



'SAFETY BULLETIN'

8/14 SUMMER FLYING CAMPS - DECEMBER 2014

EFFECTS OF HEAT

Summer is upon us again, and it is at this time of year when dehydration and heat exhaustion can set in whilst working in hot and humid conditions. This particularly applies to glider pilots due to our workplace. For instance, an aircraft left in the sun will 'soak' up heat, especially gliders that have a large expanse of Perspex in terms of the canopy. Temperatures in our glider cockpits can rise 15 to 25 degrees above ambient temperatures, and as you can imagine the surface temperatures of items within the cockpit maybe even higher. How many of you have nearly been burnt by extremely hot harness buckles?

Dehydration – Did you know that 60% of our body weight is made up of water. Our bodies cool through the evaporation of sweat. To allow this we need a constant water supply, and if not received the body will use its own stores of water to produce sweat. Dehydration will set in quite quickly if you don't replace the fluids in your body, while it is trying to keep your body temperature at 33 degrees or below. At this sort of temperature, our body needs at least 4 litres of water per day.....that's without any exercise or exertion!

Symptoms - The symptoms of mild dehydration are:

- Increased thirst.
- Dry mouth and sticky saliva.
- Reduced urine output with dark yellow urine.
- Light-headedness especially when standing that is relieved by lying down.
- Headache and possible Dizziness
- Pale, clammy skin
- Decreased urination, or half the number of urinations in 24 hours.
- Muscle Cramps

You fluid intake should be spread throughout the day. You should not wait until you feel thirsty, it will be too late by then as you are already dehydrated. We have said before that an indication of whether you are drinking enough is the colour of your pee (Urine). Once it is darker than a pale straw colour you should drink at least 250ml of fluid every 30 minutes until you see an improvement.

PREVENTION - To prevent dehydration you should hydrate early – that is, before you start to feel thirsty. When working and flying in hot climate conditions, you need to:

- Ensure you start the day with a good breakfast
- Drink 1 cup (250mls) of water every ½ hour (20 Cups = 5Lts)
- Drink water or sports drinks only (Not fizzy drinks)

- Increase fluid intake if your urine is dark in colour.
- Find a cool or shady area to allow you to cool down every couple of hours. This will help prevent the cumulative effects of heat exposure

TREATMENT - If symptoms appear in yourself or one of your colleagues, you should start treatment immediately by:

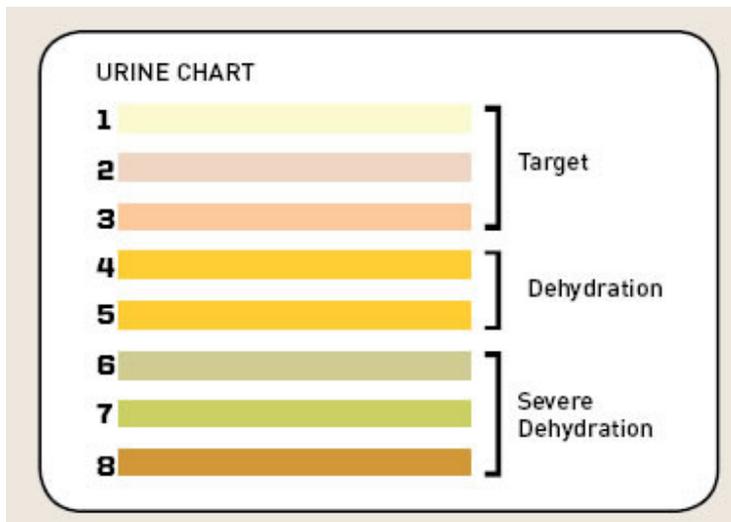
- Cooling the casualty
- Giving frequent small drinks of water or ORS (oral rehydration solution)

Sunburn – As you know, sunburn causes a change in the skin which can result in a severe allergic reaction with swelling and blistering if left without protection. This can be accompanied in the extremes by pain. So remember that even though you are under a Perspex canopy you are not protected from the Sun’s harmful rays.

In summary, the best prevention is to look after yourself and look out for each other! So, how can we make flying this December safe and enjoyable? Well these handy tips should help:

- Ensure you have adequate rest and regular fluid intake
- Ensure you regularly slip slop slap on that sunscreen at least every 2 hours
- Drink plenty of fluid during the day aiming for at least 250ml every 30 minutes
- Make sure you wear your broad brimmed hat when outside or in the aircraft
- Ensure you have eye protection with good sun glasses
- Keep a lookout for aircraft that are on the ground for extended periods of time, and apply the canopy cover if appropriate
- Look after yourself andlook out for each other!!

Dehydration Chart:



GLIDER CANOPIES

As a result of the new additions to the glider fleet, we now have a mix of glider canopies with lanyards and the DG1001s with gas struts. Just be mindful that the resistance on each is quite different as indeed is the closing mechanism. Be careful when closing the canopies especially the DG1001s as being new they are still quite stiff and will eventually mould to the aircraft and become easier to close. If you are not sure then ask!

TOW ROPE HANDLING

We brief for it, but some may never have seen what can go wrong. We tell staff and cadets to hold the tow rope a particular way, so that if the rope is snatched it will safely leave the holders hand. All launch point supervisors (Duty Pilots) and briefers of visiting cadets and students, please ensure that your briefing and supervision is up to standard and all that all students handle this potentially hazardous piece of equipment correctly and with care.

