

THE DOMESTIC USE OF DRONES AND THE FOURTH AMENDMENT

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I. INTRODUCTION

The Fourth Amendment to the United States Constitution has long entitled the American people to the security of personal privacy.¹ The Amendment, drafted in an effort to respond to British general warrants, known as Writs of Assistance, “in which the Crown would grant general search powers to British law enforcement official[s]” empowering them to search any home at any time for any reason,² has since guarded against these “unreasonable searches and seizures” by requiring a showing of probable cause and mandating the procurement of a search warrant.³ Although the language of the Fourth Amendment has generated consistent interpretation and straight forward application for centuries, the technological revolution of the twentieth century, which has popularized the use of the internet, cell phones, Global Positioning Systems (GPS) and the like, has left many citizens and lawmakers unsure of the Amendment’s modern day parameters.⁴ Ultimately, the ease with which today’s government officials can access citizens’ personal information has created concerns that have seemingly reached an all-time high when it comes to personal privacy.⁵

Not surprisingly, angst over the vacillating scope of Fourth Amendment protections has left many Americans antagonistic to the idea of introducing Unmanned Aerial Vehicles (hereinafter “UAVs”)⁶ into the national security system.⁷ For many, the fear of “Big Brother’s Prying Eyes in the Sky” has generated overwhelming trepidation that law enforcement agencies will

¹ U.S. CONST. amend. IV.

² Tom Head, *The Fourth Amendment*, ABOUT.COM, http://civilliberty.about.com/od/lawenforcementterrorism/p/4th_amendment.htm (last visited Sept. 26, 2014).

³ U.S. CONST. amend. IV.

⁴ See *How the Government is Tracking Your Movements*, ACLU, <https://www.aclu.org/how-government-tracking-your-movements> (last visited Sept. 26, 2014) (discussing the application of *Jones* to “GPS devices, cell phone location information, and other technologies.”).

⁵ *Id.*

⁶ An Unmanned Aerial Vehicle or “UAV” is “an aircraft with no pilot on board. UAVs can be remote controlled aircraft (e.g. flown by a pilot at a ground control station) or can fly autonomously based on pre-programmed flight plans or more complex dynamic automation systems.” *The UAV-The Future Of The Sky*, UAV, <http://www.theuav.com> (last visited Sept. 30, 2014).

⁷ Somini Sengupta, *Rise of Drones in U.S. Drives Efforts to Limit Police Use*, N.Y. TIMES (Feb. 15, 2013), http://www.nytimes.com/2013/02/16/technology/rise-of-drones-in-us-spurs-efforts-to-limit-uses.html?pagewanted=all&_r=0.

abuse the convenience of the technology to monitor individuals for no cause at all, and in doing so will incidentally collect private information about individuals who are perfectly innocent, law abiding citizens.⁸ In short, the fear is that the use of UAVs will erode the very axiom the Fourth Amendment stands to protect—personal privacy. But as legitimate as these concerns may be, it is doubtful that they are strong enough to categorically prohibit the assimilation of this incredibly powerful, highly sophisticated technology into the national sphere.

For years, the United States has relied on the use of unmanned aircraft to carry out dangerous missions in foreign territories such as Afghanistan and Yemen.⁹ As a result of the remarkable success of UAVs overseas, today there is a tremendous demand and congressional pressure to use these aircrafts at home to carry out an abundance of tasks, ranging from the dangerous and dirty, to the dull and boring.¹⁰ In February 2012, President Obama signed the FAA Modernization and Reform Act into law, which calls for the Federal Aviation Administration (FAA) to accelerate the integration of unmanned aircraft into the national airspace system by 2015.¹¹ While numerous privacy and safety concerns continue to be ironed out in preparation for the deployment of domestic UAVs, predictions secured by the FAA estimate that as many as 30,000 drones will fill the nation's skies by 2020.¹²

The tension between national security and personal privacy interests is not new, especially in light of the explosion of surveillance technology in recent decades. Yet, the question still remains unanswered: what is the proper balance between the necessity of the government to keep people safe, and the need to

⁸ Ategh Khaki, *Domestic Drones: Big Brother's Prying Eyes in the Sky*, ACLU (Feb. 21, 2012, 1:10 PM), <http://www.aclu.org/blog/national-security/domestic-drones-big-brothers-prying-eyes-sky>.

⁹ JAY STANLEY & CATHERINE CRUMP, PROTECTING PRIVACY FROM AERIAL SURVEILLANCE: RECOMMENDATIONS FOR GOVERNMENT USE OF DRONE AIRCRAFT 1 (2011).

¹⁰ BART ELIAS, CONG. RESEARCH SERV., R42718, PILOTLESS DRONES: BACKGROUND AND CONSIDERATIONS FOR CONGRESS REGARDING UNMANNED AIRCRAFT OPERATIONS IN THE NATIONAL AIRSPACE SYSTEM 2 (2012).

¹¹ FAA Modernization and Reform Act of 2012, Pub. L. No. 112-95, 126 Stat. 11; ELIAS, *supra* note 10, at 1; *FAA Reauthorization and Modernization: President Obama Signs FAA Reauthorization Bill into Law*, NAT'L BUS. AVIATION ASS'N (Feb. 15, 2012), <http://www.nbaa.org/advocacy/issues/modernization/20120215-obama-signs-faa-reauthorization-bill-into-law.php>.

¹² Shaun Waterman, *Coming to a Sky Near You: Drones Over U.S. Get OK by Congress*, WASH. TIMES, Feb. 7, 2012, at A01.

preserve an individual's fundamental right to privacy? In this comment, I will argue that the domestic use of UAVs needs to be integrated into our national security system if the government is to keep pace with the intensifying range of formidable civil and criminal issues afflicting the nation. In order to integrate these aircraft systems into our national airspace while simultaneously safeguarding the protections afforded by the Fourth Amendment, I endorse the view that the states must serve as the "beacon[s] of protection" for their citizens by shaping their individual constitutions to address current privacy concerns.¹³ I support this proposition by endorsing the view that three distinct benefits arise when the states are forced to be their own gatekeepers: first, diverging state interpretations of current privacy laws are likely to influence reform at the national level; second, inconsistent interpretations among the states will underscore the instability of the current law and help remove the arbitrariness and vagueness of the law as it currently stands; and third, state constitutions provide a greater source of protection to larger numbers of people.¹⁴

Ultimately, this comment supports the unprecedented advantages that are anticipated to accompany the assimilation of UAVs into the national airspace system, and it concludes that any privacy concerns related to their use are best left to be dealt with by the individual states. Thus, Part I will discuss the historical background of UAVs, Part II will discuss the current use of drones both abroad and at home, Part III will address current Fourth Amendment jurisprudence, and Part IV will discuss the need for states to serve as independent guideposts for their constituents.

