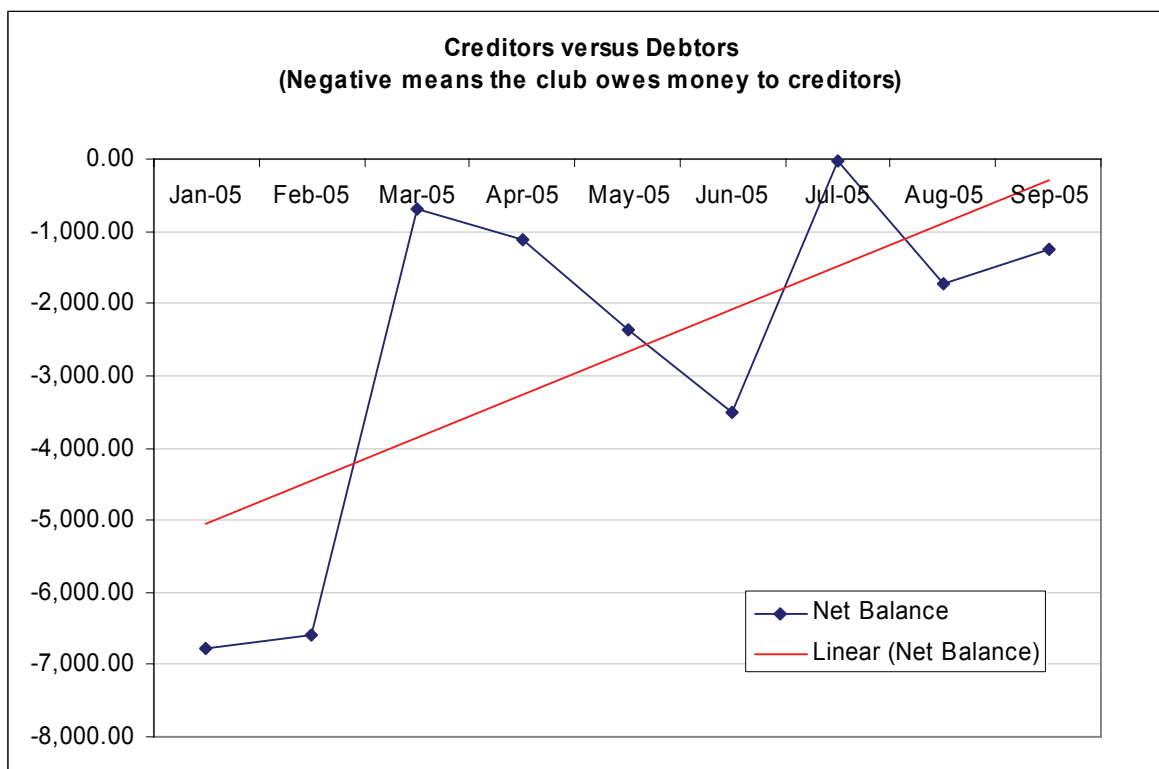
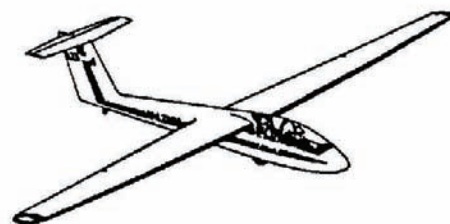
The other reason is that I have made a big effort in paying club members whose accounts have been substantially in credit. Over the last few years a few people's accounts have grown to very large amounts of credit. This got to the point where our 'balance of payments' for the beginning of the year was \$6,800 in the red (i.e. we owed various people \$6,800 more than what various other people owed us). This is now at \$1,250 in the red and gradually getting better. This is effectively \$4,780 paid from the bank account to our creditors and \$770 from one of our creditors kindly written off.

So whilst things aren't looking so rosy for the bank account, we have substantially improved the financial situation for the club.

At the last executive meeting, the exec spent a lot of time looking at growing the club over the longer term. Whilst much of it was about membership, some thought was also given to how to grow the club financially. The club has always had a minimal bank balance because it has always bought an aircraft as soon as it could afford it. However, the club is interested in selling the Puchatek (whilst it has some value) and purchasing a second-hand ASK-21 (they have a much longer fatigue life) imported from Germany. This means that the club needs to raise additional funds (around \$25,000 to \$30,000) to support this venture as well as pay off existing loans. One such method is to charge a higher membership fee for non-students. This was discussed recently on the *augc-people* e-mail list. Another is to look at the existing scheme of placing 10% of our flying income into an investment account (however all of this is already being consumed by the existing loans). If you have any ideas on how the club can raise additional funds, I would be happy to hear from you.

Regards,

Anthony



CFI Report

Mark Newton

Cross-country season is almost upon us. Are you ready for it? Here are some ways you can tell.

You've been polishing your skills during the winter. You're staying up reliably on days when other pilots are staying up, and the days of bashing out three or four circuits while all the other pilots launching at the same time as you get away are over. You know where to find lift. You know how to make subtle corrections to your speed, angle of bank, and centre of circle to extract the most energy from the air.

