

Worth remembering

*When getting ready for take-off—remember:
Only when you have reached the necessary airspeed is it safe to climb away.
Do not attempt to climb away beforehand, remain in ground effect until your speed is reached !!!*

CHIPPER says

You must take all 3 subjects into account before any take-off as it can be the difference between a safe take-off or a safe write-off!



Need more info? Ring Gyro School

The information on this leaflet is for guidance only. It is not intended to issue specific instruction (or flying instructions) to pilots or Instructors, with whom the responsibility for safe action lies.

Read it on the run...
Then continue to have fun!

 Gyro
School
feel the thrill!

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CHIPPER says

SAFETY ADVICE

For Gyroplanes
Leaflet 1



Subject Matter: Take-Off

► Hot, Sticky and no Wind !!!

Density Altitude has to do with:

Temperature

Humidity

Pressure

An increase in density altitude, (fewer molecules per unit of volume of air) decreases the available horsepower created by the aircraft's engine and steals performance from the rotor and propeller.

The definition of true airspeed (TAS) is "the speed of the aircraft through the relatively undisturbed air mass." In order to keep the gyro flying at high-density altitude, the gyro must travel through the air mass at a high rate of speed and so the true airspeed is increasing. If true airspeed increases, so does groundspeed. If your groundspeed is higher during landing, the ground roll will be longer as there is more speed to dissipate. And if more speed is required to pass enough air molecules up through the rotor to make it fly, the longer the take-off roll will be and the longer the speed build-up in ground effect.

The altitude the gyro thinks its at and performs in accordance with.

CHIPPER says

Keep it low and reach your climb out speed !!! Don't try to climb out before.

Heavy 2—up !!!

For lift and weight to be in equilibrium in order to maintain any desired attitude of flight (and very important on take-off) there needs to be more lift produced to balance the heavy weight.

Remember the heavier the gyro is loaded the more immediate its reduction in performance is. With near MTOW you can expect a worse performance and it won't be nearly as sharp as with only 1 person on board.

Especially on take-off, where all the power is required already, the ground run will be lengthened and the ground effect hold-off will also be extended.

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Short runway / strip !!!

Yes Yes Yes—gyroplanes can land on short strips or fields—no issue.

No No No—gyroplanes need (some sort of) a runway to take-off from—ALWAYS.

The **smoother** the runway / field the more even the acceleration on the ground allowing you to get into the air quicker.

The **bumpier** the runway / field the longer it will take to accelerate and get off the ground.

Rule of thumb, have at least a 400m runway with a clearway either side to accelerate in ground effect and attain the correct climb out speed.

Always consider the **state** and **slope** of the surface.

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