

April 10, 2013

Senators,

Thank you for your insightful questions about the law and policy that attend the domestic use of drones, and again for inviting me to testify on this important issue. I have provided some initial answers below and would be happy to continue the conversation at the Committee's convenience.

Sincerely,

Ryan Calo
Assistant Professor
University of Washington School of Law

QUESTIONS FROM RANKING MEMBER CHARLES GRASSLEY

Question 1.A: Does the reasoning in *Jones* or *Jardines* change the analysis for reviewing aerial surveillance by unmanned systems of the Fourth Amendment?

Maybe. *Jones* signals a willingness on the part of a majority of Justices (five of nine) to revisit the doctrine that citizens enjoy no reasonable expectation of privacy in public, whereas *Jardines* suggests that drug or bomb-sniffing drones would not be subject to the Fourth Amendment unless they were to fly so low as to interfere with property rights.

Technically *Jones* holds that attaching a GPS device to a vehicle for the purpose of gathering information and without the citizen's permission constitutes a search. As drones can follow a car without touching it, the majority opinion would not seem to control. Yet five Justices, over several concurrences, worried aloud about following a citizen in public by electronic means and suggested that such surveillance might trigger Fourth Amendment scrutiny if sufficiently extensive.

Jardines, meanwhile, holds that bringing a police dog within the curtilage of a home (in this case, the front porch) constitutes a search for purposes of the Fourth Amendment. We may tacitly consent to officers coming to knock on our front door to ask a question, but we do not, the Court reasoned, tacitly consent to bringing an instrumentality of investigation onto our property.

But now please assume no trespass or "intrusion" onto a citizen's property. Imagine a drone equipped with the ability to detect unlawful chemicals that flies over a public street or high above the suspect's house. In that case, I would think that *at least* Justice Thomas, who was in the majority in *Jardines*, would move over and join the four-Justice dissent, creating a five to four opinion finding no search because citizens enjoy no reasonable expectation of privacy in contraband (*Illinois v. Caballes*).

Question 1.B: Does the low cost and effort associated with drone surveillance change the Fourth Amendment calculus?

It may. Again, five Justices in *Jones* evinced a concern over how easy it had become to follow people around in public using electronic means.

Question 1.C: Does the addition of technology, such as facial recognition, biometric recognition, and thermal imaging equipment affect whether there is a reasonable expectation of privacy?

Facial and biometric recognition underscore the shortcomings of the doctrine that citizens possess no reasonable expectation of privacy in public. The same Justices I've mentioned in *Jones* might be prepared to accept as reasonable (*Katz* test) an expectation of privacy against drones or even linked cameras that can re-identify individuals using facial recognition. These technologies and others (e.g., license plate readers) make it possible to follow someone around electronically without committing much in the way of manpower.

I believe the Supreme Court's decision in *Kyllo* puts thermal imaging in its own category. The use of thermal imaging to detect activity within a private space likely requires a warrant or else must qualify under a limited exception. On the other hand, the use of thermal imaging merely to detect bodies in public at night probably would not. It might also be that thermal imaging is today in widespread enough use that the Court would revisit whether citizens are reasonable in not expecting it. (A company called Essess, for instance, drives around taking thermal images of people's houses.)

Question 2.A: Does the First Amendment prohibit Congress from restricting the use of drone technology by the press?

As I understand the relevant doctrine, the First Amendment generally tolerates restrictions on data collection activities as long as they are reasonable and apply to everyone equally. Congress probably could not single out the press for a ban on drone photography. But even today, the press may not fly drones because of Federal Aviation Administration rules that apply to all private entities excepting hobbyists.

Question 2.B: What reasonable restrictions could Congress considering placing on the use of drones by the press?

I would think any press-specific limits on the use of drones could be constitutionally problematic. Even California's anti-paparazzi law—recently upheld in state court against a challenge to its constitutionality—is grounded in trespass and intrusion upon seclusion and written in general terms that would, for the most part, apply equally to anyone (California Civil Code Section 1708.8).

Question 2.C: What restrictions and limitations on private data collection by corporations exist?

Consumer privacy laws in the United States are notoriously sector and activity specific. Thus, certain categories of information (financial, health) are subject to specific rules whereas some areas (online advertising) are subject only to the Federal Trade Commission's mandate to police against unfair or deceptive practice. Moreover, the laws in place tend not to restrict collection as such, but rather require notice to the consumer, adequate data security, and so forth. Corporations no less than individuals are still subject to the common law tort of intrusion upon seclusion, wherein the defendant intentionally invades the reasonable expectation of privacy of another through an outrageous conduct.

Question 2.D: What recourse would private citizens have if they feel their privacy rights have been violated by the press, private citizens, or companies using drones?

The opportunities for redress vary by jurisdiction. In many places, citizens may bring suit under one the four common law torts: intrusion upon seclusion, publication of privacy fact, false light, and publicity. Some states have codified these torts and even provided for damages—which can otherwise be a difficult hurdle for a plaintiff to surmount.

Question 3: Is the FAA the best agency for authorizing the domestic use of drones?

I would say that the FAA is a perfectly adequate authority, in the short term, to deal with the privacy issues drones present. The agency's charge from Congress, as I understand it, is to create a comprehensive plan to integrate drones into domestic airspace. I believe successful integration will entail addressing all legitimate citizen discomfort with the technology.

According to a 2012 Government Accountability Office report, one or more FAA officials believe privacy falls outside of the FAA's mission to promote aircraft safety. I respectfully disagree. Agency missions evolve, and other agencies have had no trouble dealing with ancillary factors such as privacy. For instance, in its examination of

driverless cars, the National Highway Traffic Safety Administration has considered the issues of driver privacy and autonomy. And “Safety” is literally their middle name.

I believe the FAA has since acknowledged its potential role in addressing privacy and I am encouraged that, in recent months, the FAA has reached out to the privacy community to seek input in connection with its selection of drone testing sites. I believe the agency can go further and require COA applicants to develop and adhere to a privacy plan or risk losing their certificate, as the Electronic Privacy Information Center has formally requested.

Thank you again for your insightful questions.

QUESTION FROM SENATOR MICHAEL LEE

Questions 1: How would the Supreme Court likely decide a case in which law enforcement obtained evidence from the curtilage of—i.e., the area immediately surrounding—the home using an unmanned aircraft system?

In *Florida v. Riley*, the Supreme Court recognized that the area being observed by helicopter was “within the curtilage of the house.” I believe the Court would apply the same logic to a standard flyover using an unmanned aircraft system (UAS). I would make several caveats, however:

First, although homeowners do not own all the rights above and below their property as they once did, they still own those air rights they could reasonably use and enjoy. Accordingly, were the UAS to fly low enough to implicate the owner’s property rights, one could readily imagine a court treating the act as a trespass and hence a search for purposes of the Fourth Amendment.

Second, a court could conceivably treat peering into a home through a window differently than peering into a greenhouse through a missing tile. A court might apply the reasoning of *Kyllo v. United States*, the thermal imaging case, on the theory that UAS are “sense enhancing technology” not (yet) in public use. Even before *Kyllo*, cases such as *United States v. Taborda*, in the U.S. Court of Appeals for the Second Circuit, held that the use of telescope to look into a dwelling constituted a search.

In short, I believe that the use of a UAS to gather evidence within the area immediately surrounding a home from a reasonable distance would not trigger the Fourth Amendment under current precedent, but could readily imagine facts that would make for a harder case.

Thank you for your great question.