



contributed by Jill McCaw

Higher and higher: Soaring in the wave



Soaring in the wave can provide for some "tremendous fun" and mean a free ride to 18,000 feet and beyond.

AS I write this column I've just spent the morning in the Air Law lecture for the Qualified Glider Pilot (QGP) rating. In amongst the lists of CAA, Gliding NZ, and local club rules, our CFI who was giving the lecture said something that had never occurred to me. He said that most power pilots don't know the rules pertaining to airspace. He says they don't need to know, as most don't fly higher than 2000 feet above the ground.

It makes sense I suppose. Most GA flights are VFR and you don't need to be any higher than that. It is probably one of the biggest differences between glider pilots and other pilots. For us, height is everything. The higher we go the further we can fly. This is why loss of uncontrolled airspace (see the article earlier in this issue in KiwiFlyer) is such a big deal. We need that height. Not to mention, when you are climbing in wave lift it can actually be difficult to stop ascending.

This happened to a crowd of Canterbury Gliding Club pilots last weekend. It was a glorious spring day, clear and cool with a good nor-west breeze blowing up top. In nor-west conditions the airflow over the Southern Alps creates wave. If you remember that air is a liquid then the phenomenon is identical to what happens to a river flowing over rocks. The water/air falls over the obstacle and then 'bounces' upward – higher than the obstruction that caused it. Then the ripple effect causes further waves downstream. Last Saturday the sky above our glider field here at Springfield was full of waves.

I went flying with my son Alex in the Club's Janus, a cross-country two seat glider. By the time we took off many others

had noted that there was a reliable entry into the wave above the Lime Works on the main road and the tow pilot was taking everyone over there. We released from tow at around 2000 feet AGL, straight into rotor thermal, the broken but mostly rising air under the wave. This is the tricky bit. The useable lift of the wave doesn't happen much below about 8000 feet so to use it you have to find a way up. It can often take hours or scunging and circling in weak and scrappy thermals to do it. Then you have to find the wave, the rising air of course is completely invisible and it is a matter of making judgements based on what cloud you can see and wind strength and direction. Alex and I however were in for a dream run. We thermalled the rotor, gaining height, losing the lift occasionally, but consistently climbing overall. Within ten minutes from release of tow we had gained 4000 feet and were sitting around 7000 feet ASL. The lift smoothed out. The area of rising air widened. We were in the wave, the bounce of smooth air that could have taken us to 18,000 feet. We didn't even have to go looking for it. From the cloud indicators we could have ridden that line of wave lift all the way to Hanmer.

The glider was oxygen and transponder equipped. We could have gone anywhere. One thing we couldn't do without clearance, was keep going up. Our airspace ceiling was 9500 feet. It was late in the day, bitterly cold, and neither of us were dressed for a prolonged flight at altitude so we decided against going cross country and we decided against the bother of asking for clearance to go higher. The problem was, the lift was so strong it was almost impossible to stay below that ceiling. We

were flying at 80 knots (racing speed for the Janus) AND had the airbrakes out. We were still going up. I actually had to fly out of the wave to keep us legal.

The whole flight was tremendous fun. We didn't want to go higher/further/do more than we did. But many times glider pilots do. There were other people flying that day who would have loved to have popped up higher, just to see how high the wave went, how high they could go. It's like stopping climbing, half way up a mountain because there's an arbitrary line on the ground, with a sign that says, 'You shall not cross this line until you've cleared it with the Controller.'

Of course, many of those flying that day did call up Control and get clearance. It was granted without any problems, but that is not always the case. If the Controller is busy, there is a commercial jet coming through, or for any number of reasons, sometimes that permission will not be granted. Glider pilots aren't bemoaning the need for controlled airspace. No-one wants to be wrapped around the tail of a 747. Heck, I don't even want to be anywhere near its prop wash. What we do want is places in the sky where we can play, without unnecessary restrictions.

If you are interested in gliding and flying in wave yourself, see the Gliding NZ website for your closest club. If you are interested in helping keep New Zealand from being swamped in unneeded airspace restrictions, contact GNZ President Nigel Davy, email: nigeldavy@clear.net.nz

I'm Jill McCaw, Editor and Publisher of SoaringNZ, NZ's magazine about all things gliding. Subscription details can be found on www.gliding.co.nz