

# Unmanned Aerial System

## 606.1 PURPOSE AND SCOPE

The purpose of this policy is to establish guidelines for the use of a unmanned aerial system (UAS) and for the storage, retrieval and dissemination of images and data captured by the UAS. This policy is intended to provide personnel who are assigned responsibilities associated with the deployment and use of unmanned aircraft systems (UAS) with instructions on when and how this technology and the information it provides may be used for law enforcement and public safety purposes in accordance with law.

### 606.1.1 DEFINITIONS

Definitions related to this policy include:

- **Unmanned aerial system (UAS)** - An unmanned aircraft of any type that is capable of sustaining directed flight, whether preprogrammed or remotely controlled (commonly referred to as an unmanned aerial vehicle (UAV), and all of the supporting or attached systems designed for gathering information through imaging, recording or any other means.
- **Digital Multimedia Evidence (DME)**: Digital recording of images, sounds, and associated data.
- **Model Aircraft**: A remote controlled aircraft used by hobbyists that is built, produced, manufactured, and operated for the purposes of sport, recreation, and/or competition.
- **Unmanned Aircraft (UA) or Unmanned Aerial Vehicle (UAV)**: An aircraft that is intended to navigate in the air without an on-board pilot. Also alternatively called Remotely Piloted Aircraft (RPA), Remotely Operated Vehicle (ROV), or Drone.
- **Unmanned Aircraft System (UAS)**: A system that includes the necessary equipment, network, and personnel to control an unmanned aircraft.
- **Small Unmanned Aircraft Systems (sUAS)**: UAS systems that utilize UAVs weighing less than 55 pounds and are consistent with Federal Aviation Administration (FAA) regulations governing model aircraft.
- **UAS Flight Crewmember**: A pilot, visual observer, payload operator or other person assigned duties for a UAS for the purpose of flight or training exercise.
- **Unmanned Aircraft Pilot**: A person exercising control over a UA/UAV/UAS during flight.
- **COA**: Certificate of Authorization which is a certificate to operate outside the parameters of FAA 107.

## 606.2 POLICY

A UAS may be utilized to enhance the office's mission of protecting lives and property when other means and resources are not available or are less effective. Any use of a UAS will be in strict accordance with constitutional and privacy rights and Federal Aviation Administration (FAA)

# Oneida County Sheriff's Office

## Policy Manual

### *Unmanned Aerial System*

---

regulations. The agency has also developed the attached operating procedure. [See attachment: Procedure for UAS.pdf](#)

#### **606.3 STANDARDS**

Concept of Operation reflects accepted standards of the Federal Aviation Administration (FAA) regulations, aircraft manufacturers approved flight manual as defined by national response protocols as supported by the Federal Aviation Administration (FAA) all statutes which relate to the safe and efficient provision of such a service. The attached procedures are intended to promote safe, efficient and lawful operation of the Oneida County Sheriff's Office Unmanned Aerial System (UAS). Safety, above all else, is the primary concern in each and every operation, regardless of the nature of the mission.

#### **606.4 MISSION**

It shall be the mission of those personnel of the Oneida County Sheriff's Office who are trained in the use of the Unmanned Aerial System (UAS), to use this resource to protect the lives and property of citizens and first responders in a constitutionally and legally sound manner. Use of the aerial system can be utilized in circumstances which would save life and property, as well as being able to detect possible dangers that could not otherwise be seen.

UAS's can support any responder in many types of hazardous incidents that would benefit from an aerial perspective. Additionally the UAS would have suitable uses in missing persons, search and rescue operations, accident scene reconstruction and documentation as well as many tasks that can best be accomplished from the air in an efficient and effective manner.

It shall be the intent of every UAS operator to make every reasonable effort to not invade a person's reasonable expectation of privacy when operating the UAS. UAS unit Commander, operators and observers will have the protection of citizens civil rights and reasonable expectations of privacy as a key component of any decision made to deploy the UAS.

The UAS program planning, research and development has been something that the agency has taken very seriously.