II. UNMANNED AERIAL VEHICLES – A HISTORICAL BACKGROUND

The advent of autonomous, unmanned vehicles is hardly a novel concept.¹⁵ Dating back as far as some of the earliest civilizations, UAVs have existed in a variety of forms, including

¹³ Jay Stanley, *The Crisis in Fourth Amendment Jurisprudence*, AM. CONST. SOC'Y FOR L. & POL'Y 17 (2010), available at <http://www.acslaw.org/files/ACS%20Issue%20Brief%20-%20Stanley%204th%20Amendment.pdf>.

¹⁴ *Id.* at 19.

¹⁵ Brendan Gogarty & Isabel Robinson, *Unmanned Vehicles: A (Rebooted) History, Background and Current State of the Art*, 21 J. L. INF. & SCI. 1, 3 (2011).

those capable of navigating land, air, and water.¹⁶ While UAVs were developed for a number of dynamic purposes, the vast majority of these vehicles were created and used for combat.¹⁷ On the battlefield, UAVs were regarded as a highly advantageous resource because they could maximize the user's presence and influence over the zone of conflict, while simultaneously minimizing the "exposure of personnel to the risks created by the conflict."¹⁸

Cyclical developments of the UAV for use in military combat gained traction during the mid-eighteenth century when unmanned balloons were used in both Europe and the American Civil War to drop bombs, though unsuccessfully.¹⁹ By 1920 the Sperry Messenger, "the first truly remote controlled aircraft," had been built.²⁰ Yet, despite the success of the Sperry Messenger, armistice interests sidetracked funding away from improvements in the UAV arena, and it wasn't until the 1930's that the UAV was resurrected—primarily for target practice.²¹ During the 1930's, with the threat of war fast-approaching, the British introduced more than 400 unmanned target vehicles, widely known as "Queen Bees."²² Although the United States followed the U.K.'s lead and also began to build UAV's for target practice, it was the Germans who made the most significant advancements to UAV technology with the introduction of the V-1 bomber during World War II.²³ The V-1 bomber was an autonomous military vehicle that, for the first time, "demonstrated how formidable a threat an unmanned aircraft could pose."²⁴

Throughout the Korean and Vietnam wars, technological advancements continued and eventually led to the development of the Firebee UAV, which was jet-powered and about the size of a

¹⁶ The ancient Greek engineer Archytas is regarded as having invented the first UAV, a mechanical pigeon, in the 4th Century BC. This UAV was recorded as having flown approximately 200 meters. The Greeks and Chinese also used UAVs to send unmanned ships that were on fire into naval battles. *See, e.g., id.* at 3 n.5–6.

¹⁷ *Id.*

¹⁸ *Id.* at 3.

¹⁹ MATTHEW T. DEGARMO, ISSUES CONCERNING INTEGRATION OF UNMANNED AERIAL VEHICLES IN CIVIL AIRSPACE 1-2 (2004).

²⁰ *Id.*

²¹ *Id.* at 1-2–1-3.

²² *Id.* at 1-3.

²³ *Id.*

²⁴ *Id.*

modern day small business plane.²⁵ Ultimately, this aircraft defined a new, unprecedented role for the UAV—surveillance.²⁶ The Firebee's success established surveillance as an ideal task for UAVs, and today, surveillance remains a primary application for these vehicles.²⁷

III. UNMANNED AERIAL VEHICLES – PRESENT DAY

Perhaps the most widely recognized UAVs in the United States, and arguably the world, are the Predator²⁸ and the Predator B.²⁹ First flown in 1994 and lauded by Smithsonian's *Air & Space* magazine as "one of the top ten aircraft that changed the world[,] the Predator represented the "first-ever weaponized" UAV, capable of precise air-to-ground weapons delivery.³⁰ Regarded as having "the highest operational readiness rate in the U.S. Air Force[,] the Predator is capable of flying at an altitude of 25,000 feet for nearly forty hours at a time.³¹ The Predator is also equipped with "Electro-optical/Infrared (EO/IR) video cameras, laser designators, and Hellfire Missiles" and is proficient in detecting, identifying, tracking, and engaging time-sensitive targets in support of Army and U.S. Marine Corps ground forces.³² To date, over 250 of these highly sophisticated Predator UAVs have been built.³³ Building on the experience gained by the Predator, the Predator B (also known as the MQ-9 Reaper) is regarded as representing "a major evolutionary leap in overall performance and reliability"³⁴ in the realm of UAV technology. With its unmatched operational flexibility, the "Predator B has an endurance of over 27 hours, speeds of 240

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Id.*

²⁸ See Andrew Callam, *Drone Wars: Armed Unmanned Aerial Vehicles*, XVIII INT'L AFF. REV. (2010), available at <http://www.iar-gwu.org/node/144>.

²⁹ See *id.*

³⁰ *Predator UAS*, GEN. ATOMICS, <http://www.gasi.com/products/aircraft/predator.php> (last visited Sept. 26, 2014).

³¹ *Id.*

³² *Id.*

³³ See *id.*; Simon Rogers, *Drones By Country: Who Has All the UAVs?*, GUARDIAN (Aug. 3, 2012), <http://www.theguardian.com/news/datablog/2012/aug/03/drone-stocks-by-country> (stating that as of 2012 there were approximately 172 MQ-1B Predator drones and 97 MQ-9 Reaper or "Predator B" Drones).

³⁴ *Predator B UAS*, GEN. ATOMICS, http://www.gasi.com/products/aircraft/predator_b.php (last visited Sept. 12, 2014).

KTAS [(knots, true airspeed)], can operate up to 50,000 feet, and has a 3,850 lb (1746 kg) payload capacity . . . ”³⁵ A more sophisticated version of the Predator, the Predator B is capable of carrying “Electro-Optical/Infrared (EO/IR), Lynx Multi-mode Radar, multi-mode maritime surveillance radar, Electronic Support Measures (ESM), laser designators, and various weapons packages.”³⁶

The Predator and the Predator B have garnered national attention for their controversial use in the war against terror in places such as Afghanistan and Yemen.³⁷ Within the past several years, regular accounts of international drone strikes believed to have massacred innocent civilians have placed the Obama Administration under intense heat and have called into question the legality of the use of drones under both national and international standards.³⁸ For now, in spite of these mounting legal issues, the public’s aversion to deploying U.S. troops and the desire to preserve the safety of military personnel will continue to justify their utility.³⁹

Although UAVs are most commonly known for their combative utility, they also serve a variety of peaceful functions.⁴⁰ For example, drones are now being regularly used on the home front to patrol and secure national borders.⁴¹ Currently, U.S. Customs and Border Protection’s Office utilizes six low-to-medium altitude drones and remotely piloted vehicles.⁴² These vehicles “allow the USBP to deploy fewer agents in a specific area while maintaining

³⁵ *Id.*

³⁶ *Id.*

³⁷ Michael Hastings, *The Rise of the Killer Drones: How America Goes to War in Secret*, ROLLING STONE (Apr. 16, 2012), <http://www.rollingstone.com/politics/news/the-rise-of-the-killer-drones-how-america-goes-to-war-in-secret-20120416?page=2>.

