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Unmanned aircraft systems (UAS), initially developed by the military, have migrated to the domestic environment (government, commercial, and private sectors) and will soon be incorporated into the national airspace. As the Federal Aviation Administration plans for incorporating unmanned aircraft safely into the national airspace, law enforcement agencies nationwide await guidance on their operation. Beyond the practical concerns of operating unmanned aircraft in the national airspace, law enforcement agencies will utilize them in the interest of public safety and interact with the criminal justice system. The process will be complicated with the incorporation of an entirely new technology into Fourth Amendment law governing privacy rights. The advanced technology of sUAS makes predicting its effect on the criminal justice system and attempting to promulgate legislation prior to operational use a challenge that can be avoided.

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MASTER OF MILITARY STUDIES

SURVEILLANCE IN THE BORDERLANDS: A PATH FORWARD FOR LAW ENFORCEMENT SMALL UNMANNED AIRCRAFT SYSTEM OPERATIONS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF MILITARY STUDIES

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EXECUTIVE SUMMARY

Title: Surveillance in the Borderlands: A Path Forward for Law Enforcement sUAS Operations

Author: Assistant Chief Joel P. Wray, United States Border Patrol

Thesis: The United States Border Patrol is the optimal agency to pioneer law enforcement sUAS programs due to unique authorities originating from its complex operating environment; legal precedent to utilize new surveillance technology; and existing oversight authorities to self-regulate against potential legal overreach.

Discussion: Unmanned aircraft, initially developed by the military, have migrated to the domestic environment (government, commercial, and private sectors) and will soon be incorporated into the national airspace. As the Federal Aviation Administration plans for incorporating unmanned aircraft safely into the national airspace, law enforcement agencies nationwide await guidance on their operation. Beyond the practical concerns of operating unmanned aircraft in the national airspace, law enforcement agencies will utilize them in the interest of public safety and interact with the criminal justice system. The process will be complicated with the incorporation of an entirely new technology into Fourth Amendment law governing privacy rights. The advanced technology of sUAS makes predicting its effect on the criminal justice system and attempting to promulgate legislation prior to operational use a challenge that can be avoided.

Conclusion: Logically, a "test" agency must be selected to use the technology in law enforcement operations and gather best practices. The authority that the Border Patrol holds in the conduct of its operations in the border region makes it uniquely suited to be the first law enforcement agency to incorporate sUAS operations. There is substantial legal precedent to provide initial operational guidance, and an effective framework of oversight agencies exists that will be able to ensure that implementation occurs in accordance with Congressional intent.

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THE OPINIONS AND CONCLUSIONS EXPRESSED HEREIN ARE THOSE OF THE INDIVIDUAL STUDENT AUTHOR AND DO NOT NECESSARILY REPRESENT THE VIEWS OF EITHER THE MARINE CORPS COMMAND AND STAFF COLLEGE OR ANY OTHER GOVERNMENT AGENCY. REFERENCES TO THIS STUDY SHOULD INCLUDE THE FOREGOING STATEMENT.

PREFACE

Unmanned aircraft systems (UAS) have quickly become a part of the national conversation, with companies such as Amazon announcing plans to conduct unmanned product deliveries to great fanfare. Somewhat more under the radar, law enforcement agencies nationwide seek to utilize UAS, especially the lower cost small unmanned aircraft systems (sUAS) in their public safety mission. While significant attention has been paid to the practical incorporation of unmanned aircraft into the national airspace, less discussion has revolved around incorporating the technology into the national legal framework.

Numerous individuals helped me throughout the research and writing process for this paper. I would like to thank Dr. Lon Strauss for his guidance and mentorship. His breadth of knowledge, expertise, and guidance encouraged me to explore the impact that unmanned aircraft will have on the criminal justice system. Special thanks to the members of Conference Group Nine for listening to my process and keeping me on track; especially Wes, Duane, John, and Harlye.

While these individuals provided invaluable advice during the writing of this paper, the views, opinions, findings, and conclusions expressed in this paper are strictly my own. They are not responsible for any errors or omissions in this paper.

Introduction

Unmanned aircraft systems (UAS), sometimes referred to as drones, have swiftly become part of the global technological landscape over the last decade.[1] Militaries the world over have invested heavily in their intelligence, surveillance, and reconnaissance (ISR) and targeting capabilities.[2] Private companies such as Amazon are planning for autonomous drone-based delivery systems, and logic dictates that the technology of unmanned flight will soon be a common aspect of our daily lives.[3] Significant research in recent years has focused on the development of small UAS (sUAS) due to their wide range of practical capabilities in the government, commercial, and public sectors.[4]

The critical dilemma for law enforcement at the current juncture is to incorporate sUAS into operations with regard to constitutional rights despite the nascent regulatory framework. The FAA Modernization and Reform Act of 2012 tasked the Federal Aviation Administration (FAA) with promulgating regulations that would permit the use of sUAS by September 30, 2015.[5] Since that time, the FAA has developed restrictive regulations governing the use of sUAS as it attempts to safely establish a system for the coexistence of manned and unmanned aircraft. To date, the few existing regulations still do not denote a clear regulatory framework while government agencies, commercial interests, and civilian hobbyists scramble to keep up

[1] UAS – The term "unmanned aircraft system" means an unmanned aircraft and associated elements (including communication links and the components that control the unmanned aircraft) that are required for the pilot in command to operate safely and efficiently in the national airspace system - FAA Modernization and Reform Act of 2012, HR 658, 112th Congress, Public Law 112-95 (14 February 2012): Section 331(9).
[2] Noel Sharkey, "The Automation and Proliferation of Drones and the Protection of Civilians", *Law, Innovation and Technology*, Volume 3 (2011), 231.
[3] Nick Wingfield and Mark Scott, "In Major Step for Drone Delivery, Amazon Flies Package to Customer in England", *New York Times*, 14 December 2016.
[4] The term "small unmanned aircraft" means an unmanned aircraft weighing less than 55 lbs. - FAA Modernization and Reform Act of 2012, Section 331(6).
[5] FAA Modernization and Reform Act of 2012, Section 332(a)(1).

with the exponential technological growth in the field. Law enforcement entities nationwide are seeking guidance while sUAS operations remain restricted. One of these organizations is the United States Border Patrol (USBP), a component of U.S. Customs and Border Protection (CBP), which seeks to utilize sUAS to more effectively perform its border security mission.

