LAW ENFORCEMENT’S USE OF WEAPONIZED DRONES: TODAY AND TOMORROW

INTRODUCTION

What do children, adults, photographers, farmers, utilities, agriculture, oil and manufacturing companies, and law enforcement have in common? They all asked for a drone for Christmas. In fact, the Federal Aviation Administration (“FAA”) became concerned in October of 2015 with reports of at least one million Americans likely to find a drone under the tree on Christmas morning. However, one of these things is not like the other. While children, adults, farmers, and companies are using drones to monitor their own activities, law enforcement agencies are using drones to monitor the activities of others. While a step in the right direction for those concerned with the safety of our police officers, some see this as a platform for constitutional issues. Amongst these varying points of view are residents of North Dakota, where a bill was passed with the intention to enumerate and limit law enforcement’s use of drones. However, after a close reading of the finalized bill, the text itself may actually expand law enforcement’s use of drones, rather than limit it.

North Dakota passed House Bill 1328 into law on April 16, 2015, which “provide[s] for limitations on the use of unmanned aircraft for surveillance.” The purpose of the act was to restrict law enforcement’s use of drones for surveillance efforts in the collection of criminal evidence. Along with these

5. Id.
efforts, the original proposed bill included the language, “A state agency may not authorize the use of, including granting a permit to use, an unmanned aircraft armed with any lethal or nonlethal weapons, including firearms, pepper spray, bean bag guns, mace, and sound-based weapons.” However, after transformations by fellow lawmakers, the bill now reads, “[a] law enforcement agency may not authorize the use of, including granting a permit to use, an unmanned aerial vehicle armed with any lethal weapons.” Although the North Dakota bill’s purpose was to decrease law enforcement’s use of drones in criminal situations, after revisions, it now inadvertently allows the use of “non-lethal” weapons, such as pepper spray, tear gas, Tasers, beanbag guns, or sound cannons to be mounted on drones. This is a win for some, but is concerning for others as implications of the legislation would give law enforcement the ability to incapacitate suspects from miles away.

As a St. Louis native, student at Saint Louis University School of Law, and prior law clerk at Emerson Electric, Co., located in Ferguson, Missouri, this kind of police power is particularly interesting to me. It gives rise to the question of how the dynamic of the riots, which occurred in Ferguson in August and November of 2014, would have been changed had Missouri police officers been allowed to use drones armed with “non-lethal” weapons.

In this paper, I aim to explore the positive or negative implications of a similar bill being passed in Missouri by exploring the history leading up to this point and current advances in this area of law. To do so, Part I of this paper will address historical mergers between criminal procedure and privacy by considering prior and similar advances in the law regarding law enforcement’s use of technology and the resulting legal issues. This will include a review of historical and current constitutional issues, such as law enforcement’s use of infrared cameras and Tasers. Next, Part II will delve into the historical and current constitutional issues surrounding law enforcement’s use of aerial devices and consider the future of drones and other unmanned aerial devices in the eyes of criminal procedure. In addition, this part will give readers an overview of what a drone is and current regulations from the Federal Aviation Administration. In Part III, I will consider the use of “weaponized” drones. This will first be analyzed in the international context and will be followed by taking a more specific look into any current United States law or pending

legislature regarding law enforcement’s use of weaponized drones. Finally, Part IV will specifically address the State of Missouri. It will examine current laws and pending legislation in the State of Missouri regarding law enforcement’s use of drones. This paper will conclude by considering the idea and the implications of allowing Missouri law enforcement to use weaponized drones, and how it would affect riot-like situations, such as those seen in Ferguson.

I. THE MERGING OF CRIMINAL PROCEDURE AND PRIVACY

A. Fourth Amendment Searches

The Fourth Amendment guarantees:

The right of the people to be secure in their persons, houses, papers and effects, against unreasonable searches and seizures, shall not be violated, and no warrants shall issue, but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.12

Over the years, the United States Supreme Court has had to redefine what constitutes an “unreasonable search” as technology develops. Starting in 1967, in its decision in *Katz v. United States*, the Supreme Court considered how electronic listening devices affected the Fourth Amendment analysis of unreasonable searches.13 In this case, the Court found that the government’s use of an electronic recording device to eavesdrop on a conversation within a phone booth was indeed an unreasonable search.14 The Court returned to this same question in *Kyllo v. United States*, where it had to consider the government’s use of a thermal image scanner to search inside one’s home, finding once again that it was an unreasonable search under the Fourth Amendment.15 A critical point of the holding in *Kyllo* focused on the fact that the technology used, a thermal imager, was not in general public use, creating a new test to be applied to the government’s use of technology in considering whether a search is unconstitutional.16

However, the Supreme Court was confronted with a separate inquiry when looking at how the third-party doctrine applies to hidden wires17 and

