



# ***GREEN LAKE COUNTY***

*571 County Road A, Green Lake, WI 54941*

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**Original Post Date: 11/14/2017**

**Amended\* Post Date:**

**The following documents are included in the packet for the  
Judicial Law Committee on November 14, 2017:**

- 1) Agenda
- 2) Purchase Request Drone Information
- 3) Lexipol Policy-613 Unmanned Aerial Systems



# JUDICIAL/LAW ENFORCEMENT AND EMERGENCY MANAGEMENT COMMITTEE

## Judicial/Law Enforcement and Emergency Management Committee

### Meeting Notice

**Date: November 14, 2017 Time: 5:15 PM**

**Green Lake County Government Center,  
County Board Committee Room, 571 County Rd A, Green Lake WI**

### Amended AGENDA\*

#### **Committee Members**

*Michael Starshak,  
Chairman*

*Larry Jenkins, Vice-  
Chair*

*Sue Wendt*

*Peter Wallace*

*Lori Evans, Secretary*

1. Call to Order
2. Certification of Open Meeting Law
3. Pledge of Allegiance
4. Agenda
5. Purchase Request
  - Drone
6. Lexipol
  - 613 Unmanned Aerial Systems\*
7. Future Meeting.Dates: Regular Meeting December 13, 2017, at 5:00 pm
8. Future Agenda items for action & discussion:
9. Adjourn

Kindly arrange to be present, if unable to do so or if there are any changes, please notify Samantha at 4005.

**Please note: Meeting area is accessible to the physically disabled. Anyone planning to attend who needs visual or audio assistance, should contact the County Clerk's Office, 294-4005, not later than 3 days before date Of the meeting.**

# Request for Purchase Approval

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**Item to be purchased:** Drone

**Sheriff's Recommendation:** To Purchase it from RMUS, LLC

**Account Name and Number:** 17-101-09-52126-999-000 - \$4,999.00

**Governing Committee:** Judicial and Law Enforcement

**Governing Committee Approval Date:** November 14, 2017

**Property and Insurance Approval Date:** December 5, 2017

**Reason for Purchase:** The need we have found is to better equip our department in the area of rescue, hazmat, fire assessment, and crime scene documentation through the use of a drone.

**Bid Information each:** RMUS - \$4,999.00  
Multicopter - \$5,034.05



Quote

Created Date 13 Nov 2017 Ref RMUS\_QT\_2568 Customer PO No Created By Jace Nelson ETD

Customer: Green Lake County Sheriff's Office Mark Podoll

Ship To: Green Lake County Sheriff's Office Mark Podoll

Table with 6 columns: Code, Item, Qty, Unit Price, Discount, Sub Total. Row 1: DJI-M200, DJI Matrice M200, 1, \$4,999.00, \$4,999.00

Payment Terms

Payment due prior to product shipment, unless terms have been extended at Net 30.

All sales of UAV Packages are Final. Returns of unopened items in the original packaging are subject to a 20% restocking fee.

Summary table with 2 columns: Description, Amount. Rows: Product Cost: \$4,999.00, Delivery Details: \$0.00, Sub Total: \$4,999.00, Tax (6.85 %): \$0.00, Total (USD): \$4,999.00





# Request for Purchase Approval

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**Item to be purchased:** Drone Thermal Imaging Camera

**Sheriff's Recommendation:** To Purchase it RMUS, LLC

**Account Name and Number:** 17-100-09-52126-369-000 - \$4431.45  
17-101-09-52126-999-000 - \$5068.55

**Governing Committee:** Judicial and Law Enforcement

**Governing Committee Approval Date:** November 14, 2017

**Property and Insurance Approval Date:** December 5, 2017

**Reason for Purchase:** There is a need to better equip our department in the area of rescue, hazmat, fire assessment, and crime scene documentation via a drone. This is for the thermal imaging camera that goes with the drone.

**Bid Information each:** RMUS - \$9,500.00  
Multicopter - \$9,998.00



Quote

Created Date 06 Nov 2017 Ref RMUS\_QT\_2531 Customer PO No Created By Jace Nelson ETD

Customer: Green Lake County Sheriff's Office Mark Podoll

Ship To: Green Lake County Sheriff's Office Mark Podoll

| Code     | Item                               | Qty | Unit Price | Discount | Sub Total  |
|----------|------------------------------------|-----|------------|----------|------------|
| ZXTA13FP | DJI Zenmuse XT (640x512 30hz 13mm) | 1   | \$9,500.00 |          | \$9,500.00 |

Payment Terms

Payment due prior to product shipment, unless terms have been extended at Net 30.