CBP, a component agency of the Department of Homeland Security, is a pioneer in the domestic use of the larger UAS platform to support federal law enforcement missions. Following successful technological innovation by the Department of Defense (DOD) and interest by Congress, UAS migrated to civilian authorities, in this case CBP.[6] Since 2005, in addition to its fleet of manned aircraft, CBP's Air and Marine Operations (AMO) has been conducting intelligence, surveillance, and reconnaissance (ISR) missions with the MQ-9 Predator B UAS. Despite the current investment in CBP aviation, both manned and unmanned, there is an overall lack of air support to USBP border security operations, which has prompted a mandatory flight hour baseline in legislation currently under consideration in Congress.[7]

Government surveillance operations in the United States are historically a complex issue for good reason considering the potential intrusion upon privacy rights. The host of legal concerns broadly surround the Fourth Amendment's "right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures."[8] Authorities must confront these challenges as it is clear that sUAS are quickly becoming a fixture of modern life, and a path forward must be chosen. Law enforcement use of drones is a contentious issue, but agencies nationwide need the ability to utilize existing technology in their public safety missions. In order to discover the new balance between law enforcement surveillance powers

[6] National Defense Authorization, Fiscal Year 2001, HR 5408, 106th Congress, Public Law 106-398 (30 October 2000): Section 220.
[7] *Securing America's Future Act of 2018*, HR 4760, 115th Cong. (Introduced January 10, 2018)
[8] U.S. Const. amend. IV.

and privacy rights, it is logical that there would be a "test case" agency to find the practical and legal issues that will affect sUAS operations. Despite justified privacy concerns, the Border Patrol is the optimal agency to pioneer law enforcement sUAS programs due to the unique authorities stemming from its complex operating environment, current legal precedent to utilize new surveillance technology, and existing oversight authorities within the organization to self-regulate against potential legal overreach.

Authorities Defined by Operating Environment

SUAS Justification

The justification for the use of sUAS by the USBP flows from the national security interest of the United States in maintaining territorial sovereignty. The primary effort to that end is controlling the admission of people (citizens, residents, or visitors) into the United States. A natural byproduct of the establishment of borders and ports of entry is an informal economy based on avoidance of the costs associated with lawful commerce, and trafficking in both licit and illicit goods.[9] The United States has a unique border security dilemma in patrolling over 7,500 miles of land border with Mexico and Canada to police illicit activity.[10] These borders reside amid very diverse environments, largely remote regions with few urban hubs that can pose a serious challenge to patrol from a law enforcement standpoint.

Established in 1924, the United States Border Patrol is the agency charged with "facilitating the flow of legal immigration and goods while preventing the illegal trafficking of people and contraband."[11] Historically, the Border Patrol has been a small agency relative to its

[9] Kathleen A. Staudt, *Free Trade?: Informal Economies at the U.S.-Mexico Border* (Philadelphia: Temple University Press, 1998), 18-19.
[10] Government Accountability Office, *Border Security: Opportunities to Increase Coordination of Air and Maritime Assets* (Washington, DC: Government Accountability Office, 2005), 1, https://www.gao.gov/assets/250/247397.pdf.
[11] U.S. Customs and Border Protection, "Border Security Along U.S. Borders", Department of Homeland Security, accessed January 26, 2018, https://www.cbp.gov/border-security/along-us-borders.

mission. Prior to 9/11, the USBP maintained a workforce of fewer than 10,000 agents but has since nearly doubled to the current congressionally-mandated level of 21,370 agents.[12] With relatively few agents relative to its geographic responsibility, the USBP by necessity adopted a risk-based approach based on the pillars of *information, integration,* and *rapid response*. This strategy involved deploying assets to areas of the border in accordance with current and projected future levels of illicit activity.[13] Although effective in targeting the border regions with the highest levels of human and narcotics smuggling, the strategy requires the concentration of assets in some locations to the detriment of others. The strategy, therefore, reinforces the impression of supposedly porous borders for which every administration, both Republican and Democrat, is accused. Thus, the USBP is constantly seeking new ways and means to improve performance, from both internal and external sources.

As it is not practical to substantially increase Border Patrol staffing, the logical strategy is to turn to technology as a force multiplier. The USBP utilizes a wide variety of technology in order to more effectively utilize its workforce, with a large array of camera and sensor systems in addition to its fleet of aircraft, which are operated by CBP Air and Marine Operations (AMO). The CBP UAS program currently operates a small fleet of Predator B UAS from bases in Corpus Christi, Texas; Cocoa Beach, Florida; Grand Forks, North Dakota; and Sierra Vista, Arizona.[14] Despite this investment, there remains a deficit between the number of flight hours requested by the Border Patrol and that which can ultimately be provided by AMO due to mission

[12] U.S. Border Patrol, "Border Patrol Agent Nationwide Staffing by Fiscal Year", Customs and Border Protection, accessed January 26, 2018, https://www.cbp.gov/sites/default/files/assets/documents/2017-Dec/BP%20Staffing%20FY1992-FY2017.pdf

[13] U.S. Border Patrol, *2012-2016 Border Patrol Strategic Plan* (Washington DC: U.S. Border Patrol Headquarters, 2012), 7, https://www.cbp.gov/sites/default/files/documents/bp_strategic_plan.pdf.

[14] US Department of Homeland Security, *U.S. Customs and Border Protection's Unmanned Aircraft System Program Does Not Achieve Intended Results or Recognize All Costs of Operations*, (Washington, DC: DHS Office of the Inspector General), 2-3.

prioritization, budget, and operational requirements. AMO does not possess the aircraft, pilots, support personnel or budget that would enable the agency to meet the air support requirement as identified by USBP. In an environment of austere budgets and a philosophy of doing more with less, an increase in air support is unlikely. Congress has posited in legislation that air support be contracted out to private industry, and that is an option under consideration, but that would rely on significantly increased appropriations.[15]

Attempting to find a way to accommodate the shortfall in air support, agency leadership and various government efforts have attempted to increase flight hours through support from other agencies and departments. State police departments have supported border security operations in many border states over the years, and work in close coordination with the Border Patrol on a daily basis. However, as helpful as state police assets can be on an ad hoc basis, they cannot possibly account for an established nationwide requirement.[16]

Other recent efforts have focused on interdepartmental support from the Department of Defense (DOD). DOD has supported border security efforts in Operation Jump Start (2006-2008) and Operation Phalanx (2010-2016), consisting of support to the Department of Homeland Security from the National Guard Bureau.[17] President George W. Bush initiated Operation Jump Start to provide support through non-law enforcement activities such as surveillance and freeing up more sworn agents for law enforcement operations. Over the course of the operation, the

[15] *Securing America's Future Act of 2018*, HR 4760, 115th Cong. (Introduced January 10, 2018)
[16] Immigration and Nationality Act § 287(g), https://www.ice.gov/287g. 287(g) is another federal partnering effort via Memorandum of Agreement (MOA) with state and local law enforcement, permits the delegation of immigration authorities. This program delegates to the state and local levels the ability to perform specific immigration enforcement functions in their current law enforcement roles and does not increase the capacity of federal immigration authorities.
[17] Government Accountability Office, *Observations on the Costs and Benefits of an Increased Department of Defense Role in Helping to Secure the Southwest Land Border* (Washington, DC: Government Accountability Office, 2011), 11, https://www.gao.gov/assets/100/97733.pdf.