12. U.S. CONST. amend. IV.
14. *Id.* at 353.
16. *Id.* at 34.
17. United States v. White, 401 U.S. 745, 752 (1971) (finding that the use of a wire is not an unreasonable search under the Fourth Amendment, as there is no reasonable expectation of privacy in what is conveyed to a third party).
telephones. In the cases dealing with these issues, the Court held consistently with the third-party doctrine, finding that there is no reasonable expectation of privacy in what one conveys to a third party, even if through electronic measures not in general public use. Significantly, in 2012, the Supreme Court revived the importance of constitutionally protected areas in regards to new technology in their decision in United States v. Jones. In Jones, the Court held that the government’s use of a GPS device on petitioner’s vehicle to monitor the whereabouts of the vehicle is an unreasonable search, as it is a “physical intrusion on a constitutionally protected area.” As Justice Alito writes in his concurrence in Jones, “[n]ew technology may provide increased convenience or security at the expense of privacy, and many people may find the tradeoff worthwhile.”

More recently, the circuits have been presented with constitutional issues regarding new technology that we may see rising to the Supreme Court. The Eleventh Circuit considered what privacy exists in the copious information obtained by cellphone companies in United States v. Davis. While, the Eleventh Circuit held consistently with the third party doctrine, we are left to question, when is the information too much and should we limit the amount that is to become available to the government? Additionally, the Tenth Circuit was faced with new technology in United States v. Denson, where the government used a Doppler radar device to sense whether a person was inside their home. Here, the court chose not to make a decision on whether the use of a Doppler radar device to peer inside a subject’s home was a Fourth Amendment violation, but rather opened the door for the Supreme Court by stating, “[i]t’s obvious to us and everyone else in this case that the government’s warrantless use of such a powerful tool to search inside homes

18. Smith v. Maryland, 442 U.S. 735, 745–46 (1979) (holding that the use of a pen register on petitioner’s phone is not an unreasonable search under the Fourth Amendment, as there is no expectation of privacy in the numbers that he conveyed to the third party telephone company).
20. Id. at 951.
21. Id. at 962 (Alito, J., concurring).
22. 785 F.3d 498, 512 (11th Cir. 2015) (holding, consistently with Smith, that where information is voluntarily and knowingly provided to a third party, such as location information from a cellphone, there is no reasonable expectation of privacy).
23. Id. at 541–43 (Martin, J., dissenting). In the dissent, Justice Martin reflects on the vast amount of information and need for limits on information given to the government without a warrant. He is quoted, “I reject a theory that allows the government such expansive access to information about where we are located, no matter how detailed a picture of our movements the government may receive.” Id. at 542–43.
24. 775 F.3d 1214, 1218–19 (10th Cir. 2014) (making no decision regarding whether or not a Doppler radar device capable of detecting from outside the home the presence of a person inside is a Fourth Amendment violation, as the government had sufficient reason to believe that someone was inside based on other circumstances).
poses grave Fourth Amendment questions.” As the court effectively stated in Denson, “[n]ew technologies bring with them not only new opportunities for law enforcement to catch criminals but also new risks for abuse and new ways to invade constitutional rights.”

After a review of the Supreme Court cases regarding government’s use of technology to search our constitutionally protected areas of “persons, houses, papers and effects,” it is clear that the law is ever changing. Yet, it poses the question of whether the government’s use of drones for surveillance or imaging purposes constitutes a search under the Fourth Amendment. Will the Supreme Court consider them to be technology in “general public use”? Or will they find that the government’s use of drones is a “physical intrusion of a constitutionally protected area”? The Supreme Court anticipates this, as stated in Denson, “[w]e don’t doubt for a moment that the rise of increasingly sophisticated and invasive search technologies will invite us to venture down this way again—and soon.” However, the “unreasonable searches” piece of the Fourth Amendment is not the only constitutional concern for law enforcement’s use of drones.

B. Fourth Amendment: Unreasonable Seizures

A Fourth Amendment seizure of a person occurs when law enforcement “by means of physical force or show of authority, terminates or restrains [a person’s] freedom of movement through means intentionally applied.” In its holding in Brendlin v. California, the Supreme Court puts forth two tests: physical force and show of authority. A “show of authority” has been defined as belief by a reasonable person that he or she is not free to leave. The Court has found that a seizure occurs by “physical force” when law enforcement detains a person, arrests a person, or if they use deadly force to apprehend a suspect. In order to achieve a detainment or arrest, a police officer has the

25. Id. at 1218.
26. Id.
27. U.S. CONST. amend. IV.
28. Infra Part II.
31. United States v. Denson, 775 F.3d 1214, 1219 (10th Cir. 2014).
32. 551 U.S. 249, 254 (2007) (internal citation omitted) (emphasis omitted).
35. Terry v. Ohio, 392 U.S. 1, 19, n.16 (1968).
36. Id. at 16.
ability to use reasonable force. However, issues arise when police officers use “excessive force” in their attempts to detain, arrest, or apprehend a suspect, as this form of physical force may be considered an “unreasonable seizure” and violation of the Fourth Amendment. Just as seen in regards to the “search” piece of the Fourth Amendment, there are also various forms of electronic equipment that have been employed to assist in a “seizure” by law enforcement.

