Sample Preflight Inspection Checklist

Even if the small unmanned aircraft system (sUAS) manufacturer has a written preflight inspection procedure, it is recommended that the Remote Pilot in Command (Remote PIC) ensure that the following inspection items are incorporated into the preflight inspection procedure required by part 107 to help the Remote PIC determine that the sUAS is in a condition for safe operation.

Conduct a preflight visual or functional check of the aircraft, including (but not limited to) the steps below.

- ❑ Visually inspect the condition of the unmanned aircraft system components
- ❑ Inspect the airframe structure, including undercarriage, all flight control surfaces and linkages
- ❑ Inspect registration markings for proper display and legibility
- ❑ Inspect moveable control surface(s), including airframe attachment point(s)
- ❑ Inspect servo motor(s), including attachment point(s)
- ❑ Inspect the propulsion system, including powerplant(s), propeller(s), rotor(s), ducted fan(s), etc.
- ❑ Verify all systems (e.g. aircraft, control unit) have an adequate energy supply for the intended operation and are functioning properly
- ❑ Inspect the avionics, including control link transceiver, communication/navigation equipment and antenna(s)
- ❑ Calibrate UAS compass prior to any flight
- ❑ Inspect the control link transceiver, communication/navigation data link transceiver, and antenna(s)
- ❑ Check that the display panel, if used, is functioning properly
- ❑ Check ground support equipment, including takeoff and landing systems, for proper operation
- ❑ Check that control link correct functionality is established between the aircraft and the control station
- ❑ Check for correct movement of control surfaces using the control station
- ❑ Check on board navigation and communication data links
- ❑ Check flight termination system, if installed
- ❑ Check fuel for correct type and quantity
- ❑ Check battery levels for the aircraft and control station
- ❑ Check that any equipment, such as a camera, is securely attached
- ❑ Verify communication with UAS and that the UAS has acquired GPS location from at least 4 satellites
- ❑ Start the UAS propellers to inspect for any imbalance or irregular operation
- ❑ Verify all controller operation for heading and altitude
- ❑ If required by flight path walk through, verify any noted obstructions that may interfere with the UAS
- ❑ At a controlled low altitude, fly within range of any interference and recheck all controls and stability

Adapted from: Advisory Circular 107, *Small Unmanned Aircraft Systems* (as amended)