



Baltimore air surveillance should cause concerns

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August 25, 2016

Recent Bloomberg reporting reveals that since January, Baltimore police have been secretly testing a persistent aerial surveillance technology that its developer describes as "Google Earth with TiVo." The technology, developed by Persistent Surveillance Systems (PSS), is mounted on small manned aircraft and is made up of wide-angle cameras that allow users to surveil about 30 square miles. News of the surreptitious use of this persistent surveillance tool underlines the importance of transparency in law enforcement and the unsatisfying state of Supreme Court aerial surveillance rulings.

PSS' technology is adapted from surveillance equipment first used in Iraq to help track down insurgents who had detonated improvised explosive devices. Surveillance cameras would be deployed in the air above a city. After an explosion the technology allowed users to zoom into the area and rewind the footage in order to find out where the suspects came from. Users could fast-forward to also see where the suspects went after the detonation.

The technology used in Baltimore allows for the same kind of tracking. As Bloomberg's reporting details, PSS' cameras can help track down a shooting suspect. PSS analysts cannot identify individuals from their computer screens because one person takes up one pixel of resolution. But it's not hard to gather information on people tracked with PSS' technology. You can find out a lot about a person by following them to a home, office building, church, or school.

Given the capabilities of PSS' tools readers may understandably feel uneasy knowing that Baltimore police have been testing this technology in secret for months. By **2014**, PSS had demonstrated its capabilities in a number of cities (including Baltimore). When PSS showed off its technology to the Los Angeles County Sheriff's Department by flying over Compton it was not only the public that was unaware of police engaging in persistent surveillance; **the mayor was also left in the dark.**

Baltimore police have a history of using new gadgets in secret. Last year, it was revealed that Baltimore police had used Stingray devices **thousands of times** since 2007. Stingrays, like PSS' cameras, are surveillance tools. Stingrays mimic cell-towers, forcing citizens' cellphones within range to connect with the device. This allows officers to track suspects as well as anyone else in the area whose cellphones interact with the Stingray, unbeknownst to them.

The public should be informed if law enforcement agencies are recording their every move over long periods of time. There are examples of persistent surveillance tools being used to apprehend violent criminals, but we shouldn't forget more nefarious possibilities. Persistent surveillance allows users to track mosque congregations, protesters, abortion clinic visitors, Alcoholics Anonymous members, and gun show attendees. Without adequate oversight these surveillance tools pose a significant risk to citizens' privacy.

Ross McNutt, the founder of PSS, has attempted to allay privacy concerns, citing the 1986 Supreme Court case *California v. Ciraolo*. In that case the Court ruled that police did not need a warrant to conduct a naked-eye search for marijuana in Dante Ciraolo's backyard from an airplane at 1,000 feet.

But there are important differences between the facts in *Ciraolo* and the kind of secret aerial surveillance Baltimore police have been conducting.

In *Ciraolo*, police surveilled one property after receiving an anonymous tip and observed marijuana without the aid of sophisticated technology. Baltimore police have been testing PSS' technology indiscriminately, not as part of one investigation. In addition, Baltimore police are relying on sophisticated surveillance technology, not naked-eye observations.

In another aerial surveillance Supreme Court case, *Dow Chemical Co. v. United States* (1986), the Court ruled that the Environmental Protection Agency did not need a warrant to inspect a 2,000 acre chemical plant from the air with a precision mapping camera. In his majority opinion Chief Justice Burger noted that the use of sophisticated surveillance tools might require a warrant, **writing**: "It may well be [...] that surveillance of private property by using highly sophisticated surveillance equipment not generally available to the public, such as satellite technology, might be constitutionally proscribed absent a warrant."

PSS' technology certainly counts as "sophisticated surveillance equipment not generally available to the public." Nonetheless, Supreme Court rulings from the 1980s continue to grant law enforcement agencies a great deal of leeway when it comes to aerial surveillance. The emergence of persistent surveillance tools and drones may one day prompt the Court to reconsider past aerial surveillance rulings. Until then it's up to lawmakers to tackle how best to protect privacy amid new technologies.

The recent news about persistent surveillance should concern all Americans, not just Baltimore residents. New technologies can undoubtedly play a valuable role in protecting citizens from crime and aiding investigations. But absent appropriate regulations or a major new Supreme Court ruling, law enforcement agencies will continue to engage in secret and indiscriminate surveillance.

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