

What the Ops Team is Talking About . . .

Memo to Club CFI's and other interested parties - March 2020 - *please forward to your instructors.*
A summary of the key items discussed at the Ops Team on-line meeting on 4 March 2020.
David Moody (North), David Hirst (Central), Graham Erikson (South) and Martyn Cook (NOO).

1. Summary of Incident Reports for Jan - Feb 2020

- near miss on short final (10m) - 4 gliders in circuit - overtaking underneath another glider
- near miss (60m) - 2 gliders joining circuit - radio/flarm no effect - unusual joining manoeuvre
- loose object (plastic pill bottle) prevented left aileron - force applied in flight to break bottle
- glider released at 400 ft after being severely displaced - attributed to sudden wind shear event
- glider flown multiple times with vibration in elevator - large gaps found with no sealing tape
- ASI intermittent on winch launches - normal operation on ground - insect parts inside fin pitot
- tractor operation on airfield conflicting with tow plane and glider ops - multiple events reported
- wheel up landing - undercarriage lever actuated on downwind but incorrect position selected

Commentary:

There are two serious near-miss reports, and both occurred in the circuit after quite long flights. In the first event the pilot made a steep, descending turn at 80 kts with airbrakes out, and passed directly through the normal downwind path where there was a second glider flying straight. In hindsight this approach to the circuit area did not show an appropriate level of caution - after all, other gliders can surely be expected near a gliding site.

It was noted by the Ops Team that in power flying there is a procedure for joining the circuit called "Standard Overhead Rejoin" which - despite some of its faults - does provide the opportunity to slow the aircraft down and have a good look around while 500 feet above circuit joining height. Experienced glider pilots usually display a similar caution when approaching to land, although obviously the overhead rejoin at a winch site is forbidden. Prudent pilots take the opportunity to calm down and assess traffic from a distance before cautiously joining on a long downwind leg.

The second near-miss incident occurred between two gliders landing after a contest task. The traces show the two gliders flying abeam each other on downwind, base and final, with the faster glider flying a larger circuit around the slower one and thereby keeping pace with it. On short final the two paths then converged and the faster glider overtook the slower one by flying underneath it, so it appeared from the slower glider's blind spot. There were at least two other aircraft joining at the same time, so radio calls did not seem to help, and the flarm warnings reportedly did sound.

How can we prevent these near miss incidents? The first suggestion is that pilots must behave in predictable ways around the airfield, adhering reasonably closely to the standard circuit format. The second is that lookout and scanning needs to be maintained in all directions, without allowing too much focus on the intended landing area. This includes a sober awareness of *blind spots* - which are actually huge volumes of space, not just mere "spots". Too often an impending collision course can only be seen from one glider, and sometimes from neither glider, which means the "orderly procession" of the circuit needs to be set up well ahead.

Loose objects in fuselage: this is not the first time a control malfunction has been caused by loose articles, in this case a pill container. Fortunately it was able to be crushed by applying force to the controls, and a degree of control could be restored (see photo). Other objects like pickets and rigging tools are less flexible and in the past have incapacitated the glider.

How to prevent these incidents? Firstly, zero tolerance on the DI for inadequately-secured items, including batteries, pickets, cameras, sunglasses, cell phones and other luggage.



Secondly, don't carry any item in the aircraft that is not going to be needed in flight.

Thirdly ensure that there are no gaps where loose articles can move into areas where controls run. Check that fabric shrouds around the control sticks are intact, parcel shelves are correctly-fitted, and there are no gaps underneath or behind seats where articles could slip through. In some aircraft the gaps around flap and trim levers are large enough to admit coins, keys, ballpoint pens and the like.

Malfunctioning ASI: This is the second occurrence in recent months, both attributed to insect infestation in the pitot tube. Consider using a sleeve or other conspicuous cover on the pitot when the glider is stored.

2. Moodle Training Program Update

This has been reviewed by CAA and a number of recommendations and requirements are being considered by the GNZ executive committee.

3. Club Audit Program

The Club audit program remains up to date, with the Auckland ATC audit to be completed by 31 May 2020.

4. Unsafe Winch Launch Profile

There was discussion on what degree of influence the winch driver has in enabling (or preventing) the glider pilot to fly a safe launch profile. In this case "safe" means that the glider could be landed without damage in the event of a power failure or cable break *at any point during the launch*. The point was made that if too much power is applied - or the right amount of power is applied too quickly - it may be impossible for the glider to fly a safe profile. There are two reasons for this:

1. If the glider becomes airborne there can be a pitching-up moment created by the cable which the pilot may not be able to arrest - even with full forward stick. This can lead to a stall and flick roll.
2. The pilot pitches the glider up briskly before gaining enough height to recover - in order to prevent overspeeding - because the predetermined rotate speed has been reached. The excessive increase in wing loading can also lead to a stall and flick roll. The pilot needs to tolerate a slight overspeed while gradually gaining height, and only then transition to the full climb.

Such unsafe practices can be avoided by close cooperation between glider pilots and winch drivers, and by calibrating the winch power settings against different glider types similar to the throttle guide fitted to a Skylaunch winch.

