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Uncle Sam Is Watching You: A Recommendation for Minnesota Legislation Regarding Police Drone Use

Joe R. Paquette

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**UNCLE SAM IS WATCHING YOU: A RECOMMENDATION
FOR MINNESOTA LEGISLATION REGARDING POLICE
DRONE USE**

Joe R. Paquette[†]

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I. INTRODUCTION

Have you ever had that strange sensation that you are being watched? You casually glance around to see if anyone is staring at you. You do not see anything unusual, but you cannot shake the feeling. You can feel someone’s eyes on you as the goosebumps begin to spread, but you just cannot locate the source. Is it simply

[†] J.D. Candidate, Mitchell Hamline School of Law, 2017.

paranoia on your part or is this a side effect of living in a time where there are cameras everywhere you look? Cameras are on streetlights at intersections, in nearly every store and many homes, and on every police squad car. Cameras are also in the pockets of almost every single person that you see. What is the one place that has not been taken over by prying eyes? Not too long ago, one might have said the sky; however, it is likely that is no longer the case.

The drones that have been used so frequently in foreign wars are beginning to turn their gazes upon the United States. Drones are an exciting new tool for police officers and a terrifying new threat in the eyes of civil libertarians. Police drones have the potential to save thousands of lives—they also have the potential to keep an entire nation under constant surveillance and systematically remove any semblance of privacy.

A passage from George Orwell's nightmarish vision of life in a surveillance-state society, written long before drone technology surfaced, eerily resembles the issue that this article attempts to discuss:

The black-mustachio'd face gazed down from every commanding corner. There was one on the house front immediately opposite. Big Brother Is Watching You, the caption said . . . In the far distance a helicopter skimmed down between the roofs, hovered for an instant like a bluebottle, and darted away again with a curving flight. It was the Police Patrol, snooping into people's windows.¹

How can society deal with such powerful new technology? This article seeks to answer that question by examining Supreme Court cases,² the constitutionality of police drone use in Minnesota,³ and current legislation put forward by other states.⁴ This article

1. Compare GEORGE ORWELL, 1984 (Penguin Books 1961), with Matthew R. Koerner, *Drones and the Fourth Amendment: Redefining Expectations of Privacy*, 64 DUKE L.J. 1129, 1130 (2015) (“Senator Dianne Feinstein, a staunch advocate of governmental surveillance and Chairman of the 113th Congress’ Senate Intelligence Committee, recently found herself, rather ironically, as the target of surveillance. One day at her home, Senator Feinstein walked to the window to check on a protest that was taking place outside. Much to her surprise, a small drone hovered on the other side of the window, only inches away, spying on her. The drone immediately flew away.”).

2. See *infra* Part III.

3. See *infra* Part IV.

4. See *infra* Part V.

concludes by making a recommendation for an ideal statute controlling police drone use.⁵ The article begins by giving a general background of drones and drone technology.⁶

II. BACKGROUND

Drone technology, already quite complex, is advancing at a rapid pace, with which the Supreme Court, Congress, and state legislators are struggling to keep up. The term “drone” is used to describe an unmanned aircraft system (UAS), but machines differ immensely from model to model.⁷ Some are as small as a bug, while others are as big as commercial airliners.⁸ There are drones that can remain in the sky for days, and there are drones whose batteries last less than thirty minutes.⁹ The functionality and features of drones are limited only by one’s imagination.¹⁰ Drones can be equipped with high-powered cameras, facial recognition technology, microphones, programs that recognize suspicious behavior, and weapons both lethal and non-lethal.¹¹

There are those who regard this issue as a problem for future generations or something that is only prevalent in science fiction movies.¹² These individuals would likely be quite surprised to learn

5. See *infra* Part VI.

6. See *infra* Part II.

7. See Keric D. Clanahan, *Drone-Sourcing? United States Air Force Unmanned Aircraft Systems, Inherently Governmental Functions, and the Role of Contractors*, 22 FED. CIR. B.J. 135, 138 n.10 (2012) (providing an overview of the different terms used to describe UAS or drones).

8. RICHARD M. THOMPSON II, CONG. RESEARCH SERV., R42701, DRONES IN DOMESTIC SURVEILLANCE OPERATIONS: FOURTH AMENDMENT IMPLICATIONS AND LEGISLATIVE RESPONSES 2 (2013); see also Koerner, *supra* note 1, at 1150 (“Current models range in size from a wingspan of just three centimeters to over forty meters.”).

9. THOMPSON II, *supra* note 8, at 15–16.

10. See generally Joshua D. Beard, *Up in the Air: The Legal Status of Drones*, 94 MICH. B.J. 20, 20–21 (2015) (noting areas in which drones possess potential use including advertisement, media coverage, package transportation, agriculture, photography, and mapping).

