

Out of the Blue

Waikerie Gliding Club Newsletter

MARCH 2009

Notices

Variety International Visit 3rd April 09

A group of approx 80 people from Variety International (Melbourne) plan to visit Waikerie on 3 – 4 April during the annual Variety Bash. The group plan to stay over-night in Waikerie on Friday 3rd April and visit WGC on Saturday morning for breakfast and a flight in a glider or powered aircraft.

A flight crew, able to start flying (first launch) at 0730 Hrs, is required. Two powered aircraft (Tim Laidler + a Piper Cherokee travelling with the group) will take passenger flights with the aim of getting all those who wish to fly a flight by around 0900 Hrs.

Music on the Murray 4th April 09

A group of SA Sport Aircraft members will again visit Waikerie on Saturday 4th April for the "Music on the Murray" event. The group have booked accommodation at the Club for Saturday night and breakfast on Sunday morning.

Hangar Ball 23rd May 09

The Waikerie District Development Committee (WDDC) has developed a proposal to stage a **Hangar Ball** in the Club's main Hangar on Saturday May 23rd.

The *black tie* Hangar Ball is proposed as a fund raising event by the WDDC to raise funds to paint our main hangar. More details as they come to hand.

Annual General Meeting 2nd May 2009 (AGM)

The Club's AGM has been re-scheduled to Saturday 2 May 2009 at 1600 Hrs. This is a little earlier than usual due to some members being absent overseas later in May and a proposal by the Waikerie District Development Committee to host a Hangar Ball on 23rd May. Put this date into your Diary and come along and support the Club.

National Multi-Class Gliding Competition 4th ~15th January 2010

The Club will host the 2010 National Multi-Class Gliding Championships at Waikerie from 4 – 15 January, 2010. Planning for the event is now underway, and will require significant input from members to assist in staging the event. Help is required for a wide variety of tasks. Further details will also be published on our web page in the near future.

DIARY DATES

Annual General Meeting	Sat 2 nd May (4pm) 2009
	Friday 3 rd April 2009
Next Committee Meeting	Friday 22 nd May 2009
	Friday 10 th July 2009
Member's Flying Days	Sat 21 st Sun 22 nd March
	Sat 4 th April Sun 5 th April
Public Hol's L/Weekends	Check WGC web page

Operations

1. Calling all Crew

Crew meeting scheduled for 9:30am Saturday 18th April 2009. Bring log books for checks and authorizations.

It is hoped that this weekend can be planned such that checkflights and any Instructor, AEI or Tug Pilot revalidations can be undertaken, together with any specific Operational items members wish to undertake – such as Dual Aerotowing, Formation Flying, etc. It is also appropriate that training and / or instructional briefings are included (weather permitting). Instructors and Tug crews please put this date in your Diary.

2. Medical Aircraft Operations

Members will no doubt have seen the aircraft of the Royal Flying Doctor Service or the State Rescue Helicopter on the ground at Waikerie.

These aircraft have two main uses - to transport sick and injured people between local Riverland Hospitals and Hospitals in Adelaide and to transport Medical Retrieval Teams to accident and emergency events to treat and retrieve accident patients.

On most occasions (thankfully), the mission of these aircraft is simply “routine”, however it remains appropriate that we (as members of the aviation community) endeavour to provide for the unimpeded passage for these aircraft, at all times.

On some occasions, the crew of the Medical aircraft will use the term “Med 1” in radio transmissions. This term indicates a mission of a serious emergency nature and the aircraft must be provided uninterrupted passage – or “1st Priority”.

If and when you hear the term “Med 1” used in an inbound call, determine how you can provide for the uninterrupted passage of the Medical aircraft and, if necessary advise the crew of the Medical aircraft of your intentions.

There are many options for the glider pilot, depending upon circumstances, which may include;

- Keeping well clear of the area the medical aircraft is likely to operate in.
- Land early, to be out of the way.
- Defer take-off until the medical aircraft has landed or departed.

It is also appropriate to ensure there is always sufficient space on the apron for the medical aircraft to park without having to weave in and out among sailplanes.

3. Driving on the Airfield

It is apparent we are experiencing another harsh summer. Members are again reminded to strictly limit their travel around the airfield only to the established or recognised roads and tracks. The soil moisture is now at seriously low levels with the soil structure now very fragile, causing it to break up to powder if it is subject to any additional stress.

If it's possible to walk – do so. If there is the need to drive, please use only the established roads/tracks.