You've developed your use of the audio vario so that you can thermal with your eyes out of the cockpit, hardly ever glancing at your instruments. You understand how to share thermals with other gliders without prompting accidents.

You know how to 'feel' the air when you're cruising through it. As you reach the top of each thermal you have a fairly good idea of where you're going to go to get the next one. You don't follow a straight-line path to get to it, instead you weave gently from side to side based on your instincts and the feedback the glider is giving you about the air it's flying through. If you feel lift under one wing, you adjust your course towards it to maximize your glide performance. You're doing this because the actual mechanics of flying the plane are almost running on automatic, and you have lots of mental bandwidth available to analyze what's going on and make useful decisions without having to fight the glider to make it do what you want.

You know what 'launch height' looks like without needing the ASI to confirm it; you know what 'circuit height' looks like too. As you descend through 'launch height' you have a couple of outlanding paddocks lined up. As you descend through 'circuit height' you're commencing a circuit around the one you think is the best. That circuit is accurate, reliably delivering you to the spot of ground you've chosen as your aiming point every single time.

You're not stressed when you're flying. Rather than being task-fixated, your mind is open to stimuli from all around you. You're feeling the performance of the glider, you're watching for other aircraft, birds, and other airborne indications of lift. You're making decisions, and backing them up with action.

You're safe. You're current. You're prepared. You have confidence in your training, your skills, and your ability to avoid trouble and get yourself out of it when you find it's unavoidable.

If you're reading this and thinking, "Yeah, that sounds about right," then you're going to have a great time this summer. (*D'oh. -Ed*) Set yourself some goals and commit yourself to them, there'll be no looking back.

If you're reading it and thinking, "There are a few things there which aren't quite right," then now is the time to address them.

If you think one or more of your flying skills is deficient, set yourself some flight exercises targeted towards improving it. Or ask an instructor for some help. Or go on a mutual with someone else and talk to them about it, watch what they're doing, and see whether emulating some of it will improve your skills base.

If you think some of the mental skills described above are deficient, sticky-tape a reminder to the instrument panel: "Relax." "Look-out." "Feel the air." Perform some self-analysis to work out whether there's a way you can think about your activities in a different way which will lead to a different outcome. And develop faith in your own flying skills, so you can offload the mental effort involved in always questioning whether or not what you've just done is wrong.

What kind of summer are you going to have this year?

Mark Newton



Wow! Amazing but unreachable clouds form at Stonefield on the second weekend of October. Note the well-defined rotor clouds beneath the lenticular clouds.
Photo: Redmond Quinn

Safety Seminar Summary

Mark Newton

The GFA has organized national safety seminars, presented by CTO/Ops Kevin Olerhead, every two years. The 2005 seminar was held at Pallamanna airfield at Murray Bridge, and attracted about 50 people. The AUGC contingent was 15-strong, which was an excellent turnout.

Thankfully the weather was atrocious all day, so we didn't miss out on any flying. Considering the nature of the day, I think we were all glad that we weren't at the airfield!

The seminar focussed on areas which the GFA has identified as being major sources of accidents and incidents over the previous two years. Unfortunately some of them were also featured in the previous seminar held at Lochiel two years ago, so the gliding movement obviously doesn't have all the answers yet. Other sources of accidents were notable by their absence, and some have progressed slightly since the last time we covered them.

Here's a summary of some of the main points from the meeting:

Heavy landings

Kevin showed us a video taken by a spectator at a Victorian gliding club that showed a pilot on final approach who, to all appearances, completely forgot how to fly the plane during the last five seconds. The resulting heavy landing caused serious damage to the glider and spinal injuries to one of its occupants.

The circumstances leading up to the accident were characterised by ever-increasing quantities of stress for the trainee pilot, followed by correspondingly decreasing levels of stress for the instructor as the trainee met and bested each challenge sent his way. Eventually the pilot's overloaded mind effectively said, "That's it, I'm out of here, I'm not playing anymore," and the instructor, severely underloaded, wasn't



Me landing after a stuffed-up circuit with our vigilant CFI.
Photo: Jeff Philcox

sufficiently awake to react in time to prevent the accident.

GFA has therefore identified overload as a suspected cause of a rash of heavy-landing accidents which have occurred across the country in recent years, and also suspects that the same cause is behind many outlanding accidents.

It is my belief that feeling stressed and uncomfortable is a precursor to psychological overload, and that if we can train pilots to recognise those feelings of discomfort and *make a plan targeted specifically towards restoration of one's previous levels of comfort* we might be able to eliminate overload-related accidents.

Lookout

GFA has always emphasised lookout. In the last couple of years the national Operations Panel has produced its 'Notes on developing an effective lookout' publications (available from AUGC's web site), and generally believes that lookout among Australian glider pilots is slowly improving.

One thing which has become apparent from recent mid-air collisions, however, is that lookout isn't sufficient to avoid mid-air collisions. Most mid-air collisions happen during competitions or lead-and-follow XC training, where both pilots are flying in close confines, know where their partner is, have seen them, but have failed to identify potential collisions and take suitable evasive action.

