

TAKING OFF IN A HANG GLIDER OR PARAGLIDER



Hang gliding and paragliding ‘wings’ are increasingly populating New Zealand’s skies. If you fancy a go, here are the safety – and other – considerations, of taking off in foot-launched, free flight.



Between 2012 and 2017, membership of the national hang gliding and paragliding body grew 150 percent (734 to 1,120).

International visitor membership grew more than 400 percent (52 to 222).

That national body – the New Zealand Hang Gliding and Paragliding Association (NZHGPA) – says the country is an increasingly popular place to visit for hang gliding and paragliding tourists. It says some of that is due to Northern Hemisphere pilots coming here in their off season. Publicity around the success of New Zealand flyers in international competition, and the beauty and challenge of flying in remote mountains are also drawcards.

Most pilots enjoy their flying within a short distance of the launch place – soaring coastal cliffs or familiar mountains, to enjoy the view and the freedom of the air.

Some explore further afield on long cross-country flights that can cover hundreds of kilometres. The current New Zealand distance record is more than 235 km.

A small number of experienced and adventurous pilots, who are appropriately trained and rated, embark on ‘hike and fly’ expeditions. Pilots tramp into the mountains carrying a lightweight paraglider – about 8-10 kg – to find a suitable place to launch. They need lifting air, allowing them to gain height and fly some distance to a safe landing.

They have to take into account many factors – from land access and airspace rules, to weather and terrain influences – to do these flights safely and legally. They should carry lightweight instruments with GPS tracking and satellite communications for safety and to provide a flight log.

// Fly according to experience, and build skills – and thrills – slowly. //

Their landing place can be on top of another mountain, where the pilot will camp overnight and fly again the next day. Or it may be in a valley with the prospect of a big hike to find another launch site. In good weather, the top pilots have covered the whole length of the Southern Alps in this way, in just a few days.

By far the more popular of the two forms of gliding is paragliding and speedwing flying. There are four paragliding members to every one hang gliding pilot. It’s easier and quicker to learn, the paraglider is more compact to transport, and there are many more available launch sites.

Hang gliding, however, offers higher performance. It’s faster, and has a better glide ratio and a more direct connection between the pilot and the wing. To many people it’s ‘real’ flying.

You cannot fly on your own in New Zealand without a pilot certificate issued by the NZHGPA. It also certifies powered versions of ‘foot-launch’ aviation such as powered paragliders (or paramotors) and powered hang gliders.

If you want to fly for hire and reward, you must become certificated under Part 115 of the Civil Aviation Rules.

Where to start?

The NZHGPA’s Evan Lamberton says would-be flyers in New Zealand are fortunate to have many well-run schools, a list of which is on the NZHGPA web site, www.nzhgpa.org.nz.

Evan says it’s important the aspiring hang gliding or paragliding pilot find an instructor they both trust and like. »

“Talk to an instructor. Try to go out when they are teaching. The instructor stays on the ground and directs the student via radio so you can see how they teach. Decide if you are happy with that, before you commit to buying your gear and training.

“Because the instructor is on the ground, hang gliding and paragliding are the only flying sports where you solo from day one. There needs to be a connection between instructor and student so the novice pilot will trust the instructor to ensure their safety.”

Students begin with ‘skimming flights’ where they fly shallow glides, low to the ground, getting used to the controls. They move on to soaring, and simple mountain flights, all under instruction via radio.

“Some instructors offer tandem flights as part of the training and this is a valuable experience, but the basics of glider control are learned solo with the instructor on the ground guiding you through it.

“A one day package normally includes an introduction to the equipment set-up and safety checks, basic glider control, and solo flights from a low hill, and a tandem flight with an instructor.”

Some people catch the bug of hang gliding and paragliding by flying a tandem flight with a Part 115-certificated commercial operator, most of whom are based in Queenstown.

“Gaining a paraglider pilot certificate,” says Evan, “can be done in 7 to 10 days if the weather obliges and the student has time to fly every day. But most students take a month or two in the summer season to qualify.”

Many commercial paragliding training operations will heavily discount tuition fees if the student buys their equipment from the operator: a learner-rated wing, harness, and helmet.

“With the longer time frames required for hang gliding training there are fewer commercial schools but great support for new pilots from local club instructors.”

How dangerous?