4. Sailplane Trailers

We recently experienced some problems with the LS-4 trailer which had the potential for serious damage to the trailer and the sailplane. The incidents related to the wheels – where the first involved a wheel coming off and the second a tyre shredding. While corrective action was taken to rectify the problems without any significant damage to the trailer (and none to the LS-4), these incidents must be seen as a wake-up call in respect of the need to closely inspect the trailers before they are taken on the road – even for a short retrieve.

The ideal situation would be for one or two Club members to take on the responsibility for the maintenance and upkeep of the Club's trailers to ensure they are always in tip-top condition. Let's know if you are interested.

‘OUT OF THE BLUE’

SEND YOU'RE NEWS ARTICLES, ITEMS OF INTEREST OR ANY SUGGESTIONS FOR FUTURE TOPICS TO: gjack@tpq.com.au



Full Time Operations

The Club's annual fulltime operations period was staged from December 27th 2008 to January 11th 2009, with a group of Japanese members arriving on 26th December. Thanks to Nigel Baker, Bill Mudge and Cath Conway for overseeing check and familiarisation flights. Thanks also to Pete Siddal, Cath Conway, Greg Jackson and David Conway who operated the Tug during the period. Thanks also to those who assisted in the clean-up on the last day. **John Hudson**

Coaching Week – 27.12.08 – 3.1.09
Coaching Week was again a successful event, with all pilots showing an improvement in cross-country performance. This event was again held without any serious incidents – reinforcing the need for all pilots to be vigilant at all times

SA State Comps - 3.1.09 – 10.1.09

The SA State Competition followed on from the Coaching Week. There were 9 entries from made up of members from Adelaide Soaring Club, Balaklava Gliding Club, University Gliding Club, Renmark Gliding Club, Barossa Valley Gliding Club and WGC.

The event was won by Terry Cubley, with Haidyn Dunn second.

Clubroom Carpet

Following the fulltime operations period, the Clubroom carpet has been cleaned – and now looks new again. The cost to clean this was a little over \$400.00. There is no doubt that these funds could be used for other Club uses – so it's important to be particularly careful not to spill food and drinks onto the carpet.

New Members

Rudi Gassamier has re-joined WGC. Rudi has extensive gliding experience over many years and was previously a member of WGC.

Jim Townsend, recently joined WGC. Jim had no gliding experience but does have extensive powered aircraft experience. Please introduce yourself to Jim when the opportunity arises.

Tony Edge and **Mark Mortimer**, both from Adelaide, have joined the Club.

Welcome Jim, Rudi, Tony and Mark

Lack of Communication

(Between father and son)

We were fortunate to have our son Michael and his family home from Ottawa for Christmas and as I hadn't been able to take him flying for many years I looked forward to at least giving him a circuit this visit.

Sunday January 4th was marked on the calendar and turned out to be good weather, with the "21" in steady demand.

An approximate launch time of around 1pm became something closer to 3pm and with little things like Michael driving back in to Waikerie to buy a packet of "kwell's" and generally showing signs of being nervous, I decided to make it a short and smooth ride..

We launched with a downwind component which made the ground run a little longer and bumpier, the hot day ensured plenty of turbulence and the tuggie banked into a ripper thermal which soon took us to 2,000ft.

Michael's last glider flight was in 1992 so I reminded him when I was about to release that we would climb a little and break right. I received a one word "OK" from behind me.

I remembered a recent flight with our other son, Neville, who has flown with me many times before, that he was nearly airsick when I was using normal bank, so I almost convinced myself that I should just make this flight with Michael a high circuit.

However, very pleasant gentle turns in strong lift got the better of me and had us at 6,500 in no time. I decided I had better not go any higher and headed east and then west pointing out landmarks that he would remember. His brief answers and quiet reply of "OK" when I enquired into his health was not encouraging. Convinced that I had an impending case of airsickness on my hands, I gently opened the brakes and planned my landing from about 5,000, while trying to estimate how long it would take us to get down. As we dropped below 2,000 and I really had set up a landing pattern, a voice said "Hey Dad, could we do a wing over or something?" Brakes closed, move out of the circuit area, check below, 2 wing overs and now join downwind.

Driving home that night Michael said "I really enjoyed that flight, pity it was so short, I had hoped we would have done a short cross country.

"As I said, "Lack of communication".

Interesting Snip-it

Terance Moore [Terance.moore@rta.ae]

U may care to mention that I am “off the scene” at moment, have taken up a role in (RTA) Dubai for a couple of years

Sadly a lack of any gliding facilities has caused me to go over to the dark side and take up flying ultralights to control my “flying withdrawal” symptoms. I might add I found forced landings the easiest part of the conversion course!