#### **606.5 PRIVACY**

The use of the UAS potentially involves privacy considerations. Absent a warrant or exigent circumstances, operators and observers shall adhere to FAA altitude regulations and shall not intentionally record or transmit images of any location where a person would have a reasonable expectation of privacy (e.g., residence, yard, enclosure). Operators and observers shall take reasonable precautions to avoid inadvertently recording or transmitting images of areas where there is a reasonable expectation of privacy. Reasonable precautions can include, for example, deactivating or turning imaging devices away from such areas or persons during UAS operations.

# Oneida County Sheriff's Office

## Policy Manual

### *Unmanned Aerial System*

---

#### **606.6 PROGRAM COORDINATOR**

The Sheriff will appoint a program coordinator who will be responsible for the management of the UAS program. The program coordinator will ensure that policies and procedures conform to current laws, regulations and best practices and will have the following additional responsibilities:

- Coordinating the FAA Certificate of Waiver or Authorization (COA) application process and ensuring that the COA is current.
- Ensuring that all authorized operators and required observers have completed all required FAA and office-approved training in the operation, applicable laws, policies and procedures regarding use of the UAS.
- Developing uniform protocol for submission and evaluation of requests to deploy a UAS, including urgent requests made during ongoing or emerging incidents. Deployment of a UAS shall require verbal authorization of the Sheriff or the authorized designee, depending on the type of mission.
- Developing protocol for conducting criminal investigations involving a UAS, including documentation of time spent monitoring a subject.
- Developing an operational protocol governing the deployment and operation of a UAS including, but not limited to, safety oversight, use of visual observers, establishment of lost link procedures and secure communication with air traffic control facilities.
- Developing a protocol for fully documenting all missions.
- Developing a UAS inspection, maintenance and record-keeping protocol to ensure continuing airworthiness of a UAS, up to and including its overhaul or life limits.
- Developing protocols to ensure that all data intended to be used as evidence are accessed, maintained, stored and retrieved in a manner that ensures its integrity as evidence, including strict adherence to chain of custody requirements. Electronic trails, including encryption, authenticity certificates and date and time stamping, shall be used as appropriate to preserve individual rights and to ensure the authenticity and maintenance of a secure evidentiary chain of custody.
- Developing protocols that ensure retention and purge periods are maintained in accordance with established records retention schedules.
- Facilitating law enforcement access to images and data captured by the UAS.
- Recommending program enhancements, particularly regarding safety and information security.
- Ensuring that established protocols are followed by monitoring and providing periodic reports on the program to the Sheriff.

#### **606.7 ORGANIZATION**

The following shall be the chain of command for the Unmanned Aerial System (UAS) Drone Unit:

- (a) Unit Crew Member
- (b) Unit Commander

## *Unmanned Aerial System*

---

- (c) Chief Deputy
- (d) Undersheriff
- (e) Sheriff

### **606.7 USE OF UAS**

Only authorized operators who have completed the required training shall be permitted to operate the UAS.

Use of vision enhancement technology (e.g., thermal and other imaging equipment not generally available to the public) is permissible in viewing areas only where there is no protectible privacy interest or when in compliance with a search warrant or court order. In all other instances, legal counsel should be consulted.

UAS operations should not be flown over populated areas without FAA approval or an approved COA.

Police personnel who are assigned UAS must complete an agency-approved training program to ensure proper use and operations. Additional training may be required at periodic intervals to ensure the continued effective use and operation and proper calibration and performance of the equipment and to incorporate changes, updates, or other revisions in policy and equipment.

All agency personnel with UAS responsibilities, including command officers, shall also be trained in the local and federal laws and regulations, as well as policies and procedures governing the deployment and use of UAS.

### **606.8 CREW MEMBER MANAGEMENT QUALIFICATIONS**

#### **Pilot in Command (PIC):**

A person operating a small UAS must hold a remote pilot airman certificate with a small UAS rating by successfully passing the FAA Part 107 Airmen Knowledge Test.

