

MEMORANDUM

To: Mayor Myrick

From: Chief Naylor

Date: November 22, 2019

Re: Unmanned Aerial Vehicles (UAVs) and Their Vast Data Collection Capabilities

Unmanned Aerial Vehicles (UAVs), commonly known as drones, are a technology which has tremendous capabilities for law enforcement-based data collection. As of 2018, UAVs were being used by police departments in every state, except Rhode Island, and are a valued asset for both the New York City and Los Angeles Police Departments.¹ UAVs can provide vital data from automobile crashes, crime scenes, hostage situations, natural disasters, and missing person cases.² After the FAA established the part 107 mandated regulations for non-recreational UAVs in 2016, the use of this technology by law enforcement increased dramatically, and with a cost ranging from \$2,000 to \$20,000, they are within the operating budgets of many police agencies.³

In Chula Vista California, the Drone First Responder (DFR) program was created. Via the commands of a teleoperator, the UAVs which are strategically pre-staged on rooftops within the city, are deployed to areas of need. The teleoperator uses internet-based technology and mapping to pilot the UAVs to calls for service or critical incidents where it gathers intelligence for responding officers.⁴ This consequently reduces response times and allows for a hierarchical ranking of calls by priority. Oftentimes, this process even eliminates the need for an actual officer's response based upon the data that the teleoperator receives via the UAV camera.⁵

For documentation of serious automobile crashes requiring accident reconstruction, UAV technology is far superior to the traditional mapping methods. UAV usage not only creates

greater efficiency, but provides for a much higher level of safety for the technicians who would otherwise be in the roadway collecting data for extended periods of time.⁶ The UAV data is preserved and then paired with software which allows the investigation to be finished off-site.⁷

The U.S. Supreme Court ruled in *California v. Ciraolo* that a “warrantless aerial observation of a fenced-in backyard within the curtilage of the home was a reasonable search under the 4th amendment.”⁸ Similarly, the Supreme Court also held in *Dow Chemical v. U.S.* that “a warrant was not needed to photograph openly visible areas above the complex via aerial photography.”⁹ As supported by these rulings, UAVs are a legal and effective means to investigate suspected illicit activity and gather intelligence which may not otherwise be accessible. From the images and data captured, law enforcement can subsequently determine how to appropriately proceed.

Rick Smith, the founder of Axon Enterprises, formerly TASER International, authored a book entitled, “The End of Killing; How Our Newest Technologies Can Solve Humanity’s Oldest Problem.” In addition to outlining the history of warfare, he articulates how technology can create a world which is safer and less violent. Mr. Smith explains how miniature UAVs called “Dragonflies” can be effectively used in warzones to capture data, neutralize threats, and save lives.¹⁰ Through his vision, these Dragonflies would provide newsfeeds to operators thousands of miles away who could activate the UAV to take countermeasures towards acts of war.

In one scenario, he describes how the operator can send the pre-staged Dragonfly to the site of violence, which in the example illustrated, was an imminent beheading. With extreme speed and precision, the Dragonfly would approach the threat, deploy Conducted Energy Weapon (CEW) technology, and neutralize the attacker within a fraction of a second.¹¹ In Mr. Smith’s vision, the Dragonfly would then instruct the attacker, in their specific language and dialect, with a command such as “do not move, you are being detained.” If the person fails to obey this order,

either a secondary shock, or a sedative-based drug would be administered. The Dragonflies would perform these actions, all while livestreaming video and related intelligence back to the operator in the command center.¹² Mr. Smith hypothesizes that through proper technology, killing can be stopped, and lives can be saved.¹³

UAVs are a technology with limitless potential for law enforcement. In their current state of use, they provide immense data for crime suppression, search and rescue operations, crime-scene investigations, and patrol function. As a force-multiplier, they drastically improve law enforcement's efficiency and effectiveness and, in the future, may likely save lives. Substantial increases in data and intelligence gathering are regularly occurring through this technology and within 5-10 years, the scope and type of data collected will likely increase exponentially. In an era in which Intelligence Led Policing (ILP) and analytics are crucial to law enforcement, UAV technology is essential. The unique ability of UAVs to provide a highly effective means of data collection, makes it one of the most impactful tools for the entire law enforcement profession.

References:

¹ Maryland Police Turn to Drones to Help Investigations; Officials praise the technology's effectiveness while researchers raise surveillance concerns; Knezevich, Alison; The Baltimore Sun; Nov 16, 2019; <https://www.policeone.com/law-enforcement-policies/articles/md-police-turn-to-drones-to-help-investigations-9evbCjt7Mu9VuEdA/>

² Ibid

³ Ibid

⁴ Deploying a drone as a first responder; How a municipal police department partnered with a Silicon Valley startup to transform police operations; Reber, Fritz; Police One. Oct 10, 2019; <https://www.policeone.com/police-products/police-drones/articles/deploying-a-drone-as-a-first-responder-vpqwfc9T2AFvmfLV/>

⁵ Ibid

⁶ Using Drones for Documentation Missions; Quinn, Christian Major; Police One; September 11, 2019; <https://www.policeone.com/police-products/police-drones/articles/using-drones-for-documentation-missions-LlzAROrsNKuJpvaZ/>

⁷ Ibid

⁸ Lexis Nexis; <https://www.lexisnexis.com/community/casebrief/p/casebrief-california-v-ciraolo>

⁹ Supreme Justia; <https://supreme.justia.com/cases/federal/us/476/227/>

¹⁰ The End of Killing; How our Newest Technologies can Solve Humanities Oldest Problem; Smith, Rick; ISBN 9781989025536; P. 7; 2019

¹¹ Ibid P. 8

¹² Ibid P. 8-9

¹³ Ibid P. 12