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Domestic drones, also known as unmanned aerial vehicles (UAVs) or remotely piloted aircraft (RPA), are aircrafts that are operated without the possibility of direct human intervention from within or on the aircraft. FAA Modernization and Reform Act of 2012, Pub. L. No. 112-95, §331(8), 126 Stat. 11, 72. They range in size, flight time, and capabilities. They can be significantly less expensive than traditional manned aerial vehicles (i.e., planes or helicopters) and require less storage and landing space. In addition, drones can operate with less noise and vibration than traditional aircraft – meaning some can be virtually undetectable. They can be equipped with cameras, video, heat-sensing technology, GPS tracking, license plate recognition, etc., and can stay in flight for hours before refueling. And, if you have not heard...they are here – hovering about in backyards and around city skyscrapers. They are no longer reserved for foreign battlefields or the fictitious spy novel. Drones are becoming a part of the modern technological landscape and, in particular, are catching the eye of local, state, and federal law enforcement. Is this new technological tool the way of the future for police agencies? Or, is it flying officers straight into a constitutional conundrum?

It’s a Bird, It’s a Plane...It’s a Drone!

Drones, though long used overseas and by the military, have only recently experienced popularity among the masses. In 2012, the Federal Aviation Administration (FAA) released records in response to a Freedom of Information Act (FOIA) request from Electronic Frontier Foundation for information on the agency’s drone authorization program. The records revealed that dozens of entities have already applied for and currently
use drones. Drone certificate holders not only include the obvious, such as the U.S. Air Force, FBI, and U.S. Department of Agriculture, but other lesser-known entities such as the City of Herington, KS; Otter Tail County; the North Little Rock, Arkansas Police Department; and, Eastern Gateway Community College. See FAA List of Certificates of Authorizations, EFF, https://www.eff.org/document/faa-list-certificates-authorizations-coas (last visited July 29, 2014).

Pursuant to the current FAA system, requests for drone operation certificates are evaluated on a case-by-case basis. Government users, including law enforcement and public universities, may operate drones after completing an online application and obtaining a Certificate of Waiver or Authorization (COA). Civil operators seeking to operate a public-use drone must apply for a Special Airworthiness Certificate (SAC), which requires operators to show the drone can operate safely within an assigned flight test area and cause no harm to the public. Though the FAA’s case-by-case authorization process may work for the time being, it likely will not hold for long. Four years ago, the agency predicted that 30,000 drones could be flying in US skies by 2030. FAA Aerospace Forecast: Fiscal Years 2010-2030, at 48 (2010), https://www.faa.gov/data_research/aviation/aerospace_forecasts/2010-2030/media/Unmanned%20Aircraft%20Systems.pdf (last visited July 29, 2014). In 2012, Congress passed the FAA Modernization and Reform Act of 2012, covering fiscal years 2011 through 2014. The law imposed on the FAA a requirement to promulgate regulations and implement a comprehensive plan to “accelerate” the integration of drones into the national airspace system (NAS) by the end of September 2015. Pub. L. 112-95, 126 Stat. 11.

**The Possibilities**

Drones have been unfairly coupled with a singular use: spying. In reality, there are numerous purposes for domestic drones. For law enforcement, drones are ideal for search-and-rescue missions, stabilizing crowd control, monitoring traffic conditions, aiding natural-disaster rescues, assisting in hostage situations...there is a tremendous amount of good a drone can do when utilized by law enforcement. Mention “police” and “drones” in the same sentence, though, and the topic immediately turns to concerns about the Fourth Amendment; specifically, how enforcement agencies are using drones for criminal investigation activities. While it is short-sighted to single-handedly focus on the potential privacy concerns that may be implicated by drone, that is the current focus of advocacy groups, legislators, and the media.

**An Unclear Future: The Fourth Amendment & Aerial Observation Cases**

The Fourth Amendment protects “[t]he right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures.” In 1967, when drones were just a futuristic fiction, the United States Supreme Court decided *Katz v. United States*, the seminal
search and seizure case. *Katz v. United States*, 389 U.S. 347, 352-53 (1967). In *Katz*, the police eavesdropped on the defendant while he was talking on a telephone in a public phone booth with the door closed. The Court determined that a Fourth Amendment search occurs “when the government violates a subjective expectation of privacy that society recognizes as reasonable.” *Id.* at 361. This determination, expressed by Justice Harlan in his concurrence, is still the standard today: an actual, subjective expectation of privacy, with the expectation being recognized by society as reasonable.[1] It is only when both of these elements are met that it can be said a “search” has occurred, and thus invokes the need for a warrant in order for the fruits of the search (i.e., evidence) to be admissible.

The *Katz* decision established that, “[w]hat a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection. But what he seeks to preserve as private, even in an area accessible to the public, may be constitutionally protected.” *Id.* at 351. The problem with new police technologies, such as drones, is determining the bounds of reasonable expectations of privacy.

A series of aerial surveillance cases (albeit, all involving manned aircraft) decided decades ago may, at first glance, seem to indicate that law enforcement will have wide latitude in using drones to assist in criminal investigations. Upon further review, however, it is clear that the Court will soon need to revisit the aerial surveillance issue in wake of rapidly evolving technology.