National Guard Bureau provided over 28,000 flight hours towards border security missions.[18] Operation Phalanx provided similar support but was allowed to conclude in December 2016, despite concerns that CBP AMO assets could not adequately accommodate air support requirements.[19] Since that time, efforts to conduct a similar operation between DHS and DOD have been under consideration, but no operations are currently underway. Despite their effective support, inter-departmental operations require enormous levels of coordination at the highest levels of government and are not perpetual. As indicated by Operations Jump Start and Phalanx, external support efforts are at best, stop-gap measures. To truly meet the USBP air support requirement, the solution must come from within the agency.

The advent of unmanned aviation in the military over the last twenty years has changed the calculation of the potential cost of air support. Beginning with larger UAS utilized for their targeting and ISR capabilities, the military significantly invested in the development of sUAS to meet a variety of mission requirements, including a sophisticated and evolving sensor payload. Currently, the Border Patrol can begin to incorporate sUAS into operations as the technology has progressed to the point where it is feasible to provide law enforcement with additional surveillance capability. A limited pilot program is currently underway testing the operational capability of a variety of sUAS platforms in the nation's borderlands.[20] While the outcome is far from certain, it is evident that CBP and USBP leadership are intrigued at the possibility of lower

[18] Michael D. Doubler, "Operation Jump Start: The National Guard on the Southwest Border, 2006-2008," National Guard, 66, accessed January 26, 2018, http://www.nationalguard.mil/portals/31/Documents/About/Publications/Documents/Operation%20Jump%20Start.pdf

[19] *Initial Observations of New Leadership at the U.S. Border Patrol: Hearing before the Senate Committee on Homeland Security and Government Affairs*, 114th Congress, 5 (2016) (testimony of Mark A. Morgan, Chief, U.S. Border Patrol and Carla Provost, Deputy Chief, U.S. Border Patrol).

[20] U.S. Customs and Border Protection, "CBP to Test the Operational Use of Small Unmanned Aircraft Systems in 3 U.S. Border Patrol Sectors", National Media Release, Customs and Border Protection, September 14, 2017, https://www.cbp.gov/newsroom/national-media-release/cbp-test-operational-use-small-unmanned-aircraft-systems-3-us-border.

cost air support for border security operations. Carla Provost, Acting Chief of the Border Patrol, stated, "These aircraft will enable Border Patrol agents to surveil remote areas not easily accessible by other means, which is critical to our ability to secure the border. They will also be invaluable for humanitarian missions, aiding in locating individuals in need of medical assistance along inhospitable areas of the border."[21]

Broad USBP Legal Authorities

As the federal agency charged with protecting the nation's borders, the Border Patrol is unique in U.S. law enforcement. Legally, the USBP has significant authority in the border region beyond what is considered normal for law enforcement in the United States. Due to concerns with illegal immigration, the USBP is authorized to board and search any and all conveyances to patrol the border to prevent the illegal entry of aliens into the United States within a reasonable distance from any external boundary of the United States.[22] "Reasonable distance" is further defined in regulation as 100 air miles.[23] This authority permits Border Patrol to conduct operations in depth from the border such as immigration checkpoints. This operational area brings with it significant implications regarding sUAS operations, notably that they will surveil not only the international boundary but possibly significant areas of the United States in which the Border Patrol commonly operates.

Further establishing the Border Patrol's unique legal status is the concept of border search authority, a significant exception to the Fourth Amendment search warrant requirement. Under this authority, Border Patrol agents are permitted to conduct warrantless search and

[21] Ibid.
[22] Immigration and Nationality Act § 287(a)(3), 8 U.S. Code § 1357(a)(3)
[23] 8 CFR § 287.1(a)(2)

seizure of persons at border crossings or the functional equivalent of the border.[24] Border Patrol authority conveys to agents the ability to arrest aliens who have illegally crossed the border without warrant, a significant departure from normal law enforcement operation in the United States. As surveillance can be considered a search under the Fourth Amendment if sufficiently intrusive, this authority could translate to surveillance operations with a nexus to cross-border activity.

The authorities vested in Border Patrol agents are codified in law by Congress and further confirmed by Supreme Court precedent. In *United States v. Martinez-Fuerte*, the Supreme Court confirmed the legality of immigration checkpoints temporarily detaining all traffic to establish citizenship and lawful presence in the United States. The court felt that any intrusion to motorists was a minimal one and that the government and public interest outweighed the constitutional rights of the individual.[25] While there have been numerous legal rulings on the topic over the years, it is evident in law confirmed by the Supreme Court that the Border Patrol has significant authority in its everyday operations which differ from the warrant requirements incumbent upon other federal, state, and local law enforcement. The national interest in territorial sovereignty and prevention of illegal immigration justifies these exceptions to the Fourth Amendment. While not all uniquely applicable to sUAS, these examples demonstrate significant law enforcement authority in the Border Patrol's normal operations.

Urban Border Communities – Potential for Concern

While the Border Patrol has some latitude in the conduct of its operations in the border region, legal concerns exist in any government surveillance operation, especially with new

[24] Yule Kim, *Protecting the U.S. Perimeter: Border Searches Under the Fourth Amendment*, CRS Report for Congress RL31826 (Washington, DC: Congressional Research Service, June 29, 2009), 7.
[25] United States v. Martinez-Fuerte, 428 US 543, 562 (1976).

technology such as sUAS. This concern grows substantially when U.S. citizens are the subject of that surveillance, whether intentional or unintentional. While the majority of the territory patrolled by the USBP is quite remote and not likely to pose a legal concern for surveillance, there are numerous urban communities on the southwest border where, quite literally, only meters separate U.S. and Mexican neighborhoods. These areas will be of most concern to the Border Patrol due to Fourth Amendment considerations and are the focus of existing legal debate.

Fortunately, there is some legal precedent that applies to surveillance in urban communities, specifically the outcome of *United States v. Romero-Bustamante* decided in the 9th Circuit Court of Appeals. In this case, the subject Romero Bustamante was arrested for harboring illegal aliens at his residence in the border town of Nogales, Arizona. The Border Patrol witnessed two illegal aliens cross the border and enter the subject's property on a border camera. Agents responded, and although they were given permission by Romero Bustamante to search the residence, the agents' subsequent discovery of two illegal aliens in the subject's yard was deemed unlawful upon review.[26]

The 9th Circuit reasoned that although the agents were granted permission to search the house, they did not receive permission to search the curtilage of the home. The court interpreted the congressional intent of the Border Patrol's search authority, under which the Border Patrol is permitted, "within twenty-five miles of the border to search without warrant private lands, but not dwellings, for the purpose of patrolling the border to prevent the illegal entry of aliens into the United States."[27] This ruling established the precedent that both dwellings and curtilage are not subject to the exceptions to Fourth Amendment search and seizure requirements traditionally

[26] United States v. Romero-Bustamante, 337 F.3d 1104, 1110 (9th Cir. 2003).
[27] 8 U.S. Code § 1357(a)(3).

granted to the Border Patrol. The 9th Circuit further confirmed legal protections of curtilage in border communities in *United States v. Perea-Rey*, in which Border Patrol agents occupied curtilage without warrant and whose subsequent search was found to be unlawful.[28] In urban border communities, this has significant ramifications for surveillance and sUAS use. Though they provide an effective surveillance tool, sUAS will certainly not supersede the warrant requirements surrounding dwellings and curtilage.