Among the various ways that police apprehend suspects, it is common practice for them to use Tasers. While one of the most controversial issues in criminal justice, police use of Tasers is completely legal. “Police can always use reasonable, non-deadly force to thwart any crime or to seize anyone the police officer reasonably believes to be fleeing from the commission of a crime or attempting to evade a lawful arrest.” Additionally, as held in Tennessee v. Garner, even if law enforcement’s use of a Taser results in death, it is still legal if the officer reasonably believed that the suspect posed a threat of serious injury or death to others. Whether the use of force is reasonable, depends on the “perspective of a reasonable officer on the scene.” These rules apply to other devices employed by law enforcement, such as bean bag guns, mace and tear gas. This presents an interesting dynamic to our analysis of law enforcement’s use of drones. Can law enforcement use drones armed with a Taser or tear gas to apprehend suspects, as long as the officer “reasonably believes [a suspect] to be fleeing from the commission of a crime or attempting to evade a lawful arrest”? Or, will the Court find this use of “armed” drones to be an “unreasonable seizure” by use of “excessive force”? Moreover, if the reasonableness is to be judged by the perspective of the officer on the scene,

39. Id.
40. Elizabeth Seals, Police Use of Tasers: The Truth is “Shocking,” 38 GOLDEN GATE U. L. REV. 109, 112 (2007) (“Tasers are currently used in police departments in every state across the United States, with the sole exception of New Jersey.”).
42. Id. at 12.
43. Id.
46. STANFORD CRIMINAL JUSTICE CENTER, supra note 41, at 12.
can an officer truly evaluate the scene by use of a drone? As accurately quoted by Judge Martin in his dissent in *Davis*, “[i]f times have changed, reducing everyman’s scope to do as he pleases in an urban and industrial world . . . the values served by the Fourth Amendment [are] more, not less, important.”

C. Law Enforcement’s Use of Force Within the Fourth Amendment

In certain situations, the police may need to exert certain forms of force. Specifically, force may be necessary in situations of protecting others or self-defense. There is no universal definition or set of rules for the use of force. Typically, each individual agency will set guidelines for their officers regarding when officers can use force and how much, but this is not required or standardized. These guidelines are commonly developed from use of force continuums, or a model of what scenarios require different forms of force.

However, the use of force is determined by the police officer on a case-by-case basis. The International Association of Chiefs of Police has described use of force as the “amount of effort required by police to compel compliance by an unwilling subject.” Officers are trained to judge when a crisis requires force in order to protect oneself and others and regain control over a dangerous situation. Many times, time is the key variable in determining whether or not

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49. *Id.*
50. *Id.*
51. *Id.*
52. *The Use-of-Force Continuum*, NAT′L INST. OF JUSTICE (Aug. 4, 2009), http://www.nij.gov/topics/law-enforcement/officer-safety/use-of-force/Pages/continuum.aspx [https://perma.cc/3 MRF-8CBG]. Generally, there are five levels in a standard use-of-force continuum. The first level is “officer presence,” whereby his presence alone and without the use of any force, the officer can deescalate and regain control over the situation. Second, “verbalization,” is where the officer uses non-physical force, such as verbal commands to control the situation. Third, if the situation continues to escalate, the use-of-force rises to “empty-hand control,” allowing the officer to employ bodily force, such as physically grabbing, holding, or restraining a suspect. Fourth, as the circumstances begin to become more dangerous, the police officer may now need to employ “less-lethal methods” to command control, this includes the use of batons, pepper spray, tear gas, Tasers, and other forms of non-lethal weapons. Finally, if the suspect poses a substantial threat to the life of the officer or a citizen, the officer may employ “lethal force,” using a deadly weapon, such as a firearm to seize the suspect indefinitely. *Id.*
54. *Id.*
55. *Id.*
an officer should use force and how much. However, when challenged in the
courts, the Supreme Court has provided a guide.

In *Graham v. Connor*, the Supreme Court addressed the issue of “what
constitutional standard governs a free citizen’s claim that law enforcement
officials used excessive force in the course of making an arrest, investigatory
stop, or other ‘seizure’ of his person.” Regarding this issue, the Court held
that “such claims are properly analyzed under the Fourth Amendment’s
‘objective reasonableness’ standard, rather than under a substantive due
process standard.” In other words, when officers are confronted with
situations where the use of force may be necessary in order to arrest someone,
or to protect himself or another citizen, the officer must act in the same manner
that a reasonable officer would have acted in a similar, tense, rapidly evolving
situation.

