

Aretas Aerial

# CONSERVATION OFFICER SERVICE UAV SOLUTIONS

**Aretas Aerial**

*a division of Aretas Sensor Networks, Inc.*

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# CONSERVATION OFFICER SERVICE UAV

## Environmental Protection & Enforcement Solutions

### Overview

Conservation Officers at times also referred to as Wildlife Officers or Game Wardens is a diverse and demanding field that experiences a wide-variety of challenges each requiring different skills and tools to address. Often responsible for enforcing state, provincial and federal environmental regulations governing the protection of wildlife, fisheries, and natural resources. They are on call to respond to public complaints and protect our natural resources.

Aretas Aerial works directly with conservation and environmental officers to provide solutions for specific needs. Though a generalization, conservation officers may require different UAV components and data reporting than those needed for environmental protection. It is worth noting that a UAV can be outfitted with any component payload required to meet the specific job. With safety as one of the primary concerns unmanned aerial vehicles (UAVs) allow your officers to conduct surveillance and gather data from a safe distance while remaining concealed as needed.

### Conservation Officer Solutions

As conservation officers are tasked with patrolling natural areas to enforce rules & regulations UAV's can provide the access and data that greatly enhance the ability to perform duties more effectively. With advanced HD and thermal imaging cameras officers can do the following and more with UAVs:

- Patrol hazardous or inaccessible terrain quickly
- Low-light surveillance with thermal imaging
- Remote observations and documentation for law enforcement
- Accurate GPS for location referencing during investigations
- Save money over plane or helicopter support
- Search and rescue support
- Public & school education

### Environmental Protection Solutions

With a variety of sensor component options specifically packaged for environmental assessments, gathering the data needed has never been easier. UAV's with sensors to detect carbon monoxide, volatile organic compounds, particulates, temperature, humidity even radiation can be quickly deployed in the field. On top of the capabilities outlined above, sensor data allows for;

- Live data from multiple sensors to make immediate decisions while in the field
- Collect and archive data from a wide area quickly including geolocation info for later analysis
- Collect and upload data to online analytics for remote viewing at a command center
- Remote hazardous or emergency scene assessments

### Training and Support

Aretas Aerial is a full-service UAV solutions provider offering ongoing training and support to ensure our partners can make the most of the latest aerial and monitoring technologies. We prepare your team for real-world operations before their first deployment.

Contact a live Aretas representative today to discuss how we can support your team (877) 218-6232.

#### THE RIGHT UAVs



#### THE RIGHT COMPONENTS



#### THE RIGHT DATA



# CONSERVATION OFFICER SERVICE UAV

## Environmental Protection & Enforcement Solutions

### Components & Specifications

Woodland, dessert, costal and other regions and terrains may have unique needs. The V650 Quad Rotor Package is developed specifically for Conservation Officer needs and is customizable with the components you require.

#### Conservation & Environmental V650



#### Key Specifications

- Distance: Line-of-sight
- Flight time: +/- 20 - 25 mins
- Custom 2-Axis Gimbal

#### UAV Vehicle Specifications

- Motors - Foxtech 3508 kv380
- 15" CF lite props
- Ironman 650 quad airframe
- Pix Falcon Micro PX4 Autopilot
- Ublox Neo-M8N GPS w/ Compass
- Turnigy 9X 9Ch Transmitter w/ Module & 8ch Receiver

#### Airframe

- Weight: 2.9kg - 3.4kg (approx.)
- Battery: 6S 6000MaH 25-50C LIPO
- Diagonal Landing Gear Base: 15in / 381mm
- Arm Width: 33in / 838.2mm
- Frame Weight: 476g

#### Components

##### HD Video

Several camera options are available with live video.

##### Thermal Imaging

- FPA 80 (h) x 60 (v) active pixels
- Thermal sensitivity <50 mK
- Lens option 50° / 25° FOV
- Spectral range: LWV 8  $\mu$ m - 14  $\mu$ m

#### Accessories

- 2x 6s 6000mAH batteries LIPO Batteries
- 1x Lipo Charger
- Custom hard shell case hold all parts and accessories

#### Flight Parameters

- Tested stable wind speeds: 8m/s
- Lift capacity: +/- 2lbs

#### Base Station

7in HD Monitor

Depending on mission types other components such as laptops for sensor data collection and analytics are also offered.



# CONSERVATION OFFICER SERVICE UAV

Environmental Protection & Enforcement Solutions

## Conservation & Environmental UAV Monitoring Systems

### UAV Vehicle



### Conservation Solutions

HD Video, Photography & Thermal Imaging



### Environmental Solutions

CO, VOC, PM and more



### Base Station

Data Display



### Live Data

Immediate Decision Making



### Archived Data

Investigation Information