The PIC will function as team leader and the operator of the UAS. The PIC will be ultimately responsible for the operation and solely responsible for input of commands/piloting of the UAS during flight.

The PIC will be responsible for UAS assembly, UAS Flight Preparation, UAS Post Flight Procedures, and UAS Disassembly/ Storage.

Additionally, the PIC will appoint the observer and safety officer at his discretion.

FAA Part 107 certified pilot must be Pilot in Command for any flight mission.

#### **Visual Observer (VO):**

# Oneida County Sheriff's Office

## Policy Manual

### *Unmanned Aerial System*

---

The observer will maintain a visual observation of the UAS while it is in flight and alert the PIC of any conditions (obstructions, terrain, structures, air traffic, weather, etc.) which affect the safety of flight.

Additionally, the observer will be responsible for all aviation related communications required by FAA.

To accomplish this effectively, the observer will be in close proximity to the PIC to ensure instant relaying of information. The observer will also assist the safety officer in completing his functions.

#### **Personnel Manipulating Controls:**

Must be under the direct supervision of a person who does hold a remote pilot certificate (remote pilot in command). To qualify to be a Control Operator pilot, a person must be trained and vetted by the OCSO Unit Commander

#### **Camera Operator:**

To qualify to be a Camera Operator, a person must be trained and vetted by the OCSO Unit Commander.

#### **Safety Operator:**

The safety officer will complete all ground operations regarding the UAS to include assembly, and launch preparations.

During flight, the safety officer will ensure that the operations area remains secured and both PIC and observer are not interrupted.

### **606.9 TRAINING PROFICIENCY**

Initial UAS training will be accomplished by the Unit Commander.

Recurrent UAS training will be conducted on a monthly basis by all unit personnel. The training will consist of a minimum of 2 take-off and landing events and 8 hours of ground training in order to meet the proficiency and currency requirements.

FAA Part 107 Pilots must recertify every 24 months to maintain a current certification.

UAS operators / unit members must be certified in the operation of the UAS by successfully completing training conducted by OCSO Unit Commander.

Unit members must meet the standards required by the FAA and must pass the required knowledge test for a remote pilot certificate and must keep their aeronautical knowledge up to date.

We have developed an agency Policy and Operating Procedure.

We strictly follow Department of Homeland Security best practices for protecting privacy, Civil rights and civil liberties regarding for UAS government programs.

# Oneida County Sheriff's Office

## Policy Manual

### Unmanned Aerial System

---

All of our pilots are and will be FAA Part 107 Small Unmanned Aircraft System Certified and FAA re-certified every 24 months. All of our crew members will be vetted and tested by the OCSO unit commander.

All crew members will be familiar with the OCSO Policy and Operating Procedure. All crew members will complete a written and practical test covering the following “(1) regulations applicable to small UAS operations; (2) airspace classification and operating requirements... and flight restrictions affecting small unmanned aircraft operation; (3) official sources of weather and effects of weather on small unmanned aircraft performance; (4) small UAS loading and performance; (5) emergency procedures; (6) crew resource management; (7) radio communication procedures; (8) determining the performance of small unmanned aircraft; (9) physiological effects of drugs and alcohol; (10) aeronautical decision-making and judgment; and (11) airport operations” in addition to “maintenance and inspection procedures.”

The Oneida County Sheriff's Office will utilize the following crew positions:

#### **Remote Pilot in Command**

A person operating a small UAS must hold a current remote pilot airman certificate with a small UAS rating by successfully passing the FAA Part 107 Airmen Knowledge Test.

To qualify to be a Remote Pilot in Command, a person must be vetted and tested by the OCSO Unit Commander. Demonstrate aeronautical knowledge by passing an initial aeronautical knowledge test at an FAA-approved knowledge testing center.

#### **Remote Control Operator**

Person Manipulating the Controls. A person other than the remote pilot in command (PIC) who is controlling the flight of an UAS under the supervision of the remote PIC. Must be under the direct supervision of a person who does hold a remote pilot certificate (remote pilot in command).