Border search authority, via the functional equivalent of the border or extended border search, is another legal concept that can become complicated in urban communities.[29] To qualify as an extended border search, Border Patrol agents must have continuous surveillance on a subject from the time of crossing until the time of the encounter. When a subject can conduct an illegal entry into the United States and quickly make entry into a residence, school, or other building, traditional Border Patrol enforcement measures are difficult. As discussed, Border Patrol operations are normally exempt from the warrant requirements of the Fourth Amendment by law or precedent. Unless in hot pursuit of a subject, maintaining visual contact from the time of illegal crossing to the point when the suspect enters a building, agents are required to obtain permission or a warrant to make entry and search for the subjects. Although sUAS platforms will assist in maintaining visual contact with illegal aliens, courts will have to determine the situational legality of their surveillance capabilities.

Legal Precedent on Government Surveillance

Law Enforcement Observations

While the courts have not yet to rule on Fourth Amendment concerns regarding UAS operations, there is substantial existing legal precedent that will guide the preliminary use of law

[28] United States v. Perea-Rey, 680 F.3d 1179, 1189 (9th Cir. 2012).
[29] Kim, 7-8.

enforcement UAS surveillance. The Supreme Court has given opinions on a host of cases relating to law enforcement encroachment upon Fourth Amendment protections with the evolution of technology. There is no lack of opportunity for the courts to make rulings as law enforcement and the criminal world are involved in a perpetual struggle with both sides seizing any advantage that new technology can provide. Over the years, this has led law enforcement organizations to test new techniques, tactics, and procedures utilizing technology to their advantage. The natural tension in the judicial system occurs when law enforcement actions intrude into Constitutional protections and are subsequently reversed by the courts.[30] The give and take is the natural dynamic of the American criminal justice system and does not necessarily demonstrate excess on behalf of law enforcement or activism on behalf of the courts. The deployment of sUAS will create an interesting question for the courts due to the sophistication of their sensor arrays, which can range from optical to the full range of the electromagnetic spectrum. However, initial operational guidelines can be discerned from existing precedent.

When assessing Supreme Court precedent to establish surveillance guidelines for sUAS, the examination of cases relating to law enforcement surveillance, especially when done from aircraft, is critical. Though there is no specific precedent relating to Border Patrol aerial surveillance, the following cases effectively illustrate where the Court stands on the issue. *California v. Ciraolo* provides a solid foundation of the Court's position concerning aerial observations by law enforcement personnel. In the case, police received an anonymous tip that the subject was growing marijuana in his backyard, protected from public view by fences. Law enforcement was able to observe and document the marijuana growth by taking aerial photographs from a private plane and use those as the basis for a search warrant.[31] In the

[30] An example of this dynamic is the outcome of Kyllo v. United States, 533 US 27 (2001).
[31] California v. Ciraolo, 476 US 207, 207 (1986).

majority opinion, Chief Justice Warren Burger wrote: "The Fourth Amendment simply does not require the police traveling in the public airways at this altitude to obtain a warrant in order to observe what is visible to the naked eye."[32]

This opinion relates to plain view doctrine, established in the same period that while warrantless searches are presumed unreasonable, an officer's observation of an item left in plain view generally does not constitute a search under the Fourth Amendment.[33] Critical to this warrant exception is that the officer must be lawfully present for the observation to be legal. In *Ciraolo*, the Supreme Court allowed aerial observations by law enforcement to be admissible as the basis for a search warrant. Law enforcement did not violate any legal restriction in making the observation, and once obtaining a vertical angle of observation, the marijuana was visible to the naked eye. An important distinction from plain view doctrine to note is that the aerial observation only justified a search warrant, not a warrantless seizure of evidence.

The Supreme Court offered further guidance to law enforcement personnel in *Florida v. Riley*, another case in which law enforcement utilized aerial observations of marijuana to justify a search warrant. The difference, in this case, was that the subject lived on five rural acres and was growing marijuana inside of a greenhouse. The lack of two panels on the roof of the greenhouse allowed law enforcement to observe the marijuana. The subject went to significant effort attempting to shield the area from view and therefore may have possessed an increased expectation of privacy. The Court, however, allowed that the aerial observations did not require a warrant, and gave important justifications that may apply to future sUAS observations. First is the concept of accessibility. "Any member of the public could legally have been flying over

[32] California v. Ciraolo, 476 US 207, 218 (1986).
[33] Texas v. Brown, 460 US 730, 740 (1983); Arizona v. Hicks, 480 US 321 (1987); Horton v. California, 496 US 128, 134 (1990).

Riley's property in a helicopter at the altitude of 400 feet and could have observed Riley's greenhouse. The police officer did no more."[34] Second is the concept of interference with the property. "No intimate details connected with the use of the home or curtilage were observed, and there was no undue noise, no wind, no dust, or threat of injury. In these circumstances, there was no violation of the Fourth Amendment."[35]

The use of sUAS for law enforcement surveillance operations requires consideration of issues discussed by the Supreme Court. As sUAS technology increases and allows federal law enforcement access to certain areas that are not generally accessible to the public, potential violations of the warrant requirement of the Fourth Amendment are of concern. While Border Patrol authorities provide some latitude in observing illegal cross-border activity, it is not a license for warrantless surveillance of American citizens, especially when considering the possibilities offered by a full spectrum sensor array. From a Fourth Amendment perspective, more precedent exists in the optical spectrum as the general availability of surveillance tools with full spectrum capability is a fairly recent occurrence. More recently, cases regarding different forms of surveillance have begun to percolate through the court system for consideration by the Supreme Court.