Pilots need to develop an awareness of the fact that simply knowing where another pilot is won't necessarily prevent a collision. Evasive action is a necessary adjunct to maintaining an effective lookout. Don't ever let someone get close to you, never expect that they'll alter their course to avoid you, and always be prepared to alter your own course to avoid them. Flexibility is essential, because the rules of the air only work if both pilots follow them, and you can't assume that that's what the other guy is going to do.

Outlandings

This is another instance where overload can insidiously creep up on the unsuspecting pilot. It's also a case where having a plan can make that overload evaporate. If you've already worked out what you're going to do, and you then proceed to do it, the mental paralysis caused by the necessity to make a snap decision never gets a chance to develop.

Flexibility is, as always, terribly important. There's no point making a plan, then following it blindly to an undesirable conclusion when all the evidence in front

of you is telling you that circumstances have changed, and the plan is no longer achievable. All pilots must continually re-evaluate the sensory inputs which have been used to guide their decision-making process, and be prepared to abandon a course of action if its safety is called into doubt.

The first couple of outlandings a pilot makes will always be stressful. However, experienced pilots tend to be the ones who have outlanding accidents. The belief is that these pilots push their luck in the search for lift, and end up so low that by the time they've decided to outland they lack sufficient options to do it safely.

It's vitally important to *have a plan* to carry out an outlanding. Any pilots who find themselves close to the ground without knowing where they're going to safely put the glider down are accidents waiting to happen. They might get away with a snap decision once, twice, a dozen times; but there'll always be a last time, and they won't know they've lived through it until they get to the next one where it *doesn't* work out.

A comment made by Kevin which I think every pilot should internalise is this: Hardly any accidents happen to people who plan and commit to a safe outlanding by 700'. On the other hand, pilots who push their luck below that height tend to spend so much time trying to get away that they neglect planning and have accidents. *Almost all outlanding accidents can be avoided by executing a well-planned circuit!*

Rule changes

The two rule changes which will have the most effect on AUGC operations are associated with Independent Operator ratings and training for competition finishes.

Launch Point Organisation

In the October 2004 newsletter, I published an article about duty pilots, and the role they play in the organised and smooth running of a day.

(*Uni Gliding, October 2004,*

http://www.augc.on.net/members/newsletter/2004/Vol_29_No_04_October_2004.pdf, page 8)

A year has passed since that was published. Now, with summer approaching, it's time to think about other contributions that can be made towards organisation and smooth-running.

Why does summer herald a time to talk about this stuff? Because *nobody* likes hanging around a dusty, hot, dry airfield on a 45 degree day when nothing is going right. On the other hand, almost anyone is happy to endure those conditions if they're organised properly.



Kevin Olerhead showing his style at the Safety Seminar.
Photo: Mark Newton

Independent Operator ratings are to be revised, so that the Silver Badge is no longer a requirement (they'll be based on demonstrated competency instead). This rule change is expected to happen some time next year.

The other significant change is that CASA has agreed to relax the 500' rule for the purpose of training pilots for competition finishes, so that pilots' first competition finishes aren't in busy airspace at the end of a 5 hour cross country at a comp. The final rules are still being worked out by the Ops panel, but are expected to be released before the end of the year. The training guidelines will include radio procedures to alert other traffic to the presence of low-lying high-speed gliders and theory material regarding energy management.

Mark Newton

Mark Newton

Disorganisation means someone will miss out on a good flight. It means more people spend more time in the heat waiting for disorganised people to get themselves ready for whatever needs to happen next, grizzling to each other about the fact that the only reason they're getting sunburned is because the selfish bastard who's still fiddling with his parachute even though the winch was ready ten minutes ago isn't strapped in yet. It means tempers will fray, people will have less fun, others will feel less desire to expose themselves to those conditions, the club will make less money, and all sorts of other degenerate consequences.

So. We've dealt with the duty pilot (go back and read the article again if you aren't familiar with it). Other than by selecting someone who will perform well in that role, how else can we make a day run efficiently?

Let's think about pilots

Here's a sobering thought: Any pilot with a glider lined up at the launch point who is not ready to go *is an impediment to the day's operation.*

If your glider is at the launch point, there's a cable available, the winch driver is ready, the crew are standing around wondering what to do, the strip is clear, and you're still putting on sunscreen, then *you*, personally, are responsible for introducing inefficiency into the day.

Is that a wake-up call? It should be.

Perhaps the time you've wasted by not being ready will have flow-on effects: Maybe because it's taken ten minutes to despatch that launch cable instead of the usual three or four minutes, there'll be one less launch during that day. That might rule-out someone taking their first solo flight later on; or it might mean that an AEF only gets a chance to have a fly after convection has stopped, wonders why they spent all day at the airfield for a six-minute circuit, and never considers becoming a long-term AUGC member.

As instructors, we mentally 'schedule' the launches for the day. We try to get three or four launches per trainee, so if we have (say) three trainees that means we need 9 - 12 two-seater launches plus enough to keep the single-seat pilots happy throughout the day. If you're a single-seat pilot and you get your launch at 12:00 you'll probably be pretty happy. But if you waste a few minutes on your launch, and the person after you does the same thing, and the three or four people after that do it too, that lost time will accumulate and mean that someone else, later in the day, won't get their single-seater launch until the thermals are weak and useless; every six or seven minutes of accumulated wasted time means one launch less in the day, which eats into the ones we've planned for the enjoyment of our pre-solo members.