11. See William C. Marra & Sonia K. McNeil, *Understanding “The Loop”:* *Regulating the Next Generation of War Machines*, 36 HARV. J.L. & PUB. POL’Y 1139, 1165–78 (2013) (discussing current drone technologies and where they might expand going forward).

12. Joshua Foust, *The Science Fiction of Drone-Phobia*, BEACON (Oct. 14, 2013, 4:46 PM), <https://www.beaconreader.com/joshua-foust/the-science-fiction-of-drone-phobia>.

of the quickly developing arsenal of drones purchased and possessed by federal agencies across the nation. For example, the FBI has spent over three million dollars assembling a fleet of drones that has been used in operations since 2006.¹³ These operations have involved storming barricaded buildings, tracking criminal suspects, and examining crime scenes.¹⁴ Another agency heavily invested in the use of drone technology is the U.S. Border Patrol.¹⁵ The operating cost alone for the border patrol's drones is approximately \$12,255 per hour.¹⁶ Interestingly, police have also uncovered instances of drug smugglers using drones to transport drugs across the border from Mexico.¹⁷

Federal agencies have not been selfish with their drones either. They have been more than happy to lend their drones to local police departments when they are needed.¹⁸ The Department of Homeland Security's Customs and Border Protection conducted 687 drone missions for other agencies from 2010 to 2012.¹⁹ Additionally, several police departments have sought to add drones to their own arsenals. Drones have been used for various domestic operations by police departments in North Dakota,²⁰ Texas,²¹ and

13. Brian Bennett, *FBI Has Been Using Drones Since 2006, Watchdog Agency Says*, L.A. TIMES (Sep. 26, 2013, 4:14 PM), <http://www.latimes.com/nation/nationnow/la-na-nn-fbi-using-drones-2006-20130926-story.html#axzz2xlB06oDp>.

14. *Id.*

15. See Brian Bennett, *Border Drones Are Ineffective, Badly Managed, Too Expensive, Official Says*, L.A. TIMES (Jan. 7, 2015, 5:00 AM), <http://www.latimes.com/nation/immigration/la-na-border-drones-20150107-story.html>.

16. *Id.*

17. Kristina Davis, *Two Plead Guilty in Border Drug Smuggling by Drone*, L.A. TIMES (Aug. 12, 2015, 9:20 PM), <http://www.latimes.com/local/california/la-me-drone-drugs-20150813-story.html>.

18. Sandra Fulton, *Police Hunger for Drones May be Growing, but So Are Privacy Concerns*, ACLU (Jan. 16, 2014, 3:06 PM), <https://www.aclu.org/blog/police-hunger-drones-may-be-growing-so-are-privacy-concerns> ("In 2010, for example, DHS's Customs and Border Protection (CBP) conducted 76 drone missions for other agencies. The next year, that number quadrupled, and it remained at nearly the same level in 2012.").

19. *Id.*

20. See Jason Koebler, *Court Upholds Domestic Drone Use in Arrest of American Citizen*, U.S. NEWS (Aug. 2, 2012, 11:32 AM), <http://www.usnews.com/news/articles/2012/08/02/court-upholds-domestic-drone-use-in-arrest-of-american-citizen>.

21. See Peter Finn, *Domestic Use of Aerial Drones by Law Enforcement Likely to Prompt Privacy Debate*, WASH. POST (Jan. 23, 2011, 12:56 AM), <http://www.washingtonpost.com/wp-dyn/content/article/2011/01/22>

Wisconsin.²² In addition, a total of eighty-one police departments, universities,²³ and various other state and federal departments have applied for drone operational licenses from the Federal Aviation Administration (FAA).²⁴

The use of drones by law enforcement agencies is slowly increasing.²⁵ However, a rapid surge in drone use has occurred in the private sphere.²⁶ Small, privately owned drones are becoming more affordable and more visible in day-to-day life.²⁷ The proliferation of drones has been so rapid that the FAA estimates that there will be approximately 30,000 drones in the air within ten years.²⁸ In preparing for a future where drones will likely take up a sizable amount of the national airspace, the FAA recently released a set of guidelines that dictate the proper and improper ways to use personal drones, as well as a licensing system for those who wish to fly drones.²⁹ Given the rising popularity of personal drone use, it is

/AR2011012204111.html.

22. See Anne Jungen, *West Salem Police Start Using Drone; New Technology Made Debut in August*, WASH. TIMES (Sep. 21, 2015), <http://www.washingtontimes.com/news/2015/sep/21/west-salem-police-using-drone/?page=all>.

