



Drone Operation - Rules and Risk Assessments

There are a lot of drones being sold in New Zealand today and anyone can purchase one. This means there is currently no regulation or licensing of drone operators/pilots.

However, there are clear rules and considerations for their use and it is incumbent upon a drone pilot to ensure they have a clear understanding of the rules and that they carry out a risk assessment before each operation.

The rules and identified risks obviously have an impact of what drone operators achieve when it comes to imagery. Drone operators will endeavor to capture the property to its best advantage but on occasion will be limited by the rules and risks involved eg. unable to fly high enough or get enough distance sideways to capture the whole property in one image or cannot shoot from certain angles.

Rules

Most drone pilots fly under Part 101 of the Civil Aviation Rules.

Highlights of this rule include:

- **Know the airspace restrictions in the area you want to operate and obtain air traffic control clearance when necessary**
- **Do not fly closer than four kilometres from any aerodrome**
- **Aircraft must weigh less than 25 kg**
- **Have consent from anyone you want to fly above**
- **Have the consent of the property owner or person in charge of the area you are wanting to fly above**
- **Only fly in daylight**
- **Ensure you can see the aircraft with your own eyes**
- **Do not fly higher than 120 metres (400 feet) above ground level**
- **Always take all practicable steps to minimize hazards to persons, property and other aircraft**
- **Give way to all crewed aircraft**
- **Do not fly in special use airspace without the permission of the controlling authority of the area (e.g. military operating areas or restricted areas)**

For your interest, below is the link to CAA Rules for Unmanned Aircraft including drones.

<https://www.loc.gov/law/help/regulation-of-drones/new-zealand.php#Civil-Aviation-Rules>



Risk Assessment

Every drone operation carries a certain amount of risk. It is the responsibility of the drone pilot to assess that risk and mitigate as much as possible. Some elements of a risk assessment include:

- Climatic conditions
- Presence of stock
- Human presence eg. school children in playground nearby etc.
- Terrain or topography of the area to be photographed
- Presence of obstacles eg. power lines, high buildings etc.

**The most important thing a drone operator has to consider is:
If my drone fails and falls from the sky, where will it land and what damage can it potentially cause?**

Some risks can be eliminated and others only reduced. For example, the most common risk pilots face is wind. Wind creates a very risky set of circumstances for flying a drone. In some cases a pilot will decide to postpone the operation and in others they may lessen the risk by not flying too high or too far away from their position. In doing this they have closer control and visibility of the drone and the risk of crashing due to wind gusts is reduced. However this may affect their ability to cover a property as well as would be possible on a still day.

In the case of rain the operation will be postponed, as drones should not be used in wet conditions due to the risk of damage.

A change of position for take off or time of the operation may mitigate risk for human and stock in the area of an operation.

Sometimes it is not realistic to obtain permission from property owners when flying in an urban area where a multitude of properties would be affected, as it would be very time consuming. This will also have a major impact on the ability to cover a property.

Safety always comes first