³⁸ See Robert Taylor, *Predator Drone Strikes: 50 Civilians are Killed for Every 1 Terrorist, and the CIA Only Wants to Up Drone Warfare*, MIC (Oct. 20, 2012), <http://www.policymic.com/articles/16949/predator-drone-strikes-50-civilians-are-killed-for-every-1-terrorist-and-the-cia-only-wants-to-up-drone-warfare>.

³⁹ Jane Mayer, *The Predator War: What are the Risks of the C.I.A.’s Covert Drone Program?*, NEW YORKER (Oct. 26, 2009), http://www.newyorker.com/reporting/2009/10/26/091026fa_fact_mayer.

⁴⁰ See, e.g., DEGARMO, *supra* note 19, at 1-14–1-15 (noting the potential for UAVs to be used as border control, traffic surveillance, forest fire monitoring, flood mapping, and more).

⁴¹ CHAD C. HADDAL & JEREMIAH GERTLER, CONG. RESEARCH SERV., RS21698, HOMELAND SECURITY: UNMANNED AERIAL VEHICLES AND BORDER SURVEILLANCE 1-3 (2010).

⁴² *Id.* at 1.

the ability” to confront issues such as illegal immigrants and deadly invasions.⁴³ One potential benefit of UAVs in this setting is their ability to provide coverage along some of the most remote areas of the U.S. border.⁴⁴ For instance, “Electro-Optical (EO) sensors (cameras) can identify an object the size of a milk carton from an altitude of 60,000 feet.”⁴⁵ These UAVs can also transmit “precise and real time imagery” to ground operators, enabling them to act in a more proficient and knowledgeable manner when deciding whether or not to deploy armed border patrol agents.⁴⁶

The ability of UAVs to remain in a fixed position for an extended period of time—the Predator B can fly for up to thirty hours on end—allows them to sustain surveillance coverage that manned helicopters, which traditionally can be kept airborne for only two hours at a time before needing to refuel, cannot achieve.⁴⁷ On average, drones have ten times the endurance of unrefueled manned aircraft, thus enabling them to observe and track targets for hours on end.⁴⁸ Whereas multiple manned aircraft would be needed in order to avoid unbroken surveillance, drones possess the ability to achieve the same task with greater reliability.⁴⁹ Overall, “the extended range and endurance of UAVs” lessens the burdens placed on finite human resources and effectively eliminates the risks posed to the lives of pilots.⁵⁰

Ultimately, UAV operations permit “a combination of safety, by not putting pilots in harm’s way, while performing missions involving the ‘3-Ds’ (dull, dirty, or dangerous operations)”⁵¹ In addition to the limited risks and dangers associated with the use of UAVs, the relatively low cost of drone technology in comparison to modern combat aircraft is an added convenience.⁵² For example, the most basic drones can cost less than one-twentieth of the cost of modern combat aircraft, and even some of the most advanced drones that utilize highly sophisticated

⁴³ *Id.* at 1, 3, 6.

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ *Id.*

⁴⁷ *Id.*

⁴⁸ *Id.* at 5.

⁴⁹ *See id.* (stating that the ability to control multiple UAV’s at once would enable such surveillance).

⁵⁰ *Id.* at 3–4.

⁵¹ Mark Edward Peterson, *The UAV and the Current and Future Regulatory Construct for Integration into the National Airspace System*, 71 J. AIR L. & COM. 521, 523 (2006).

⁵² *Id.*

technology are one-tenth of the cost.⁵³ Although the operating costs of UAVs surpass those of manned vehicles due to the fact that UAVs require a significant amount of logistical support as well as specialized operator and maintenance training, it has been conceded that “[t]he high comparative costs of operating a UAV may be offset somewhat by their comparatively lower unit costs.”⁵⁴ For example, the unit cost of a UAV can be as inexpensive as \$350,000, for the Shadow UAV, and as expensive as \$4.5 million, for the Predator.⁵⁵ In contrast, the unit cost of manned aircraft can range from \$8.6 million, for CBP Blackhawk helicopters, to \$36 million for Immigration and Custom Enforcement’s P-3 airplanes.⁵⁶ As conflicts overseas persist and defense budgets around the world continue to steadily decline, drones will be increasingly regarded as “attractive alternative[s]” for the expense and dangers associated with manned aircraft.⁵⁷

In addition to their resourcefulness along the border, UAVs have proven to be similarly advantageous in a variety of other peaceful contexts. For example, UAVs have civil government applications that include emergency response, law enforcement surveillance, search and rescue, forest fire monitoring, communications relay, flood mapping, high altitude imaging, traffic monitoring, humanitarian aid, land use mapping, and chemical and petroleum spill monitoring.⁵⁸ On the scientific front, UAV applications include natural hazards research and monitoring, environmental monitoring and mapping, in-situ atmospheric monitoring, hyperspectral imaging, sea ice flow observations, plume dispersion and tracking, soil moisture imaging, and aerosol source determinations.⁵⁹ In the commercial sector, UAVs are used in areas such as crop monitoring, communications relay, and utility inspection.⁶⁰

Moreover, in addition to these established practical uses, the UAV market is regarded as one of the fastest growing global

⁵³ Michael W. Lewis, *Drones and the Boundaries of the Battlefield*, 47 TEX. INT’L L.J. 293, 296 (2012).

⁵⁴ HADDAL & GERTLER, *supra* note 41, at 4.

⁵⁵ *Id.*

⁵⁶ *Id.* at 4–5.

⁵⁷ Lewis, *supra* note 53, at 296; see Timothy M. Ravich, *The Integration of Unmanned Aerial Vehicles Into the National Airspace*, 85 N. DAK. L. REV. 597, 599 (2009) (“Militarily, the U.S. Air Force is training more unmanned aircraft pilots than on-board pilots.”).

⁵⁸ DEGARMO, *supra* note 19, at 1-14–1-15.

⁵⁹ *Id.* at 1-15.