23. See Perry Chiamonte, *Growing Number of Universities Want to Fly Drones over Campus, Report Shows*, FOX NEWS (Feb. 28, 2013), <http://www.foxnews.com/tech/2013/02/28/high-flying-drones-over-halls-higher-ed.html> (“The Georgia Institute of Technology’s police department applied for a permit to use two small helicopter drones during special events, as well as day-to-day operations, to respond to areas before a police officer would quickly place eyes on the target or crisis area.” (internal quotations omitted)).

24. See Shawn Musgrave, *Finally, Here’s Every Organization Allowed to Fly Drones in the US*, MOTHERBOARD (Oct. 6, 2014, 3:00 PM), <http://motherboard.vice.com/read/every-organization-flying-drones-in-the-us>.

25. See Michael L. Smith, *Regulating Law Enforcement’s Use of Drones: The Need for State Legislation*, 52 HARV. J. ON LEGIS. 423, 424 (2015).

26. See *Welcome to the Drone Age*, ECONOMIST (Sept. 26, 2015), <http://www.economist.com/news/science-and-technology/21666118-miniature-pilotless-aircraft-are-verge-becoming-commonplace-welcome>.

27. See *id.*

28. Robert Johnson, *FAA: Look for 30,000 Drones to Fill American Skies by the End of the Decade*, BUS. INSIDER (Feb. 8, 2012, 2:12 PM), <http://www.businessinsider.com/robert-johnson-bi-30000-drones-by-2020-2012-2>.

29. See U.S. DEP’T OF TRANSP., FAA ORDER NO. 8000.372A, UNMANNED AIRCRAFT SYSTEMS (UAS) DESIGNATED AIRWORTHINESS REPRESENTATIVES (DAR) FOR UAS CERTIFICATION AT UAS TEST (2014); see also Brian Stern & Matthias Rubekeil, *Coming Home to Roost—Domestic Use of Unmanned Aerial Vehicles*, 62 R.I. BUS. J. 5, 9 (2013) (“The deadline for this plan as mandated by Congress is September 2015 and likely to create a lot of movement in the market for drone use by private companies, perhaps resulting in changes to society and business similar to those of

very likely that the application of these guidelines will have an impact on how society views drone use by the police.³⁰

The drones that law enforcement agencies have access to today are fairly basic in their functionality.³¹ For example, the Los Angeles Police Department possesses two Draganflyer X6 drones.³² These drones are capable of providing high definition live video of whatever its cameras capture; however, they are only able to fly for twenty to twenty-five minutes before the battery must be changed.³³ This technology limits the privacy concerns of drones, but better technology is not far off.³⁴

The U.S. military has developed drone technology that, if used in domestic law enforcement operations, could pose massive constitutional privacy concerns. The most extreme example of this type of technology is called the “Gorgon Stare.”³⁵ The Gorgon Stare is a large drone equipped with a wide-angle lens capable of recording visual information.³⁶ In practice, this means that this drone can hover high in the sky and, using its wide-angle lens, record the visual information of an entire city in real-time.³⁷ If

the mass proliferation of affordable cellular tele-phony in the early 21st century.”).

30. Tyler Hite, *Domestic Presence in the Skies: Why Americans Should Care About Private Drone Regulation*, 31 SYRACUSE J. SCI. & TECH. L. REV. 184, 213–15 (2015).

31. See, e.g., *Questions Many People Ask of Us*, DRAGANFLY INNOVATIONS INC. [hereinafter DRAGANFLY], <http://www.draganfly.com/questions-answers> (last visited Feb. 11, 2016) (discussing functions of a particular drone, such as its ability to provide real-time camera viewing, a height limit of 400 to 500 feet, and the basic components damaged during a crash).

32. See Melissa Pamer & Mark Mester, *LAPD’s 2 Drones Will Remain Grounded During Policy Review, Police Commission Says Amid Protests*, KTLA 5 NEWS (Sep. 15, 2014, 8:28 AM), <http://ktla.com/2014/09/15/anti-spying-group-drone-free-lapd-to-protest-state-bill-that-would-allow-police-drones>; Jim Newton, *Drones and the LAPD*, L.A. TIMES (Oct. 14, 2015), <http://www.latimes.com/opinion/op-ed/la-oe-newton-column-lapd-drones-20141117-column.html>.

33. See, e.g., DRAGANFLY, *supra* note 31.

34. See Marra & McNeil, *supra* note 11, at 1174 (“Tomorrow’s drones will exhibit greater autonomy along all four stages of the OODA Loop [Observe, Orient, Decide, Act]. They will require less human interaction, navigate greater levels of environmental uncertainty, and enjoy higher levels of mission assertiveness.”).