One pilot missed a one-hour flight for his C certificate due to that exact chain of events earlier this year.



An efficient launch point?

Photo: Marg Philcox



Tom tries to find the hole with the rubber on.
Photo: Jeff Philcox

Focus!

If it's your turn to fly, you need to focus your energies on getting ready for the flight. That means not chatting with other people until you've finished your pre-launch checks. It means leaving the towing gear in a little pile behind the aircraft and asking someone else to move it somewhere more appropriate, instead of making multiple trips half-way across the airfield to put it in the boot of a car by yourself. It means saying, "No," to people who have asked you to help out with something (there's almost always someone else there who can do it instead - you're not as irreplaceable as you think, and you're already busy!). It means committing to have your glider in-place, with yourself strapped in, with checks completed and canopy ready to close *before the winch driver gives a "Winch ready" call.*

All too often we see people who don't bother pushing gliders up to the flight line until the winch driver hurries them along with a radio call. That's a pilot who isn't ready, and who is slowing the day down for everyone else.

You may think that improving your personal organisation might only save three or four minutes prior to your launch, and that that time is insignificant compared to the entire day. But "no single raindrop believes itself to be responsible for the flood" either. The flow-on effects from your three or four minutes of wasted time can make a big difference to *someone else's* enjoyment later on.

Give it a try next time you're on field. Gather all the single-seat pilots together at the start of the day and say, "Lets all make an effort to be ready to launch *before* the 'winch is ready' call." Then, at the end of the day, review what has happened and see for yourself how much more enjoyable it has been.

Mark Newton

The Flinders Ranges in October

Anthony Smith

Justine and I decided to take GZQ along to Barossa Valley GC's annual trip to the Flinders over the October long weekend. I took Friday off from work and we drove up to the Flinders via a different route than normal. We took in Black Springs, Burra and then Peterborough. The drive between Peterborough and Ororoo was particularly pleasant.

We took our time and arrived at Arkapeena (across the main road from Rawnsley Park) on sunset. We deposited the trailer near the airfield and proceeded to set up the tent in the dark. Arkapeena is a 'bush camp' and is exactly that. It consists of a camping ground with a communal shelter and BBQ area with a couple of toilets and a single shower connected to a wood-fired water heater.

Unfortunately when we arrived we found that BVGC was sharing the camping area with a huge number of 4WDDrivers, approximately 15 car loads! Their leader had a megaphone which he used at every opportunity to announce this or that. Being 4WDDrivers, they showed as much disdain for the natural surroundings and other campers as possible by making as much noise, heat and light as they could, both in the mornings and evenings. Justine and I elected to set up the tent under a tree some distance up the track (and consequently further away from the facilities) to escape the noise. (*..so you don't like 4WDDrivers? -Ed*)

Saturday dawned. Everything is so much greener after the winter and spring rains and there is actually grass on the runways. Despite having a winch and a Single Astir in its trailer parked at the airfield, there was no sign of anyone from BVGC. Fortunately the 4WDDrivers departed on a drive in convoy by 8:30 and left the campsite to us. While we waited, Justine and I relocated the tent to a slightly better location. We then drove across to Rawnsley Park and inspected progress of the new luxury cabins being built. We also called in to speak to Joel, the resident tourist pilot.



A pilot's eye view of the Arkapeena campsite.

In the late afternoon, Emilis arrived with TJ. We were alerted by the distinctive sound of a glider trailer rattling its way across the dry creek bed. After Emilis had recovered from the drive we trooped across to the airfield and rigged TJ. We had GZQ with us and waited at the airfield in the hope that the sight of a rigged glider would attract enough attention to drag a volunteer across and help us rig. No-one appeared, but it was pleasant to sit in the shade of the trailer and talk shop with Emilis. I amused myself with filling some local holes in the ground with loose rocks from the surrounding surface (both of which are plentiful at the Arkapeena strip).

Nigel with the Blanik and the Gregory family with the Standard Libelle arrived a bit after sunset. They had arrived at Hawker badly in need of fuel, sometime after the service station had closed for the night. They were lucky that the owner had come back to do something in the workshop and was able to sell them some petrol or they would have been stuck there for the night.

Sunday arrived with NE winds. We rigged GZQ and the Blanik at the SE end of the runway. Considering the wind direction, Martin Gregory took the Standard Libelle down to the other end of the runway to rig. Shortly afterwards the winds changed to the Emilis prescribed NW direction. The Libelle, still in its trailer, came back to the SE end of the strip.

Justine and I launched in GZQ and got to 1,700ft above ground level off the launch. We ran across to the Chase Range and arrived a tad below ridge top height. We found weak ridge lift but reasonable thermals. Despite being reasonably strong, the thermals were generally narrow and ragged around the outside. They were also definitely left-handed thermals being far smoother and easier to work when circling to the left than when circling to the right.

The highest we achieved was 8,000ft. However we found that the wind was significantly stronger at altitude which made pushing up wind challenging. I was looking for ways to get across onto the Elder Range. We eventually got as far as abeam Pompey Pillar on the Pound before we chickened out in consistent heavy sink. The Flinders is a place for conservative flying. We elected to land after two and a quarter hours in the air.

