Before Departing for Site

- Confirm that SD Card(s) is installed or within case
- USB iPad cable
- Batteries fully charged
- iPad fully charged
- Transmitter charged at least 75% and harness is attached
- Extra props
- Tablet sun blocker
- Camera filters
- Gimbal lock and spacer installed.
- Review skyvector.com to confirm airspace, notice to airmen (NOTAMs), and temporary flight restrictions (TFRs) for the area to be flown.

Pre-Flight Checklist (Performed On-Site)

- Review flight area for hazards (towers, electrical poles, wires, overhangs, etc…)
- Use UAV Forecast (iPhone application) to gather a screenshot of current weather conditions - save screenshot to Evernote. The following constraints should be utilized when deciding if flight is go or no-go:
  - Maximum wind gusts: 25 MPH
  - Maximum sustained wind: 20 MPH
  - Temperature range: 25 - 95 Degrees Fahrenheit
  - Time of day: 30 minutes before sun rise to 30 minutes after sunset
  - Minimum Visibility: 1 mile
  - Minimun geolocation satellites visible: 8
- Remove gimbal lock and spacer.
- Review hull and landing gear for defects.
- Inspect props for defects.
- Install props and confirm that they are secured.
- Install tablet on transmitter and connect cable.
- If needed (bright conditions) install ND filter for videography.
- Securely install battery in Phantom 4.
- If required by job, purchase insurance policy through either Verifly or Skywatch iPhone apps.
- Ensure that transmitter is set to "Positioning-Mode" (the mode selector switch should be pushed to the position closest to the center of the transmitter).
- Turn on transmitter.
- Place Phantom 4 on level surface with enough clearance to allow free movement of the camera.
- Turn on Phantom 4.
- Confirm that the Phantom 4 and the transmitter have paired by observing the LED at the bottom of the transmitter. When LED turns from red to green, pairing was successful. If LED is not green a full minute after the Phantom 4 was turned on, cycle the power on the Phantom 4 and try again.
- Once paired, turn on iPad and launch DJI Go 4 application.

- Review initial values - battery level, SD Card memory, and any warnings. Confirm maximum altitude is set to 400 feet (120 meters). Ensure that loss of signal action is set to "Return to Home" at 70 meters.
- Format SD card if needed.
- Review camera settings. Cycle exposure level to reset camera.
- If filming video, set to 24FPS with a shutter speed of 50.
- Before continuing, ensure that Phantom 4 is in P-GPS mode and has locked onto positioning satellite.

Begin Flight
- Issue launch command. Let drone hover.
- Test yaw and pitch. Move drone forward and backward to confirm proper handling.
- If all is well, ascend and commence flight.

During Flight
- Monitor battery level. Begin returning to home at 30% battery life.
- Maintain Visual Line of Site (VLOS).
- Scan sky periodically for other aircraft. If sighted and a potential airspace conflict is identified, begin evasive maneuvers and land drone at nearest applicable location if necessary. If flying over water, descend to 30 feet above water surface and fly towards launch location. Land at the first candidate location.
- Monitor iPad for notifications that indicate signal loss or high wind velocities.
  - When signal loss is indicated, bring drone closer to transmitter.
  - When high wind is indicated, adjust altitude and attempt to continue flight. If indicator continues, return drone to landing zone.
- Monitor directional arrow on iPad's map view. This helps to identify the direction that the drone is facing and can assist in brining the drone closer to the launch location when needed.