

What the GNZ Operations Team is Talking About . . .

A summary of key items discussed at the Operations Team on-line meeting on 17 December 2024. David Moody (North), Roy Innes (Auckland), David Hirst (Central), Wal Bethwaite (South) and Martyn Cook (NOO).

1. Incident Reports for November - December 2024

- undercarriage damage after outlanding heavily on a steep upward slope, insufficient airspeed
- very heavy landing after attempting a fast, shallow approach in strong and gusty conditions
- wheel-up landing, not retracted after launch, moved lever pre-landing, did not check position
- failed to lower undercarriage after 2-hour cross-country flight, no reason given
- wingtip hit hangar while hastily ground-towing glider to contest grid, badly damaged rudder
- glider came off towbar and rolled into towing vehicle, damage to rudder, aileron and flap
- significant rudder damage after hinge rivets on tail dolly failed during ground tow, ran into car
- glider out of position on tow, weak link broke, tow rope draped over canopy and wing
- rear canopy slammed shut by wind with lever in locked position, damage to guide block
- minor damage after outlanding in a field with deep tilling, main wheel sank in
- near miss on late downwind, both gliders were in the circuit, one without Flarm
- heavy braking during outlanding, glider pitched forward onto nose, minor damage to belly skin
- contest flight, near miss between two gliders circling together in a thermal
- heavy sink after release from tow, realised airbrakes were deployed, hasty downwind landing
- canopy bungee had been 'missing' for 6 weeks, found draped over control rods behind cockpit
- outlanding glider clipped wing of glider already landed on same farm airstrip, wingtip damage

Further Details on Selected Incidents (extracted from the original OPS-10 reports)

1.1 Undercarriage damage landing up-hill: There were two learning elements identified in this incident. The first was that the steepness of the selected outlanding strip was under-estimated from the air by the very experienced pilot. The second was that insufficient speed was maintained on short final to allow for a proper round-out, so the glider impacted heavily resulting in significant undercarriage damage.

Although the landing was partly into wind the pilot reported that the air was probably flowing down the slope, which further complicated the final approach by adding a 'sink' factor. Unfortunately, it's rarely possible to practice landing on uphill slopes, except perhaps at a field or strip selected for the purpose. The pilot admitted to having 'no previous experience in uphill landing'.

1.2 Very heavy landing flying in ground effect: It had become common practice at this airfield - with a long runway - to use the runway threshold as the aiming point but then extend the glide in ground effect to touch down further along the runway, and finish the ground roll beside the hangar.

On this occasion the pilot was flying close to the ground at high speed (estimated at 90 knots) in a strong, gusty wind of 30-40 knots. The main wheel impacted the ground due to pilot-induced oscillation (PIO), pitching the nose of the glider up, whereupon the glider rose to a height of 40-50 feet (as recorded on camera). A 'bounce recovery' manoeuvre was attempted.

After inspection it was observed that the glider's main tyre had burst, and the top wing skin appeared to have delaminated from the spar. The occupants were uninjured. Despite the obviously-serious damage the pilot was initially reluctant to accept responsibility for his actions. He had been briefed on how to land in high winds just two days previously, but 'that advice was ignored'.

The recommended practice on long runways would be to select an aiming point about 300 metres before the intended end of ground roll, and make a normal approach to this point using 1/2 to 2/3 airbrake. Attempting to stretch a glide while close to the ground is strongly discouraged.

1.3 Wheel up landing: These seem to keep happening, regardless of the number of times it happens to other pilots. In this case the pilot did 'move the undercarriage lever' while performing the downwind checks, but this simply retracted the wheel. The correct action would have been to check that the intended position of the undercarriage lever matched the cockpit placard.

1.4 Damage While Ground Towing: There are three reports of damage to gliders while being towed on the ground. The risk of damage associated with this activity is typically under-estimated, or not given the serious attention it deserves. These risks include:

- tow-out gear not inspected thoroughly before each use, then it breaks while in use
- allowing distractions while towing, losing awareness of the glider behind
- not watching the wing walker - and how it is tracking - and having it bend sideways
- being in a rush - driving faster than walking pace - thinking about other things
- driving too fast, hitting a bump, glider jumps off tow-bar, rolls backwards into tow vehicle
- wing-tip impacts fence, tree, building, another glider on ground

Advice from the Ops Team is to have the tow-out gear checked by a second person prior to use, make a final check before moving the towing vehicle, drive slowly and give your full attention to the task.

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