

## **What the GNZ Operations Team is Talking About . . .**

A summary of key items discussed at the Operations Team on-line meeting on 29 March 2023. David Moody (North), David Hirst (Central), Wal Bethwaite (South) and Martyn Cook (NOO).

### **1. Incident Reports for January - March 2023**

- hat, rag and Flight Manual found under seat pan during DI - with potential to jam controls
- outlanding in maize crop after failed attempt to start engine at 500 feet AGL - minor damage
- random check at contest - several competitors did not have valid parachute repack certificates
- handle of control stick came loose in flight - pilot removed handle and flew with bare stick
- front canopy not latched - started to open during winch launch - trainee managed to secure it
- overseas instructor check-out - flew beyond sensible limit boxing the wake, tug released rope
- visiting overseas pilot was warned of airspace boundary but still encroached while thermalling
- lack of radio response from control tower, so transmitted intentions "blind". No cause found.
- near miss between glider and tug+glider, no Flarm in tug, no radio call by tug on entering MBZ
- rudder pedal locking pin in rear cockpit disengaged in flight, right pedal moved fully forward
- ground loop after outlanding, surface undulations not apparent from the air, no visible damage
- chafed wiring found during DI after engine failed to retract - short circuit, potential fire risk
- outlanding field was much rougher than expected, recently converted from forestry to dairy
- minor damage to belly skin after outlanding in rough field during contest
- winch launch on first of type, wingtip dragged along ground before recovering
- first on type, hasty outlanding, wing clipped fence, significant damage, possible dehydration

### **Commentary on Selected Incident Reports**

*1.1 Visiting Overseas Pilots and Instructors:* Two incidents involved pilots visiting NZ from overseas. While gliding practice in many countries is similar to NZ, it is not identical. The "different environment" in NZ can lead to errors and incidents. In the first incident the overseas instructor was being checked out on aerotow and asked to demonstrate "boxing the wake". The submitter reported that the visiting instructor flew the glider out beyond the wingtip of the towplane while also being slightly high. Both the tow pilot and the local glider instructor released the rope at the same time. The NZ instructor reported that this was the second time this had happened with a European instructor, and wondered whether this exercise is taught differently overseas. In the second incident the visiting pilot breached airspace while flying a single seater in good thermal conditions. The incursion was picked up by another club member via the tracking system.

*1.2 Wing Drop on Winch Launch:* First flight on type. The pilot failed to realise that the wingtip had hit the ground on a winch launch. For a glider with long wings and/or a small dihedral angle, it can be hard to detect that the tip is on the ground. The reviewer comments, "The BGA has advised instructors to sit students in the glider and slowly lower the wing. Have the student look ahead and pull the release when they think the wing is about to touch the ground". I did this with some students and all were surprised how small the bank angle was.

A second issue is that a winch launch in a crosswind increases the chance of the downwind wing dropping to the ground and risking a ground loop or cartwheel if it snags. The submitter mentions that "this is a concern (and still a frequent occurrence) in the UK". Many pilots have their own favourite way of dealing with this. Two popular ideas are to have the into-wind wing low (and therefore unbalanced) or apply some into-wind aileron. Both methods cause concern to wing tip runners and may not be effective anyway. The presence of long grass under the downwind wingtip increases the risk, so grass should be kept short. But always release if the wing goes down - it's easy enough to push back and try again, and a serious risk if you don't.

A third issue is that on this glider the handle at the top of the control column was tilted to the left, presumably to allow a more comfortable angle on the wrist while in the neutral position. The lower part of the control column (below the handle) is vertical when the ailerons are centred. If the pilot intended to centre the ailerons by holding the handle vertical (as they might have done with aircraft previously flown) then almost full right aileron would have been applied.

*1.3 First Flight on Type:* This type of incident highlights the need to avoid taking on too many new things at once. A prudent pilot will not be too ambitious on their first few flights in a different glider. There can be many subtle differences between gliders, as outlined in the *Convert to Single Seater* paper at the end of the *To Soaring* section of the PTP.

