

NOT A BIRD OR A PLANE: AN ANALYSIS ON THE DOMESTIC DRONE POLICY IN THE UNITED STATES

ASHLYN OLSON

Abstract

With the expanding use of drones in international affairs, concern has increased about the domestic use of drone technology. In 2012, Congress passed H.R. 658, the FAA Modernization and Reform Act. This law sought to address to the growing need for regulations and guidelines surrounding drone use. Since 2012, the capabilities of drones have rapidly increased, leaving some holes in the original regulations set by Congress. From law enforcement to Amazon, agencies and companies are hoping to increasingly incorporate drones into their daily practices. This study will analyze the background of drone usage in the United States, the impacts of current legislation, and the future need for public policy as drone technology expands.

Introduction

“Oh look, its Spencer again.” A man hears a faint buzzing noise and looks up to see a small drone with a video camera hovering over his backyard. Spencer is the curious high school boy one street over who received a drone for Christmas. He has enjoyed using his toy to spy on his friends. Currently, domestic law does not prohibit him from purchasing and using drones for certain private uses in non-restricted airspace. However, the growing expansion of drone technology may prove much more invasive than neighborhood spying. This study will provide background information on drone technology, analyze current regulations related to drones, and discuss potential legislation necessary to help manage the expanding use of drones.

Since the introduction of drones to the United States in the 1980’s, there has been concern over their use, specifically in regards to First Amendment protections and concern for ethical warfare practices. As technology has advanced, questions have been raised over what drones are capable of and who should be permitted to use them. President Obama was one of the first presidents to heavily use drones overseas for wartime and surveillance purposes. But drone usage has not been limited to our international relations. This study will discuss how drones were first used in the United States and what eventually led to regulating their use in the private and public sectors.

As discussions regarding drones increased, Congress decided to act and passed the FAA Modernization and Reform Act of 2012 (H.R. 658). However, this bill was not simply limited to drones. Originally, Congress passed the bill to improve safety in aviation and air traffic, but the rapidly expanding use of drones demanded some attention. While the need for legislation is more pressing now in 2016 than it was in 2012, the unfamiliar territory of domestic drones needed to be charted. Congress laid out some general guidelines for how drones can be used, but mainly used the opportunity to say that the lack of regulation on drone technology could present privacy issues. Congress encouraged more research to determine what uses were permissible for drones in law enforcement or otherwise. Ultimately, Congress hoped that the legislation would provide a blueprint for how to conduct research on drones that would eventually improve safe drone usage within the United States. This study will trace how this legislation passed through the policy process and garnered the necessary support to pass through Congress.

In the aftermath of 2012, Congress has held hearings regarding drone use (Amazon, 2015), law enforcement has started using drones for surveillance, and Domino’s Pizza has conducted experiments on how to deliver pizzas using drones (Koebler, 2013). People are simultaneously demanding that drones be used to expand convenience and complaining that drones used for law enforcement purposes have the potential to invade their privacy and freedom. While limited technology

once restricted drones' capabilities, modern drones have surpassed what the law has taken into consideration. By examining the public mood and Congressional research, this study will consider whether the time has come for another drone bill to be considered by Congress and, if so, what that bill ought to address.

Literature Review

This study will analyze the background, passage, and future of the FAA Modernization and Reform Act of 2012 and the broader issue of domestic drone use in general. Multiple books, studies, and articles have been written on the subject and have provided useful information for this paper. Both studies conducted by outside sources as well as studies done by Congress itself help provide unique angles and information that show that the uses and regulations of drones are often more complex than what the FAA Modernization and Reform Act of 2012 actually suggested.

The primary source for this paper is the text of the FAA Modernization and Reform Act of 2012 (H.R. 658). This bill was first presented to the House Transportation and Infrastructure Committee in 2011, and became law in February of 2012. The bill details the broader issue of transportation and improving safety in the United States, with a section dealing with the increasing technology of drones and how they can and should be used domestically. The bill requires the Secretary of Transportation to create safety provisions and a plan for the implementation of those provisions. Since then, Congress has not enacted any official changes to the legislation. Other resources provide more detail on what has happened since this legislation was enacted and how the research projects mentioned in this bill were carried out.

