

Autogyro Mountain Flying Contributed by Lloyd Heslop

Living in Nelson, autogyro enthusiast and Instructor Lloyd Heslop has ready access to some great mountain flying terrain at the top of the South Island. He has accumulated many mountain hours and quite a portfolio of spectacular photographs. With winter upon us and the prospect of some crisp, clear, sunny days to come, we asked Lloyd to contribute an article on gyro mountaineering.

AUTOGYRO flying in mountainous terrain is an exhilarating experience however it should not be attempted without prior training and introduction experience. Most gyros are relatively marginal flying machines without large reserves of power to extract them from unanticipated weather events.

In New Zealand, flight in any mountainous territory has limited opportunities for emergency landing so always maintaining altitude over terrain and flying valleys on the lift side, plus having an escape route is essential. I have experienced severe turbulence even on the calmest of days in the North West Ranges of Nelson from nowhere - it may be only one event in a perfectly calm flight of two hours or more. Crossing passes is an obvious area of caution, often encountering lift or sink even though approaching at an angle and ensuring an escape route is available. Recently on a trip to Canterbury, we had three attempts to cross Island Pass at 5,500 ft encountering sink just before the pass necessitating stooping around looking for lift and circling several times to gain sufficient altitude.

Always dress for cold temperatures as conditions can change quickly, especially in open cockpit machines. Be aware of carburettor ice especially in automotive engined aircraft with no carb heat systems. My early experiences at an elevated air field of 2,000 ft brought carb ice on a regular basis, along with brain fade due to the extreme cold even though I was dressed for the occasion.

In the Southern Alps, many valleys make great flying, however I have encountered many that rise at a greater rate than my Raf2000 gyro with 2 POB - necessitating time on the warm side of the valley looking for a thermal to gain height. Also, quite often air flow will be up the valley reducing performance, where turning down the valley to gain height before continuing becomes a regular event.

Temperature in valleys in the summer time considerably reduces performance on any rotary winged aircraft. I note an increase of 20 rotor RPM at 5,000 ft indicating a reduction in performance of the blades at altitude (gyro rotor RPM is self governing).

Our own aircraft is transponder and radio equipped but these are of little use in valleys of mountainous terrain. When venturing into the mountains, always take your 406 locator beacon and arrange for someone to flight follow. The advent of devices such as spidertracks or findmespot opens new doors in flight safety and we should all be taking advantage of this technology. You should



The view through Lloyd's window on a mountain trip near Karamea.

also be prepared to have to land in the mountains somewhere and survive until help arrives. Most pilot shops offer survival kits and dried food can be obtained in small lightweight packages easily carried somewhere aboard the aircraft.

Another trap to be wary of is that every valley, tussock, hill, etc. can look exactly the same at lower altitude, so make sure you plan your trip to avoid getting lost. I had a confusing experience flying down the North Island from TeKowhai through Taumarunui to Palmerston North - ending up following transmission lines until positively identifying our position. Every hill

looks the same when you are miles inland over unfamiliar territory.

Winter mountain flying in our region provides some of the best conditions; however, whilst the coastal valleys are clear, fog can be a problem on inland valleys, though it normally clears by lunchtime. That said, fog is something else to be wary of and not to make assumptions about.

The secrets are: Choose the day carefully; Get local knowledge on expected weather conditions; Wear appropriate clothing; Plan your route; Advise others of your plans; Ensure sufficient fuel and reserve; Be prepared for emergencies; Consider your options at every turn.

Most of all, be safe and have fun. Regards, Lloyd Heslop

A tragic loss. The NZ gyro community lost a friend, enthusiast, and ambassador for the sport in a tragic accident that claimed the life of Grant Simpson at Kaitaia in May. Grant inspired a good many people to take up gyro flying and if he wasn't in the air at a gyro event, he could most likely be found lending a hand to someone on the ground. His mechanical intuition and abilities were always in demand and Grant would not think twice about working through the night to help a friend get a job done so that more aviation could be pursued the following day. He will be greatly missed by the gyro family that he was a very big part of. Thanks Grant, for some great times shared together.

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