The Court continues by stating that “[d]etermining whether the force used
to effect a particular seizure is ‘reasonable’ under the Fourth Amendment
requires a careful balancing of ‘the nature and quality of the intrusion on the
individual’s Fourth Amendment interests’ against the countervailing
governmental interests at stake.” Further, the Court reminds us “[o]ur Fourth
Amendment jurisprudence has long recognized that the right to make an arrest
or investigatory stop necessarily carries with it the right to use some degree of
physical coercion or threat thereof to effect it.” The Court then supplies what
are now known as the *Graham* factors, which should be employed in
determining whether the use of force is objectively reasonable: (1) “the
severity of the crime at issue,” (2) “whether the suspect poses an immediate

56. *Id.*
and entered a grocery store to purchase an orange juice to help stabilize his sugar levels. Seeing
that the checkout line was long, he left in a hurry, asking his friend to drive him to a friend’s
house. An officer saw his erratic behavior and, thinking he may have committed a crime at the
grocery store, seized him until receiving a report from the store of whether he had committed any
crime. During this seizure, petitioner ran around the car twice and passed out on the curb.
Believing this to be extremely unusual behavior, and believing petitioner to be drunk rather than a
diabetic, the officer called in reinforcements and had petitioner arrested (while he was
unconscious). Even after persistent pleading by his friend to allow petitioner to have sugar, and
once conscious, petitioner begged the officers to check his diabetic card in his wallet, the police
shoved his face into the hood of the car. He was held there until the police received a report of no
wrongdoing at the grocery store. Petitioner “sustained a broken foot, cuts on his wrists, a bruised
forehead, and an injured shoulder; he also claims to have developed a loud ringing in his right ear
that continues to this day.” *Id.* at 388–90.
58. *Id.* at 388.
59. *Id.*
60. *Id.* at 397.
61. *Id.* at 396.
threat to the safety of the officers or others,” and (3) “whether he is actively resisting arrest or attempting to evade arrest by flight.” 63 Essentially, this reasonableness test uses a totality of the circumstances determination.

Some additional considerations the Court provides include, “the ‘reasonableness’ inquiry in an excessive force case is an objective one: the question is whether the officers’ actions are ‘objectively reasonable’ in light of the facts and circumstances confronting them, without regard to their underlying intent or motivation” 64 and “[t]he ‘reasonableness’ of a particular use of force must be judged from the perspective of a reasonable officer on the scene, rather than with the 20/20 vision of hindsight.” 65

This type of analysis as applied to drones would be complex and delicate. If law enforcement began applying force by administering less-lethal methods, could an officer truly apply the Graham factors? It begs the question of whether or not an officer could reasonably evaluate the situation and apply the correct amount of force. This type of policing could potentially save lives of officers—or unfairly threaten lives of suspects. Either way, it would likely lead to an increase in excessive force lawsuits, which would hopefully provide judicial guidance as to whether law enforcement’s use of drones is legal.

II. AN OVERVIEW OF LAW ENFORCEMENT’S USE OF AERIAL DEVICES AND DRONES

A. Supreme Court on Aerial Devices and the Constitution

Although the Supreme Court has not yet offered any opinions regarding drone use, it has provided a starting point. In the 1986 case of California v. Ciraolo, the Supreme Court addressed law enforcement’s use of aircrafts when conducting a Fourth Amendment “search.” 66 In Ciraolo, the Court confirmed that law enforcement’s use of aerial surveillance on a fixed-wing aircraft in public navigable airspace to conduct a search does not violate the Fourth Amendment. 67 Chief Justice Burger notes, “[t]he 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.” 68 This decision was reaffirmed in Florida v. Riley as applied to a helicopter flying at 400 feet overhead, where the Court stated “Riley could not reasonably have expected that his greenhouse was protected from public or official observation from a helicopter had it been flying within the navigable airspace for fixed-

63. Id.
64. Id. at 397.
65. Id. at 396.
67. Id. at 215.
68. Id.
wing aircraft.” Although Ciraolo and Riley seemingly set out a bright line rule, many courts have interpreted it strictly. 70