I am up to a bit over 30 hours on Jetfox 97/ Aeroprakt 22L – couple of pictures attached

Happy to show any members travelling via Dubai the local sights! Regards Terry



Outdoor Furniture

You may have noticed that the furniture under the pergola on the northern side of the Clubroom has been given some TLC and a re-paint. Our thanks to Graham Francis who completed this job. Well done Graham.

Congratulations

On behalf of the Club members, Congratulations are extended to **Aiden Baker**, who recently completed his trade training course - with great results and ahead of time. Aiden also completed all of the electives that it is possible to do in the trade (Heavy Diesel Mechanics).

Well done Aiden

Airworthiness

a) Sailplane Airbrakes – Pilots are asked to leave the airbrakes in the unlocked position on hangared sailplanes, to relieve the stress on the over-centre lock.

b) AS K21 Canopy Weakness

A weakness has been identified in the rear canopy frame on the AS K21. The *weakness* is introduced in manufacture, when small holes were drilled through the two steel support framework legs – these holes becoming the intended failure point if/when the rear canopy is jettisoned. The 4 small holes are fitted rubber grommets to prevent moisture ingress (and thus corrosion). These small holes and the intended weakness result in the potential for a fatigue crack, and ultimately failure to occur, in other than a canopy jettison event. It is therefore vitally important to support the rear canopy when it is open, particularly in windy conditions. Also on the AS K21 (front) Canopy Emergency Jettison Lever (Red lever in the front of the Canopy), there is a small length of resin-cored solder (**it is not and must not be**) lock-wire, to indicate that the Canopy is locked. If the piece of solder is broken, the glider must not be flown.

c) Sailplane Canopies – The canopies must be locked closed when the sailplane/s are being ground-handled, i.e. taken between the hangar and take-off point etc. This will prevent the canopy “bouncing around” during this travel. The storm windows should also be closed while the glider is hangared.

Optimizing the Centre of Gravity of your sailplane by Bernard Eckey

Some glider pilots pay little attention to the Centre of Gravity (C of G) as long as it is within the aircraft's limit while the other seems to think that sailplanes perform best with the C of G in the most aft position allowed. But is this really true and how does the C of G affect a glider's performance?

Basic theory says that a sailplane's performance is determined by the ratio of lift to drag. It also says that the wings produce lift and the tail plane generates stability. A sailplane's wing is subject to ever changing aerodynamic moments which have to be balanced by the tail plane. To begin with let's look at the low and high speed side of the flight envelope separately.

At slow speeds the tail plane needs to produce a downward force. This downward force needs to be higher the further forward the C of G is located. The harder the pilot pulls on the stick (and the further the elevator is deflected) the more drag is created. With a rearmost C of G, however, the elevator deflection can be minimized and drag can be reduced. Extensive field tests with two ASH 25 in Germany have confirmed a significant performance difference between forward and rearward C of G position – especially at slow speed.



So much for circling flight but in how far does the situation change in cruise? With most of today's highly refined gliders the tail plane no longer produces a downward force in fast cruise. In fact it might even minutely contribute to the sailplane's total amount of lift. However, if the C of G is in the most aft position the tail plane needs to produce a much larger amount of lift than otherwise necessary. Due to a very low aspect ratio and an almost symmetrical profile the tail plane is nowhere near as efficient as the wing. The result is a larger than necessary tail plane drag which is responsible for a significant reduction in the aircraft's overall performance. Not surprisingly the field tests mentioned above has confirmed this theory.

Now we have a situation where a rearmost C of G is beneficial in circling flight but detrimental at medium to fast cruising speeds. Obviously a compromise must be found but the problem is that the optimum position changes almost every day and is dependent on the ratio of circling to cruising flight. If the circling percentage is rather high it will be best for the C of G to be further back. However, with a low thermalling percentage (for example, due to streeting or flying in wave) a more forward C of G position would be clearly better.

In addition to performance issues there are equally important safety and stability considerations. A rearmost C of G will allow the glider to spin much easier – something almost impossible with the majority of modern quality gliders and a well forward C of G position. Even highly experienced pilots should be very wary choosing an extreme aft C of G position.