Richard Thompson, a legislative attorney, wrote a primer on domestic drones for the Congressional Research Service (2015) a few years after the passage of H.R. 658. This document helpfully outlines the major privacy concerns that have arisen post-2012 and have caused policymakers to reevaluate what domestic drone policies would comply with the FAA Modernization and Reform Act. It gives a unique legal perspective that suggests possible requirements for future implementation in order to keep the use of domestic drones in check and preserve the privacy of United States citizens.

Adam Thierer's book *Permissionless Innovation* (2016) expands the discussion of drones beyond police and military use. He notes that drones have already positively impacted industries such as the agricultural industry because of their weather monitoring capabilities. He mentions some studies that have predicted that the further innovation of domestic drones could increase economic developments and even help revolutionize news media and the information provided to United

States citizens. He also notes that the lack of clear Congressional guidelines has made businesses reluctant to expand their programs to include the use of drones.

In order to determine how drones first came to the United States, this study relied on diverse news sources that chronicled the history of drones. The *Orange County Register* (2013) published an article detailing information about the modern drone, code-named “Amber,” that was created in 1984 in Irvine, California. This information helped determine where the technology for domestic drones and the capacity for surveillance came from and why it was created. While the technology has progressed and is now used in foreign affairs and intelligence, the research presented interesting information about their inception. Other sources like selections from the CQ Researcher like *Issues for Debate* (2016) also give historical background and information on the technical use of drones within the United States and how the entire debate over their use began.

Kristen Boon in *The Domestic Use of Unmanned Vehicles* (2014) takes issue with the lack of concern for Constitutional issues shown by recent domestic drone regulation, specifically the legislation passed in 2012. According to Boon, the FAA mainly focuses on keeping national airspace and the use of drones under government control while ignoring potential Constitutional grievances. She worries that if policymakers do not shift the debate from issues of ownership and regulation to a discussion of individual rights, there will be a high potential for abuse.

Each of these sources provide background and current information that reflect on the public policies which regulate domestic drones and the ones that may be considered in the future. Of course, no one article or book has covered all the nuances of drone usage, considering the rapid pace at which drone technology is changing and advancing. Because no new substantial legislation on drone usage has been passed by Congress since 2012, all sources that address present-day drone usage rely on that legislation as a backdrop for the legality of domestic drone practices.

Background on Domestic Drones

History of Drones

Before discussing the history of drones used in the United States, it is important to define the term “drone.” Director of the Center for 21st Century Security and Intelligence at the Brookings Institution Peter Singer explains, “Drones are remotely piloted aircraft that can be the size of a Boeing 737 or as small as a magazine. They’re generally used for the three D’s: dull, dirty, or dangerous missions” (Eptako, 2013). Sometimes referred to as Unmanned Aerial Vehicles, drones have the capacity to go into dangerous or hazardous conditions since there is no individual present in the vehicle. They are also beneficial for surveillance, since drones often have recording capabilities. While the government can fly drones in most airspace, civilians cannot

operate drones above 400 feet or beyond the line of sight without permission from the Federal Aviation Administration (Eptako, 2013). Drones are rapidly expanding in their capabilities and potential, and have also grown from their original purpose of providing military assistance.

Drones entered the scene in the United States in 1984. The Pentagon secretly commissioned Abe Karem, an engineer from Israel, to create a more successful and efficient Unmanned Ariel Vehicle (“The Dronefather,” 2012). While the United States military had developed unmanned aerial vehicles in the past, the vehicles needed a lot of manpower to launch, were largely unsuccessful in flight, and only lasted for about 20 flight hours. This made it difficult to use in the middle of combat, and required engineers to work on expanding the longevity and energy capacity of drones. Karem’s company, Leading Systems Inc., developed a drone with the code name “Amber” that could be used for photographic reconnaissance and electronic intelligence gathering (“Jumping the Gun on Drones,” 2013). According to an *Economist* article titled “The Dronefather” (2012), the purpose of Amber drones was, “to carry out surveillance and electronic warfare over the battlefields of Europe. A special ultra-high altitude version of Amber was even planned to restore temporary communications over America after a nuclear war.”