In the majority of cases regarding warrantless aerial surveillance, courts have found the observation to be relatively non-intrusive on one’s reasonable expectation of privacy, thus finding that the surveillance is not a Fourth Amendment violation. 71 However, there are some situations, where “the means of surveillance [were] sufficiently intrusive so as to give rise to a constitutional violation.” 72 In a recent decision by the Supreme Court of the State of New Mexico, the court cites two cases in which the intrusiveness of the warrantless aerial search was a violation of the Fourth Amendment. 73 In the first case, Commonwealth v. Oglialoro, the Supreme Court of Pennsylvania held that law enforcement’s use of a helicopter to perform aerial surveillance of appellee’s barn from fifty feet above was unconstitutional as it was overly intrusive and created a risk of harm to appellee and her property. 74 Similarly, in People v. Pollock, the Colorado Court of Appeals found that aerial surveillance by police was more intrusive than mere observation because the helicopter (1) “descended to 200 feet,” (2) “hovered in the area for several minutes,” and (3) made “enough noise that numerous people ran out” to see what the noise was. 75

On review of these cases as well as Ciraolo and Riley, the Supreme Court of New Mexico promotes two conclusions. 76 First, aerial observations of public navigable airspace are generally permissible under the Fourth Amendment when they are relatively unobtrusive. 77 However, second, when the aerial surveillance becomes more than just an observation and creates an intrusive environment for those on the ground—causing high amounts of wind, unreasonable amounts of dust and noise, damaging objects, and raising alarm amongst citizens—the aerial activity rises to a point of an unreasonable search. 78 Thus, the court holds similarly to Oglialoro and Pollock, and contrary to Ciraolo and Riley, that prolonged hovering close to the ground, which causes intrusion onto a citizen’s person and property, is an unreasonable search and thus requires a warrant under the Fourth Amendment. 79 Overall, the court

71. Davis, 360 P.3d at 1170.
73. Davis, 360 P.3d at 1170–71.
74. Oglialoro, 579 A.2d at 1294.
75. Pollock, 796 P.2d at 63.
76. Davis, 360 P.3d at 1171.
77. Id.
78. Id.
79. Id. at 1172.
introduces certain factors to take into account when determining when aerial surveillance is indeed too intrusive.\textsuperscript{80} These factors include (1) “the legality of the flight,” (2) “the altitude of the aircraft,” (3) “the frequency and duration of the flight,” and (4) “the nature of the area observed.”\textsuperscript{81} Although seemingly reasonable, these factors and determination have yet to be reviewed by the Supreme Court. Yet, it seems as if it had an inkling that it may return to this issue in the future.

The dissent in \textit{Ciraolo} looks to Justice Harlan’s warning in his concurrence in \textit{Katz}, that we must be careful with “future electronic developments and the potential for electronic interference with private communications.”\textsuperscript{82} However, Chief Justice Burger disputes this by stating,

[o]ne can reasonably doubt that in 1967 Justice Harlan considered an aircraft within the category of future ‘electronic’ developments that could stealthily intrude upon an individual’s privacy. In an age where private and commercial flight in the public airways is routine, it is unreasonable for respondent to expect that his marijuana plants were constitutionally protected from being observed with the naked eye from an altitude of 1,000 feet.\textsuperscript{83}

Yet, this bears the question of whether a drone is to be considered within this category of concerning “future electronic developments.” The New Mexico Court of Appeals, which was reversed in \textit{Davis}, seemed to think this was an important consideration.

The Court of Appeals in New Mexico advanced that the New Mexico Constitution should account for law enforcement’s future use of “ultra-quiet drones” and other high tech devices by moving away from an “intrusion analysis.”\textsuperscript{84} Instead, it proposed this test to determine whether an aerial search by law enforcement was constitutional:

[I]f law enforcement personnel, via targeted aerial surveillance, have the purpose to intrude and attempt to obtain information from a protected area, such as the home or its curtilage, that could not otherwise be obtained without physical intrusion into that area, that aerial surveillance constitutes a search for purposes of Article II, Section 10.\textsuperscript{85}

The New Mexico Supreme Court declined to adopt this provision, or even comment on drones at all, as it found it “unnecessary to speculate about problems—and futuristic technology—that may or may not arise in the future.”\textsuperscript{86} However, the future is here and so are drones.

\textsuperscript{80} \textit{Id.} at 1169.
\textsuperscript{81} \textit{Davis}, 360 P.3d at 1169.
\textsuperscript{83} \textit{Id.} at 215.
\textsuperscript{84} \textit{Davis}, 360 P.3d at 1172.
\textsuperscript{85} \textit{Id.} at 1183 (quotation and citation omitted) (alteration in original) (emphasis omitted).
\textsuperscript{86} \textit{Id.} at 1172.
We next question whether or not it is unreasonable for a United States citizen to believe that he or she is constitutionally protected from being observed by a drone flying within navigable airspace. In attempt to answer some of these questions, we must first establish what is considered to be an aircraft and whether a drone fits into this category.