Back on the ground we noticed the 4WDDrivers coming down through the gap in the Chase Range. They were travelling in convoy, with each car around 100 meters behind the other. They drove straight across the NW end of the runway (including the winch cables) without pausing or looking (they did the same thing again on Monday too). (*Hmm...I don't like them either now. -Ed*)



Jim Mullen from BVGC lands the Blanik against the backdrop of the Chase Range.

We decided to do a second flight much later in the day to fly the Chase for the sunset. However Justine was developing a headache which shortened the flight. The thermals were almost gone, and simply consisted of broad areas of one or two knots of lift. The ridge was still working and was keeping us up several hundred feet above the rocks with ease.

Monday dawned with a much cooler day. There were brisk WSW winds across the Arkapeena main strip. After a couple of short hops by the Blanik, the operation stopped for lunch. Justine and I in ZQ took the first launch after the break and were in the right place at the right time to hook in to a thermal. We climbed to 4,500ft and then ran across to Rawnsley Bluff. Unfortunately no-one else made it across to the Pound. Emilis tried several times in TJ but couldn't get above 2,500ft.

Justine and I cruised the SE corner of the Pound for nearly three hours. The ridge lift was very weak and it was almost completely thermals off the face of the Pound with a good resident thermal at the Bluff. There was a marked inversion at around 5,000ft but we caught the resident Bluff thermal to 6,000ft once. We had a lot of fun but had to stay very vigilant to stay clear of Wilpena tourism flights (they had 3 aircraft



The Chase Range rises above the greenery. The Druid Range runs almost parallel to the Chase in the background.

running all weekend) which were cutting across the middle of the Pound at our height band.

There was a noticeable change later in the afternoon and the thermals dropped in strength and how high they were going to. Could this have been the start of wave kicking off from the Elders? We tiptoed up wind and searched around in vain. It was noticeably cooler in the cockpit and we surmised that the day had simply cooled down and weakened the thermals.

We gave up on the search for wave and spotted a lone wedge-tailed eagle circling not far from us. We chased the poor eagle around the sky trying to photograph it. It wasn't being particularly cooperative. Afterwards we cruised back across to Arkapeena and announced our return with a few aerobatics over the campsite. We elected to de-rig ZQ in preparation for the drive home on Tuesday. The sun set just as we closed the trailer doors.



An uncooperative wedge-tailed eagle.

Tuesday arrived with reasonable NE winds and much cooler air. Justine and I had intended to drive the winch and launch the BVGC fleet. There wasn't much enthusiasm at the BVGC camp. High level cloud moved across at noon to further dampen the enthusiasm.

Justine and I drove out to the trailers and found that two cars had been parked near the launch point. We presume they were bushwalkers going up the Chase Range or similar. They of course had conveniently parked in the smoothest, least rocky area with the shortest grass which basically meant they had parked on the cross strip intersection (well very, very close to it). They had parked nowhere near the trailers or where the aircraft were tied down. Fortunately conditions were such that BVGC weren't inclined to do much flying, but it would have been a serious pain in the neck if they wanted to operate.

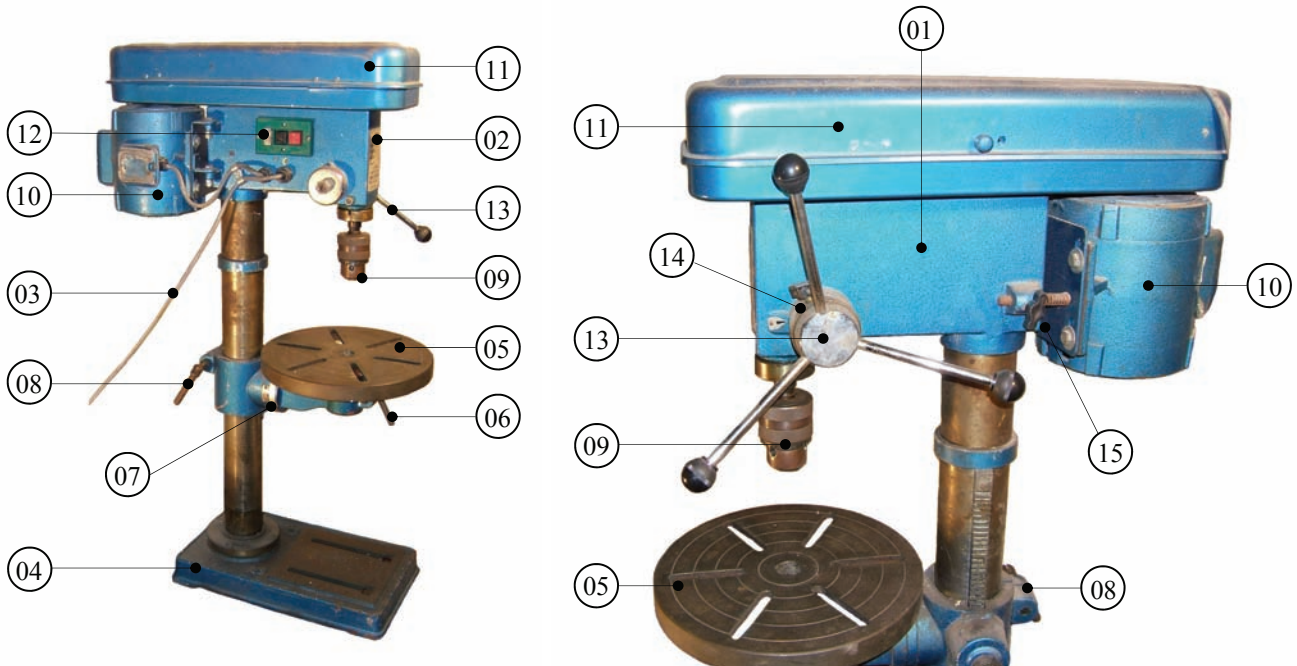
Justine and I departed with ZQ in its trailer at around 1pm and arrived at Gawler at sunset. We enjoyed a great drive back with a tail wind that made towing the trailer (literally) a breeze.

