



# COON RAPIDS POLICE DEPARTMENT

## UNMANNED AIRCRAFT SYSTEMS (UAS) UNIT

---

### FREQUENTLY ASKED QUESTIONS

#### What is a Drone?

What many people refer to as a drone is actually defined by the Federal Aviation Administration (FAA) as Unmanned Aircraft Systems (UAS). Regardless of what it is called, it's a device capable of controlled flight, and does not have a pilot onboard. Whether a UAS is flown recreationally or commercially, it's important to know that all aircraft are very highly regulated by the FAA.

#### How does a UAS work?

Very simply stated, UAS fly using a sophisticated autopilot system that assists the pilot when flying the aircraft manually, or has the ability to fly the aircraft by itself using a pre-loaded flight plan designed by the pilot for that specific mission. Our aircraft are powered by a battery system, and during flight the aircraft sends a constant stream of information to the pilot indicating the altitude, heading, bearing, airspeed, position, battery levels and a live video feed from the aircraft mounted camera system. If there is a loss of communication or the batteries are getting too low, the aircraft has the ability to execute a failsafe procedure and automatically return to the point of take-off for landing or gently land immediately.

#### What kind of training did the pilots receive?

All of our pilots are police officers that have received highly specialized training. All of our pilots have successfully passed the FAA's knowledge exam, specifically the Code of Federal Regulations (CFR), Title 14, Part 107 (UAS Pilot) certification. In addition to the FAA requirements, our pilots have received training on the operation of our UAS and have familiarized themselves with the Department's UAS operations policies.

#### How many UAS's do you have?

We operate one UAS, which is a DJI Mavic 2 Enterprise. Our UAS weighs around 2lbs, is around 12" long, has a top speed of 44 mph, and is equipped with a camera and thermal imaging sensor. Our UAS's attachable accessories include a spotlight, anti-collision beacon, and a loudspeaker.

#### What kind of UAS's are available to Law Enforcement?

There are UAS's of all sizes available and as you can imagine, the cost of these systems varies greatly between size and capability. We currently use a DJI Mavic 2 Enterprise.

### **Do other law enforcement agencies operate UAS?**

Yes, the application of UAS allows law enforcement officers to be safer and more effective in a variety of public safety operations. There are currently around 350 U.S. law enforcement agencies using UAS, which is about a 518% increase over the last few years, which is likely due to UAS technology becoming more affordable.

### **How do you use your UAS aircraft?**

We most often use UAS for search and rescue missions. Aerial views provide a different vantage point and can be enhanced with the use of the FLIR thermal imaging sensor, which allows us to see anything with a heat signature. While less frequent, we may use our UAS to locate criminals attempting to avoid arrest. All of our pilots are certified from the Federal Aviation Administration (FAA) and fly in accordance with federal laws, state laws, and the Department's UAS operational policies.

### **How often do you use the UAS?**

Our UAS team was initiated in 2020 and we operate our UAS on an "as needed basis" with frequent training missions. Our pilots are police officers that have received specialized training and are certified through the Federal Aviation Administration (FAA) as remote UAS pilots.

### **How much do they cost?**

Our program cost \$8,500 including the training and certification of ten pilots, and UAS operating costs are very low. In contrast, manned aviation can cost hundreds to thousands of dollars per hour. A UAS can fly much lower than a traditional manned helicopter and has the added benefit of being much quieter. Many other law enforcement agencies have demonstrated how a UAS is a practical, cost effective alternative to manned aviation.

### **What restrictions are in place to protect citizen's civil liberties and privacy concerns?**

Historically, law enforcement has had the ability to have an aerial view with manned aircraft for many decades. As a result, case law has been established that guides our use of the aircraft. There is no effort here to somehow use the UAS to circumvent well established 4<sup>th</sup> Amendment protections. The technology in the UAS is appropriately limited. For example, our equipment does not allow us to see through walls, listen to conversations, monitor cell phones, etc. Our unmanned systems are mission and incident driven only. Images collected with the use of this technology are handled and retained within public safety standards, consistent with images collected with any camera by law enforcement and are subject to professional standards, codes of conduct, case law, and with the public's trust in mind.

### **Can you legally fly over my backyard?**

Yes. The CRPD UAS team can legally fly our UAS over your backyard with the same guidelines that apply to manned aviation. CRPD is bound by federal law and the laws of the State of Minnesota that direct the use of UAS as it relates to the privacy of citizens.

**Do your systems carry weapons?**

No. Our UAS absolutely will NOT be equipped with weapons of any sort. Our UAS's attachable accessories include a spotlight, anti-collision beacon, and a loudspeaker.

**Can your UAS be hacked with the controls taken over by someone else?**

No. The control data that travels through the air is encrypted. In addition, safeguards are in place so that if the technology fails, the aircraft either returns to the original point of take-off for landing or slowly descends to the ground.

**Can CRPD be hired by a local resident or business to fly the systems for commercial use?**

No. This would violate our flight approvals from the Federal Aviation Administration (FAA).

**Can citizens buy their own UAS and fly them?**

Yes. As long as the use is for hobby/recreation, the requirements are far less strict than commercial or law enforcement use. All UAS is required to be registered with the FAA and prospective pilots are required to familiarize themselves with FAA requirements. There are a few airspace restrictions in our area due to the nearby Anoka County-Blaine Airport (Janes Field), the helipad at Mercy Hospital, and the Coon Rapids Dam, which is a national river and recreational area.

**Will my privacy be impacted?**

No, your privacy will not be impacted. Maintaining an individual's privacy and protecting the civil liberties of all persons is of paramount importance to the Coon Rapids Police Department. CRPD is bound by federal law and the laws of the State of Minnesota that direct the use of UAS as it relates to the privacy of citizens. Again, our UAS will not be used for arbitrary surveillance and must comply with all federal regulations and laws.