Later, the company was bought out by General Atomics, which improved Amber’s performance and laid the foundation for the Predator drone, the premier drone used by the U.S. military and intelligence agencies today in Pakistan and Yemen (“Jumping the Gun on Drones,” 2013). Karem revolutionized the safety and usability of Unmanned Ariel Vehicles, which provided the starting point for future military and commercial technology for drones. However, the initial drone projects were tainted by political conflict. After a time, Mr. Karem’s further work was no longer of interest to Congress, and they combined all Unmanned Ariel Vehicle research into one program. Drones like the Pioneer, designed for short-range, short-endurance, and low-altitude missions, became the focus of government design (“The Dronefather,” 2012).

Legality of Drones

Before 2012, there was little regulation or legal attention given to drones due to the lack of information and the frequently secretive nature of drone production. Yet the concept of unmanned aircrafts or aerial surveillance was not entirely new to the Supreme Court. Without specifically addressing drones, the Supreme Court has provided some general guidelines on the privacy of space, which may provide future precedent as concerns about the modern uses of domestic drones increase. In 1986, the Supreme Court upheld in *California v. Ciraolo* that officers were permitted to fly a plane over a private backyard to search for marijuana as long as the plane flew over 1000 feet. Even though a private fence would have blocked the officers’

view from the ground, the backyard, according to the Court, was in “public view” from the air, and thus there was no expectation of privacy. During that same year, the Court also ruled in *Dow Chemical v. United States* (1986) that airplanes could conduct surveillance of an industrial plant so long as they were flying in airspace permitted by the FAA when Dow Chemical Company refused to consent to a search by the Environmental Protection Agency. Finally, the Court re-affirmed in *Florida v. Riley* (1989) that helicopter surveillance of marijuana plants through a crack in the greenhouse roof was not a search as long as the helicopter was flying in navigable airspace. These cases established precedent that drones could potentially follow similar guidelines to other aerial vehicles and might be permissible to fly over private property as long as they were within unrestricted airspace. These cases might also show that drones and other unmanned aerial vehicles may constitutionally fly over property in search of drugs or other nefarious activity, so long as drones are given the proper warrant and have probable cause of suspicious behavior. Future cases dealing specifically with drones will provide a better understanding of the constitutionality of different operations, but past precedent gives us some indication of how the Supreme Court might lean once those cases reach the court.

Uses and Capabilities of Drones

According to the Congressional Research Service (Thompson, 2015), today’s drones can be equipped with many different tools such as sensors, high-powered cameras, thermal imaging devices, license plate readers, and laser radars. Furthermore, it is likely that drones will soon be able to recognize faces and have biometric recognition that would allow agencies to track individuals based on height, age, gender, and skin color (Thompson, 2015).

Current Legislation

The Backdrop to the FAA Modernization and Reform Act of 2012

While the primary focus of this study is on the FAA Modernization and Reform Act of 2012, the backdrop of this legislation is worth examining here. Popular opinion, of course, influences the federal government’s action on this issue. While the use of drones for border patrol, immigration, and surveillance in international conflicts has provoked little concern, using drones for other surveillance purposes, specifically by the police, has generated more worry about inappropriate invasions of privacy. Richard Thompson (2015) notes in the Congressional Research Service’s “Domestic Drones and Privacy: A Primer” that the public seemed to be open to using drones for search and rescue operations, but not for surveying neighborhoods. People may be concerned that allowing drones to survey private property would blur or remove the safeguard of requiring police officers to receive a warrant to search their home.