An important development in the precedent of warrantless law enforcement observations was passed down in *Kyllo v. United States*.[36] Although not involving aerial observation, *Kyllo* involves the concept of technologically enhanced observations, in this case thermal imaging or Forward Looking InfraRed (FLIR), a now commonly used technology. The government agents suspected a residential marijuana grow and utilized FLIR technology from a public space to

[34] Florida v. Riley, 488 US 445, 445 (1989).
[35] Florida v. Riley, 488 US 445, 452 (1989).
[36] Kyllo v. United States, 533 US 27 (2001).

establish that significant heat was emanating from a single room as opposed to the rest of the home. A warrant was subsequently obtained based on that information. The Supreme Court held this search unlawful as the technology used by law enforcement was not commonly available to the public.[37] Further, the Court held that the expectation of privacy of the home protects from unreasonable search and seizure, including technology that does not enter the home.[38] The evolution of technology allows this to be possible, but with regard to the Fourth Amendment, those methods constitute a physical intrusion on the privacy of the home. Technology has taken great strides since this case occurred in 2001 and FLIR technology is fairly standard on most law enforcement observation platforms, in addition to a host of other sensor arrays. It is probable that this legal precedent in a related context will be presented for reconsideration before the Court as law enforcement begins to use sUAS for surveillance.

Wiretapping

There are further warrantless surveillance concerns beyond law enforcement observations, either with the naked eye or with technological assistance. Existing UAS platforms from the military and intelligence community can collect signals intelligence (SIGINT), and it is certain that sUAS will eventually have that capability as well. The federal government has the interest and authority to use such technology for the collection of intelligence outside of the country, but if utilized by the Border Patrol will certainly include the collection of data both within U.S. borders and on United States persons. Fourth amendment warrant requirements would apply, and wiretapping precedent becomes applicable.

[37] Kyllo v. United States, 533 US 27, 34 (2001).
[38] Kyllo v. United States, 533 US 27, 40 (2001).

Legal concerns regarding law enforcement wiretapping are widespread. Wiretapping is a form of electronic snooping that occurs when a third party passively monitors a network.[39] Any evidence gained during an illegal wiretap would be inadmissible in court under the exclusionary rule.[40] In 1928, the Supreme Court first considered wiretapping in *Olmstead v. United States*, when a warrantless wiretapping operation by law enforcement authorities resulted in the dismantling of an extensive bootlegging operation. The Supreme Court ruled that this was not a violation of the Fourth Amendment as there was no physical search or seizure, and as the phone wires were not part of a location in which there would be a reasonable expectation of privacy.[41] This century-old opinion represents a decidedly pro-law enforcement position. The Court has evolved substantially from the opinion that "a standard which would forbid the reception of evidence if obtained by other than nice ethical conduct by government officials would make society suffer and give criminals greater immunity than has been known heretofore."[42] Generally, the American legal system does not permit evidence acquired by the abuse of law enforcement authority to be admissible at trial.

The direction of the *Olmstead* ruling prevented an expansion of Fourth Amendment protections by the Supreme Court without the existence of law passed by Congress. The Supreme Court eventually reversed its opinion on wiretapping in *Katz v. United States*.[43] Taking place forty years after Olmstead, the specifics of the case were significantly different due to technological progress. Through a wiretap device placed on the exterior, the Federal Bureau of

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[39] Matt Bishop, *Computer Security: Art and Science* (Addison-Wesley Professional, 2002), 7.
[40] Roger Roots, The Originalist Case for the Fourth Amendment Exclusionary Rule, Gonzaga Law Review Vol. 45, No. 1, (2010): "the rule requiring that evidence seized in violation of the Fourth Amendment may not be used against a defendant in a subsequent criminal case." Established in Weeks v. United States, 232 US 383, 398 (1914); Mapp v. Ohio, 367 US 643, 660 (1961).
[41] Olmstead v. United States, 277 US 438, 466 (1928).
[42] Olmstead v. United States, 277 US 438, 468 (1928).
[43] Katz v. United States, 389 US 347 (1967).

Investigation recorded Katz' illegal gambling conversations that occurred inside of a telephone booth. Demonstrating the evolution of jurisprudence, the Supreme Court extended the protections of the Fourth Amendment by acknowledging that it protects people and not simply physical areas, and a reasonable expectation of privacy can exist in public locations under certain circumstances.[44] By this action, the warrant requirement was expanded to include wiretapping and forms the basis of existing legal precedent on the matter.

Concurrent to *Katz*, the Supreme Court decided *Berger v. New York*, which invalidated a New York state law giving law enforcement the ability to operate wiretaps with minimal judicial supervision and requirements that can be described as lenient at best.[45] This expansion of Fourth Amendment protections by the Supreme Court against surveillance at the state and federal level provides clarity on the national climate concerning limits on the authority of law enforcement. The obvious trend in precedent regarding wiretapping over the last century demonstrates increasing Constitutional protection of personal communications through warrant requirements. That debate continues in the post 9/11 world with rapid advances of surveillance technology and the ability of the government to collect data regarding all aspects of modern life from various sources.

Fourth Amendment Law in the Digital Age

Post 9/11, the legal debate surrounding surveillance by government authorities can be considered an active process. Though foundational cases in Fourth Amendment law set the precedents on concepts such as aerial observation and wiretapping, technology has opened new frontiers in the realm of privacy. Many cases have attempted to challenge various aspects of the

[44] Katz v. United States, 389 US 353 (1967).
[45] Berger v. New York, 388 US 41, 44 (1967).

mass collection of metadata by the National Security Agency.[46] The authorities under which this type of surveillance occurs is Executive Order 12333, the Foreign Intelligence Surveillance Act (FISA) of 1978, and the FISA Amendments Act of 2008.[47] The Supreme Court and Circuit Courts dismissed these cases based on a lack of standing by the plaintiffs to challenge the legality of the surveillance. FISA Court sanctioned intelligence collection is tangentially related to surveillance conducted by the Border Patrol, as it applies to the targeting of persons outside of the United States with significant caveats.[48] Given the proximity of its operations to international boundaries, it is conceivable that in the future the Department of Homeland Security will identify the need to conduct surveillance under these authorities in the future, which may prompt the need to consider possible intersections with Fourth Amendment law.

An important precedent recently set by the Court considered the legality of the warrantless use of GPS devices to track suspects. In *United States v. Jones*, the law enforcement action for consideration before the court was the mounting of a physical GPS device by the FBI to a suspect's vehicle to build evidence in a drug trafficking case. The Court held that the physical installation of a GPS tracking device on a vehicle was a trespass under the Fourth Amendment and therefore constituted a search.[49] Although the decision, based upon the installation of a physical device on a vehicle, was very narrowly defined it holds wide implications for law enforcement officials at every level. With current technology, many vehicles and personal cell phones have continuous GPS tracking applications which could be

[46] Jewel v. National Security Agency, 673 F.3d 902 (9th Cir. 2011); American Civil Liberties Union v. National Security Agency, 493 F.3d 644 (6th Cir. 2007); Clapper v. Amnesty International, 568 US 398 (2013).
[47] National Security Agency, The National Security Agency: Mission, Authorities, Oversight, and Partnerships (9 August 2013), https://www.nsa.gov/news-features/press-room/statements/2013-08-09-the-nsa-story.shtml.
[48] John C. Yoo, The Legality of the National Security Agency's Bulk Data Collection Program, Berkeley Law Scholarship Repository (2014), 311-312.
[49] United States v. Jones, 565 US 400, 402 (2012).

accessed remotely and utilized by law enforcement. GPS tracking is especially applicable to UAS, where sensors even on smaller sUAS will eventually have the ability to identify, and remotely tag cell phones carried by persons on the ground. Remote access to GPS data is an important concern that has not yet been ruled on by the Court, and certainly will be in the near future when the proper case presents itself. Before his death, Justice Antonin Scalia hinted at that concern in the majority opinion, stating "It may be that achieving the same result through electronic means, without an accompanying trespass, is an unconstitutional invasion of privacy, but the present case does not require us to answer that question."[50] If the issue still has not been decided, sUAS are one of many new technologies that will allow the Supreme Court to rule on remote access to GPS data.