All sales of UAV Packages are Final. Returns of unopened items in the original packaging are subject to a 20% restocking fee.

|                     |                   |
|---------------------|-------------------|
| Product Cost:       | \$9,500.00        |
| Delivery Details:   | \$0.00            |
| <b>Sub Total:</b>   | <b>\$9,500.00</b> |
| Tax (6.85 %):       | \$0.00            |
| <b>Total (USD):</b> | <b>\$9,500.00</b> |







## Unmanned Aerial System (UAS) Operations

### 613.1 PURPOSE AND SCOPE

The purpose of this policy is to establish guidelines for the use of an unmanned aerial system (UAS) and for the storage, retrieval and dissemination of images and data captured by the UAS.

- (a) The Green Lake County Sheriff's Office does not currently own, rent, or otherwise deploy/operate UAS vehicles. However, given certain situations and/or conditions, the Sheriff or his/her designee may request assistance from another agency for matters listed in the Use of UAS policy #613.5 below.

#### 613.1.1 DEFINITIONS

Definitions related to this policy include:

**Unmanned aerial system (UAS)** – A powered, aerial vehicle that carries or is equipped with a device that, in analog, digital, or other form, gathers, records, or transmits a sound or image, that does not carry a human operator, uses aerodynamic forces to provide vehicle lift, and can fly autonomously or be piloted remotely (Wis. Stat. § 175.55).

**Unmanned aerial vehicle (UAV)** – An aircraft that is capable of sustaining flight and that operates with no possible direct human intervention from, on or within the aircraft. The term does not include an unmanned aircraft that is flown within the line of sight of the operator and is strictly for hobby or recreational purposes.

### 613.2 POLICY

Unmanned aerial systems 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) regulations.

### 613.3 PRIVACY

Criminal investigations involving the use of the UAS potentially involve privacy considerations. Absent a warrant or exigent circumstances, no UAS shall intentionally record or transmit images of any location where a person would have a reasonable expectation of privacy (e.g., residence, yard, enclosure) (Wis. Stat. § 175.55). The operator of an unmanned aerial vehicle (UAV) may record or transmit images that are viewable with the camera/video equivalent of unassisted vision from a height of 400 feet or less.

### 613.4 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 Certificate of Waiver or Authorization (COA) application process and ensuring that the COA is current.

# Green Lake County Sheriff's Office

Green Lake County SO Policy Manual

## Unmanned Aerial System (UAS) Operations

- Ensuring that all authorized operators and required observers, if any, have completed any required FAA and office-approved training in the operation and applicable laws, policies and procedures regarding use of the UAS.
- Developing uniform Office protocol for submission and evaluation of requests to deploy a UAV. Deployment of the UAV shall require written authorization of the Sheriff or the authorized designee.
- Developing protocol for conducting criminal investigations involving the UAV including documentation of time spent monitoring a subject.
- Implementing a system for public notification of UAV deployment.
- Developing operational protocol governing the deployment and operation of a UAV including, but not limited to, use of visual observers, establishment of lost link procedures and secure communication with air traffic control facilities and fully documenting all missions.
- Developing UAV inspection, maintenance and record keeping protocol to ensure continuing airworthiness of a UAV up to and including its overhaul or life limits.
- Retaining images and data in accordance with the established records retention schedule.
- Developing protocols to ensure that all downloaded and retained media that are 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, digital masking of innocent or uninvolved individuals to preserve anonymity, 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.
- Facilitating law enforcement access to images and data captured by its 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.

### **613.5 USE OF UAS**

The UAS will be operated within the guidelines provided by the FAA. Only authorized operators who have completed the required office and FAA 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 where there is no protectable privacy interest or where a warrant has been obtained. In all other instances, legal counsel should be consulted.

The UAS, or images and data produced by the UAS, shall not be used to conduct personal business of any type.

UAS operations shall only be conducted during daylight hours and a UAV shall not be flown over populated areas without FAA approval.