⁶⁰ *Id.* at 1-16.

industries.⁶¹ As the war in the Middle East continues, which has been highly dependent on the use of drones to gather intelligence and fire missiles, many drone manufacturers are capitalizing on profitable opportunities at home.⁶² Originally, “[d]rone use was pioneered by the U.S. military,” as roughly \$3 billion was spent on its unmanned aerial vehicle program in 2012.⁶³ As the declining defense budget continues to put a damper on Pentagon spending on drones, manufacturers are expecting profit margins for the commercial use of drones to be “astronomical.”⁶⁴ The biggest immediate growth potential comes from an estimated 18,000 law enforcement agencies that will seek to add drones to their divisions.⁶⁵

As of 2012, a market study estimated that drone spending will almost double over the next decade from current worldwide drone expenditures.⁶⁶ This study, conducted by the Teal Group, remarked that “[t]he UAV market will continue to be strong despite cuts in defense spending . . . [now that] ‘UAVs have proved their value in Iraq, Afghanistan, and Pakistan’”⁶⁷ The study predicts that the worldwide UAV market “will continu[e] as one of the prime areas of growth for defense and aerospace companies,” and it reflects the rapidly expanding interest in the UAV business by nearly forty U.S., European, South African, and Israeli companies.⁶⁸ Overall, the study “predicts that the U.S. will account for 62 percent of worldwide RDT&E spending on UAV technology over the next decade, and

⁶¹ *Teal Group Predicts Worldwide UAV Market Will Total \$91 Billion in Its 2014 UAV Market Profile and Forecast*, TEAL GROUP CORP. (July, 17, 2014), <http://www.tealgroup.com/index.php/about-teal-group-corporation/press-releases/118-2014-uav-press-release>.

⁶² Dion Nissenbaum, *Drone Makers Take Aim at U.S. Market*, WALL ST. J., (Feb. 19, 2013, 8:10 PM), <http://online.wsj.com/article/SB10001424127887323764804578314501943739028.html>.

⁶³ *Id.*

⁶⁴ *Id.*

⁶⁵ *Id.*

⁶⁶ *Teal Group Predicts Worldwide UAV Market Will Total \$89 Billion in Its 2012 UAV Market Profile and Forecast*, TEAL GROUP CORP. (Apr. 11, 2012), <http://tealgroup.com/index.php/about-teal-group-corporation/press-releases/66-teal-group-predicts-worldwide-uav-market-will-total-89-billion-in-its-2012-uav-market-profile-and-forecast> (predicting drone spending to increase from “\$6.6 billion annually to \$11.4 billion, totaling just over \$89 billion in the next ten years.”).

⁶⁷ *Id.*

⁶⁸ *Id.*

55 percent of the procurement”⁶⁹ Undoubtedly, introducing drones on the home front has the potential to spur economic growth across the country.

Despite the marked advantages of drone technology, a 2003 report raised concerns about the high accident rate of UAVs when its findings indicated that UAV accident rates are “multiple times higher than that of manned aircraft.”⁷⁰ One projected reason for this emanates from the fact that the advent and development of UAV technology is relatively recent and ongoing.⁷¹ Ultimately, it has been suggested that “there is less redundancy built into the operating system of UAVs than of manned aircraft and until redundant systems are perfected mishap rates are expected to remain high[er]” than crash rates of manned aircraft.⁷² Inclement weather further threatens UAVs surveillance capability, especially those UAVs that are only equipped with an Electro-Optical (EO) camera and Forward Looking Infrared Radar (FLIR) equipment.⁷³ In cloudy conditions and high humidity climates, the imagery produced by EO and FLIR equipment can become extremely distorted.⁷⁴ Moreover, it has been further estimated that unlike control system failures in manned aircraft where a well-trained pilot is better positioned to discover the source of the problem due to his or her proximity to the issue in question, an operator of a UAV is at a significant disadvantage because he or she is much further removed from the problematic event.⁷⁵ Regardless, as one commentator points out, “[t]here tend to be more mishaps and mistakes with any new technology, manned or unmanned’ When the kinks get worked out and expertise builds, ‘crash rates tend to go down.’”⁷⁶

Despite these safety concerns, ultimately it is the extremely broad range of UAVs that have made integration into the national airspace system a challenge.⁷⁷ With UAVs having the

⁶⁹ *Id.*

⁷⁰ HADDAL & GERTLER, *supra* note 41, at 4.

⁷¹ *Id.*

⁷² *Id.*

⁷³ *Id.*

⁷⁴ *Id.*

⁷⁵ *Id.*

⁷⁶ Brendan McGarry, *Drones Most Accident-Prone U.S. Air Force Craft: BGOV Barometer*, BLOOMBERG (June 18, 2012, 12:00 AM), <http://www.bloomberg.com/news/2012-06-18/drones-most-accident-prone-u-s-air-force-craft-bgov-barometer.html>.

⁷⁷ *Unmanned Aerial Vehicles and the National Airspace System: Hearing Before the Subcomm. on Aviation of the Comm. on Transp. & Infrastructure*,

potential to range in size “from a 12-ounce hand launched model to the size of a 737 aircraft[;]” each variety of UAV needs to be scrutinized separately to determine whether or not its unique characteristics permit it to be flown in national air space.⁷⁸

Notwithstanding this hurdle, in February of 2012 Congress passed the FAA Modernization and Reform Act of 2012 that directed the FAA to “allow a government public safety agency to operate unmanned aircraft weighing 4.4 pounds or less’ under certain restrictions.”⁷⁹ The bill specifies that these UAVs “must be flown within the line of sight of the operator, less than 400 feet above the ground, during daylight conditions, inside Class G (uncontrolled) airspace and more than five miles away from any airport or other location with aviation activities.”⁸⁰ Prior to the procurement and utilization of these UAVs, government agencies must receive a Certificate of Authorization (COA) or Waiver from the FAA permitting them to operate a particular UAV “for a particular purpose, in a particular area.”⁸¹ Ultimately, the FAA works alongside these agencies to develop conditions and limitations for UAV operations “to ensure they do not jeopardize the safety of other aviation operations.”⁸² The FAA’s foremost objective is “to issue a COA with parameters” that will provide an equivalent level of safety as manned aircraft.⁸³ Typically, this requires “making sure that the UA[V] does not operate in a populated area and that the aircraft is observed, either by someone in a manned aircraft or someone on the ground.”⁸⁴

Ultimately, the passage of the FAA Modernization and Reform Act of 2012 has “paved the way for drones to be used commercially and [has] made it easier for government agencies to obtain them.”⁸⁵ Today, “[d]rones are becoming a darling of law enforcement authorities across the country” because they are cost

109th Cong. 2 (2006) (statements of Rep. Leonard Boswell, Member, Subcomm. on Aviation and Nicholas Sabatini, Associate Administrator for Aviation Safety, Federal Aviation Administration).