Based on the available precedent, it is apparent that the Supreme Court has provided guidance on the underlying principles of Fourth Amendment protections as they apply to law enforcement surveillance but have yet to establish precedent on how those protections apply to modern day technological concerns. This year, the Supreme Court will decide what some Court watchers consider "the most important Fourth Amendment case we've seen in a generation."[51] At issue in *Carpenter v. United States* are the digital privacy rights of individuals against information provided to law enforcement by third-party communications providers.

In the case, a cell phone provider turned the subject's historical cell phone location data over to law enforcement without warrant. Having a smartphone is as commonplace as a wallet in this day in age, and the defense argues that the collection of cell phone records from a third-party communications provider is no different than a direct search of the individual, therefore,

[50] United States v. Jones, 565 US 400, 412 (2012).
[51] Adam Liptak, "Back at Full Strength, Supreme Court Faces a Momentous Term", *New York Times*, 1 October 2017.

should be subject to Fourth Amendment warrant protections. The 6th Circuit, the highest court to have ruled on the case to this point, held that "the government's collection of a service provider's business records does not constitute a Fourth Amendment 'search' and therefore does not require a warrant." The case is due to be decided in early 2018 and will be the first case to deal with modern technology regarding Fourth Amendment protections. As such, it will have great implications for future government surveillance operations.

In the digital age, there is an abundance of personal information available to law enforcement that can paint a remarkably detailed picture of an individual's life without requiring traditional "hands on" law enforcement surveillance. From a Fourth Amendment perspective, this is uncharted territory and one in which defining whether or not a "search" has even occurred becomes difficult. As law enforcement begin to use sUAS in various forms of surveillance, it is possible that due to their sophistication they will fall outside of the traditional Fourth Amendment structure and will require a new judicial standard by which to test whether a search has occurred.[52] Mosaic theory seeks to solve that question, "by which courts evaluate a collective sequence of government activity as an aggregated whole to consider whether the sequence amounts to a search."[53] Previously, courts held each stage of a law enforcement investigation as part of a sequence, and if no stage constitutes an unlawful search, then no violation of the Fourth Amendment occurs. A similar phenomena can occur in the government's classification of documents, as the composite elements of a documenty may be unclassified, the totality of information provided by their aggregation can require classification. Though not yet

[52] Richard M. Thompson II, *Drones in Domestic Surveillance Operations: Fourth Amendment Implications and Legislative Responses*, CRS Report for Congress R42701 (Washington, DC: Congressional Research Service, April 3, 2013), 24.
[53] Orin S. Kerr, "The Mosaic Theory of the Fourth Amendment." Michigan Law Review Vol. 111, Iss. 3 (2012): 311.

approved by the Supreme Court, this would represent a remarkable departure from prior precedent.

Under this new theory, the whole "mosaic" of the surveillance picture is assessed and can be ruled an unconstitutional search, even though no single law enforcement action was itself an infringement. The complexity of this theory in practice is difficult to comprehend and appears subjective based on courts and judges, but on the other hand, it strives for the definition of a "search" in the digital age. At some point in the near future, technological advancement will necessitate a new legal test for a law enforcement search, based on the "mosaic theory" or not. Between this debate and the outcome of Carpenter, the 2017-2018 Supreme Court term will have significant implications for the practice of law enforcement surveillance.

Argument for Self-Regulation

Significant Upside/Limited Downside

It is vital to understand the existing framework of jurisprudence on Fourth Amendment protections from warrantless surveillance by law enforcement to chart a course towards the implementation of sUAS operations by the Border Patrol. Legally, many counsel restraint in the creation of any program involving government surveillance by sUAS. This viewpoint prefers that "if statutory authorities regulating law enforcement surveillance technologies are to have any hope of keeping pace with technology, some formalized mechanism must be established through which complete, reliable and timely information about new and existing government surveillance methods and technologies shall be brought to the attention of Congress."[54] From that perspective, statutory authorities and regulations should exist before law enforcement organizations utilizing the technology. Such a path would be fraught with delays in

[54] Stephanie Pell and Christopher Soghoian, "A Lot More than a Pen Register, and Less than a Wiretap," *Yale Journal of Law and Technology*: Vol. 16, Iss. 1 (2014) 143.

implementation, to the detriment of national security and the effectiveness of law enforcement. Existing legal precedent and regulatory authorities should be considered sufficient restraining factors. Following the conclusion and assessment of the sUAS Pilot Program, the Border Patrol should be permitted to cautiously proceed with deployment of sUAS under a system of self-regulation.

There are always complications when implementing entirely new technology into law enforcement operations. Following successful implementation by the U.S. military, UAS and sUAS are naturally migrating to federal authorities, where the practical challenges will be similar but the framework of legal and regulatory authorities are entirely different. As noted in the previous section, the violation of constitutional protections followed by judicial restraint through new legal precedent is a natural part of the American criminal justice system. In this sense, any delay in sUAS deployment to further regulatory efforts are immaterial. Accurately predicting the impact of an entirely new technology on the system presents an insurmountable challenge. Deployment itself will force the maturation of the regulatory effort. The back and forth between law enforcement authorities and the courts will continue, whether deployment occurs now or years in the future and national security concerns dictate deployment sooner rather than later.

As the major impact of sUAS in the border region is a Fourth Amendment concern, some in the legal community do not see any problem with immediate implementation because of the existing judicial process. "Regulating law enforcement drone use poses few countervailing dangers from legislating thoughtlessly or in haste; such legislation would implicate Fourth Amendment rights rather than First Amendment rights, so the worst-case scenario is that such legislation might eventually be found by courts not to protect enough privacy."[55] As appears

[55] Margot E. Kaminski, "Drone Federalism: Civilian Drones and the Things They Carry" (2013), The Circuit, California Law Review (2013): 60.

logical, despite being a new technology, the courts will correct any overreach by federal law enforcement in the use of sUAS for surveillance. When viewed as simply an aspect of the criminal justice system, the only lasting consequence will be additional judicial guidelines governing the future use of sUAS. As a potential worst-case scenario, this does not appear overly ominous.