In 2012, there was even a case in North Dakota about the use of an unmanned drone to arrest an American citizen, which was upheld at the lower court level (Koebler, 2012). While there was no large political outcry or major event that caused legislation to have to immediately rise to the policy agenda, momentum for this issue had grown over the years as technology expanded, and Congress realized that they were going to have to step in and determine some policy guidelines for the future.

The FAA Modernization and Reform Act of 2012

In 2011, Representative John L. Mica from Florida proposed the FAA Modernization and Reform Act. This bill included appropriations for the Federal Aviation Administration and established improvements in the regulatory scheme of aviation. Because of the nature of the bill, a supplemental report was also provided with the bill by the Committee on Transportation. The Committee on Science, Space, and Technology and the Judiciary Committee both discharged the bill and it was brought to the House floor and passed on April 1, 2011. Only six days later, the bill passed in the Senate, but eventually went to a conference committee with members of both the House and Senate to resolve some changes made by the Senate. In February of 2012, it was presented to the President and signed into law on February 14, 2012. While there was only one Democrat co-signer, the bill ended up being largely bipartisan—a general consensus in Congress existed that some sort of guidelines were needed to improve the safety of air transportation and travel, as well as to start the research of domestic drones in the United States. There was not a major political event, or—as John Kingdon has described it—a “lightning bolt” event. While this bill did not address international drone use, that discussion laid the foundation for the realization that some standards needed to be established for domestic drone use.

H.R.658, or the FAA Modernization and Reform Act of 2012, was designed to improve and update the overall health and safety regulations for airspace travel and air vehicles, as well as further air research. While not the primary aim of the legislation, specific sections of the FAA Modernization and Reform Act were designed to help lay out guidelines for how the government might approach drone use. Under the Act, the Secretary is required to begin testing different types of drones in various areas so that more effective regulations and guidelines can be established. Through these tests, Congress hoped to determine if drones are safe to operate in national airspace. As a part of the testing options, drones are now permitted to operate twenty-four hours a day for research and commercial purposes in the Arctic. Section 903 of the bill outlined several safety concerns, and required the FAA Administrator to supervise research to assess the risks and prevent defects, failures, and malfunctions in all types of drones.

According to the text of the bill, the Federal Aviation Administration was required to create guidelines for operation of public drones in the national

airspace system. This would present the rules and regulations for how private owners could use their drones, what types of permission they need, and how to go about receiving that permission. However, the FAA was prohibited from making regulations on model aircrafts that are flown only for recreational purposes and meet the requirements for that standard—the overall aim of the legislation was to regulate drones that could be used for specific, targeted purposes, not recreational use. Until now, Congress has shown a willingness to let individuals continue to exercise their autonomy and freedom in how they wish to use drones, so long as they do not cause some sort of harm to public safety. More regulations may be needed in the future, but this understanding of current legislation may provide a backdrop for finding the ideal level of government regulation of private drone use.

Government Use of Drones

Parties such as the Department of Defense, police forces, the FAA, and private companies have adjusted their use of drones in light of the legislation passed by Congress. According to the Economist, the Department of Defense currently has over 6,000 unmanned aerial vehicles, many based off of the model originally created by Abe Karem. While these drones will be used primarily overseas, the research and development on drone technology will necessarily effect drone usage as a whole, which could potentially increase their domestic impacts. The FAA is currently in charge of issuing “certificates of authorization” to public entities, including NASA and police departments (Eptako, 2013). Congress also expects the FAA to determine how civilians might be able to use drones, but this process has proved more challenging than expected.

In 2013, reports surfaced that the police and the FBI had been using drones for surveillance inside of the United States, which has since caused concern about how the government is using domestic drones. The Senate Judiciary Committee investigated the situation and FBI Director Robert Mueller admitted that drones are used for domestic surveillance, albeit rarely (OC Register, 2013). Law enforcement can and has used drones for hostage and barricade situations; the drone’s subtlety as compared to helicopters or other rescue vehicles is ideal for these situations (Cratty, 2013). The public generally seems to understand the benefits of drones in these kinds of crisis situations. However, not all scenarios have such clear lines.