To qualify to be a Remote Control Operator, a person must be vetted and tested by the OCSO Unit Commander. They must be proficient in flight training, pre-flight checklist, Mission Planning, Control Operations, Stick Control and Emergency Operations

#### **Camera Operator**

To qualify to be a Camera Operator, a person must be vetted and tested by the OCSO Unit Commander. The camera operator must be familiar with camera functions, pre-flight settings and post-flight processing.

#### **Visual Observer (VO)**

Visual Observer (VO). A person acting as a flight crew member who assists the small UA remote PIC and the person manipulating the controls to see and avoid other air traffic or objects aloft or on the ground. The Visual Observer is there to make sure the aircraft maintains line of site and can assist the pilot while they are doing something else.

## *Unmanned Aerial System*

---

To qualify to be a Visual Observer, a person must be vetted and tested by the OCSO Unit Commander. They must have a familiarity with the OCSO Drone Unit, OCSO Drone Policy and Procedure, FAA Part 107 Rules and Regulations, FAA Rules and Regulations for Police use COA vs Part 107, Drone Specific Observation Techniques, Obstructions, Terrain, Structures, Air Traffic, Weather and Situational Awareness.

### **606.11 PROHIBITED USE**

The UAS video surveillance equipment shall not be used:

- To conduct random surveillance activities
- To target a person based solely on actual or perceived characteristics such as race, ethnicity, national origin, religion, sex, sexual orientation, gender identity or expression, economic status, age, cultural group, or disability.
- To harass, intimidate, or discriminate against any individual or group.
- To conduct personal business of any type.

The UAS shall not be weaponized.

## Attachments



## Procedure for UAS.pdf

## UAS Procedure

### 706.1 ADMINISTRATION FOR UAS

This agency has adopted the use of UAS to provide an aerial visual perspective in responding to emergency situations and exigent circumstances, and for the following objectives:

1. **Situational Awareness:** To assist decision makers (e.g., incident command staff; first responders; city, county, and state officials) in understanding the nature, scale, and scope of an incident—and for planning and coordinating an effective response.
2. **Search and Rescue:** To assist missing person investigations, AMBER Alerts, Silver Alerts, and other search and rescue missions.
3. **Tactical Deployment:** To support the tactical deployment of officers and equipment in emergency situations (e.g., incidents involving hostages and barricades, support for large-scale tactical operations, and other temporary perimeter security situations)
4. **Visual Perspective:** To provide an aerial visual perspective to assist officers in providing direction for crowd control, traffic incident management, special circumstances, and temporary perimeter security.
5. **Scene Documentation:** To document a crime scene, accident scene, or other major incident scene (e.g., disaster management, incident response, large-scale forensic scene investigation).

### 706.2 PROCEDURES FOR UAS USE

1. The agency must obtain applicable authorizations, permits, or certificates required by the Federal Aviation Administration (FAA) prior to deploying or operating the UAS, and these authorizations, permits, and certificates shall be maintained and current.
2. The UAS will be operated only by personnel (pilots and crew members) who have been trained and certified in the operation of the system.
3. The UAS certified personnel shall inspect and test UAS equipment prior to each deployment to verify the proper functioning of all equipment and the airworthiness of the device.
4. The UAS equipment is the responsibility of individual officers and will be used with reasonable care to ensure proper functioning. Equipment malfunctions shall be brought to the attention of the officer's supervisor as soon as possible so that an appropriate repair can be made or a replacement unit can be procured.
5. The UAS equipment and all data, images, video, and metadata captured, recorded, or otherwise produced by the equipment is the sole property of the agency.
6. All flights will be documented on a form or database designed for that purpose, and all flight time shall be accurately recorded. In addition, each deployment of the UAS shall include information regarding the reason for the flight; the time, date, and location of the flight; the name of the supervisor approving the deployment and the staff assigned; and a summary of the activities covered, actions taken, and outcomes from the deployment.