Anthony Smith

Tips and Tricks in the Workshop

Derek Spencer

A basic overview of a drill press



- | | | |
|----------------------------|------------------------------|----------------------------|
| 01. The Drill. | 06. Work Plate Swivel Clamp. | 11. Pulley Housing. |
| 02. Specification Sticker. | 07. Work Plate Tilt. | 12. On/Off Switches. |
| 03. Power Cord. | 08. Height Adjustment Clamp. | 13. Depth Control. |
| 04. Base Plate. | 09. Chuck. | 14. Depth Guide. |
| 05. Work Plate. | 10. Electric Motor. | 15. Belt Tension Adjuster. |

01. The Drill.

Drill presses come in a variety of sizes and are generally found in commercial workshops rather than the DIY handy man's garage (unless they really like their tools). As the work piece is fixed relative to the drill, more accurate drilling can be achieved using a drill press than free hand with a hand drill. When using larger drill bits, presses tend to be safer also.

02. Specification Sticker.

Most drills will have a sticker which will contain information such as who made the drill, the model number and the maximum drill bit diameter. In this case, Herless made the drill, the model number is RDM-80A, it has 12 speed settings and the maximum drill bit capacity is 16mm.

03. Power Cord.

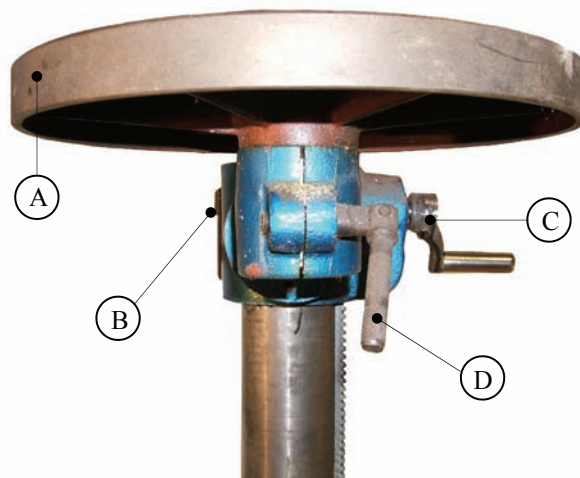
This drill runs off single-phase mains power. Be careful if you are considering buying one as some workshop tools use three-phase power to run.

04. Base Plate.

The base plate supports the drill. In this case, the drill is designed for use on benches. Some drill presses are free standing and the base plate sits on the floor. There is usually a provision to bolt the base plate to the floor or bench for additional stability.

05. Work Plate.

The object to drill is secured to the work plate (A; see also 5). The work plate can be adjusted through four degrees of movement; i.e. raised and lowered, swung, swivelled and tilted.



Mechanisms for adjusting the work plate.

06. Work Plate Swivel Clamp.

By releasing the clamp (D; see also 6), the work plate can be swivelled by hand through 360° in either direction. Don't forget to tighten before using the drill.

07. Work Plate Tilt.

To tilt the work plate, release the clamp. The scale on the side shows the amount of tilt. Tighten before using the drill.

08. Height Adjustment Clamp.

The work plate can be raised or lowered to suit the size of the work piece being drilled by releasing the clamp (B; see also 8) and winding the handle (C); clockwise for up and anti-clockwise for down. Don't forget to tighten before using the drill.

09. Chuck.

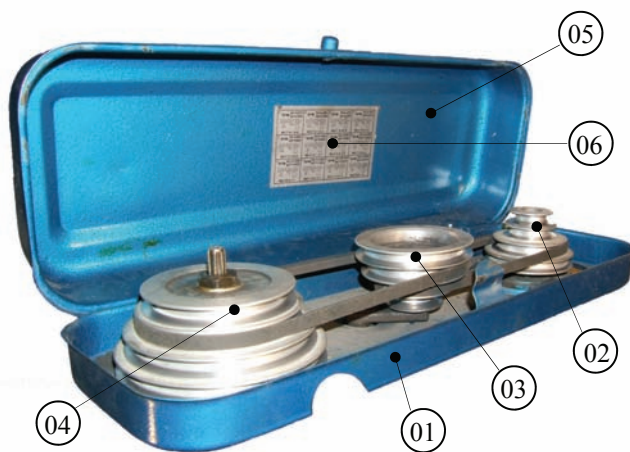
The chuck contains the three jaws that clamp onto the drill bit. It is tightened and loosened using a chuck key in the same way described for the hand drill reviewed last month (see "A basic overview of hand drills" in Tips and Tricks in the Workshop, September 2005).