One school of thought regarding sUAS speculates that existing legal surveillance precedent may be insufficient to govern the law enforcement use of UAS technology. While the majority of debate regarding sUAS concerns government surveillance, it is all within the framework of the potential for violations of the Fourth Amendment. "However, the sheer sophistication of drone technology and the sensors they can carry may remove drones from this traditional Fourth Amendment framework."[56] This possibility suggests that the Fourth Amendment argument over sUAS may be for naught. While the argument may prove valid, the technology has not evolved enough for experts to reach this conclusion, and the theory provides little in the way of a legal and regulatory path forward. If this were the case, implementation would be the only manner in which to force regulation. As demonstrated in the assessment of existing jurisprudence, the judicial system creates a precedent by reviewing government action after law enforcement has incorporated new technology into its tactics, techniques, and procedures. As such, even if the advanced nature of sUAS technology removes it from the Fourth Amendment spectrum, the Border Patrol (or other law enforcement) deployment of sUAS would be the only way to establish the new legal framework. In that case, self-regulation by the Border Patrol within the existing regulatory structure are the optimal path forward in the interest

[56] Richard M. Thompson II, *Drones in Domestic Surveillance Operations: Fourth Amendment Implications and Legislative Responses*, CRS Report for Congress R42701 (Washington, DC: Congressional Research Service, April 3, 2013), 24.

of national security. The only manner in which to discover whether existing legal precedent applies is through sUAS operations.

Recent USBP Experience with the Courts

Another consideration in support of immediate implementation is that the Department of Homeland Security and Border Patrol has recent experience with the courts in which aspects of its standard operating procedures were found lacking and faced court-mandated corrections. Through this experience, the Border Patrol gained knowledge of the consequences of legal overreach, even by neglect. One example is the *Flores Stipulated Settlement Agreement,* reached following a decade of litigation in the case *Reno v. Flores*. A class-action lawsuit, *Flores* was filed against the Immigration and Naturalization Service (INS) challenging the agency's detention and processing procedures of unaccompanied juveniles in custody.[57] The case involved unaccompanied minors who entered the United States illegally and were subsequently detained by the government. Reached in 1996, the *Flores Settlement Agreement* obligated the government and its responsive agencies, namely INS and subsequently DHS and CBP, to certain standards and benchmarks regarding the treatment of juveniles in custody. While not necessarily onerous, the settlement forced compliance measures on the government and modifications to standard operating procedures increased workforce and financial burdens on the agency. The courts continuously monitor compliance with the Flores Stipulated Settlement Agreement.

More recently, organizations representing immigrants detained in Arizona filed a lawsuit in 2015 regarding allegedly "inhumane" detention practices.[58] While the litigation in *Doe v. Johnson* is ongoing, it has received significant attention from the agency. A preliminary

[57] Office of the Inspector General, A Review of DHS' Responsibilities For Juvenile Aliens (Washington, DC: Department of Homeland Security, September 2005) 49.
[58] Doe et. al. v. Johnson et. al., Complaint for Declaratory and Injunctive Relief, (No. 15-00250, D. Ariz. filed 8 June 2015), 1.

injunction was filed by the court, not accepting that the "'Border Patrol has done everything possible with the resources provided by Congress to ensure that conditions at its stations protect the health and safety of the individuals in its custody.' The Court is not unsympathetic, but a deprivation of constitutional rights cannot be justified by fiscal necessity."[59] The Border Patrol has responded to the preliminary injunction by undertaking significant effort to monitor its detention practices nationwide and ensure that they comply with its applicable detention policies.[60] While it is regularly involved with the judicial system, the recent experience of the Border Patrol, CBP, and DHS in compliance processes levied by the courts indicate an institutional awareness of the potential negative outcomes when questions arise over the constitutionality of their tactics, techniques, and procedures.

Existing Oversight Authorities

The argument for regulation of government sUAS use before deployment rests on the assumption that Congress is capable of promulgating effective legislation prior to operational use of sUAS. To a certain extent this may be possible. However, only the operational use of a new system will truly uncover any concerns and provide the basis for prudent legislation. Fear of government overreach with new technologies is always a public concern, but regardless of congressional legislation, there are numerous executive branch agencies with purview over ensuring that government actions remain lawful and within the intentions of the Congress. The CBP Office of Chief Counsel (OCC) is the primary legal resource available due to their role as in-house counsel and proximity within CBP. As the principal legal advisor to the Commissioner of CBP and its component offices, its purpose in this situation is to review the planned Border

[59] Doe et. al. v. Johnson et. al., Preliminary Injunction, (No. 15-00250, D. Ariz. filed 18 November 2016), 5.
[60] U.S. Customs and Border Protection, "National Standards on Transport, Escort, Detention, and Search", Department of Homeland Security (Washington, DC: October 2015).

Patrol sUAS operations and ensure that it passes muster as far as legal challenges that the program will surely face in the future.[61] As the legal representation for the government in both the *Flores* and *Doe* immigration cases, OCC is more than familiar with reviewing planned government operations and ensuring compliance with the appropriate constitutional concerns.

At the Department of Homeland Security level, multiple offices have a role to play in the deployment of any sUAS program that may push the boundaries of constitutional law. General legal counsel at the Department level falls within the purview of the Office of General Counsel (OGC), though there are additional entities with oversight responsibility. As the office responsible for investigating alleged wrongdoing in the organization, the Office of the Inspector General (OIG) maintains a critical role following the implementation of the sUAS program. Should any accusations of wrongdoing arise, OIG will investigate and determine the validity of the accusations and refer the case for the required corrective action. Prior to implementation, however, the DHS Office of Civil Rights and Civil Liberties (CRCL) will have a significant interest in working with CBP OCC to review the sUAS program and clarify any legal concerns. CRCL further acts as an intermediary between DHS and non-governmental organizations and interest groups that have concerns with DHS operations.

Outside of the DHS umbrella, the Government Accountability Office (GAO) is the other option that Congress can utilize to obtain an unbiased review of the program. GAO has previously assessed the compliance of Customs and Border Protection's larger UAS program with privacy and civil liberty laws and provided a positive assessment to Congress.[62] Should it

[61] U.S. Customs and Border Protection, "Office of Chief Counsel", Department of Homeland Security, accessed January 26, 2018, https://www.cbp.gov/about/leadership/commissioners-staff-offices/chief-counsel.
[62] Government Accountability Office, *Unmanned Aerial Systems: Department of Homeland Security's Review of U.S. Customs and Border Protection's Use and Compliance with Privacy and Civil Liberty Laws and Standards* (Washington, DC: Government Accountability Office, 2014), 2, https://www.gao.gov/assets/670/666282.pdf.

be deemed necessary or prudent, Congress can task the GAO with auditing the program from its inception and ensuring from an oversight perspective that the Border Patrol is not only complying with legal guidance but also running an efficient program with public funds. There are substantial resources that the government can tap to first, ensure that sUAS operations are conducted with consideration for constitutional concerns (CBP OCC, DHS CRCL) and second, to audit the program from inception in order verify that Congressional intent is being met (DHS OIG, GAO).