# Oneida County Sheriff's Office

## Supplemental Manual

### *UAS Procedure*

---

7. If the UAS will be used in a manner that may intrude upon reasonable expectations of privacy, the agency will obtain a search warrant prior to conducting the flight.
8. UAS supervisory personnel shall manage all deployments and uses of UAS to ensure that officers equipped with UAS devices utilize them in accordance with policy and procedures defined herein.
9. An authorized UAS supervisor or administrator will audit flight documentation at regular intervals. The results of the audit will be documented. Any changes to the flight time counter will be documented.
10. The Sheriff of the agency or his or her designee shall publish an annual report documenting the agency's deployment and use of UAS devices.

#### **706.3 DME RETENTION AND MANAGEMENT**

1. All DME shall be handled in accordance with existing policy on data and record retention, where applicable.
2. All DME shall be securely downloaded at the completion of each mission. The UAS-certified operators will record information for each file that shall include the date, time, location, and case reference numbers or other mission identifiers—and identify the UAS personnel involved in mission.
3. Officers shall not edit, alter, erase, duplicate, copy, share, or otherwise distribute in any manner sUAS DME without prior written authorization and approval of the Sheriff or his or her designee.
4. All access to UAS DME must be specifically authorized by the Sheriff or his or her designee, and all access is to be audited to ensure that only authorized users are accessing the data for legitimate and authorized purposes.
5. Files should be securely stored in accordance with agency policy and state records retention laws and retained no longer than necessary for purposes of training or for use in an investigation or prosecution.

#### **706.4 TEAM ACTIVATION**

##### **Emergency Activation:**

1. Request for activation of the Unmanned Aerial System (UAS) Drone Unit shall be made through the 911 Communication Center.
2. The Telecommunicator shall immediately notify the on duty supervisor who will contact the Unit Commander or his designee who will assess the situation and take any required steps for the activation.
3. The Unit Commander or his/her designee will advise if further unit member notifications are required.
4. A NY ALERT will be sent regarding the emergency activation as soon as practicable.

##### **Non-Emergency Activation:**

# Oneida County Sheriff's Office

## Supplemental Manual

### *UAS Procedure*

---

1. Request for non-emergency activation of the Unmanned Aerial System (UAS) Drone Unit shall be made through the Unit Commander in a timely manner.
2. The decisions concerning the response will be made by the Chief Deputy or his/her designee in consultation with the Unit Commander.
3. A NY ALERT will be sent regarding the non-emergency activation as soon as practicable.

#### **706.5 RESPONSE**

The Unmanned Aerial System (UAS) Drone Unit shall respond to all other Oneida County municipalities requesting assistance. This will be approved and facilitated by the on duty patrol supervisor, A NY Alert will be initiated upon activation.

They shall respond to municipalities outside Oneida County as requested and approved by the Chief Deputy or his/her designee. A NY Alert will be initiated upon activation.

All team members shall respond, when requested, to any unit activation.

Unit members (preferably the Unit Commander or designee and/or PIC) will be contacted and advised to report to the call out location. The UAS unit members that respond to the scene will determine the response necessary from unit personnel in order to support the request. The Unit Commander or designee along with the UAS unit members will determine if safe operation of the UAS can be accomplished as requested. The decision will be contingent upon several factors to include the ability of the UAS unit to operate within a secure perimeter, physical features of the area, and obstructions to flight, terrain, and the weather.

A minimum two man crew is required for all flights unless authorized by the Unit Commander or Chief Deputy.

When sufficient personnel and equipment arrive, appropriate steps should be taken to complete the mission. This should include, but not be limited to:

- Establish a safe working area.
- Plan the mission with the aid of the OCSO UAS Flight Check List. [See attachment: sUAS Checklist.pdf](#)
- All UAS activations will require the designation of a safety officer. The safety officer is empowered to immediately stop any activity when he or she observes such as being dangerous to the life and health of persons or property.