B. Drones and Current Laws Regarding Drones

Drones or domestic unmanned aerial vehicles ("UAVs") are "autonomous aerial vehicles that are equipped with cameras or other sensors in order to collect assorted data from an aerial vantage point." Whether or not one must register a drone with the FAA depends on the type of use. If a drone is being used for personal use, such as for recreation or hobby, the operator does not need permission by the FAA to fly the UAV. However, there are certain limitations, including the requirement to register the UAV with the FAA if it weighs over .55 pounds, it must be flown in non-populous areas, and should remain within sight of the operator. On the other hand, if the UAV is being used for public operations, governmental purposes, or for civil operations (non-governmental business purposes), it requires registration and a certified operator.

When a company or person would like to fly a UAV for a non-personal or non-governmental purpose, it is considered a "civil aircraft operation" and must meet FAA regulations. In order to meet these requirements, one must gain authorization by one of two methods: Section 333 Exemption, or Special Airworthiness Certificate (SAC). Similarly, if a government entity (such as a law enforcement agency) wishes to fly a UAV, it must also follow

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90. Id.

91. Id.


93. Id. ("Section 333 Exemption – a grant of exemption in accordance with Section 333 AND a civil Certificate of Waiver or Authorization (COA); this process may be used to perform commercial operations in low-risk, controlled environments.").

94. Id. ("Special Airworthiness Certificate (SAC) – applicants must be able to describe how their system is designed, constructed, and manufactured, including engineering processes, software development and control, configuration management, and quality assurance procedures used, along with how and where they intend to fly.").
certain regulations. However, limitations on “public aircraft operations” are defined by federal statute.

Title 49 U.S.C. § 40102(a)(41) provides the definition of “public aircraft” as “an aircraft used only for the United States Government,” and “[a]n aircraft owned by the Government and operated by any person for purposes related to crew training, equipment development, or demonstration,” among various other definitions. 42 U.S.C. § 40125 provides the qualifications for public aircraft status. Under this statute, whether a UAV flight qualifies as “public aircraft operation” is determined on a “flight-by-flight basis.” In making this determination, the FAA considers “aircraft ownership, the operator, the purpose of the flight, and the persons on board the aircraft.” In order for a public aircraft operation to legally take place, the FAA must issue a Certificate of Waiver or Authorization, which allows public agencies (including law enforcement) to operate a UAV for a specified purpose in a specified area.

From this overview of current law and procedure regarding UAVs in public navigable airspace, it is clear that law enforcement may use drones, given they meet the statutory and administrative regulations. When interpreting this analysis alongside Ciraolo, with the FAA and United States Code classification of drones as aircrafts, at least in the context of public operations, it is likely that these devices would fall within the holding of an aircraft in public navigable airspace. Thus, under this interpretation of Ciraolo, law enforcement’s use of drones to operate a “search” within navigable public airspace would not be a violation of the Fourth Amendment, unless it is overly intrusive or cause harm to people or property below.

Here, we reach a critical point in the analysis: if law enforcement can use drones for “searches,” what are the limits on the use of drones for “seizures”?

95. Advisory Circular No: 00-1.1A at 6, FED. AVIATION ADMIN.: U.S. DEPT. OF TRANSP. (Feb. 12, 2014), https://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_00-1_1A.pdf [https://perma.cc/3GHM-XYY6].
96. Id. at 2, 6(c), (d).
98. § 40125. As previously mentioned, law enforcement falls under this category as described in § 40125(a)(2): “The term ‘governmental function’ means an activity undertaken by a government, such as national defense, intelligence missions, firefighting, search and rescue, law enforcement (including transport of prisoners, detainees, and illegal aliens), aeronautical research, or biological or geological resource management.”
99. FED. AVIATION ADMIN., supra note 95, at 8(a).
100. Id. at 6(b).
102. Id.; see also FED. AVIATION ADMIN., supra note 95, at 6(a), (c).
III. WEAPONIZED DRONES—THE FUTURE OR THE NOW?

A. International Use of Weaponized Drones

In 2011, headlines broke in *The Washington Post* and *The New York Times* that the United States had built a secret drone base in Saudi Arabia.104 Even more alarming were reports of the first lethal mission by the drone base in September of 2011.105 Anwar al-Awlaki, an American citizen and alleged al-Qaeda terrorist, was killed by a drone strike in Yemen on September 30, 2011.106 In 2010, the Obama Administration authorized the targeted killing of al-Awlaki due to his ties to terrorism.107 Generally, international law allows a country to use lethal force against an individual or group if it poses an imminent threat to that country, which is how al-Awlaki became a “kill or capture” target of the United States.108 Al-Awlaki was the first American to be placed on the CIA’s “kill or capture” list.109 He was also the first American citizen to be hunted and killed by the United States government without a trial since the Civil War.110 Moreover, he was the only American to be directly targeted and killed by a government drone.111 His death poses interesting constitutional issues, such as al-Awlaki’s right to free speech under the First Amendment and right to due process under the Fourteenth Amendment.112 However, could the government defend this action by way of the Fourth Amendment by claiming that this was a legal and authorized seizure by use of lethal force due to the threat of serious injury or death to others? How far could

105. *Id.*
108. *Id.*
this theory be extended within our everyday society? How close to home are these weaponized drones? To answer these questions, we must take a historic look at the rise of weaponized drones internationally.