The greatest amount of domestic drones are in the Department of Homeland Security’s U.S. Customs and Border Protection (CBP) division. Most of these drones patrol the United States’ borders to determine who is coming and what contraband may be coming across the border (Thompson, 2015). According to the Congressional Research Service:

The FBI noted in a July 2013 letter to Senator Rand Paul that it had used UAS in 10 operations, including those related to search and rescue, drug interdictions, kidnapping, and fugitive investigations. The Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) has plans to use UAS in its future operations but has not done so yet. And while the DEA and the Marshals Service have purchased several UAS, as of 2012 they had no plans to use them in future operations. This might be attributed to the DEA and Marshals Service use of CBP drones in their operations (Thompson, 2015).

So far, these uses all fall under the law established in 2012, but the concern is that there may not be enough specific regulations to prevent the overuse of drones to the point where they would violate some citizens' privacy.

On the state and local level, specific permission is still required to use and operate drones in government agencies. The FAA has issued several hundred licenses to state and local entities including local fire and police departments (Thompson, 2013). Some universities, like Indiana University, have even received permission to conduct drone operations (Thompson, 2013). Private citizens can use and operate drones with some limitations. The goal of these restrictions on private citizens is to increase safety and ensure that drones are used by the public for recreational use, instead of commercial surveillance (US Transportation Secretary, 2015).

Commercial Use of Drones

Although the government's use of drones may raise privacy concerns, there are also many benefits of drones to the private sector. After Congress laid out basic guidelines in 2012, companies have started exploring how they may incorporate drone technology into their industries. UCLA professor John Villasenor writes, "In the commercial world, [unmanned aircraft] will be increasingly employed for tasks as diverse as surveying, crop spraying and traffic congestion. Scientific applications include air quality assessment, and measuring the internal dynamics of violent storms" (OC Register, 2013). Adam Thierer in his book *Permissionless Innovation* (2016) also recognizes the potential benefits of drones, including in disaster response management and even for major technology innovators such as Google or Amazon. Thierer also notes that some of these advancements might have already happened if law makers had not stalled on creating more guidelines and regulations that would both promote security as well as actually grant permission for these advances to occur.

Future Domestic Drone Policies

Because of lack of information and research, Congress likely could not have created more advanced and detailed legislation in 2012. Part of the reason they passed the legislation in the first place was to conduct that very research. Four years later, drones have advanced considerably as a technology. It may be time for Congress to bring domestic drones back to the top of the policy agenda. The problem is clear. Companies and law enforcement are ready to advance and expand drone usage, but they are waiting for the legal policy from Congress. Politically, there seems to be enough support to at least discuss the issue, as evidenced by Congressional hearings last summer on domestic drones. However, as of the writing of this study, several areas of policy are still lacking. According to the Congressional Research Service:

Congress has enacted no law explicitly regulating the potential privacy impacts of drone flights, the courts have had no occasion to rule on the constitutionality of drone surveillance, and the Federal Aviation Administration (FAA) did not include privacy provisions in its proposed rule on small UAS. This issue, however, has not left the national radar. Congress has held hearings and introduced legislation concerning the potential privacy implications of domestic drone use; President Obama recently issued a directive to all federal agencies to assess the privacy impact of their drone operations; and almost half the states have enacted some form of drone legislation (Thompson, 2015).

In the private sector, Google, Amazon, Facebook, and Domino's, among others, have indicated interest in using drones for various purposes. During the House Oversight Committee's hearing on drones last July, Paul E. Misener, the Vice President of Global Public Policy for Amazon commented, "If a consumer wants a small item quickly, instead of driving to go shopping or causing delivery automobiles to come to her home or office, a small, electrically-powered (drone) vehicle will make the trip faster and more efficiently and cleanly" (Amazon Delivery by Drones, 2015). This type of practice may still be years away from implementation, but nonetheless Congress must decide how it wants to handle such potential practices. As Senator Cory Booker has stated, "The potential possibilities for drone technology to alleviate burdens to our infrastructure, to empower commerce, innovation, jobs... to really open up unlimited opportunities in this country is pretty incredible to me" (Thierer, 2016).