#### **706.6 SAFETY OF OPERATION**

- (a) Safety of the UAS operations (including persons and property) is the responsibility of the entire team. UAS team members should bring to the attention of other members any condition which they feel is a safety concern.
- (b) Except as required by the mission, all UAS team members will ensure that no persons are in the vicinity of the UAS during operations to avoid flying over uninvolved persons or vehicles.

# Oneida County Sheriff's Office

## Supplemental Manual

### *UAS Procedure*

---

- (c) Under no circumstances shall the UAS be utilized directly over large gatherings of people, as a chase vehicle in a vehicle pursuit or operated from a moving vehicle unless otherwise stipulated in the COA and/or FAA Part 107 waivers.
- (d) Except for the purpose of training or with UAS supervisory approval, only UAS unit members who meet the requirements set forth in Section V (QUALIFICATIONS) will be permitted to act as a unit member.
- (e) UAS team members will comply with the UAS Operator Manual, warning, limitations, placards, and/or checklists at all times unless an emergency dictates otherwise.
- (f) UAS PICs are authorized to evaluate and accept or decline any mission or portion thereof which affects the safety of operations.
- (g) All UAS operations will be conducted in Day Light Visual Meteorological Conditions only, unless otherwise stipulated in the COA and or FAA Part 107 waivers.
- (h) All UAS team members will be familiar with the COA and/or FAA Part 107 waivers which relate to operation of the UAS and comply with same.

#### **706.7 NORMAL OPERATIONS**

##### **Operations Area:**

The operation area selected by the UAS team shall be located within a secure perimeter whenever possible. The area should be evaluated for adequate space and clearances in order to safely assemble, launch, and recover the UAS. Attention should be given to overhead obstacles and obstructions that may pose a risk to the UAS during operation. The site selected and utilized by the UAS team should be restricted and access granted to personnel for operational purposes only.

##### **Flight Procedures:**

A pre-flight check of the UAS will be completed in accordance with the manufacturer's recommendation. [See attachment: sUAS Checklist.pdf](#) .

#### **706.8 FLIGHT OPERATIONS**

1. The UAS shall be operated in accordance with manufacturer specifications and applicable FAA limitations and restrictions.
2. A copy of the current valid COA and/or FAA Part 107 waivers shall be present whenever UAS operations are conducted.
3. For all operations, the observer shall utilize a distance from the UAS that will adequately permit them to maintain a visual observation of the UAS and maintain officer safety.

##### **EMERGENCY/CONTINGENCY PROCEDURES Lost Link Procedure:**

The lost link response shall be set to rally point and the maximum altitude set in accordance with the altitude limit of the COA and/or FAA Part 107 waivers.

# Oneida County Sheriff's Office

## Supplemental Manual

### *UAS Procedure*

---

A preprogrammed or predetermined mitigation plan will be utilized to ensure the continued safe operation of the UA in the event of a lost link (LL) In the event positive link cannot be established.

Flight termination must be implemented if the UAS loses communications or loses its GPS signal. The UAS must return to a pre-determined location within the operating area and land.

Policy and procedure will require that during authorized flights, a separate visual observer will be required in addition to the pilot manipulating the controls of the remote aircraft; ensuring visual line of sight (VLOS) is maintained.

All UAS team members will comply with all limitations, restrictions and requirements as enumerated in the COA and/or FAA Part 107 waivers:

- 107.29 – Night time operation.
- 107.41 – Operation in particular airspace. (Operations in Class B, C, D and E Airspace.
- 107.33 – Daisy Chained Visual observers (this allows for daisy chain of Visual Observers for ELOS).
- 107.39 – Operation over people.

#### **706.9 MAINTENANCE**

We currently follow all manufacture guidelines and policy regarding routine maintenance and repairs. Our repair procedure is to use only factory parts and all repairs are to be conducted by an authorized repair facility with the exception of simple operational repairs such as new batteries, propellers etc.

Weekly Maintenance Steps:

- Check batteries
- Check for needed updates
- Inspect for other maintenance needs

Maintenance records will be kept.