Although there are numerous companies that are manufactures and providers of UAVs, there are some companies that specialize in modifying drones in order to equip them with various weapons.\footnote{113} For example, Desert Wolf, a South African company, has designed a drone that is able to administer pepper spray and non-lethal paintballs on individuals or crowds.\footnote{114} The purpose of these weaponized drones are to “contain ’unruly crowds’ and ‘violent protests.’”\footnote{115} This drone, called the Skunk Copter, is equipped with four “high-capacity gun barrels,” each of which is capable of firing up to “4,000 paintballs, pepper spray balls and solid plastic balls at rates of up to 80 balls per second.”\footnote{116} This company is providing these drones to customers within South Africa as well as customers in countries outside of South Africa.\footnote{117} Clients include security companies, police forces, and numerous other industrial customers.\footnote{118}

A law enforcement agency in Lucknow, India, has already begun experimenting with weaponized drones.\footnote{119} In order to keep control over rowdy crowds and mobs, the police have begun equipping drones with pepper spray.\footnote{120} Lucknow’s police chief has been quoted saying “[w]e are planning to use these drones to control unruly mobs by showering them with pepper spray.”\footnote{121} According to The Indian Express, this police force has already purchased a fleet of drones that can lift up almost four and a half pounds.\footnote{122} In other parts of the world, such as Afghanistan, where the military controls the airspace, weaponized military UAVs are already being used in civilian airspace.\footnote{123}

\footnote{114}{Id.}
\footnote{115}{Id.}
\footnote{116}{Id.}
\footnote{117}{Id.}
\footnote{118}{RT NEWS, supra note 113.}
\footnote{120}{Id.}
\footnote{121}{Id.}
\footnote{122}{Id.}
Further, in the United Kingdom, the Police Minister has endorsed the use of drones “to patrol the UK’s skies, to monitor criminal activity and provide air support, saying they should be treated like ‘any other piece of police kit.’" 124 However, the Police Minister notes that due to the already crowded airspace by civil and military aircrafts, the use of police drones would likely take a while to get approved. 125 But, once restrictions are lifted, he envisions them having every right that is afforded to a police helicopter. 126 Yet, the use of drones by law enforcement is not only an international operation.

Police use of drones is much closer to home than one may think. In 2015, forty-five of the fifty states considered legislation regarding drones. 127 The majority of the bills were aimed at protecting privacy by restricting the use of drones for unwarranted surveillance. 128 Although many state legislatures are trying to keep up with technology, it seems as if the government agencies may be a few steps ahead. According to the Electronic Frontier Foundation, as of 2013, at least fifteen states have law enforcement agencies that have either applied for drone authorization from the Federal Aviation Administration or have borrowed drones from the Customs and Border Protections for special operations. 129 Additionally, we have seen the rise in legislation regarding the use of weaponized drones within the United States. 130 In both South Carolina and Tennessee, bills have been proposed which prohibit the equipping of privately owned UAVs with any form of weapon. 131 However, this does not apply to government agencies, thus providing a loophole for drones utilized by police to be equipped with lethal and non-lethal weapons. 132 Although many

124. Id.
125. Id.
126. Id.
128. Id.
131. Id.
132. Id. In Tennessee, the proposed legislation, HB 1456, had the purpose of “creat[ing] [a] Class E felony of attaching a weapon to an unmanned aircraft.” This bill has since been withdrawn. H. 1456, 109th Gen. Assemb., 2nd Reg. Sess. (Tenn. 2016). The South Carolina bill, HB 4425, was introduced for the purpose of “provid[ing] that it is unlawful to operate an
believe the likelihood of these types of bills being passed is low, a bill of this nature has already been enacted—in North Dakota. So, what does this mean for Missouri?