In summary:

- For optimum performance the tail plane should not produce any upward or downward forces.
- A slight positive or negative elevator deflection in flight is no reliable indication whether the tail plane is producing lift or a down force.
- A rearmost C of G position is hardly ever advantageous for best overall performance.
- A position in the forward half of the C of G envelope is not recommended for performance reasons.
- A good compromise seems to be a C of G position about 30 to 35% forward of the maximum aft position. There is no need to aim for the rearmost C of G position.
- Flying with the C of G at the most aft position can become dangerous especially when severe gusts are encountered in the circuit and when close to the ground.
- A forward C of G position might be preferable for a 'first solo' aircraft due to a glider's reduced tendency to enter a spin.

Let me conclude the subject by saying that the above comments are just general observations. Conclusive results can only be determined when all parameters of a particular type of glider are taken into account. It is always best to consult your flight manual.

Finally a word of caution. Operating an aircraft outside of its nominated C of G limits makes you a test pilot and that can become very detrimental to your health and future well being.

Bernard Eckey

Another You Should Have Been There! From Mark

Saturday 7th was looking to be a cracker day. High temps with a strong frontal change mid afternoon. Unfortunately soon after moving the grass pad sprinklers the wind increased significantly. By 10am it was clear we were outside of our safe operating conditions.

The few pilots in the briefing room decided to call the day off and some inadvertently returned home. I went back after lunch to do a bit more work on the Nimbus ZBY. By 1400 the wind had moderated somewhat and so I asked Pete Siddall how he felt about launching in the present conditions. By 14.40 I lifted off behind the tug as my little self-launch motor would not have been able to do the job. Ron was already climbing as we headed out toward the north-west into wind. Met report indicated high winds at altitude.

I had trouble getting established in a climb to the point where I nearly headed back to the field for a relight. The high 47C was making work in the cockpit a little hard. I managed to make 4,000ft and headed off due west looking for better cloud. As I reached abeam the salt interception lake the vertical rush hit the fuselage and the electric vario popped to the stop and didn't move. After a short time I looked at my Schumann mechanical vario and noticed the needle was on its second scale indicating 14kts. The needle danced between 14 and 18 kts for the next 8,000ft of climb.

At 14,000 Ron dropped in and we headed south west toward the approaching frontal system making contact just south of Blanchetown. We headed North West along the dust wall at 70kts or so moving between 12,000 to 14,500 as the lift was not constant and the front was sort of leap frogging over itself as it moved along swallowing up dust devils as it went.

Headway was slow over the ground into a significant headwind. At Redcliff, 70kms up, the line it was no so define so we decided to about face for the downwind dash. Our over the ground speed jumped from 50 - 60 kts to 120kts. A bit of a tailwind now I'd say!

90kms down the track passed by in what seemed to be the wink of an eye. It seemed we had only just turned around, yet here we were at Lake Bonney already. We decided it was time to look at going back through the front as we had no idea how much wind was behind it and how much height was needed to get back home and the frontal line was somewhat broken up further south.

On the back of the frontal cloud we made a slow climb which then started to rain on us. This in time turned into a bit of hail so it was time to go. Into wind now from 13,000. We cruised toward a cloud line back over the river by Blanchetown but it was easy to see this was breaking up the further it moved east from the hills. I turned at Nott's Well tower and for home. Not a ripple of lift in the sky since we left the frontal activity. I felt a few bumps at 3,500 but other than that there was not a bubble of lift about.

Landing was into a stiff but reasonably organised headwind, nothing ridiculously turbulent like my last high wind flight. Looking at the flight trace was interesting as the north westerly track plotted almost north and the south easterly track was quite a different angle. Obviously the strong headwind from the North West coupled with the advancing frontal system made an interesting track log.

Another interesting 3hrs 20mins in the airwaves. I would just like to thank Pete for the launch and my son Terry for helping everybody get off the ground in such scorching conditions.

You should have been there!!!

PS. Robbo- you went home too early mate!!



Looks a wee bit murky for me: Jet

ASK21 Project

The AS K21 - VH-WKI is now very much part of the Waikerie scene. In the very near future, we will commence construction of the trailer for this sailplane. With the recent delivery of the construction materials club members will be building the trailer at John Ridge's property in Forreston.

While the Clubs Japanese members were here during the fulltime operations period, the various sailplane syndicate groups contributed generously to the ASK21 project –

Hiro Yamada contributed \$800.00

DDH Syndicate contributed \$500.00

KYS Syndicate \$200.00

ZBC Syndicate \$200.00.

Craig Vinall and Allen Hudson also contributed generously to this project.

On behalf of The Waikerie Gliding Club, to the Japanese syndicate members I express our sincere appreciation for this generous gesture.

John Hudson President WGC