## Attachments

## sUAS Checklist.pdf





# Oneida County Sheriff's Office

## sUAS Flight Checklist

v3/19

<b>CaseNo:</b>	<b>Date / Time:</b>	<b>FlightNo:</b>	<b>Airframe:</b>
<b>Pilot In Command:</b>	<b>Location:</b>		
Visual Observer(s) (optional)	<b>Purpose of Flight:</b>	<b>Authorization:</b> - Part 107 - C.O.A.	
	- Assist Other Agency - Emergency Fire Services - L.E. Accident / Crime Scene - L.E Narco / Warrant - L.E. SWAT - Public Relations - Search and Rescue - Training - Maintenance Check - Other _____		

**Flight Discription:**

**Authorization for flight in restricted airspace:** (Required for flight in restricted airspace only, otherwise NA - See OPS)

**Authorized by:** \_\_\_\_\_ **Title:** \_\_\_\_\_

### A. Pre-Start Checklist

**Important:** Complete all check list items in the order they are presented. If you cannot check off an item **STOP!** and correct the problem before continuing (see flight OPS) document corrections in Notes.

No.	Item	Acceptable Condition	
1	Airspace _____	Unrestricted airspace or flight authorized	
		No obstructions near intended flight path identified	
2	Weather _____	Visibility >=3 miles/500 ft., Wind <=15mph, Precip. - None	
3	Tempature _____	Between 14 °F and 104 °F	
4	sUAS Airframe/Props	No structural defects visible	
5	sUAS Battery	Sufficient for intended flight, not less than 80%	
6	Controller Battery	Sufficient for intended flight, not less than 80%	
7	Display Device Battery	Sufficient for intended flight, not less than 80%	
8	Memory Card	Installed, sufficient memory space available for flight	
9	Observer	Present, briefed and ready (Only if designated, otherwise NA)	
10	Camera Gimbal Lock	Removed	
11	Display Device	Powered On	
12	Controller Power	Powered On	
13	sUAS Power	Powered On	
14	Firmware	All Firmware up to date	
15	Camera Check	FPV camera view normal	
16	Compass Calibration	No Compass Errors / Good Calibration	
17	Take-Off Location	Clear for >=25ft. radius, no overhead obstructions	

### B. Motor Start Checklist

No.	Item	Acceptable Condition	
1	sUAS Motor Start	sUAS motors start and run at idle, no abnormal noise	
2	RTH (Return to Home)	Home Point Recorded - Green flash LED - RTH Height OK	
3	Hover Check	Flight and Camera Gimbal control responses normal	
4	Flight Telemetry	Telemetry normal (Bat, Alt, Dist., etc.)	

**READY FOR FLIGHT**

**Notes:**

# Landing/Post Flight Check List

## A. Landing Checklist

No.	Item	Acceptable Condition	
1	Landing Location	Clear for $\geq 25$ ft. radius, no overhead obstructions	

## B. Post-Flight Checklist

No.	Item	Acceptable Condition	
1	sUAS Power	Power Off	
2	Controller Power	Power Off	
3	Log File	Uploaded Via FTP	
4	Camera Gimbal Lock	Installed	
5	sUAS Airframe/Props	No structural defects visible	
6	Memory Card	Removed	
7	Display Device Power	Power Off	

Notes:

## Flight Operations

### DJI Compass Calibration:

- In DJI GO app, Aircraft Status Bar / Compass - Press Calibrate (follow on screen instructions)
- Confirm sUAS led lights YELLOW
- Away from interference Rotate full 360° until light turns solid GREEN
- Point the front down and Rotate full 360° until light turns off, then resumes normal flashes.

### Public Safety Emergency Operation within RME airspace:

- Lat: \_\_\_\_\_ Long: \_\_\_\_\_ approx operational radius \_\_\_\_\_ nm Max AGL: \_\_\_\_\_ ft
- Obtain exact location of flight operation (b4ufly double click location pin), including max AGL and duration.
- Contact ATC at RME (315)356-4778 with above data to receive authorization and by whom record on front.