IV. MISSOURI LEGISLATION AND DRONES

A. Legislation in the State of Missouri Regarding Law Enforcement’s Use of Drones

Since 2013, three bills have been proposed in Missouri attempting to restrict the use of drones. Missouri House Bill 46, which is now dead, was proposed with the purpose to “prohibit[] the use of a drone or other aircraft to gather evidence or other information with specified exceptions.” This bill proposed three restrictions to the use of drones. First, it restricts anyone, including government agencies and law enforcement from using a drone to conduct any type of surveillance regarding potential criminal activity without a warrant. Second, it restricts all users of unmanned aerial devices from flying and using the device for conducting surveillance under the “doctrine of open fields” without consent of the landowner. Finally, it places a broad restriction on anyone, including journalists or news organizations, from using drones to conduct surveillance over any private property without the consent of the landowner. It does, however, provide an exception for law enforcement, allowing them to use a drone if exigent circumstances exist, such as when “a law enforcement agency possesses reasonable suspicion that, under particular circumstances, swift action to prevent imminent danger to life is necessary.” Although no bills regarding drones or unmanned aircrafts have been passed yet in Missouri, it is safe to say that we have not seen the last of these types of legislation, as there are many proponents and critics on each side.
B. Implications of Allowing Missouri Law Enforcement to Use Weaponized Drones

One of St. Louis’s largest proponents of law enforcement’s use of drones is Chief of Police, Sam Dotson, who is working to make it happen. Dotson has already requested allowance from the Federal Aviation Administration for St. Louis Police Department to use drones. Among other reasons, Dotson envisions using drones in St. Louis to circle Busch Stadium to scan for terrorists or pursue a suspect in a car chase. He endorses his position by stating “[i]f we are serious about crime reduction strategies, we must look to new technologies which help keep officers and the public safe and apprehend criminals.” Former St. Louis Circuit Attorney, Jennifer Joyce, is also an enthusiastic supporter of the St. Louis police force’s use of drones. Although Dotson, Joyce, and even St. Louis City Mayor, Francis Slay, see this as a safer way to apprehend suspects, others see it as a constitutional abuse.

Jeffrey Mittman, Executive Director of American Civil Liberties Union of Eastern Missouri, sees this as “a significant expansion of government surveillance.” He argues that “[o]ur laws have not kept up with our privacy rights. Our Fourth Amendment privacy rights aren’t safe from unreasonable search and seizure when you’re looking at drones.” Even though Dotson’s petition to the FAA was for drones merely armed with cameras and no other lethal or non-lethal devices, it raises suspicion as to how long it would take until this changed. These concerns regarding law enforcement’s use of weaponized drones in the St. Louis area stems from what was seen in Ferguson, Missouri in 2014.

Anyone who turned on the news on August 9, 2014 could have reasonably believed he or she was watching footage of a combat zone, rather than the...
streets of Ferguson, Missouri. During the protests surrounding the death of Michael Brown, Ferguson Police lined the streets in riot gear and militarized equipment. Amongst other tactics, the police deployed copious amounts of tear gas on protestors without warning. These militarized police tactics have led to public outcry, as well as lawsuits filed. These suits, filed against three Missouri police agencies, have settled, requiring that police warn protestors before deploying tear gas and allowing them to disperse, unless the harm is truly imminent. However, many questions and concerns plague this nation in regards to the law enforcement’s use of drones in similar riot-like situations.

How would these regulations apply to drones? Could a drone administer tear gas or other invasive forms of crowd control? Is it likely that we could see drones used in a manner similar to that of Lucknow, India? Is it reasonable to believe that police could properly provide warning for protestors to disperse when they are operating from a distance with drones? Could a police officer reasonably assess whether or not harm is truly imminent from a drone? In an area, such as St. Louis, which has seen a fair share of dangerous unrest and a police force that responds in a militarized fashion, law enforcement’s use of drones, weaponized or not, is a realm of hot debate.

CONCLUSION

There are two sides to every debate, and the debate regarding law enforcement’s use of weaponized drones is not unlike any other. Proponents to the police’s use of drones see this as a way to protect our men and women in blue. Critics of law enforcement’s use of weaponized drones see it as an unsettling step in the direction of overly-militarized police forces and possible violations of our constitutional rights. As simply stated, “[t]he balance is between a technology that potentially can have a lot of private and public benefit along with some very real privacy and safety concerns.”

However, this paper can boil down to a single question—if law enforcement can use non-lethal weapons to seize a suspect, why can’t they use a drone armed with a non-lethal weapon to do the same? I argue that under Graham, when assessing the reasonableness of a particular use of force, such as tear gas dispersed from a drone, it will likely cause an issue as to whether

152. Id.
154. Id.
155. Id.
156. Adler, supra note 127.
the officer could truly assess the situation and administer the proper amount of force. As we see more and more legislation passed allowing law enforcement agencies to use weaponized drones, we will likely be faced with an increase in excessive force lawsuits. As the ACLU wrote in an article criticizing the North Dakota bill allowing law enforcement to arm drones with non-lethal weapons, “[d]rones make it too easy to use force.”\(^{157}\) It can be argued that these kinds of bills “open the door to increasing weaponization,” and “increase the militarization of police.”\(^{158}\) This is exactly what we saw in Ferguson, and what many are afraid of seeing again—even if only from the eye of a drone.

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\(^{158}\) Wolverton, *supra* note 130.

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