# Green Lake County Sheriff's Office

Green Lake County SO Policy Manual

## *Unmanned Aerial System (UAS) Operations*

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A UAS may generally be used in the following circumstances (Wis. Stat. § 175.55):

- In a public place
- To assist in an active search and rescue operation
- To locate an escaped prisoner
- To surveil a place or location for the purpose of executing an arrest warrant
- When there is reasonable suspicion to believe that the use of the UAS is necessary to prevent imminent danger to an individual or to prevent the imminent destruction of evidence

### **613.6 PROHIBITED USE**

The UAS video surveillance equipment shall not be used:

- To conduct random surveillance activities.
- To target a person based solely on individual characteristics, such as, but not limited to race, ethnicity, national origin, religion, disability, gender or sexual orientation.
- To harass, intimidate or discriminate against any individual or group.
- To conduct personal business of any type.

The UAS shall not be weaponized.

### **613.7 RETENTION OF UAS DATA**

Data collected by the UAS shall be retained as provided in the records retention schedule.

### **613.8 TRAINING**

All office members authorized to operate or access the UAS shall receive appropriate training.

## **Green Lake County Sheriff's Office UAS Program**

The Green Lake County Sheriff's Office UAS (Un-manned Aircraft System) proposal and use goes beyond just the Sheriff's Office. UAS also commonly known as drones are quickly changing the ways government agencies are operating. With the use of drones there is a quicker response time for an aerial search when minutes and even seconds count, with modern technology agencies can quickly and efficiently provide aerial support for a fraction of the cost of a fixed winged airplane or a helicopter to respond to assist.

There are many applications for a UAS, the Green Lake County Sheriff's Office would be the agency responsible for the UAS, FAA Part 107 Licensed pilots, policy and procedure, however the UAS program is to be utilized to assist Fire Departments, GIS, Search and Rescue, Emergency Management, Wisconsin DNR, Wisconsin State Patrol, Air Coordination Group of Wisconsin, and other County and City agencies requesting assistance.

Listed below are the primary uses of the UAS and explanation of the missions to be flown.

**Search and Rescue:** with the portability and quick response time of the UAS, it allows for a rapid deployment and response time to place eyes in the air to begin searching for Alzheimer's and Dementia patients that walk away from their residence, small children, individuals with cognitive disabilities, and lost outdoors men and women that may become disoriented in the over 19,000 acres of public wildlife areas in Green Lake County. The UAS will be equipped with both a 1080P High Definition video camera and a FLIR (Forward Looking Infrared) camera that can transmit real time video to the command center and ground units assisting in the search.

### **Highlights**

- *Quicker response time*
- *Effectively cover a larger search area with an accurate grid pattern search*
- *Thermal Imagery for night time searches*
- *Effectively reach remote areas that are difficult by ground units*
- *Ground team management and coordination*

**K9 Searches:** The Green Lake County Sheriff's Office currently has two K9 Units, one of which is a tracking K9 to assist in tracking for suspect apprehension and search and rescue missions. Roky is not trained in bite work on suspect apprehension leaving the K9 officer vulnerable to ambushes or attack from the suspect or suspects. The UAS would assist in the track by providing aerial support by being able to visually monitor from the air any dangers that may lie ahead of the handler that may not be seen from the ground and also coordinate responding ground units to setting up a safe and effective perimeter.

### **Highlights**

- *Officer Safety*
- *Community safety*

**Natural Disaster and Damage Assessments:** June 14<sup>th</sup>, 2017 a tornado struck the Town of Mackford in southern Green Lake County. A UAS was utilized to document both video and photo the damage caused. These videos and photos assisted the National Weather Service in assessment based on damage patterns and other evidence captured by the UAS to confirm that in fact the damage was done by a tornado and not strait line winds. By videoing the damage using the UAS, Green Lake County Emergency Management Director Gary Podoll was able to provide a direct link for the National Weather Service to be able to review the damage in less than 24 hours from the time the tornado struck the Town of Mackford. On June 15<sup>th</sup>, 2017 Waushara County Emergency Management contacted the Green Lake County Sheriff's Office requesting assistance from the UAS program to assist their county in documenting storm damage that Waushara County received from the same storm the day prior. The Green Lake County UAS Unit responded to Waushara County and also documented the damage which was turned over to Waushara County Emergency Management. The National Weather Service based on the documentation provided by the UAS classified Waushara County's storm damage as being caused also by a tornado.