⁷⁸ *Id.*

⁷⁹ *Fact Sheet – Unmanned Aircraft Systems (UAS)*, FED. AVIATION ADMIN. (Jan. 6, 2014), http://www.faa.gov/news/fact_sheets/news_story.cfm?newsId=14153.

⁸⁰ *Id.*

⁸¹ *Public Operations (Governmental)*, FED. AVIATION ADMIN., http://www.faa.gov/uas/public_operations/ (last modified Aug. 8, 2014).

⁸² *Id.*

⁸³ *Id.*

⁸⁴ *Id.*

⁸⁵ Sengupta, *supra* note 7.

effective and have the ability “to help with a host of policing efforts, like locating bombs, finding lost children, monitoring weather and wildlife or assisting rescue workers in natural disasters.”⁸⁶ Yet, despite the fact that surveillance technologies have become somewhat commonplace in American life, such as license plate readers or street cameras for prosecuting speeders, drones have elicited feelings of great discomfort from the public.⁸⁷ As the law (or lack thereof) currently stands, some of the most basic concerns still remain unalleviated; how will use of these machines be regulated?⁸⁸ In what situations, if any, will they be permitted to be weaponized?⁸⁹ While these questions and many others remain unanswered, it is undeniable that if drones are used properly, their advantages appear to be limitless.

IV. CURRENT FOURTH AMENDMENT JURISPRUDENCE

The broken state of our current Fourth Amendment jurisprudence is in dire need of reform. As we continue to maneuver through a dynamic era dominated by technology, the ability to conceptualize what constitutes an unreasonable search and seizure has become a daunting endeavor. Although our Constitution and many of the amendments thereto have withstood the test of time, the Fourth Amendment has faced exceptional pressure imploring it to adapt with the changing technological era.⁹⁰ Despite its tenure of strength and reliability, the mercurial application of the Amendment has rendered it constitutionally infirm, and many of the cracks in its foundation stem from three current, unworkable tests: (1) the 18th century tort law test, which renders any physical trespass unconstitutional; (2) the “reasonable expectation of privacy” test, which strips Fourth Amendment protection from situations where no reasonable expectation of privacy is deemed to exist; and (3)

⁸⁶ *Id.*

⁸⁷ *Id.*

⁸⁸ See generally Sengupta, *supra* note 7 (noting the fear of some citizens as state and federal legislatures grapple with the regulation of drone technology in domestic airspace).

⁸⁹ See Douglas Morino, *Brown Vetoes Bill Limiting Drones*, ORANGE COUNTY REG. (Sept. 29, 2014, 6:48 PM), <http://www.ocregister.com/articles/bill-636721-drones-privacy.html> (noting how the vetoed bill would have outlawed the weaponization of drones, added a public notice requirement, and mandated that drone-collected images be destroyed within a year).

⁹⁰ George M. Dery, *Lying Eyes: Constitutional Implications of New Thermal Imaging Lie Detection Technology*, 31 AM. J. CRIM. L. 217, 218–19 (2004).

the “third-party doctrine” test, which deprives information shared with any third party of all Fourth Amendment protection.⁹¹

Prior to the formulation of both the reasonable expectation of privacy and the third party doctrine tests, Fourth Amendment violations were thought to have occurred strictly in those circumstances where technical, physical trespasses were committed.⁹² This heavy reliance on the common-law trespass controlled Fourth Amendment jurisprudence all the way through the latter half of twentieth century.⁹³ Application of this test rendered a wiretap attached to telephone wires on public streets constitutional on the grounds that neither the offices nor houses of the defendants were unlawfully entered.⁹⁴ This common law rule also included the understanding that “the admissibility of evidence [was] not affected by the illegality of the means by which it was obtained,” and the only limitation imposed was that “the exclusion of evidence should be confined to cases where rights under the Constitution would be violated by admitting it.”⁹⁵ This rule was justified on the premise 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”⁹⁶ Thus, where federal officers intercepted telephone messages over the course of several months without committing any trespass upon any property of the defendants, the Court sustained the admission of the evidence.⁹⁷

Although this exclusively property-based approach guided Fourth Amendment applications for quite some time, it has since been discredited.⁹⁸ Perhaps the most influential decision to initiate the shift away from this property based approach was *Katz v. United States*, wherein the Court realized that the strict trespass test “in the present day, [is] bad physics as well as bad

⁹¹ Orin Kerr, *The Fourth Amendment and New Technologies: Constitutional Myths and the Case for Caution*, 102 MICH. L. REV. 801, 815–17, 828–29 (2004) (explaining the gradual development of court interpretation of the Fourth Amendment over time as technology has advanced).

⁹² *Id.* at 816 (discussing *Entick v. Carrington*, 95 Eng. Rep. 807 (C.P. 1765)).

⁹³ *United States v. Jones*, 132 S. Ct. 945, 949 (2012).

⁹⁴ *Id.* at 950 (quoting *Olmstead v. United States*, 277 U.S. 438, 455, 464 (1928)).

⁹⁵ *Olmstead*, 277 U.S. at 467–68.

⁹⁶ *Id.* at 468.

⁹⁷ *Id.* at 455–57, 466.

⁹⁸ *Jones*, 132 S. Ct. at 950 (citing *Katz v. United States*, 389 U.S. 347, 351 (1967)).

law, for reasonable expectations of privacy may be defeated by electronic as well as physical invasion.”⁹⁹ In *Katz*, a petitioner was convicted under an eight-count indictment that charged him with disclosing wagering information by telephone from Los Angeles to Miami and Boston in violation of a federal statute.¹⁰⁰

At the petitioner’s trial, the District Court allowed the Government to present evidence of the petitioner’s end of telephone conversations, which were overheard by FBI agents who had affixed an electronic listening and recording device to the outside of the public telephone booth where petitioner had placed his calls.¹⁰¹ In holding that the Government’s actions violated the Fourth Amendment, the Supreme Court noted that, “the Fourth Amendment protects people, not places. What a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection.”¹⁰² The Court further remarked that the reach of the Fourth Amendment can no longer depend on the presence or absence of a physical intrusion into any given enclosure.¹⁰³

Ultimately, determining whether a person has a “constitutionally protected reasonable expectation of privacy” requires a two-part analysis: “first, has the individual manifested a subjective expectation of privacy in the object of the challenged search? Second, is society willing to recognize that expectation as reasonable?”¹⁰⁴ In ascertaining whether or not an expectation is reasonable, “[the] test of legitimacy is not whether the individual chooses to conceal assertedly ‘private’ activity,’ but instead ‘whether the government’s intrusion infringes upon the personal and societal values protected by the Fourth Amendment.’”¹⁰⁵

Yet, despite the formulation of the reasonable expectation of privacy test in *Katz*, confusion has persisted as to whether or not this is the guiding standard. The need for a bright-line rule to determine when a search and seizure is unconstitutional was

⁹⁹ *Katz*, 389 U.S. at 362 (Harlan, J., concurring).