10. Electric Motor.

This drill press runs off the 240V, 50Hz mains power. The motor runs at a constant speed, but the spindle speed (the bit that holds the chuck that holds the drill bits) can be varied by changing the belt positions on the pulleys in the pulley housing (see 11).

11. Pulley Housing.

Holds the pulleys used to transfer power from the motor to the spindle and vary the spindle speed. There are three pulleys with four sizes available for each pulley giving a possible twelve different speeds to choose from. On the inside of the housing lid (05) is a table (06) that shows which combination of pulleys gives what resulting spindle speed.



- | | |
|---------------------|---------------------|
| 01. Pulley Housing. | 04. Spindle Pulley. |
| 02. Motor Pulley. | 05. Housing Lid. |
| 03. Centre Pulley. | 06. Speeds Table. |

To change the spindle speed, loosen the belt tension adjuster (see 15). This allows the motor pulley to pivot towards the centre pulley, reducing the tension on the belt sufficiently to allow the belt to be removed. The centre pulley is on a pivot and can then be adjusted also. See the Speed and Material table for a guide to what speed should be selected when drilling.

12. On/Off Switches.

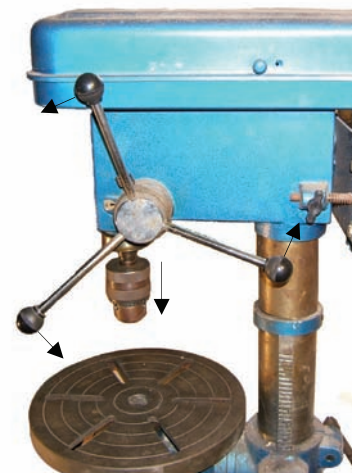
Located on the left-hand side of the drill. The green switch is On and the red switch is Off. Note: The green On switch is indented to reduce accidental starts and the red Off switch is protruding to allow quick and easy location and de-activation of the drill.



Close-up of the On/Off Switches.

13. Depth Control.

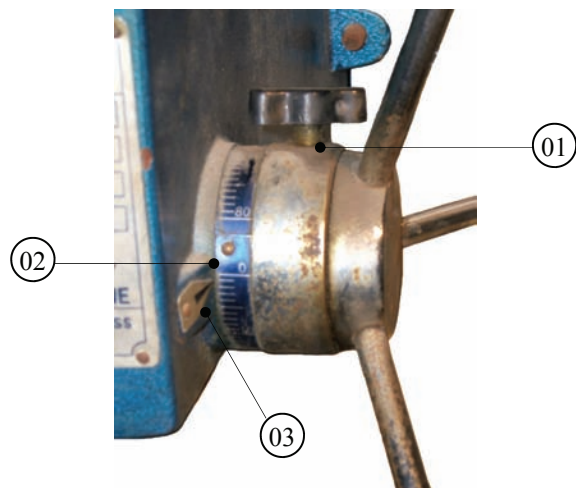
The drill chuck starts in the highest position. By moving the spring-loaded depth control handles forwards and down (see arrows in photo below), the drill chuck is moved downwards. Only use your right hand to operate the handles to ensure your left hand is in position to reach the Off switch quickly if needed.



Depth control handles on the RHS of the drill.

14. Depth Guide.

Is used to accurately drill to a predetermined depth.

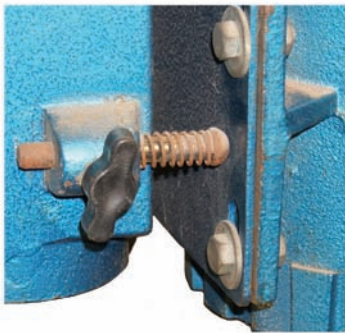


- | | |
|---------------------|-------------|
| 01. Clamping Screw. | 03. Marker. |
| 02. Depth Scale. | |

To drill to a set depth, lower the drill until the tip of the bit touches the work piece. Loosen the clamping screw (01) and rotate the depth scale (02) so that the zero aligns with the marker (03) and tighten the clamping screw again. As the drill is lowered into the work piece, the depth can be read off the scale.

15. Belt Tension Adjuster.

In order to change the speed of the drill, the belts on the pulleys (see 11) have to be loosened sufficiently first. To do this, loosen the clamping screw of the belt tension adjuster and pivot the motor housing forward. Once the belts have been changed, set the tension by pivoting the motor housing backwards and tightening the screw.



Close-up of the belt tension adjuster.

- Don't force the tool. Set the correct speed for the drill bit size and material being drilled. See the Speed and Material table below as a guide. In brief, higher speeds are used for soft materials and smaller drill bits.
- Use the correct tool. It will be safer and the result will be better.
- Don't wear loose clothing, GLOVES, neckties, rings, bracelets or other jewellery that can get caught in moving parts.
- Tie back long hair.
- Never leave the tool running unattended.
- Always ensure that the work plate has been secured.
- Secure the work piece using appropriate clamps, as shown below.