35. See Ellen Nakashima & Craig Whitlock, *With Air Force’s Gorgon Drone ‘We Can See Everything’*, WASH. POST (Jan. 2, 2011, 12:09 AM), http://www.washingtonpost.com/wp-dyn/content/article/2011/01/01/AR2011010102690_pf.html.

36. *Id.*

37. *Id.*

anything were to happen in that particular city, it would be recorded and could be viewed later by military personnel who might even be able to see who committed the act in question.³⁸

Currently the Gorgon Stare technology is fully within the purview of the military, however the application of this technology to domestic police use could be very useful to law enforcement agencies. For example, say the Boston Police Department obtained a drone with Gorgon Stare technology. The drone could observe the entire city, and when the bombs went off at the Boston Marathon in 2013, the recorded images could have been analyzed to see who the bombers were and where they went after the bombing. This technology could have located the bombers in a very short amount of time. However, the drone would also record the movements of every citizen of Boston, drastically impacting their privacy rights.

With the scope of future drone technology in mind, it is easy to see why citizens are wary of law enforcement agencies possessing drones, even if they are a far cry from the Gorgon Stare technology.³⁹ Citizens have voiced their concern over the police use of drones through protests.⁴⁰

In August 2015, North Dakota passed House Bill 1328, which made it legal for police to equip drones with non-lethal weapons.⁴¹ This recent development in drone legislation has been met with

38. *Id.*

39. See Fulton, *supra* note 18; Nadia Prupis, *Activists Sound Alarm as More Police Departments Consider Using Drones*, MINT PRESS NEWS (Aug. 27, 2014), <http://www.mintpressnews.com/activists-sound-alarm-police-departments-consider-using-drones/195916>; Christian M. Wade, *Battle Brewing over Police Drones in Mass.*, NEWBURY PORT NEWS (Mar. 28, 2015, 3:20 AM), http://www.newburyportnews.com/news/local_news/battle-brewing-over-police-drones-in-mass/article_5846a6a5-31b7-5636-abc6-c52344e0de90.html.

40. See Joseph Serna, *Anti-Spying Coalition Launches Campaign Against LAPD Drones*, L.A. TIMES (Aug. 21, 2014, 1:47 PM), <http://www.latimes.com/local/lanow/la-me-ln-anti-drone-campaign-lapd-city-hall-20140821-story.html>; Gordon Tokumatsu & Jeanne Kuang, *City Hall Protesters Demand "Drone-Free LAPD"*, NBC (Aug. 21, 2014, 2:03 PM), <http://www.nbclosangeles.com/news/local/City-Hall-Protesters-Demand-Drone-Free-LAPD-272202761.html> (describing the concern that certain segments of society have when it comes to trusting police officers and the discretion that they possess in enforcing the law).

41. See Eyragon Eidam, *Reports on North Dakota Weaponized Drone Law Miss Larger Picture*, GOV'T TECH. (Sep. 18, 2015), <http://www.govtech.com/public-safety/Reports-on-North-Dakota-Weaponized-Drone-Law-Miss-Larger-Picture.html>.

extreme distrust and disappointment.⁴² Even police departments in North Dakota are skeptical about the power that they have been granted. A Lieutenant of the Fargo Police Department, Michael Mitchell, said that he is “perplexed, because we do not see many reasons why we would use such technology.”⁴³

Regardless of how one views drones, the facts show drone use is on the rise. Every year society will see more and more drones, and every year society will encounter new problems, as well as new uses for drones. The question that needs to be asked: How can society balance the positive, useful aspects of drones with the negative, privacy issues of drones? Is this something that the Constitution and its interpretive case law are prepared to handle? Is it necessary to enact federal or state legislation in order to manage this new technology? Finally, what kind of legislation is the most appropriate to strike the perfect balance between privacy concerns and police utility?

III. THE UNITED STATES CONSTITUTION AND DOMESTIC DRONE USE

Domestic drone use by law enforcement agencies is a relatively new phenomenon. There is no case law expressly ruling on the constitutionality of law enforcement’s use of drones. At the same time, law enforcement agencies have been pushing the limits of the Fourth Amendment for centuries.⁴⁴ Thus, there is existing case law

42. See Jennifer Cook, *Letter: Weaponized ND Drones Terrible Idea*, IN FORUM (Sep. 20, 2015, 12:34 AM), <http://www.inforum.com/letters/3842432-letter-weaponized-nd-drones-terrible-idea>; Mark Karlin, *Look Out: Drones That Shoot Tasers Now Legal for Police Use in First State*, BUZZFLASH (Sep. 11, 2015, 5:17 AM), <http://www.truth-out.org/buzzflash/commentary/drones-that-shoot-tasers-now-legal-for-police-use-in-north-dakota/19524-drones-that-shoot-tasers-now-legal-for-police-use-in-north-dakota>.