Like all adventure flying sports there’s an element of risk, and with or without power, the risk lies with the pilot’s ability and decision-making.

“That’s about choosing the right equipment,” says Evan, “and the right places to fly. The ‘right’ weather conditions depend on the skill of the pilot, so the pilot needs to choose those wisely.”

Due to their low airspeed and sensitivity to turbulence, hang gliders and paragliders can be flown only in light winds – paragliders up to 15 kt, and hang gliders up to 25 kt.

Most pilots, however, factor in a margin of safety, and won’t fly in winds more than about 5 kt below those upper limits, although that too depends on the surrounding terrain. In completely flat terrain, very skilled pilots fly in strong winds to achieve world record distances over 500 km.

Most pilots fly safely, and the NZHGPA is working hard to emphasise the importance of that. It publishes a no-blame page on its website where flyers can describe an incident they were party to. That’s done in the interests of spreading the word.

“Risk depends on how a pilot wants to fly,” says Evan. “I like to compare it to mountain biking where the degree of risk you can choose to expose yourself to, goes from a trip to the local shops, to downhill racing.

“The risk also increases dramatically during ‘speed flying’. The pilot uses a wing, half the normal size, and flies at low level, often faster than 70 kilometres an hour. It’s a thrill but that thrill sometimes comes at a cost.”

The NZHGPA’s campaign for safe flying is up against some newer pilots who – despite a lack of experience – try to recreate YouTube footage depicting very experienced pilots speed flying, or skimming cliff faces by inches.

“That’s a real headache for us. When someone is hurt or killed, it’s tragic, and makes the sport look more dangerous than is the case,” says Evan. His advice is to fly according to experience, and build skills, and thrills, slowly.

Hang glider and paraglider pilots often fly over difficult and remote terrain, so the CAA strongly advises the use of a PLB (personal locator beacon). Organisations should remind all pilots of this, including visitors from overseas.



// This hang glider is being aero-towed by a micro-light aircraft. Photo courtesy of Ross Gray.



// The youngest competitor at the 2019 paragliding national championships, 16-year old Sam Hamill, is here launching from the top of Mt Murchison. Photo courtesy of Janice Lamberton.

Operations and limitations

Under Part 106 *Hang Gliders – Operating Rules*, a paraglider is classed as a hang glider without a rigid primary structure. So both are covered under Part 106, with rules that include:

- carrying an accurate altimeter
- wearing a serviceable rigid protective helmet and a harness of a type that conforms to the standards of the NZHGPA
- the rig having a current warrant of fitness issued by the NZHGPA.

And an exception:

- a person may fly a hang glider below a height of 500 ft for ridge soaring, if such flight does not endanger people or property on the ground.

Aircraft requirements

Both types of aircraft are susceptible to damage by sunlight. Although the synthetic materials are treated to resist sunlight, prolonged exposure eventually leads to weakness and increased porosity of the cloth. Hang gliders are longer lasting but have the additional considerations of a rigid frame, wire rigging and metal fastenings.

Hang gliders and paragliders therefore need an annual warrant of fitness (WOF) and regular checks. The WOF must be re-issued if the hang glider or paraglider is damaged, or substantially modified.

All WOFs are carried out by a hang gliding or paragliding inspector authorised by the NZHGPA. But the cost of these is kept down by many local clubs organising ‘WOF gatherings’ where members can assist in the checking of their own gliders, guided by experienced inspectors.

Once the annual check has been completed, a sticker is issued, and it must be placed on the glider in a visible spot.

Flyer beware

Because hang gliders and paragliders are often sold on Trade Me and other websites, Evan Lamberton says novice hang gliding and paragliding pilots should get advice from their instructor.

“Buying your equipment through a school makes, by far, the best deal, because of the often cost-reduced training, and your instructor will make sure your gear is matched to you. Gliders have to be matched to the pilot by weight and skill level.

“Technology is changing in the sport, and buying old and possibly poorly maintained kit is fraught with potential issues.

“But if you’re going to go this route, always take advice from a certified pilot – preferably not the one who’s selling the gear.”

More information

All rules, advisory circulars, and forms are available on the CAA website, www.caa.govt.nz.

Information on local clubs, schools, and memberships are available on the NZHGPA website, www.nzhgpa.org.nz. ➔