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UAVNZ

Tools for foresters

Pre-flight Checks

Date: ___/___/20___   Location:_____
Airshare No.(if relevant) _____ NOTAM No. (if relevant) _____
Craft: _____ Pilot: _____ Observer: _____
Communications: Cell phone / Sat Phone / Radio Telephone / Aviation Radio / VHFs / Other:_____
Emergency Contact Details: 1._____/ 2. _____/ Lines Company: e.g. Transpower____
Client Contact Details: Name: Contact Number:
Landowner Information: Name: Contact Number:
Sensors Used: _____
Apps Used: _____

In Flight Message: Fill out if monitoring an aircraft radio in the field and have it to hand in case you need to use it

__Insert local traffic band, e.g. Kaingaroa/Rotorua etc__ Traffic, __-company name-__ Unmanned, drone mapping, _____NM_____(N/S/E/W)____, flying _____ft Above Mean Sea Level and below, next _____ mins/hrs. (max altitude Above Ground Level if requested).

In the Field : Pre-flight Checks

☐ **Toolbox talk for hazards present:** go over hazards, discuss operations plan, and objectives. Its good practice to record this too.
☐ If using a spotter:
   ☐ Comms secured via VHF radios
   ☐ Spotter kitted out with pre-determined radio message, aviation radio and navigation charts (if relevant)
☐ PPE in use and fire blanket plus LiPO bags on person of flight crew
☐ **In-flight message filled out**
☐ Pre-flight check of site safety and hazards, including VLOS requirements being met.
☐ Wind conditions checked (do not take off when wind speed on the ground is >25kmh)
   ☐ NOTE: What is the end product? E.g. wind speeds of >15kmh make bad orthomosaics of tall canopy Wind Speed: _____km/h
☐ Mobile phone coverage for emergencies? Y/N : bars___ 2G / 3G / 4G / 5G (circle appropriate option)
☐ Aviation Radio turned on and tuned to correct frequency
☐ Signage erected and take-off area secured (*not essential in all locations, but best practice*)
☐ RC Batteries have adequate charge (full at start of day)
☐ RC antennas orientated
☐ Tablet Battery adequately charged (if required; should be full at start of day)
☐ Craft batteries full and connected firmly (Don't be tempted to fly with half empty batteries)
☐ Propellers attached, propeller arms clipped in securely (if relevant) and free of chips, cracks and splits.
   ☐ Check props securely fitted with even gap between blades
   ☐ Check for fine edge damage on blade
   ☐ Check bolt tightness & integrity (on larger craft, such as M600)
☐ Antennas connected, secured and upright (if relevant)
☐ Undercarriage (legs) connected and secure (if relevant)
☐ Visual check of airframe for damage or loose parts
☐ Sensor securely attached; SD card installed
☐ Lens clear of dust, marks and scratches and lens cap removed (if relevant)
☐ Switch on tablet and RC/ground control station
☐ **Switch on craft**
☐ Calibrations required?   Y / N – Done ☐
☐ Check battery cells holding an even charge
☐ Check Satellites (minimum of 10 to take off) – no. satellites: _____
☐ Check IMU and Compass in DJI Go app
☐ Check RTH and Geofence values
☐ **Ready for take-off**

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Take-off

- ☐ Complete the CCC checks (Control, Calibration and Craft-safety)
    - ☐ *CCC: Take off, hover for about 10 seconds in the same spot to ensure GPS lock, fly up to ~5m and check control inputs and orientations to ensure all controls working properly and nothing loose will fall off the craft, then fly >30m away and check RTH working.*
- ☐ Complete Safety Flight
    - ☐ *This gives the operator a chance to capture some video of the site, which can be really useful for multiple reasons, including spotting any errors in the data, checking distances, checking VLOS limitations, promotional footage, practicing manual flight control and assessing the site for any hazards not visible from the ground.*

- ☐ **Flight Apps and Specs**

Flight No.	Pilot	Start time	End time	Craft	App used	RTH Alt.	Max Alt.	Max Dist.

In the Field : Post-flight Checks

- ☐ Check data has been collected
- ☐ Data backed up on HDD or stored securely
- ☐ Run quick process of data (if possible):
    - ☐ *It can be a good idea to run a quick process of photogrammetric data in the field to ensure overlap was sufficient etc*
- ☐ QC data in the field
    - ☐ *It's a good idea to check through raw images/videos to ensure there were no issues (lens cap left on, dirt on lens, out of focus, corrupt video files etc)*
- ☐ If happy with data, pack up craft
    - o Legs removed and stowed (if relevant)
    - o Lens cleaned and lens covers replaced (if relevant)
    - o Sensor removed and stored safely (if relevant)
    - o SD Cards stored accessibly for download access
    - o Props checked for damage and covered with protective sleeves
    - o Stow antennas in storage position (if relevant)
        - • NOTE: be careful to move the antenna wire, so as not to crimp it (if relevant)
    - o Batteries stored securely and safely

Return to Base

- ☐ Gear checked for damage or wear
- ☐ Gear stored in correct locations
- ☐ Batteries & tablets put on charge (If using the following day. Ensure batteries are cool to touch before charging)
- ☐ Data downloaded. Location:_____
- ☐ SD Cards cleared (once data downloaded and backed up)
- ☐ Incidents reported / any damage or issues with the craft reported to wider team
- ☐ Flight logs uploaded/written up
- ☐ Check logs are uploaded

Signed off

Pilot: _____ Date__/__/20__ | Observer: _____ Date__/__/20__

UAV Ops Manager*: _____ Date__/__/20__
(*if relevant)