The UAS may also be used for time laps assessment with floods and flood damage. By taking photos of a given point along a body of water or river at a set time each day those photos could be sped up to show the rise and lower of the water as it reaches and recedes flood stage.

#### **Highlights**

- *Effective documentation of damage*
- *Safely monitor flood stages*
- *Provide valuable information to the National Weather Service for accurate classification of storms*
- *Provide real time information for natural disaster response*

**HAZMAT:** with the railroad system along with state highways 23, 49,73,91,and 44 running through Green Lake County along with many farms in operation poses a risk of a hazardous materials situation such as a spill or train derailment. Do to the fact that the UAS is operated remotely with live stream video, we would be able to do a damage and scene assessment without having to put a hazmat specialist at risk of being injured or even killed by the hazardous materials. The UAS can provide valuable information such as wind drive, scene safety, and flow of hazardous materials all without having to place single person at risk to assess the scene. This damage and hazmat assessment in live stream video would provide the hazmat team accurate information on how to safely proceed with the scene and clean up.

#### **Highlights**

- *Provide real time information to the command center*
- *Assess the area of damage for appropriate response*
- *Officer and responding unit safety*
- *Community safety*
- *Scene Documentation*
- *Infrastructure inspection*
- *HAZMAT planning and response*

**Fire Assessment:** The UAS would be equipped with thermal imaging camera. This camera would be used to assess an active fire, not only on structure fires but also wild land fires. The thermal imagery would show the local fire departments in real time the locations of active “hot spots”, progression of the fire, and structural integrity for the safety of the firefighters.

**Highlights**

- *Firefighter safety*
- *Fire suppression coordination*
- *Wildland fire coordination and assessment*
- *Fire investigation*

**Crime Scene Documentation:** January of 2017 the Green Lake County UAS program was requested for assistance from the US Fire Marshalls along with Wisconsin State Patrol for crime scene documentation and to provide aerial view of the structure on a homicide investigation. Crime scenes may vary large in size, such as an aircraft crash or a multiple vehicle crash. Often it is very difficult to get an overview perspective of the scene from the ground, not only for photographing the scene but even a full scope of the size of the scene. The UAS is capable of not only high resolution photographs but also HD video for scene documentation. The Wisconsin State Patrol often reconstructs the scene using a tool called the Total Station, however State Patrol is only able to reconstruct the scene from ground level and is not able to document the full scene. With assistance from the UAS we are able to provide a “bird’s eye view” of the scene to be overlaid with reconstruction from the Total Station to provide the full picture of the event.

**Highlight**

- *Court documentation*
- *Evidence mapping*
- *Response planning*
- *Complete documentation for Total Station Reconstruction*

**Tactical Applications:** Per Green Lake County Sheriff’s Office Policy 613.3 Privacy states, no UAS shall intentionally record or transmit images of any location where a person would have a reasonable expectation of privacy (e.g.; residence, yard, enclosure) The use of the UAS for a tactical application would only be used under a search warrant or exigent circumstances where life and safety would be at risk. An example of a tactical application would be a barricaded subject whom is threatening to harm his/her self or others, real time surveillance would assist in gathering information on safety and status of the subject, hostages, along with structural lay out for a tactical approach. The UAS can also be equipped with a drop payload system. This system allows the use of the UAS to provide critical safety equipment to an officer or a subject without putting a responding officer at risk. It could be as simple as dropping a can of bug spray to an officer that is on perimeter at a scene, to a lifesaving tourniquet to an



officer that is injured and is not able to be safely reached by responding officers due to an ongoing situation.

**Highlights**

- *Officer Safety*
- *Community Safety*
- *Incident command planning*
- *Deliver lifesaving supplies*
- *Real time scene and situational monitoring*

**GIS:** The UAS would be utilized in the assistance with the Green Lake County Land Conservation Department and mapping. Often UAS are used to check water ways for contamination and run off sources, documentation of agriculture, and mapping.

**Highlights**

- *Mapping*
- *Documentation*
- *Agriculture monitoring*
- *Agriculture assistance*