¹⁰⁰ *Id.* at 348 (majority).

¹⁰¹ *Id.*

¹⁰² *Id.* at 351 (citing *Lewis v. United States*, 385 U.S. 206, 210 (1966); *United States v. Lee*, 274 U.S. 559 (1927)).

¹⁰³ *Id.* at 353.

¹⁰⁴ *California v. Ciraolo*, 476 U.S. 207, 211 (1986) (quoting *Katz*, 389 U.S. at 360 (Harlan, J., concurring); citing *Smith v. Maryland*, 442 U.S. 735, 740 (1979)).

¹⁰⁵ *Id.* at 212 (quoting *Oliver v. United States*, 466 U.S. 170, 181–83 (1984) (alteration in original)).

most recently demonstrated in the United State's Supreme Court's decision *United States v. Jones*, where there was a discernible split in reasoning among the Justices despite the fact that they all reached a unanimous result.¹⁰⁶ *Jones* involved the Government's warrantless attachment of a GPS tracking device to the undercarriage of a vehicle belonging to an individual (Jones) who was the target of an FBI investigation for the suspected trafficking of narcotics.¹⁰⁷ Over the course of four weeks, the Government used the GPS device to monitor the vehicle's movements on public streets.¹⁰⁸ The device ultimately transmitted more than 2,000 pages of data that led to a multiple-count indictment arising from violations of 21 U.S.C. §§ 841 and 846.¹⁰⁹

At trial, Jones filed a motion to suppress the evidence obtained through the GPS device, however the District Court denied this motion in part, admitting the Government's evidence derived from the GPS data that linked Jones to the alleged conspirators' stash house.¹¹⁰ In admitting the data, the District Court utilized the reasonable expectation of privacy test and held that an individual "traveling in an automobile on public [roads] has no reasonable expectation of privacy in his movements" because such movements are otherwise openly perceptible to the public.¹¹¹ A jury found Jones guilty and he was subsequently sentenced to life in prison.¹¹²

On appeal, the United States Court of Appeals reversed, holding that the "admission of the evidence obtained by the warrantless use of the GPS device . . . violated the Fourth Amendment."¹¹³ The Supreme Court granted certiorari, and the Justices unanimously agreed that the Government's installation of a GPS device on an individual's vehicle, and its use of that device to observe the vehicle's movements, constituted an unconstitutional search; however, there remained a split among

¹⁰⁶ See generally *United States v. Jones*, 132 S. Ct. 945 (2012) (Justice Scalia delivered the opinion of the court, in which Chief Justice Roberts and Justices Kennedy, Thomas, and Sotomayor joined. Justice Sotomayor filed a concurring opinion. Justice Alito filed a concurring opinion in the judgment in which Justices Ginsburg, Breyer, and Kagan joined).

¹⁰⁷ *Id.* at 948–49.

¹⁰⁸ *Id.* at 948.

¹⁰⁹ *Id.*; see generally 21 U.S.C. §§ 841, 846 (2012).

¹¹⁰ *Jones*, 132 S. Ct. at 948.

¹¹¹ *Id.* (quoting *United States v. Knotts*, 460 U.S. 276, 281 (1983)).

¹¹² *Id.* at 949.

¹¹³ *Id.* (citing *United States v. Maynard*, 615 F.3d 544, 568 (2010)).

the Justices' reasoning as to why this was the correct result.¹¹⁴ Justice Scalia, writing for the majority, reasoned that the physical invasion test was the best approach to adopt in this case, stating that the Government's physical intrusion of the undercarriage of Jones' car was essentially dispositive of an unconstitutional search that violated the Fourth Amendment.¹¹⁵ To support its decision, the Court turned its focus to *Entick v. Carrington*, an 18th century case regarded as "the true and ultimate expression of constitutional law' with regard to search and seizure."¹¹⁶ *Entick* expressed the significance of focusing on property rights in analyzing the Fourth Amendment:

"[O]ur law holds the property of every man so sacred, that no man can set his foot upon his neighbour's close without his leave; if he does he is a trespasser, though he does no damage at all; if he will tread upon his neighbour's ground, he must justify it by law."¹¹⁷

Relying heavily on the 18th century tort law test established in *Etnick*, the majority proposed that at the very least, governments must strive to preserve the degree of privacy that existed when the Fourth Amendment was adopted.¹¹⁸ To validate this archaic approach, the majority explained that the Fourth Amendment has always been understood to safeguard individuals from government trespass upon the areas it enumerates, and therefore, "[w]hatever new methods of investigation may be devised, our task, *at a minimum*, is to decide whether the action in question would have constituted a 'search' within the original meaning of the Fourth Amendment."¹¹⁹ Thus, the majority explained that where the government physically invades a constitutionally protected area for the purpose of obtaining information, a violation of the Fourth Amendment may occur.¹²⁰

Justice Alito's concurring opinion, however, argued that the Court's approach to the issue was a misguided deviation from *Katz*,¹²¹ and was also at variance with a view previously endorsed

¹¹⁴ See *id.* at 947, 949, 954 (Sotomayor, J., concurring), 957–58 (Alito, J., concurring), 961, 964.

¹¹⁵ *Id.* at 949 (majority opinion).

¹¹⁶ *Id.* (citing *Brower v. County of Inyo*, 489 U.S. 593, 596 (1989)) (quoting *Boyd v. United States*, 116 U.S. 616, 626 (1886)).

¹¹⁷ *Id.* (citing *Entick v. Carrington*, 95 Eng. Rep. 807, 817 (C.P. 1765)).

¹¹⁸ *Id.* at 950 (quoting *Kyllo v. United States*, 533 U.S. 27, 34 (2001)).

¹¹⁹ *Id.* at 950 n.3 (emphasis added).

¹²⁰ *Id.* at 951.

