

Gyroplane Training - What's the difference?

There's a few extra tricks to learn when taking on the sport of gyro flying. None are difficult but they are important to ensure aircraft and pilot longevity. KiwiFlyer asked Tony Unwin, CFI of Gyrate at Tauranga for an overview of the basics.

IF YOU INTEND to fly a gyroplane then just like any other conversion to type there are differences in the flight characteristics and handling idiosyncrasies that are best known about before they bite you, rather than after. When I attended the Airbus course in Toulouse they presented us with a laminated business card on which they had inscribed the six Golden Rules applicable to this all new fly-by-wire concept. Being French they did not include Murphy's rule number one – if it can go wrong it will go wrong! This is why we all need training to minimise the chance of a problem occurring and being best placed to deal with it when it happens.

Understanding the fundamentals of your aircraft is vital whether it be a gyroplane or an Airbus - so let's consider what Golden Rules might apply when you choose to aviate in the safest form of flying machine known to man.

1. Rotor speed not ground speed is required to get you airborne.

Accelerate gently with the stick fully back, ensuring that your rotors are accelerating correctly until the nose of your aircraft lifts off the ground. Then continue to accelerate in a low nose attitude (nose wheel just off the ground) until reaching climb speed.



A recent day at Matamata included two first solos for a couple of Tony's students. At left, Richard Main in a new Sportcopter and at right, Elton Haakma in his father's Dominator.

2. Your aircraft will not climb without sufficient airspeed.

This machine is not a helicopter and despite having a rotor it flies more like a conventional aircraft. Maintain the correct attitude and airspeed, as without these even full power will not create a climb!

3. The only thing that changes rotor speed is the weight being carried.

Weight carried will apparently increase in a tight turn or rapid flare due to 'G' loading so the rotor speed increases. Conversely, some extreme manoeuvres can also cause a reduction of 'G' loading which can reduce rotor speed to the point of being very hazardous!

4. A gyro will not stall so reduce power if flight control becomes an issue.

Note however that if speed is reduced below a critical point a gyroplane will be unable to maintain height and will start to sink. A gyroplane will not enter a conventional spin, however if speed is reduced too low without power, lack of rudder control may result in the machine rotating around the vertical axis.

5. Hold the nose wheel off the ground as long as possible during the landing roll.

Maintain the back pressure on the stick until it is fully back or the aircraft has come to a complete stop.

6. Once stopped move the stick fully forward into wind to remove all lift.

It is important to avoid blade sailing or 'flap' as your rotors slow down. Ground manoeuvring is more likely to damage your aircraft than airborne activity.

The requirement for training

These points are offered as an 'aide memoir' to all gyroplane pilots and may be worthy of discussion by those considering starting this type of flying. The most important message is that we all need training, whether it be initial, conversion, continuation or consolidation.

Murphy lurks around an airfield near you. Will you be ready when you meet him? If the answer isn't an unqualified yes, then consider the value of some extra training.

For more information

Contact Tony Unwin at Gyrate NZ Ltd in Tauranga. Phone 07 575 6583 or 021 038 0760, email: gyfly@aol.com or visit www.gyrate.co.nz