43. Noel Brinkerhoff, *Fargo Police Dept. Shuns Weaponized Drones Approved for Police by North Dakota*, ALLGOV (Sep. 5, 2015), <http://www.allgov.com/news/controversies/fargo-police-dept-shuns-weaponized-drones-approved-for-police-by-north-dakota-150905?news=857351>. But see Matt Alderton, *To the Rescue! Why Drones in Police Work are the Future of Crime Fighting*, LINE/SHAPE/SPACE (April 30, 2015, 5:44 PM), <http://lineshapespace.com/drones-in-police-work-future-crime-fighting> (“It’s like having 20 officers on patrol or more . . .”).

44. See generally Gerald G. Ashdown, *Drugs, Ideology, and the Deconstitutionalization of Criminal Procedure*, 95 W. VA. L. REV. 1 (1992); Thomas Y. Davies, *The Supreme Court Giveth and the Supreme Court Taketh Away: The Century of Fourth Amendment “Search and Seizure” Doctrine*, 100 J. CRIM. L. & CRIMINOLOGY 933 (2010); William C. Heffernan, *The Fourth Amendment Exclusionary Rule as a*

that can be tentatively applied to scenarios involving domestic drone use for surveillance purposes.⁴⁵ The Constitution itself is the ideal starting place for this analysis.

A. *The Constitution*

The Fourth Amendment of the Constitution guarantees “[t]he right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated”⁴⁶ This clause has guided police conduct and been the subject of significant case law.⁴⁷ This case law has been used to interpret what constitutes a search and what constitutes an unreasonable search and seizure.⁴⁸ As of the writing of this article, the Supreme Court has not heard, nor is scheduled to hear, any cases involving police use of a drone in a way that allegedly violated the Fourth Amendment. The particular features that drones can offer make them potentially excellent surveillance tools, and it is likely only a matter of time before the Supreme Court is called upon to weigh in on the issue.⁴⁹

Constitutional Remedy, 88 GEO. L.J. 799 (2000); Tracey Maclin, *When the Cure for the Fourth Amendment Is Worse Than the Disease*, 68 S. CAL. L. REV. 1 (1994).

45. See Jennifer O’Brien, *Warrantless Government Drone Surveillance: A Challenge to the Fourth Amendment*, 30 J. MARSHALL J. INFO. TECH. & PRIVACY L. 155, 181–88 (2013).

46. U.S. CONST. amend. IV.

47. See, e.g., *Boyd v. United States*, 116 U.S. 616, 622 (1886) (“It is our opinion, therefore, that a compulsory production of a man’s private papers to establish a criminal charge against him, or to forfeit his property, is within the scope of the fourth amendment to the constitution, in all cases in which a search and seizure would be, because it is a material ingredient, and effects the sole object and purpose of search and seizure.”). See generally 1 WAYNE R. LAFAVE, SEARCH & SEIZURE § 1.1(a) (5th ed. 2015) (providing a history of the origins of the Fourth Amendment); Tracey Maclin, *Let Sleeping Dogs Lie: Why the Supreme Court Should Leave Fourth Amendment History Unabridged*, 82 B.U. L. REV. 895 (2002).

48. Koerner, *supra* note 1, at 1130 (“The Fourth Amendment is the ‘chief source of privacy protection’ in the American justice system. It is intended to empower the government to investigate and enforce laws to a ‘reasonably satisfactory level,’ while still restricting these powers.” (quoting RONALD J. ALLEN, ET AL., CRIMINAL PROCEDURE: INVESTIGATION AND RIGHT TO COUNSEL 337 (2011))).

