

# DRONE GUIDELINES FOR INVERCARGILL

The following guidelines include information from the Civil Aviation Authority and our interpretation of the Civil Aviation Rules about flying drones in New Zealand. This guide applies to both commercial drone operators and those who use them for recreation.

In New Zealand, drone operators are classified as "pilot in Command" and drones are classified as aircraft. The pilot in command must adhere to the Civil Aviation Rules when operating their drones in all airspaces.

The advice offered here is intended as a general guide, this is not a full coverage of the applicable laws about drone operation.

For more information please contact the Civil Aviation Authority (CAA).

# **AIRSPACE:**

**Control Zone:** Invercargill and its surrounds are in controlled airspace, as shown in red in the attached map. This airspace is busy with all types of aircraft. There are two options for flying in this airspace, shielded flight and unshielded flight.

Low Flying Zone: The yellow area shown is a "Low Flying Zone". No drones can be flown in this area unless the Low Flying Zone has been deactivated by the CAA.

Aerodrome 4km zone: Light Blue areas are four-kilometre radius boundaries of aerodromes. To operate within these zones you need the aerodrome operator's authorisation AND certification from the CAA. You do not need Air Traffic Control's authorisation if flying your drone outside the red, but inside the blue zones, but authorisation from the aerodrome operator will be required.

Please see Invercargill City Council's (ICC's) Unmanned Aerial Vehicle (UAV) policy and the Civil Aviation Rules for more information.

# SHIELDED:

A "shielded operation" is a flight where a drone is within 100 metres of an object that's capable of stopping it, like a building, or trees. In a shielded operation, the aircraft/drone can't fly higher than the top of that object. A shielded operation allows you to fly within 4km of an aerodrome, controlled and uncontrolled.

# **UN-SHIELDED:**

An unshielded operation is any flight that does not fit the criteria of a shielded operation.

To fly an unshielded operation, inside a control zone you need:

Approval from Air Traffic Control. This is done by planning your flight in advance at www.airshare.co.nz. You will receive a confirmation email if your flight is approved. Next, you will need to call the Invercargill Air Traffic Control Tower before and after your flight.

If the operation is inside the control zone and within the 4kms radius of an aerodrome then you will need the following:

- A CAA recognised training qualification: this may be; Part 102 Unmanned Aircraft Operator Certificate, Part 61 Pilot License, Model Flying NZ Wings Badge (or equivalent) or be accompanied by someone who holds an appropriate qualification.
- Safety and Risk Assessment: conduct a thorough safety and risk assessment before flying the drone in a controlled aerodrome. Identify potential hazards and risks associated with the operation and take appropriate measures to prevent them from happening.
- A Spotter: someone with you to keep an eye on the surrounding airspace for traffic while you are concentrating on the drone. They can also be of use to keep your landing area free from curious bystanders.
- Approval from Air Traffic Control: this is done by planning your flight in advance at www.airshare.co.nz. You will receive a confirmation email if your flight is approved, and then you will need to call the Invercargill Air Traffic Control Tower beforeand after your flight.

# **PROPERTY OWNER CONSENT:**

Drone operators are required to gain consent for their flight from either the property owner, occupantor "person in control of the site" for any property that you fly above. For instance, if you wish to fly from a residential property - let'say a friend's house, over the river to take photos of a boat passing by you would need:

- Consent from the property owner or occupant of your friend's house.
- Consent from the owner or occupier of every house/property under your intended flight path.
- Consent from ICC, if your intended flight path crosses over any road way, footpath, park, reserve or any other property administered by ICC.
- Consent from anyone aboard the boat, or the boat's owner if you intended to fly directly above it.
- Consent for Harbour Master- Environment Southland, if your intended flight path crosses over any waterways.

• Liability insurance may be required by some land owners. This is on top of compliance requirements prescribed in the Civil Aviation Rules.

# **KEY RULES:**

- Adhere to the Civil Aviation Rules and ICC's UAV policy.
- Do not operate an aircraft or drone that weighs 25 kilograms or more, and always ensure that it is safe to operate.
- At all times take all practicable steps to minimise hazards to people, property and other aircraft (i.e. don't do anything hazardous).
- Only fly in daylight unless provided otherwise.
- Give way to all crewed aircraft.
- Make sure you can see the drone with your own eyes (e.g. not through binoculars, a monitor or smartphone) to ensure separation from other aircraft (or use a spotter to do this in certain cases).
- Do not fly your aircraft higher than 400 feet above ground level (unless certain conditions are met).
- Have knowledge of airspace restrictions that apply in the area you want to operate.
- Do not fly closer than 4km from any aerodrome (unless certain conditions are met) airspace, obtain an Air Traffic Control clearance.

# **Airspace over Invercargill City District**

Flight inside the black and the red lines may have additional restrictions. Air Traffic Control will advise.

#### Low Flying Zone

ATC Restrictions

UAVs are not permitted to fly in any Low Flying Zones, which are coloured orange.

#### Aerodromes

The blue circles indicate a 4km radius around aerodromes.

#### Other Authorities Areas

These areas require you to gain approval before you fly from the administering authority or landowner.

#### Control Zones

Control zones are managed by Air Traffic Control and extends down to ground level.

### No Fly Zones

These are where you are unlikely to require approval to fly from the administering authority or landowner.

#### Danger Areas

These area are where an activity within is a potential danger to aircraft flying around the area.

- Do not fly in special use airspace without the permission of the administering authority of the area (e.g. military operating area or restricted areas)
- Get consent from anyone you want to fly over.
- Get the consent of the property owner or person in charge of the area you are wanting to fly above.

This list does not substitute for a full reading of the CAA rules Part 101. You should conduct a thorough assessment of your operation and understand the rules that apply to your operationbefore deciding whether to operate under Part 101 and 102.

The information above is intended as a guide only for flying drones in the Invercargill area under Part 101 and is subject to change without notification. Persons wanting to operate a Drone in any instance should familiarize themselves with all applicable laws concerning such activities.

# **USEFUL LINKS:**

https://www.caa.govt.nz/rpas/

https://www.caa.govt.nz/rules/Rule\_Consolidations/ Part\_101\_Consolidation.pdf

https://www.caa.govt.nz/rules/ACs.htm - AC101-1

https://www.airshare.co.nz/

http://www.rpaskills.com/

http://www.modelflyingnz.org/

If you have any questions please do not hesitate to contact us via email – <u>service@icc.govt.nz</u> and we will respond as soon as possible.

The map below of Invercargill shows the low fly zone (yellow), controlled airspace (red), 4km radius boundaries of aerodromes (blue) and other airspaces over Invercargill. Follow this link to get more information and for the ability to zoom in on the area you want to fly over <u>Airshare Pilot</u> <u>App (airshare-utm.io)</u>. Please note that the map below is a screenshot with legends from the link inserted above.