One of the more exciting potential innovations has come with creative ideas like delivering pizza by way of drones. The Domino's United Kingdom branch created a "DomiCopter," which delivered a pizza in 2013 by way of a drone. Currently, such

a practice is illegal in the United States, and it may be difficult for smaller, battery powered drones to be able to make deliveries without more advanced technology (Koebler, 2013). Nonetheless, U.S. News and World Report (Koebler, 2013) made a crucial observation that such practices may actually help change the public's perception of drones. Oftentimes, drones are associated with international affairs, and specifically military use for surveying and even killing targets. This has created a skeptical, if not negative, perspective of drones in the minds of many Americans. If the government is going to truly embrace the idea of drone usage, the public will also have to conceptualize how drones can be used for good.

One area that may need special consideration and regulation is news media usage of drones. While drones may be beneficial for gathering information, especially in areas like natural disasters or more difficult zones to capture footage of and information about, there can also be privacy concerns. California, among other states, has tried to pass laws that would prevent private drone users and even news media sources from flying drones over private residential property (Williams, 2015). While most of these attempts have been unsuccessful, this may be an area that policymakers need to explore more closely at the federal level to avoid privacy and Fourth Amendment violations.

There would likely be enough support in Congress to pass another drone bill in the near future. Drones have been a largely bipartisan issue, with most of the debate centered on how extensive the regulations should be and especially how military drones should be used in other countries. Both sides generally agree that some guidelines need to be established in order to manage the growing demand for drones from the private sector and law enforcement.

Before Congress could feel comfortable and equipped to make another legislative decision on drones, there would need to be more analysis done to assess how drones can be used. Is it appropriate for drones to be used for delivery of small products? Could Amazon utilize drones to replace some of its shipping measures? Specifically, in the area of privacy, established principles should exist to protect individuals' privacy from the recording and surveying aspects of drones. If a drone was to deliver a package at a person's front doorstep, is it permissible to come all the way to the front door, or is that trespassing? Are there any concerns of what drones may see inside of people's private residence through the windows? The FAA standards and guidelines for other aerial vehicles may not be sufficient because the general guidelines relate to flying vehicles at a certain height, whereas drones have the ability to fly at both high and low altitudes.

Conclusion

Congress appropriately determined in 2012 that there needed to be some mention of drones in the new, updated FAA rules and regulations. The passage of the FAA Modernization and Reform Act of 2012 helped lay the foundation for more research to be done on the safe usage of drones. Now that technology has advanced further, Congress has held more hearings on the subject, businesses have expressed interest in utilizing drones, and law enforcement has successfully used drones in certain circumstances, Congress needs to revisit the issue to update the legislation to account for growing requests for more information and guidelines. Drones have more uses than for simply military strike operations or for spying in a neighbor's backyard. They may become a part of our daily lives.

Reference List

- Amazon: Delivery by drone in 30 minutes. (2015, June 17). Retrieved April 03, 2016, from <http://www.nydailynews.com/news/national/amazon-delivery-drone-30-minutes-article-1.2261070>
- Arrigo, B. A. (Ed.). (2014). *Encyclopedia of Criminal Justice Ethics* (Vol. 1). Charlotte: Sage Publications
- Boon, K., & Lovelace, D. C. (2014). *The Domestic Use of Unmanned Aerial Vehicles* (Vol. 134). Oxford: Oxford University Press. From *Terrorism: Commentary on Security Documents*
- California v. Ciraolo*, No. 84-1513 (May 19, 1986) (Legal Information Institute, Dist. file)
- Cohn, M. (Ed.). (2015). *Drones and targeted killing: Legal, moral, and geopolitical issues*. Northampton, MA: Olive Branch Press
- Cratty, C. (2013, June 20). FBI uses drones for surveillance in U.S. Retrieved March 21, 2016, from <http://www.cnn.com/2013/06/19/politics/fbi-drones/>
- Domestic Drones. (2016). Retrieved March 21, 2016, from <https://www.aclu.org/issues/privacy-technology/surveillance-technologies/domestic-drones>
- Dow Chemical Company v. United States*, 476 U.S. 227 (May 19, 1986)
- “The Dronefather.” (2012, December 01). Retrieved April 09, 2016, from <http://www.economist.com/news/technology-quarterly/21567205-abe-karem-created-robotic-plane-transformed-way-modern-warfare>
- Drones: What are they and how do they work? - BBC News. (2012, January 31). Retrieved March 21, 2016, from <http://www.bbc.com/news/world-south-asia-10713898>
- Epatko, L. (2013, April 18). How Are Drones Used in the U.S.? Retrieved March 21, 2016, from <http://www.pbs.org/newshour/rundown/how-are-drones-used-in-us/>