49. See Michael J. Sheehan, Note, *U.S. Citizens’ Fourth Amendment Rights & Unmanned Aerial Vehicles: An Appeal for Bright-Line Legislative Action*, 32 TEMP. J. SCI. TECH. & ENVTL. L. 255, 279 (2013) (“Many types of UAVs, especially those employing helicopter-style rotors with hover and stare capabilities will provide a major challenge to the precedent set by the Supreme Court in the aerial

B. *Developing Fourth Amendment Case Law*

The bedrock case in the development of Fourth Amendment search and seizure jurisprudence is *Katz v. United States*.⁵⁰ There, Justice Harlan—in his frequently cited concurrence—laid out the standard on how to analyze whether a search was reasonable within the eyes of the Constitution.⁵¹ This analysis requires the fact finder to determine whether the individual subjected to the alleged search had a subjective expectation of privacy and whether society is objectively prepared to deem that privacy expectation reasonable.⁵² Based on this analysis, Justice Harlan stated that “a man’s home is, for most purposes, a place where he expects privacy, but objects, activities, or statements that he exposes to the ‘plain view’ of outsiders are not ‘protected’ because no intention to keep them to himself has been exhibited.”⁵³

The *Katz* test eventually became known as the “reasonable expectation of privacy” test and has been applied in virtually every Fourth Amendment aerial search case since.⁵⁴ Two lines of authority applying this test are particularly relevant to the constitutionality of police drone use: police tracking of individuals and police aerial surveillance.

1. *Police Tracking of Individuals*

In *United States v. Knotts*, the Supreme Court reviewed police use of advanced technology geared toward tracking the location of a suspect.⁵⁵ Without obtaining a warrant, Minnesota police officers placed a beeper equipped with a radio transmitter into a barrel of chloroform that was later sold to the suspect.⁵⁶ Police then used

surveillance cases, *Ciraolo* and *Riley*, because these UAVs are often designed for flight below the operating levels of fixed-wing aircraft and helicopters.” (citations omitted)).

50. 389 U.S. 347, 361 (1967) (Harlan, J., concurring); see also Koerner, *supra* note 1, at 1143–45 (“The Court first announced the privacy-rights paradigm in *Katz v. United States*.”).

51. *Katz*, 389 U.S. at 361 (Harlan, J., concurring).

52. *Id.*

53. *Id.*

54. See Koerner, *supra* note 1, at 1144–45 (describing the use of the reasonable expectation of privacy test over the decades since *Katz* and the application of the test to new areas of search and seizure jurisprudence).

55. 460 U.S. 276, 277 (1983).

56. *Id.* at 277–78.

that beeper to locate a cabin owned by the suspect.⁵⁷ Following three days of visual surveillance, the police obtained a search warrant and discovered a drug laboratory inside the cabin.⁵⁸

The Supreme Court found that the use of the beeper was not a search because “a person traveling . . . on public thoroughfares has no [objective] reasonable expectation of privacy.”⁵⁹ Thus,

[w]hen Petschen traveled over the public streets he voluntarily conveyed to anyone who wanted to look the fact that he was traveling over particular roads in a particular direction, the fact of whatever stops he made, and the fact of his final destination when he exited from public roads onto private property.⁶⁰

The majority believed that the Fourth Amendment does not prohibit the police from “augmenting” their senses with the use of “science and technology.”⁶¹ The defendant’s constitutional claim rested on the idea that the use of beepers in such a way could lead to tracking a citizen’s location twenty-four hours a day for seven days a week, without any judicial oversight.⁶² The majority declined to confront this issue and focused solely on the fact pattern that was presented in the record.⁶³ Further, the majority rejected the idea that the technology used was a search because it was making police tracking more efficient.⁶⁴ The Court focused on the idea that this would not have constituted a search if the defendant had simply been tailed by a police officer instead of tracked via radio transmitter.⁶⁵

Knotts seemed to give police the green light on using advanced technology in order to further investigative efficiency. This naturally led to cases where police use of technology went too far.

United States v. Karo presented the Court with a nearly identical fact pattern to that in *Knotts*.⁶⁶ However, *Karo* contained one crucial difference: the DEA continued to monitor the beeper after it had

57. *Id.* at 278.

58. *Id.* at 279.

59. *Id.* at 281.

60. *Id.* at 281–82.

61. *Id.* at 282.

62. *Id.* at 283.

63. *Id.* at 284.

64. *Id.* (“We have never equated police efficiency with unconstitutionality, and we decline to do so now.”).

65. *Id.* at 285.

66. 468 U.S. 705 (1984).

entered the subject house.⁶⁷ In doing so, the DEA found that the illegal material was being transported from house to house.⁶⁸ The Court found this constituted an illegal search because the beeper was transmitting information from inside the homes in which it was stored.⁶⁹ This told agents that at a particular time, in a particular place, and inside a particular home, there were illegal materials.⁷⁰ The Court also found if the technology had not been used and the police officer personally wanted to confirm that there were illegal materials inside the house, the officer would have had to walk into the house and look around for the illegal materials.⁷¹ This behavior would obviously constitute a search and, therefore, for purposes of the Fourth Amendment, the use of the beeper was found to be an unconstitutional, warrantless search.⁷²