LOOSE ARTICLES (FOD)

Please ensure that both instructors and students check your person for potential loose articles prior to getting into an aircraft. Only take into the cockpit those items necessary for the sortie. Ensure that pens do not have bits that can fall off like tops, clips etc. If you're wearing outdoor clothing under your flying suit, ensure that the pockets are empty. Remember.....it's so easy for something small to become jammed between the various moving parts inside the cockpit and if you're airborne what do you do then!

Aircraft Preparation - Take greater care with aircraft servicing and general preparation. Ensure that all surfaces are clean and dry, wheel boxes/fairings clear of mud. Clean canopies means less misting and smearing, so ensure they are thoroughly cleaned (inside and out).

Dressing the Cockpit – When you have completed your flight and have departed the cockpit please ensure you take the time to 'dress' the harnesses. This is a just good manners and thoughtfulness towards your fellow pilots. This includes;

- Laying the waist harnesses horizontal across the seat;
- Shoulder harnesses positioned down the back rest equally separated;
- Extend all harnesses to around medium length position;
- Ensure no twists or similar are present;
- Return any cushions to the cockpit that may have been removed for solo flight and likewise replace any that have been removed for normal training sorties;
- Remove any personal items and turn Master Switch off

SNAKES AND FLIES

This time of the year also brings out our airfield neighbours at Bathurst, in the form of brown snakes and flies. Firstly to brown snakes. They have been known to transit across the runways from one side of the airfield to the other. They are typically more active during the day and females produce their eggs in late spring and early summer. Although brown snakes are temperamental and dangerous creatures, they will always try and avoid a confrontation with humans if possible. Therefore, It is really important that when venturing into long grass that you check the area you are walking into first, especially runways 08/26. They usually flee if confronted by humans. Make sure you are also familiar with how to sound the alarm and deal with a snake bite in the unlikely event that it happens.

And flies are at their most active in December and January and can get on your nerves after a while. Repellent is really useful at this time of year! It would be worth packing a small amount for personal use.

ALL CLEAR ABOVE AND BEHIND

Lookout is the principal method for implementing see-and-avoid. Effective lookout means seeing what is 'out there' and assessing the information that is received before making an appropriate decision.

Every glider pilot is familiar with the ground crew's advice to pilots "*all clear above and behind*" prior to the commencement of launches; however, the true intention of this advice is not always fully understood.

The 'above and behind' advice is intended to inform the pilot of any activity in that airspace that is not readily (or possibly) visible to the pilot from his/her position when seated in the glider ready for launch.

It does not, in its standard form, advise the pilot of all local airspace activity. Any further advice the launch assistant can provide to the pilot merely enhances operational safety.

However, it must always be accepted that the ultimate responsibility for proceeding with any launch rests with the pilot, and the pilot must be satisfied that the surrounding airspace is safe to launch into by whatever means the pilot chooses to establish its status.

USE OF THE AIRCRAFT RADIO

Just a reminder that a good listening watch as well as correct radio use, especially when flying at height in the vicinity of Bathurst aerodrome, is really important. This of course starts with ensuring that, before taking off, the radio is correctly adjusted for volume and squelch, and set to the correct frequency.

DG1001 TOWING BAR

The recent addition to our fleet has its own towing bars. The bar is easily identified by the two small wheels on the opposite end to the tow ball fitting and a crosswise rod projecting to the side.

The towing bar can be shortened or lengthened by first rotating the small lever on top which raises or drops the locking pin into locating holes in the bar, then sliding the bar to the required length and re-engaging the locking pin.

TO INSTALL THE BAR ONTO THE DOLLY:

1. **Ensure that the bar is set to its shortest length** to avoid smashing the tailplane or elevators.
2. With the bar leaning slightly aft of vertical, slide the rod all the way into the dolly tube from the left side until the small lug at the outer end of the rod passes over the flat on the flange of the dolly tube,
3. Rotate the towing bar down to the rear. The lug is now sitting behind the flange so it can't come out.
4. Extend the towing bar to its full length, hook it onto the car and drive away.

TO REMOVE THE BAR FROM THE DOLLY:

To remove the towing bar from the dolly is simply the reverse of the above but **Before attempting to remove the towing bar, ensure it is adjusted back to its shortest length** to avoid smashing the tailplane or elevators.

There are several advantages with this type of dolly and towbar, for example:

1. The dolly stays on the ground, so you don't have to lift the weight of the glider when hooking on or unhooking.
2. Because the tailwheel doesn't have to sit in a cup on the towbar, it can't be wrongly installed so the tail falls off the bar at the first bump.
3. The towing bar remains directly aligned with the longitudinal axis of the glider giving positive steering, with no chance of the glider coming off the bar, jackknifing the towbar, and running up the back of the car which has happened at other gliding clubs in the past!

And finally.....

Please don't be the first to try to install or remove the towing bar without first reducing it to its minimum length.

Remember, if you see something you are not happy with or you feel is a potential risk.....then **REPORT IT**

Have a great course and safe flying!

SQNLDR (AAFC) Bill Gleeson-Barker
Chief Flying Instructor
Senior Aviation Officer 3WG

FLTLT (AAFC) Paul Hughes
Wing Aviation Safety Officer