Examples of suitable work piece clamps.

Safety First

When using a drill press, it is important to consider the safety requirements.

- Protect your eyes. Wear safety glasses.
- Remove chuck key before using.

Cheers,

Derek Spencer
Workshop Manager

Speed and Material

Reference list of drills, revolutions and various materials to be drilled (Guide Only).

Drill Dia (mm)	Material					
	Steel	Cast Iron	Gun Metal	Aluminium	Plastics	Wood
Rotative Speed R.P.M.						
Ø03	2550	2550	2550	2550	2550	2550
Ø04	2180	2550	2550	2550	2550	2550
Ø05	1580	2180	2550	2550	2550	2550
Ø06	1350	1580	2180	2550	2550	2550
Ø07	1290	1350	1580	2180	2550	2550
Ø08	830	1290	1350	1580	2180	2550
Ø09	540	830	1290	1350	1580	2180
Ø10	500	540	830	1290	1350	1580
Ø11	420	500	540	830	1290	1350
Ø12	320	420	500	540	830	1290
Ø13	280	320	420	500	540	830
Ø14	210	280	320	420	500	540

Stay In Touch

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

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

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

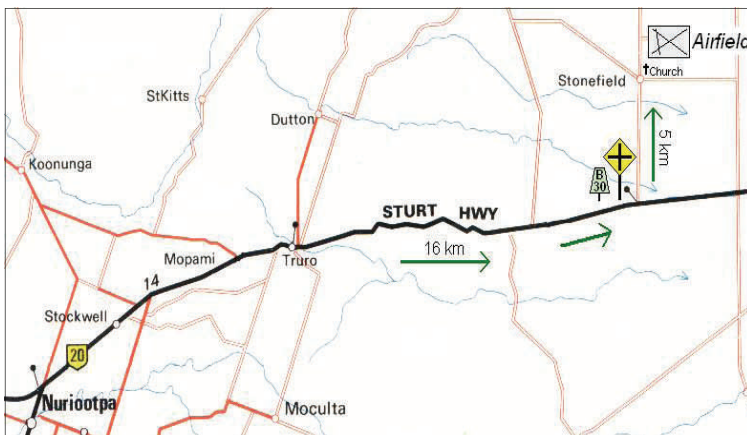
<http://lists.internode.on.net/mailman/listinfo/augc-announce>

You can also get the latest newsletter and up to date news on what is going on at the club's web page:

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

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

Want to fly this weekend?



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

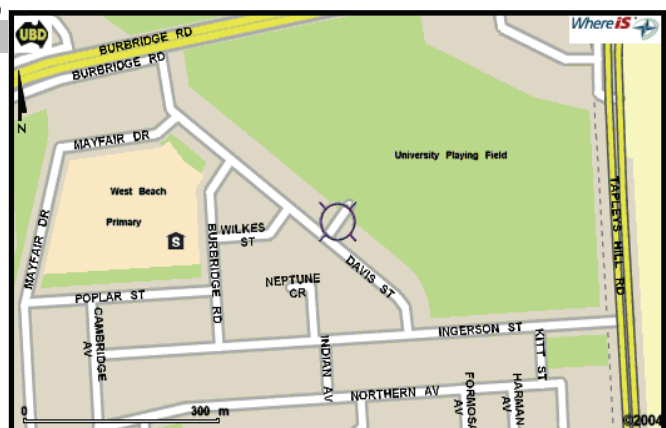
<http://www.harley.net.au/AUGC/index.asp>.

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

Want to help at West Beach?

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

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



Contact List

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Upcoming Events

Wed 12 October: Airfield Selection Meeting

7:00 pm in the WP Rogers Room, Union House, The University of Adelaide.

No voting will be enforced at this meeting! All members who would like to make a contribution to the questionnaire that will be circulated are very welcome to attend. We'll all find out what questions Derek S has come up with since the last meeting.

Tues 18 October: West Beach social BBQ

6.30 pm, West Beach maintenance shed.

Come down to West Beach for snags, socialising and sailplane maintenance. Snags, bread and sauce are available at \$1/snag (or 5 for \$3). Bring other food/drink yourself. Soft drinks and beer are available from the fridge at the usual prices.

Wed 19 October: Executive Committee Meeting

7.00 pm at a venue to be determined.

All are welcome to come along and have a say in how the club is run. Let's try to have as productive a meeting as we did last month.

Wed 26 October: SAGA Winter Lecture

7.30 pm, Room 123b Engineering North (Chem Eng seminar room).

Official Observers Course. Delivered by Cath Conway and Derek Spencer. Contact Andrew Wright for further details on 0427 976 779 or 8303 4648.

29 October - 1 November: Khancoban

Our friendly instructors will desert us for the long weekend to exchange rewarding, exciting and challenging training for monotonous flights over monochromatic landscape. Hard to believe, really.

5-6 November: Cross-Country at Stonefield

An excellent opportunity to experience cross-country flying under the guidance of willing and helpful coaches. See the excitement of the Stonefield airfield... oh wait, that's where we're based!