In a 2012 case, *United States v. Jones*, the U.S. Supreme Court heard another Fourth Amendment search case involving the police tracking of an individual's whereabouts.⁷³ Justice Alito and Justice Sotomayor each wrote a concurrence and discussed the difficulties that could arise in future constitutional privacy cases.⁷⁴

Jones involved a GPS tracker that officers secretly planted on the underside of Jones' truck.⁷⁵ The government then tracked the GPS for the next twenty-eight days and collected over 2000 pages of data.⁷⁶ Jones argued that this was a violation of his reasonable expectation of privacy.⁷⁷

The Court held that the warrantless police actions violated the Fourth Amendment.⁷⁸ Curiously, the majority decided it was unnecessary to apply the "reasonable expectation of privacy" test, based on its belief that the use of the GPS clearly violated the common law trespass theory, citing a case from 1765.⁷⁹ By 2012,

67. *Id.* at 708–10.

68. *Id.* at 708–09.

69. *Id.* at 715.

70. *Id.*

71. *Id.*

72. *Id.*

73. 132 S. Ct. 945 (2012).

74. *See id.* at 954 (Sotomayor, J., concurring); *see id.* at 957 (Alito, J., concurring).

75. *Id.* at 948 (Scalia, J., majority).

76. *Id.*

77. *Id.* at 950.

78. *Id.* at 954.

79. *Id.* at 949 (citing *Entick v. Carrington* (1765) 95 Eng. Rep. 807 (C.P.));

many scholars believed the trespass theory in constitutional search and seizure analysis disappeared and was completely supplanted by the *Katz* test.⁸⁰ The majority added an element to the test used for determining whether a search has occurred: if the government physically trespasses on a citizen's private property, then there is automatically a search, but if the government does not physically trespass, then the "reasonable expectation of privacy" analysis follows.⁸¹

The majority's clarification of the test used to determine whether a search has occurred has proven useful in subsequent cases.⁸² However, the real takeaway from this case is in the concurring opinions of Justice Sotomayor and Justice Alito.

Justice Sotomayor laid out two major concerns with the use of GPS technology: (1) the wealth and breadth of information that can be collected; and (2) its relatively cheap cost.⁸³ "GPS monitoring generates a precise, comprehensive record of a person's public movements that reflects a wealth of detail about her familial, political, professional, religious, and sexual associations."⁸⁴ Justice Sotomayor explained that most of the trips one takes—using public thoroughfares—are innocent enough;

see also Y. Douglas Yang, *Big Brother's Crown Wings: The Domestic Proliferation of Drone Surveillance and the Law's Response*, 23 B.U. PUB. INT. L.J. 343, 356–57 (2014) (stating the holding in *Jones* "expanded Fourth Amendment protections, but also obfuscated the Fourth Amendment standard that courts should apply").

80. *See, e.g.*, Shane Crotty, *The Aerial Dragnet: A Drone-ing Need for Fourth Amendment Change*, 49 VAL. U. L. REV. 219, 248–49 (2014) (stating the *Jones* opinion "muddied the Fourth Amendment waters" and "convoluted the issue" of Fourth Amendment privacy protection); Yang, *supra* note 79, at 357 ("As opposed to clarifying the standard the government should follow in surveillance procedures, the *Jones* majority's revival of *Olmstead*'s physicality requirement created a split in the Supreme Court about whether *Katz*'s 'reasonable expectation of privacy' test applied exclusively in government surveillance cases, or whether *Katz* merely supplemented an *Olmstead*-based physical invasion approach.").

81. *See Jones*, 132 S. Ct. at 949–52.

82. *See, e.g.*, *ACLU v. Clapper*, 785 F.3d 787, 823–25 (2d Cir. 2015) (using the test laid out in *Jones* to analyze the NSA's secret telephone metadata program); *United States v. Baez*, 744 F.3d 30, 33–36 (1st Cir. 2014) (describing the difference in search and seizure law before and after *Jones*); *United States v. Sparks*, 711 F.3d 58 (1st Cir. 2013), *cert. denied*, 134 S. Ct. 204 (2013) (holding that a pre-*Jones* warrantless search using a GPS tracker was exempt from suppression, despite its unconstitutionality, based on the "good-faith" doctrine).

83. *See Jones*, 132 S. Ct. at 955–56 (Sotomayor, J., concurring).