In 1986, the Supreme Court ruled in *California v. Ciraolo* that police officers who identified marijuana plants in a suspect’s backyard from a plane flying at 1000 feet did not violate the Fourth Amendment. The defendant had attempted to shield his illegal activities from observation (thus passing the first prong of the *Katz* test), but the Court held that the defendant did not maintain a privacy interest that would protect him from all types of visual observation. Specifically, the Court held that the Fourth Amendment “does not require the police traveling in the public airways [at 1,000 feet] to obtain a warrant in order to observe what is visible to the naked eye.” *Id.* at 215.

On the same day the *Ciraolo* ruling was issued, the Court also heard *Dow Chemical Co. v. United States*, 476 U.S. 227 (1986). *Dow*, a civil case, arose after the Environmental Protection Agency took aerial pictures of a Dow Chemical facility as part of an inspection. The Court determined that the curtilage surrounding the facility was more like an open field than that of a private residence for purposes of aerial surveillance, and because the flights were in public airspace, no search warranting Fourth Amendment protection had occurred.

Three years later, in 1989, the Supreme Court heard *Florida v. Riley*, 488 U.S. 445 (1989), a case very similar to *Ciraolo*. In *Riley*, the police flew a helicopter 400 feet over the defendant’s yard and observed marijuana plants in a greenhouse. Applying the *Ciraolo* precedent, the *Riley* Court held
that the defendant’s expectation of privacy was not reasonable. Aerial police observation made “from a public vantage point where [the aircraft has] a right to be” does not require a search warrant so long as a reasonable man would not have “expected that his [curtilage] was protected from public or official observation.” Id. at 449.

Taken at face value, these cases do suggest that police officers will sometimes be able to use drones without a warrant. It is crucial, however, to understand the limitations of these decisions.

_Ciraolo_ and _Riley_ both involved naked eye observations. Drone surveillance is inherently different. It is not conducted by the naked eye, but rather through photographic tools and equipment that can provide much more detail and accuracy than which is humanly possible. Drones can also record and store observations precisely as they exist – permanence far beyond that of human memory.

In _Dow_, the Court acknowledged the potential problems that could arise with advanced technology, “[i]t may well be...that surveillance of private property by using _highly sophisticated surveillance equipment_ not generally available to the public...might be constitutionally proscribed absent a warrant.” _Dow_ at 238, emphasis added. The _Dow_ photographs were “[n]ot so revealing of intimate details as to raise constitutional concerns,” but with today's technology, photographs with stunningly acute details are the norm. _Id._ at 228. Thus, while the Supreme Court gave its approval for law enforcement agencies to use manned aircraft for surveillance without a warrant, the cases all had an eye towards the nature of the evidence collected. The evidence obtained in these 1980 cases was characteristically different than the information that can be obtained by drones today.

While not an aerial surveillance case, the Supreme Court's 2001 decision in _Kyllo v. United States_ has potential implications for drone technology. _Kyllo v. United States_, 533 U.S. 27 (2001). In _Kyllo_, government agents used thermal imagers to detect heat signals coming from the external walls of the defendant’s home, and thereby used the information to conclude that there was a marijuana growing operation inside the residence. The Court ruled in favor of the defendant, holding that “obtaining by sense-enhancing technology any information regarding the interior of the home that could not otherwise have been obtained without ‘physical intrusion into a constitutionally protected area’ constitutes a search – at least where (as here) the technology is not in general public use.” _Id._ at 34. Effectively, this reinforces the idea that using technology that improves one's natural senses may transform an observation into a search.

**Turbulence Ahead**

Recently passed and currently pending legislation regarding drones at both the federal and state level indicates that legislators are highly concerned with law enforcement’s use of drones. The Preserving American Privacy Act of 2013 seeks to limit drone use by law enforcement and set

According to the National Conference of State Legislators, in 2013, 43 states introduced 130 bills and resolutions addressing drone issues. At the end of the year, 13 states had enacted 16 new laws and 11 states had adopted 16 resolutions. See 2013 Unmanned Aircraft Systems Legislation, NCSL, http://www.ncsl.org/research/civil-and-criminal-justice/unmanned-aerial-vehicles.aspx (last visited July 29, 2014). By and far, the main thrust of state legislation is concerned with citizen privacy impacted by drone use. In Florida, for example, law enforcement may only use a drone if they obtain a warrant, there is a terrorist threat, or “swift action” is needed to prevent loss of life or to search for a missing person. Fla. Stat. §934.50 (2013). Virginia, the most restrictive state, prohibited drone use by any state agencies “having jurisdiction over criminal law enforcement or regulatory violations” or units of local law enforcement until July 1, 2015, unless a limited exception applies. H.R. 2012, 2013 Sess. (Va. 2013).

Taking Flight

Law enforcement agencies across the United States have reported great success in using drones, but agencies must be cautious to stay within the parameters of existing state law. Further, they must be on the lookout for federal regulations that are sure to arrive soon. Surveillance capabilities rise to a new level (literally and figuratively) with drones. It remains to be seen whether Congress and the judicial system will rise to the occasion to balance the competing interests of law enforcement with Fourth Amendment privacy protections.