In this second first-flight-on-type incident the pilot had done a lot of driving over previous days to collect the glider. The pilot was converting from an earlier model of the type. In the previous model the pilot always ensured the fuel tank was full before takeoff. The newer model had a fuel gauge, and the pilot accepted that the quantity indication was accurate and he had sufficient fuel for the proposed flight. While flying, the pilot found he could not reach his water bottle.

The flight largely took place beyond gliding range of the airfield, due to the location of the thermals. During the flight the sustainer motor was started on three occasions and it reportedly started and ran well. After about 90 minutes, the pilot planned to return for landing, and noted he was below final glide. He started the engine again, and it ran for a short while then stopped. The fuel gauge was showing a low reading so the pilot assumed the engine failure was due to no usable fuel, and retracted the motor.

At that stage the pilot calculated he had just sufficient height to return to the original airfield - so flew in that direction. However he then encountered unexpected sink and realised he would not make it, so turned away towards more suitable landable paddocks. Still encountering sink, he attempted a paddock landing but on approach impacted a fence not previously observed. This resulted in the pilot's head breaking the canopy and damage to the leading edge of both wings. The heavy landing also wiped off the undercarriage doors and hurt the pilot's back.

## **2. Detecting Gliders Operating Near Controlled Airspace**

The Ops Team received a letter which conveyed that some Air New Zealand pilots are concerned about operating close (vertically) to gliders near airspace boundaries when gliders are not operating their transponders.

This is of particular concern where IFR routes operate at the lower edge of controlled airspace, and where gliders might be operating VFR at the upper edge of uncontrolled airspace or airspace designated for glider flying. The Air NZ pilots' concern is that, when at a distance, they are not easily able to determine whether there is sufficient vertical separation to the glider below them. This is because at FL180 the true horizon is above terrain, and the glider appears in mid-air, also above terrain - so there is no quick visual assurance of vertical separation.

There are two requests:

2.1 That all pilots switch on their ADS-B transponders at all times to increase their electronic conspicuity to commercial jet aircraft, especially when flying near the ceiling of uncontrolled airspace. With the investment many pilots have been forced to make in fitting this equipment it surely makes sense to use it at every opportunity, and to ensure there is sufficient battery capacity to support this.

2.2 That all pilots strictly follow the procedures for altimeter operation, including biennial checks if ADS-B is not fitted and pilots intend to fly near to controlled airspace. This is to ensure that the altimeters installed in gliders are indicating within their allowed tolerance.

A second cause of inaccurate altitude measurement arises from the habit of some glider pilots to leave the altimeter set at the QNH of the departure aerodrome for the whole day. The standard practice in gliding should be to set and maintain the correct QNH for the area when airborne for any length of time by periodically checking for any change in the area QNH.

### **3. Don't Call "STOP" After a Winch Launch has Commenced**

Some visiting UK instructors have advised Gliding NZ to make this a firm rule. Neither the winch driver nor the launch point controller should stop a launch after the "ALL OUT" has been given and the glider has started rolling. At least for the first 300 feet of height.

The experience in the UK has been that a serious accident is more likely by *stopping* than by *not stopping*. A glider that is severely pitched up close to the ground, for example, has a modest chance of recovering if the launch continues, but very little chance of a safe recovery if the winch driver cuts the power because a person on the ground called for a STOP. Likewise a glider that is too slow, or is severely banked, or is dragging a wing on the ground. The pilot always has the option of releasing at any point during the early stages of the launch.

The conclusion is that it is better if the pilot assumes that the winch will continue to apply power. This keeps options open for the pilot to choose to continue with the launch - or to abort it. The key point is that the pilot - when accepting the cable - takes full responsibility for managing the launch after "All Out".

### **4. Refresher Weekend for Senior Instructors**

Fourteen senior instructors from the Central Region attended a 2-day seminar at Papawai. The scope and content of the Instructor Training Program was covered in some depth. It is expected that all attendees who were not currently rated as Category A instructors will be able to meet that standard by the start of next season. A similar seminar is scheduled for Matamata in May.

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