FAA Modernization and Reform Act of 2012: Conference Report. (2012, February 1). To Accompany H.R. 658

FAA Needs to Make Thoughtful Safety Rules before Drones Deliver our Packages or Pizza. (2015, December 18). Retrieved April 03, 2016, from <http://www.latimes.com/opinion/editorials/la-ed-adv-drone-delivery-20151218-story.html>

FBI jumping the gun on using drones. (2013, June 23). *Orange County Register*. Retrieved March 22, 2016, from <http://www.lexisnexis.com/lncui2api/api/version1/getDocCui?lni=58T0-XTT1-JBK9-94FJ&csi=270944,270077,11059,8411&hl=t&hv=t&hnsd=f&hns=t&hgn=t&oc=00240&perma=true>

Florida v. Riley, No. 87-764 (January 23, 1989)

H.R. 658, 112th Cong., U.S. (2012) (enacted)

Issues for Debate in American Public Policy Selections from CQ Researcher (16th ed.). (2016). S.I.: CQ Press

Koebler, J. (2012, August 2). Court Upholds Domestic Drone Use in Arrest of American Citizen. Retrieved April 07, 2016, from <http://www.usnews.com/news/articles/2012/08/02/court-upholds-domestic-drone-use-in-arrest-of-american-citizen>

Koebler, J. (2013, June 6). Drones Have a Future in Deliveries, But Not for Domino's Pizza. Retrieved April 3, 2016, from <http://www.usnews.com/news/articles/2013/06/06/drones-have-a-future-in-deliveries-but-not-for-dominos-pizza>

Michel, A. (2015, October 16). The Presidential Candidates on Drones. Retrieved April 15, 2016, from <http://dronecenter.bard.edu/presidential-candidates-on-drones/>

NACDL-Case Law. (2016). Retrieved April 07, 2016, from <http://www.nacdl.org/domesticdrones/caselaw/#scd>

Thierer, A. D. (2016). *Permissionless Innovation: The Continuing Case for Comprehensive Technological Freedom*. Arlington, VA: George Mason University

Thompson, R. M., III. (2015, March 30). Domestic Drones and Privacy: A Primer.

Thompson, B. (2016, March 10). Why is the military flying drones over US soil? *The Christian Science Monitor*. Retrieved March 22, 2016, from <http://www.lexisnexis.com/lncui2api/api/version1/getDocCui?lni=5J8G-RXW1-JC8H-M12J&csi=270944,270077,11059,8411&hl=t&hv=t&hnsd=f&hns=t&hgn=t&oc=00240&perma=true>

U.S. Transportation Secretary Anthony Foxx Announces Unmanned Aircraft Registration Requirement. (2015, October 19). Retrieved April 14, 2016, from <https://www.transportation.gov/briefing-room/us-transportation-secretary-anthony-foxx-announces-unmanned-aircraft-registration>

Williams, C. (2015, September 11). Anti-peeping-tom Drone Law Nixed in California. Retrieved April 14, 2016, from http://www.theregister.co.uk/2015/09/11/cali_drone_bill_veto/