¹²¹ See *id.* at 959–61 (Alito, J., concurring).

by the Supreme Court in its 1984 decision in *Oliver v. United States*:

[t]he existence of a property right is but one element in determining whether expectations of privacy are legitimate. “The premise that property interests control the right of the Government to search and seize has been discredited.”¹²²

Ultimately, Justice Alito also rejected the majority’s approach in *Jones* due to his belief that it ignored what was actually important, “(the use of a GPS for the purpose of long-term tracking)” and rather attached undue significance to something comparatively minor “(attaching to the bottom of a car a small, light object that does not interfere in any way with the car’s operation).”¹²³ Justice Alito noted that the majority’s theory would inevitably lead to increasingly incompatible results and stated:

[i]f the police attach[ed] a GPS device to a car and use[d] the device to follow the car for even a brief time, under the Court’s theory, the Fourth Amendment applies. But if the police follow[ed] the same car for a much longer period using unmarked cars and aerial assistance, this tracking is not subject to any Fourth Amendment constraints.¹²⁴

Rejecting the 18th century tort law test and instead advancing the reasonable expectation of privacy test espoused in *Katz*, Justice Alito asserted that short-term monitoring of a person’s movements on public streets is more readily aligned with expectations of privacy that our society has long recognized as reasonable.¹²⁵ Justice Alito contrasted this with longer term GPS monitoring because society has never recognized as reasonable the ability of law enforcement agents or others to surreptitiously monitor and record every movement of an individual’s car for extended lengths of time.¹²⁶ Essentially, Justice Alito argued that the four weeks that law enforcement agents spent tracking every movement of Jones’ car was what caused an otherwise constitutional search to become unconstitutional.¹²⁷

¹²² *Id.* at 960–61 (internal citations omitted).

¹²³ *Id.* at 961.

¹²⁴ *Id.*

¹²⁵ *Id.* at 964.

¹²⁶ *Id.*

¹²⁷ *Id.*

As it pertains to the third party doctrine test, the Supreme Court has consistently held that the Fourth Amendment does not forbid the procurement of information revealed to a third party, even in situations where the information is communicated “on the assumption that it will be used only for a limited purpose and the confidence placed in a third party will not be betrayed.”¹²⁸ For example, in *Smith v. Maryland*, the Court applied the third party doctrine test to a situation where, at the request of law enforcement authorities, a telephone company installed a pen register to record the telephone numbers dialed by the suspect, and the information derived from it was later used to obtain a search warrant of his home.¹²⁹ Ultimately, the Supreme Court held that the installation and use of the pen register was not a search in violation of the Fourth Amendment because “[w]hen he used his phone, petitioner voluntarily conveyed numerical information to the telephone company and ‘exposed’ that information to its equipment in the ordinary course of business. In doing so, petitioner assumed the risk that the company would reveal to police the numbers that he dialed.”¹³⁰

This third party doctrine test continues to be endorsed today, as was recently exemplified by *United States v. Madison*.¹³¹ There, a defendant knowingly and freely gave specific location information to his cell phone provider when he made and received telephone calls on his cell phone.¹³² Ultimately, the court relied on earlier precedent and rejected the contention that the Defendant had a subjective expectation of privacy in the cell-tower location data for his cell-phone usage.¹³³

As illustrated by the disparate results emanating from these tests, the Fourth Amendment is currently entangled in a disorienting state of flux that has left many citizens and lawmakers unsure of the law’s modern day parameters. The inconsistent applications of the 18th century tort law test, the reasonable expectation of privacy test, and the third party

¹²⁸ *United States v. Jacobsen*, 466 U.S. 109, 117 (1984) (quoting *United States v. Miller*, 425 U.S. 435, 443 (1976)).

¹²⁹ *Smith v. Maryland*, 442 U.S. 735, 737 (1979).

¹³⁰ *Id.* at 744.

¹³¹ *United States v. Madison*, No. 11–60285–CR, 2012 WL 3095357, at *7 (S.D. Fla. July 30, 2012) (quoting *Jones*, 132 S. Ct. at 953) (holding that “[s]ituations involving merely the transmission of electronic signals without trespass” would continue to follow *Katz*).

¹³² *Id.* at *9.

¹³³ *Id.*

doctrine test have led to incongruous outcomes, and ultimately, this absence of uniformity renders it difficult for citizens to manage their affairs successfully.¹³⁴ While there may be some historical value to these three enumerated tests, they have consistently proven to be unworkable in today's highly advanced technological era.

V. STATES SHOULD INDEPENDENTLY REGULATE THE USE OF DRONES

The Fourth Amendment, as it is now interpreted, is highly inadequate to protect the substantive privacy rights that Americans have always enjoyed. Arguably, our society has simply evolved towards requiring less privacy than it did centuries ago, possibly because some people are willing to sacrifice privacy for convenience or have come to accept this reduced privacy as an inevitable consequence of increased luxury, but privacy will never stop being a fundamental human right.¹³⁵ While the introduction of drones on the home front has the potential to offer many significant advantages on a number of different levels, sufficient safeguards need to be in place if the integrity of our democratic system of government is to be preserved.

Technology moves faster than the laws that govern it.¹³⁶ This axiomatic principle has compelled numerous states throughout the country to become actively engaged in efforts to implement appropriate safeguards to prevent the abuse and misuse of modern day technology, particularly commercial drones.¹³⁷ Undoubtedly, the states are viable alternative sources equipped to rectify current Fourth Amendment issues. In fact, as the late Justice Brennan once argued, "Americans should look to the states as a beacon of protection in a 'new federalism.'"¹³⁸

According to an ACLU review of state constitutions and jurisprudence, a significant number of states have departed from

¹³⁴ See Kerr, *supra* note 91, at 815–17, 828–29.

¹³⁵ See Stanley, *supra* note 13, at 20.

¹³⁶ See *id.* at 1.

¹³⁷ See generally Sally French, *Are Drones Illegal in Your State? This Map Can Tell You.*, WALL ST. J. MARKETWATCH (June 25, 2014, 10:37 AM), <http://blogs.marketwatch.com/capitolreport/2014/06/25/are-drones-illegal-in-your-state-this-map-can-tell-you/> (depicting a map with the status of drone legislation in each state).

¹³⁸ Stanley, *supra* note 13, at 17.

the Supreme Court in areas where the states consider federal jurisprudence to be problematic.¹³⁹ Some states have shifted away from the third party doctrine test simply because they feel their state constitutions lack the language to sustain it, while other states whose constitutions practically mirror the federal constitution have similarly paved a different path.¹⁴⁰

For example, California is regarded as a state with much stricter privacy laws than the federal government.¹⁴¹ Thus, even though the California State Constitution endorses language nearly identical to the Fourth Amendment, California has evinced an unequivocal intention to do away with the third party doctrine.¹⁴² Other states similarly offer a variety of alternative approaches.¹⁴³ In Washington, state law hinges on “a substantive inquiry into whether a search is an intrusion into one’s ‘private affairs,’ defined as ‘those privacy interests which citizens of this state have held, and should be entitled to hold.’”¹⁴⁴ New Jersey adopts a modified version of the reasonable expectation of privacy test and simply requires that there be a potential, no matter how slight, for a reasonable expectation under the circumstances.¹⁴⁵ There, disclosure to a third party provider does not compromise the privacy interest at stake.¹⁴⁶ In Pennsylvania, the state rejects the third party doctrine test and extends constitutional protection to a person’s effects as long as they were originally intended to remain private—it is of no consequence that they may be accessible to third parties.¹⁴⁷ Hawaii adopts the reasonable expectation of privacy standard but requires that the governmental intrusion be “no greater in intensity than absolutely necessary.”¹⁴⁸ In Indiana, courts infer reasonableness based on “the totality of the circumstances” and pay no regard to the subjective expectations of the targeted individual.¹⁴⁹

The situation of the states is significant for a number of

¹³⁹ *Id.*

¹⁴⁰ *Id.* at 17–18.

