

vector



Winch-Launched Gliders

Keep it Standard

Maintenance

Queenstown Airspace



Winch-Launched Gliders

Gliding, but not as you know it.

A glider that's launched by a powered winch can accelerate to over 50 knots in about three seconds, and climb to 2800 feet in the first minute after takeoff. Not bad for an engineless aircraft, which can be likened to the acceleration and climb of a commercial jet.

With 11 separate glider winch launching areas situated throughout the country, transiting pilots need to know their locations, understand the potential dangers they pose, and take some precautions to maintain safety. The following example illustrates those dangers.

A Close Encounter

Recently, an aeroplane was transiting through an active glider flying area in ideal weather conditions with very good visibility. The pilot was unfamiliar with the local area and had become preoccupied with navigating using his GPS. When he looked up to recommence his forward visual scan, he noticed a thin line running down the centre of his windscreen. At first the pilot thought it was a crack in the windscreen, but on closer inspection he saw that it was a cable outside the cockpit. He took immediate evasive action to avoid what was a glider winching cable attached to a glider.

The pilot, being unfamiliar with the area, did not know that glider winch-launching operations were taking place and was not listening out on the local frequency. He had not checked his charts ahead of time to see if his planned route would take him through any glider flying areas, so was unprepared for the possibility of encountering gliders along the route.

All such incidents should be reported to the CAA by following the process on the CAA web site, www.caa.govt.nz, "Report Occurrences Online".

Some Statistics

Max Stevens, Executive Officer of Gliding New Zealand, says on average, winching accounts for about 25 per cent of all glider launches undertaken by the 28 various gliding organisations.

"A number of organisations opt to winch launch as their primary launching procedure, with roughly 4800 launches taking place each year. Winching is cheaper and quieter than aero-towing, and is well suited to basic training operations," Max advises.

Safety First

Other reports of powered aircraft flying through winching areas during gliding operations demonstrate the need for transiting pilots to understand these areas and to follow some accepted practices to maintain safety. For example:

- » Airfields that winch launch gliders can be active at any time during the day. These winching areas are marked on visual navigation charts (VNCs) with a red glider symbol and a "W", plus the maximum winching altitude.
- » Always check the VNCs at the start of any flight to see if the planned route will transit a glider winching area.
- » When transiting a glider winching area, listen out on the frequency listed on the VNC (either 134.45 MHz or 119.1 MHz) to hear if any operations are in progress, and their nature. An exception is the gliding club at Puhī Puhī, which uses the frequency 133.45 MHz.
- » Gliders have right of way over powered aircraft.
- » Avoid flying directly over a winch-launching airfield, and stay clear of the circuit area unless you intend to land.

- » If you intend to land, establish communication with the ground staff well in advance of your arrival.
- » Familiarise yourself with the local terrain and the airfield. If you see a glider lined up for takeoff, treat it as a potential hazard and give it a wide berth. Remember, winch-launched gliders can accelerate and climb quickly, so take precautionary action and don't let one catch you unaware.
- » When a glider is winch-launched, it climbs at about a 45 degree angle, so the pilot's forward vision is limited. The glider's ability to manoeuvre is also severely restricted, so don't fly near its takeoff path.
- » Maintain a constant visual scan when transiting through winch-launching areas. Gliders have a narrow profile and can be difficult to spot, especially those at a similar altitude to you. Gliders are also likely to be encountered in the vicinity of the site well above the maximum winching height when conditions are favourable for soaring.
- » Winch cables can be difficult to see when attached to gliders. Typically these cables are thin, being only a few millimetres in diameter. The glider pilot may also release the cable at any stage up to the maximum launch height, leaving the cable to fall away under a small drogue parachute.

Some Winching Phraseology

By listening to a gliding club's active frequency, pilots can gain an indication of when a glider will become airborne, and its approximate location. The following phraseologies will be exchanged between the glider pilot and winch driver during a launch.

- » "Take up slack" – when the glider pilot instructs the winch driver to pull in the cable slowly to increase its tension.
- » "All out" – the pilot instructs the winch driver to apply power and start the launch sequence. This command should signal to others that a glider launch has begun.
- » "Winch reducing power" – when the driver signals to the pilot that the glider is nearing its maximum launch altitude. The pilot will release the cable within one or two seconds of this call.
- » Gliding organisations will broadcast warnings on the local area frequency to indicate the start of a launch. Although organisations use ground 'spotters' to check that the circuit area is clear before a launch, this is limited by the spotters' ability to see other aircraft.

3500



Visual Navigation Chart Depiction

This symbol and the accompanying "W" indicate a glider winch-launching area and the maximum launch height.

Winching Locations and Activity

Note – except for the four indicated winching-only launching areas, gliders may be launched by either winch or towplane.

Club and Site	Average annual winch launches (over last 5 years)
Auckland Gliding Club – Drury	1,714
Nelson Lakes Gliding Club – Lake Station (Winching only)	1,287
Kaikohe Gliding Club – Kaikohe, Northland (Winching only)	611
Jury Hill Gliding Club – Papawai, Wairarapa (Winching only)	429
Northland Gliding Club – Puhī Puhī (Winching only)	301
Canterbury Gliding Club – Springfield	145
Central Otago Gliding Club – Alexandra	134

In addition to those listed, clubs in Matamata, Hastings, Stratford, and Omarama will occasionally winch-launch gliders.

More Information

For general gliding information, refer to the Gliding New Zealand web site, www.gliding.co.nz ■