

An eye in the sky: Madison County Sheriff's Office demonstrates new drone

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EDWARDSVILLE - The Madison County Sheriff's Office was able to attain a \$29,000 drone package through a grant earlier this year, and were able to demonstrate its uses Tuesday morning in its parking lot.

The DJI drone features both an optical camera with 30 times optical zoom and as much as 180 times digital zoom, as well as a Forward-Looking Infrared (FLIR) camera, which is similar to what firefighters use to detect hot spots following a structure fire. The drone can also climb to heights of 4,600 meters, but the Madison County Sheriff's Office is only allowed by the Federal Aviation Administration to reach heights of 400 feet, which is perfect for the needs of the Madison County Sheriff's Office, Deputy Daren Onwiler said.

While the implications of this technology may seem to be Orwellian, as the drone's cameras can zoom into the face of someone standing in the parking lot from 1,500 feet away at a height near its maximum, officers from the sheriff's office ensure the Fourth Amendment rights of Madison County citizens will still be respected.

"The drone is just an extension of the deputy," Major Jeff Connor said. "Our officers are trained from the academy on regarding the rights guaranteed by the Constitution."

Besides being able to stealthily stalk suspects and track license plate numbers, the drone does have some incredible potential to be used for safety purposes. While demonstrating the outstanding capability of the device's cameras, officers were not talking about how they could catch criminals. Instead, they spoke of the potential of search and rescue operations, especially involving children and the elderly.

Operations such as those could also benefit from quite a bit of longevity. The drone utilizes six battery packs for flight, and the maximum flight time is around 40 minutes. During that time, the sheriff's office can quick charge another pack of batteries, and thus may recall the drone, quickly change batteries, and immediately resume operations - a much faster process than calling a helicopter from St. Louis County.

With that initial \$29,000 price tag, the sheriff's office was able to procure the drone, the cameras, extra parts, extra batteries, the controllers, a hard case and the quick charge battery packs. In the future, the office may convert a police vehicle into a sort of drone command center with a small generator to charge the battery packs quickly.

Another handy feature of the drone is its ability to carry a payload of as much as 15 pounds. The cameras attached to its underside also contribute to that weight, so officers can add some small safety equipment, which can be utilized for dangerous search and rescue operations.

During the demonstration Tuesday morning, the drone was able to deliver life jackets to the bed of a truck in the parking lot, which was placed to simulate a boat having some possible issues in the water. The equipment weighed just short of 10 pounds and the drone and its operators were able to maneuver it to the waiting hands of an officer standing in the back of the truck.

As of now, the drone is in service, but the Madison County Sheriff's Office is awaiting a few bits of paperwork, such as insurance and certifications, before using it in the field. Six officers have also been trained by an FAA instructor for two days regarding flight safety and regulations. Those six deputies may also train other officers in the usage of the drone in the future.