¹⁴¹ *Id.* at 18.

¹⁴² *Id.*

¹⁴³ *Id.*

¹⁴⁴ *Id.* (quoting *State v. Myrick*, 688 P.2d 151, 154 (Wash. 1984)).

¹⁴⁵ *Id.* (quoting *State v. Reid*, 945 A.2d 26, 33 (N.J. Super. Ct. App. Div. 2008)).

¹⁴⁶ *Id.*

¹⁴⁷ *Id.* (quoting *Commonwealth v. DeJohn*, 403 A.2d 1283, 1289 (Pa. 1979), *cert. denied*, 444 U.S. 1032 (1980)).

¹⁴⁸ *Id.* (quoting *State v. Kaluna*, 520 P.2d 51, 58–59 (Haw. 1974)).

¹⁴⁹ *Id.* (quoting *Moran v. State*, 644 N.E.2d 536, 539 (Ind. 1994)).

different reasons. First, diverging state interpretations of current privacy laws are likely to influence reform at the national level.¹⁵⁰ Back when the states were dealing with First Amendment rights, they served as unique, alternative sources of legal thinking on privacy.¹⁵¹ For example:

[w]hile the Supreme Court was extremely hostile to free speech claims before World War I, historians [have] point[ed] out that the legal and cultural groundwork for the subsequent revival of the First Amendment could be found in the states, where a significant number of court decisions rejected the Supreme Court's approach and kept the possibility of genuine free speech rights alive within the American legal "conceptual universe."¹⁵²

In due time, the spread of differing interpretations of privacy rights throughout the states has the potential to gain influence at the national level. In fact, diverging state laws previously influenced interpretations of moral decency under the Eighth Amendment when it came to the exclusionary rule and the death penalty.¹⁵³ Moreover, allowing the States to deal with the issue, rather than the federal government, allows for greater trial and error. That is to say, the experience gained from studying each of the States' respective solutions has greater potential to generate a uniform, workable standard than would likely be produced from a single body of government.

Second, inconsistent interpretations among the states will underscore the instability of the current law and help remove the arbitrariness and vagueness of the law as it currently stands.¹⁵⁴ Moreover, state constitutions offer a greater source of protection to larger numbers of people.¹⁵⁵ As noted by the majority in *Katz*, "the protection of a person's *general* right to privacy—his right to be let alone by other people—is, like the protection of his property and of his very life, left largely to the law of the individual States."¹⁵⁶

Across the country, several state legislatures have begun taking measures to tackle constitutional issues associated with

¹⁵⁰ *Id.* at 19.

¹⁵¹ *Id.*

¹⁵² *Id.* (explaining that in the post-Civil War era, state courts had a higher tendency to provide greater protection of speech than the Supreme Court).

¹⁵³ *Id.*

¹⁵⁴ *Id.*

¹⁵⁵ *Id.*

¹⁵⁶ *Id.* (quoting *Katz v. United States*, 389 U.S. 347, 350 (1967)).

integrating drones into the domestic sphere.¹⁵⁷ As of 2012, Virginia had progressed the furthest in dealing with the issue by passing a two-year moratorium on the use of drones in criminal investigations.¹⁵⁸ In other states, such as Arizona and Montana, proposals are being crafted to require police departments to obtain search warrants before using drones to collect evidence.¹⁵⁹ As states continue to establish regulations, legislatures must keep at least two important considerations in mind; first, protection must be afforded against constant surveillance in order to protect ordinary citizens' constitutional rights.¹⁶⁰ One way to achieve this is by requiring law enforcement agencies to submit "data minimization statements" that detail the processes that law enforcement agencies intend to use, in order to ensure that innocent and irrelevant data is not collected by drones, and if done so inadvertently, it is not retained.¹⁶¹ These data minimization sheets are useful in that they require law enforcement agencies to contemplate the issue before deploying drones, thereby reducing the potential abuse of the technology.¹⁶² Second, laws must be drafted to regulate the use of drones for lethal purposes.¹⁶³ Such laws should consider whether the use of drones as weapons, or as weapon delivery systems, within the United States are permissible, and they should also consider whether the use of drones to kill American citizens within the United States is legal.¹⁶⁴

VI. CONCLUSION

As the domestic use of drones begins to steadily grow across the nation, the need for consistency and predictability within the law is greater than ever before. Currently, the broken state of our Fourth Amendment jurisprudence has left many fearful that personal privacy, a virtue that has long been regarded as a

¹⁵⁷ See Sengupta, *supra* note 7.

¹⁵⁸ *Id.*

¹⁵⁹ *Id.*

¹⁶⁰ G.S. Hans, *Drone Privacy Bills Attempt to Protect Americans from Governmental, Commercial Surveillance*, CTR. FOR DEMOCRACY & TECH. (Apr. 8, 2013), https://www.cdt.org/blogs/gs-hans/0804drone-privacy-bills-attempt-protect-americans-governmental-commercial-surveillance?utm_source=twitterfeed&utm_medium=twitter.

¹⁶¹ *Id.*

¹⁶² *Id.*

¹⁶³ *Id.*

¹⁶⁴ *Id.*

fundamental component of our democratic state, will be rendered obsolete in the face of this advanced technology.¹⁶⁵ Yet as legitimate as these fears may be, we cannot allow them to stunt our potential for growth and advancement. As is attested to in this comment, the advantages provided by the domestic use of drones is seemingly endless, whether it involves the versatility of their peaceful applications, their forthcoming ability to spur economic growth, or their highly anticipated capacity to maintain safety and security across the nation.¹⁶⁶ Rather than allowing privacy concerns to cause the wholesale dismissal of these services within the domestic sphere, states must construct regulations that appropriately balance these constitutional quandaries with the integration of these vehicles. The states, rather than the federal government, are better situated to flush out arbitrariness within the law and to represent the interests of larger groups of people. Eventually, as divergent privacy interpretations begin to consume and undermine Fourth Amendment jurisprudence, action at the federal level will be forced to occur.

¹⁶⁵ See Joan Lowy, *A Third of Public Fears Police Use of Drones*, BIG STORY (Sept. 27, 2012, 3:27 PM), <http://bigstory.ap.org/article/third-public-fears-police-use-drones>.

¹⁶⁶ See *supra* Part III.