Fly the **right** way

Consider others, be responsible

Pre-flight Checklist

Before leaving home

- All maintenance has been completed as per the aircraft's user manual
- Ensure that the aircraft and remote controller batteries are fully charged
- Display screen is fully charged (Tablet, IPad, Smart Phone)
- Portable airband radio or scanner fully charged and tuned to correct frequency
- Ensure SD card has sufficient memory space and is fitted correctly
- Ensure Firmware for both the aircraft and remote controller has been updated
- Download and cache any electronic location maps that are required for the flight
- Ensure the flight location is **not** inside a **no-fly zone** **www.airshare.co.nz/maps**

- Consent obtained from property owner/occupier to fly at intended flight location
- Weather conditions within the limits stipulated in your aircraft's user manual **www.uavforecast.com**
  - Precipitation less than 5-10%
  - Winds under 37 km/hr (20kts)
  - Cloud base higher than 152 m (500 ft)
  - Adequate visibility (remain clear of cloud or fog)
  - KP index is 5 or less (This provides an indication of geomagnetic disruption)
  - Check time for sunrise and sunset

Site Inspection

- Check your intended flying area is free of hazards
    - No other aircraft, wires, nets, trees, buildings, people, animals
    - Aerials, metal structures, or power lines that could interfere with compass and GPS reception
    - Free from any obstructions that could cause you to lose sight of your aircraft
- Weather conditions are still within the stipulated limits

Physical Inspection of Aircraft

- Ensure the airframe is free from cracks or other damage, and that all screws are securely fastened
- Clean optical sensors and camera lens
- Camera and gimbal correctly fitted and secure
- Motors rotate freely, without any grating noises and not showing signs of over- heating (burning/ discolouration)
- Propeller locking/retention system secure and free from cracking
- Check each propeller for damage – no cracks, chips or deformation. Propellers correctly mounted and firmly secure
- Propeller guards (if fitted) are secure and do not restrict propeller rotation
- Check the aircraft battery for damage – no cracking, swelling, distortion or other signs that the battery has been exposed to excessive temperature. Ensure battery is fitted to the aircraft correctly and secure

Remote Controller Check

- Check controller switched to the intended flight mode (Operating in GPS mode is recommended wherever possible. Read your aircraft's user manual to ensure that you understand any limitations of specific modes, e.g. obstacle avoidance may not operate in sport mode on some aircraft)
- Antennas oriented correctly. Note: The broad side of each antenna must face the aircraft and they should not touch each other
- Ensure the remote controller has sufficient battery level for the intended flight
- Display screen connected correctly and secure

Flight Controller/App Settings

○ Maximum flight altitude set no higher than 120 Meters (400 ft)

○ Maximum flight distance set appropriately for the intended flight (Note that this distance must not enable the aircraft to travel beyond visual line of sight)

○ Determine the appropriate aircraft lost signal action – Select either the return to home or hover option, depending on the specific circumstance for the intended flight

○ Ensure that the 'return to home'
   - Location has been updated and is correct for the intended flight
   - Height selected is appropriate for the intended flight - be especially careful when operating beneath obstructions eg trees, wires or buildings
   - Height has been set to allow a 10 m clearance above the highest obstacle on return flight path

○ Check compass calibration is within limits

○ Check the Inertial Measurement Unit (IMU) calibration is within limits

○ Ensure that aircraft battery voltage is within limits (refer aircraft user manual)

○ Ensure voltage difference is not more than 0.2 volts between individual battery cells

○ Ensure enough satellites are locked (recommend not less than 16)

○ Position the aircraft into the wind for take-off

○ Check the aircraft heading is correct (aligned with the compass heading)

○ Ensure that aircraft height reads 0 (zero)

Hover Check

○ Confirm that the launch area is clear of hazards before take-off

○ Initiate take-off in accordance with aircraft user manual

○ Hover aircraft at a safe distance and height
   - Check the aircraft remains stable and level for approximately 30 seconds
   - Check all controls function correctly – up, down, moves left/right, yaws left/right

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