Utilizing sUAS in domestic government surveillance operations is similar to prior technological developments in that it is effectively new territory as far as the criminal justice system is concerned. The sUAS industry (government, commercial and private) has seen astronomical development in recent years, and the technology is here to stay. There are myriad concerns that the FAA is working through to ensure that the national airspace remains safe for both manned and unmanned flight. Accounting for delay experienced due to the FAA, it is a challenge to comprehend the delay to operations that Congress would cause in trying to promulgate regulations for a system whose effect on society is nearly impossible to predict. Self-regulation by the Border Patrol, even with its attendant surveillance risks, is more efficient with government resources. Operationally, the ability of the Border Patrol to use sUAS immediately provides a force multiplier and increases border security. As a highly scrutinized program, the executive and legislative branches will gain the time and space to work through challenges together as they are discovered, serving as a test case for general law enforcement use.

As mentioned previously, last year the FAA approved the Border Patrol to conduct a pilot program of sUAS operations which recently concluded, though the results of the after-action

review are not yet available. While general law enforcement operations with sUAS remain restricted, a Memorandum of Understanding (MOU) reached between the FAA and USBP permitted the pilot program to proceed under significant scrutiny.[63] While this is an optimistic signal that regulators will allow operations to continue, the program itself is not yet off the ground, and there remains ample time to scuttle it for a more risk-averse approach. The pilot program is being conducted in three sectors on both the northern and southern borders, allowing the agency to test the effectiveness of multiple sUAS platforms in a variety of environments, with the results expected in late spring 2018.[64] The consensus reached by all parties involved (FAA, DHS, USBP, Congress, etc.) following an assessment of the pilot program's results will ultimately dictate the path forward.

For the Border Patrol, sUAS remain a tool to assist with the greater mission of border security. They are intended to increase public safety. In coping with responsibility for a vast, remote region, ISR flights (manned or unmanned) increase situational awareness which is required by Border Patrol management to utilize limited manpower resources and create deployment plans effectively. First UAS, and now sUAS, are providing the opportunity to maintain this capability (flight hours) at a reduced cost to the taxpayer. Critics have stated that USBP UAS operations provide negligible results in apprehensions that would justify the cost, despite the fact that assisting in apprehensions is not their purpose.[65] UAS (and in the future sUAS) exist to provide surveillance of the border, often in remote regions difficult to access by other means. The metric for flight hours cannot be judged by the number of apprehensions they

[63] U.S. Customs and Border Protection, "CBP to Test the Operational Use of Small Unmanned Aircraft Systems in 3 U.S. Border Patrol Sectors", National Media Release, Customs and Border Protection, September 14, 2017.
[64] Mark Rockwell, "Border Agencies Test Hand-Launched Drones", FCW, 15 September 2017, accessed 26 January 2018, https://fcw.com/articles/2017/09/15/border-patrol-drone-tests.aspx
[65] Ron Nixon, "Drones, So Useful in War, May Be Too Costly for Border Duty", *New York Times*, 2 November 2016.

create, as their purpose is to provide USBP, CBP, and DHS with situational awareness of the order. Without ISR flights, decision makers remain in the dark to the detriment of national security.

Conclusion

A path forward must be chosen for law enforcement as a consequence of incorporating sUAS into the national airspace. Though it may be tempting to delay and attempt to promulgate regulations for the law enforcement use of sUAS before ever allowing their operational use, it will be to little effect. Whether the choice is immediate operational use or temporary delay, attempting to incorporate entirely new technology into the criminal justice system is a difficult task that cannot truly be accomplished until implementation as it is impossible to predict the impact that sUAS will have. Once those who are risk averse come to that conclusion, the only option is to select the optimal agency for implementation. The U.S. Border Patrol is that best option.

The authority that the Border Patrol holds in the conduct of its operations in the border region makes it uniquely suited to be the first law enforcement agency to incorporate sUAS operations. The Immigration and Nationality Act grants the Border Patrol the authority to board and search conveyances within 100 air miles of the border.[66] Border search authority as immigration officers confers the ability to conduct warrantless searches based on the nexus to cross-border activity. Border Patrol training incorporates guidance and legal precedent specific to the agency. In the border environment, with slightly relaxed warrant requirements on surveillance operations, oversight authorities will be better able to assess the impact that sUAS

[66] Immigration and Nationality Act § 287(a)(3), 8 CFR § 287.1(a)(2)

will have on generic law enforcement surveillance and promulgate effective regulations based on real-world operation and not educated guesswork.

The evolution of technology and its effect on the criminal justice system is an ongoing process in which sUAS is only the latest development. The Supreme Court has provided precedent on government surveillance and Fourth Amendment concerns and offered its opinions in numerous foundational cases upon which to base operational sUAS guidelines. Though its past opinions do not give definitive guidance on the future of government surveillance in the digital age, there are cases currently under consideration that will prove insightful in the coming year. Though sUAS may force the Court to consider a new framework of Fourth Amendment law that can only occur after implementation and discovery of legitimate problems.

Finally, allowing the Border Patrol to be the first law enforcement agency to use sUAS for surveillance operations will assist in border security operations. CBP and USBP are pioneers in the use of UAS and therefore have the relevant experience to lead the way. In an administration focused on border security, it is logical to increase the effectiveness of the USBP workforce through sUAS technology. An effective framework of oversight agencies exists that will be able to ensure that implementation occurs in accordance with Congressional intent. There is a national security concern in establishing operational control of the border, and sUAS will go a long way in providing air support to the Border Patrol. This analysis of current legislation, legal precedent, and oversight affecting the potential legal implications of sUAS use by the Border Patrol, the following guidelines are recommended pending the results of the sUAS Pilot Program.

1) **Establish flexible national guidelines**. It is prudent to allow sectors to experiment based on their unique operational concerns, to include state and local laws, geography, and

human terrain. Effective principles of sUAS employment in Nogales, Arizona do not necessarily apply in Grand Forks, North Dakota.

2) **Beware of urban border communities.** The use of sUAS on remote, federally-owned borderlands will not present many challenges. When confronting aerial surveillance of border communities, Border Patrol agents are not as versed in legal nuances that can upend an investigation. Though the direction of jurisprudence cannot be predicted with certainty, agents will need to be trained in applicable legal precedent. Very little can dismantle a law enforcement program faster than a court order.
3) **Include legal counsel in planning as early and often as possible.** Basic trial and error will improve operational effectiveness of sUAS. The ability of the Border Patrol sUAS program to avoid unnecessary risk of litigation will determine the long-term viability, and therefore effectiveness, of the program.

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