84. *See id.* at 955.

however, there are several trips that are not.⁸⁵ For example, trips to places such as “the psychiatrist, the plastic surgeon, the abortion clinic, the AIDS treatment center, the strip club, the criminal defense attorney, the by-the-hour motel, the union meeting, the mosque, synagogue or church, [or] the gay bar” provide information that details the private lives of citizens.⁸⁶ Justice Sotomayor feared that through the use of GPS monitoring, this information could conceivably be collected and stored in order to gain insight into the ideas and beliefs of individual citizens.⁸⁷ The fear of being watched may chill civilian “associational and expressive freedoms.”⁸⁸

Consequently, under current constitutional search and seizure law, the government could arguably track a citizen for extended periods of time and record the information collected in a database, without ever obtaining a warrant.⁸⁹ That being said, the same argument can be made whether the government is using a GPS tracker, a drone, or a team of police officers. In each case, the biggest restraint on the government is practicability.⁹⁰

85. *Id.*

86. *Id.* (quoting *People v. Weaver*, 909 N.E.2d 1195, 1199 (N.Y. 2009)).

87. *Id.* at 966; *see also* Neil M. Richards, *The Dangers of Surveillance*, 126 HARV. L. REV. 1934, 1956 (2013) (“That information gives the watcher increased power over the watched that can be used to persuade, influence, or otherwise control them, even if they do not know they are being watched or persuaded.”).

88. *Jones*, 132 S. Ct. at 956 (“The net result is that GPS monitoring—by making available at a relatively low cost such a substantial quantum of intimate information about any person whom the Government, in its unfettered discretion, chooses to track—may ‘alter the relationship between citizen and government in a way that is inimical to democratic society.’” (quoting *United States v. Cuevas-Perez*, 640 F.3d 272, 285 (7th Cir. 2011) (Flaum, J., concurring))).

89. *See* Jonathan Olivito, *Beyond the Fourth Amendment: Limiting Drone Surveillance Through the Constitutional Right to Informational Privacy*, 74 OHIO ST. L.J. 669, 701 (2013) (“Drones can operate clandestinely over a broad area for extended periods of time, making them ideal surveillance tools. Operators can easily equip drones with high-resolution cameras, sensors, and video analysis programs. With current electronic storage systems, any information collected by drones—including photographs, videos, and sensory data—can be stored indefinitely for subsequent aggregation, analysis, and distribution. Whether government drone operators collect information intentionally or unwittingly, the result is equally disquieting: substantial amounts of personal information could be collected and stored through drone surveillance of public areas.” (citation omitted)).

90. *See Jones*, 132 S. Ct. at 963–64 (Alito, J., concurring).

Justice Sotomayor also points out that GPS technology is comparably cheaper than other surveillance tactics, such as a rotating team of agents trained in advanced surveillance.⁹¹ Because GPS technology is cheaper, there is less of a constraint on the government to use such tactics.⁹² If a certain technology allows warrantless searches to occur in certain areas more frequently, then that technology has expanded the scope of information that the government can collect from its citizens.⁹³ Justice Sotomayor suggests that this expansion in scope might alter society's reasonable expectation of privacy in public places.⁹⁴ For example, one might not expect a trip to the grocery store to be private, but one would most likely feel that their privacy was violated if the government knew every single trip they took over a period of two months.

Justice Alito, citing historical legal responses to advances in technology, observed in some cases that the best way to deal with developing technology that intrudes on privacy in new ways is to enact legislation.⁹⁵ New legislation was used to handle the developing technology of wiretapping.⁹⁶ Congress did not wish to leave the complex issue of wiretapping to a slowly developing system of common law.⁹⁷ Therefore, it passed 18 U.S.C. §§ 2510 through 2522, which from that point on was the primary means governing wiretapping cases.⁹⁸ Justice Alito stated, "A legislative body is well situated to gauge changing public attitudes, to draw detailed lines, and to balance privacy and public safety in a comprehensive way."⁹⁹

91. *Id.* at 956 (Sotomayor, J., concurring).

92. *Id.*

93. *Id.*

94. *Id.*; see also Stern & Rubekil, *supra* note 29, at 8 ("Under *Kyllo*, the Fourth Amendment may protect the citizenry from warrantless searches for the time being, due to the relatively low usage of drones and society's expectation that drones will not violate its privacy However, if the appearance of drones hovering in the sky becomes commonplace rather than novelty, and subsequently society becomes desensitized to seeing drones floating over the backyard or the football field, then a search by drone might cease to interfere with the reasonable expectation of privacy.").

95. *Jones*, 132 S. Ct. at 962 (Alito, J., concurring).

96. *Id.* at 962–63.

97. *Id.* at 963.

98. *Id.*; 18 U.S.C. §§ 2510–2522 (2013).

99. *Jones*, 132 S. Ct. at 964 (Alito, J., concurring).

Jones also brought up a topic that had not been covered by previous privacy law cases: whether there is a certain point in time where warrantless tracking of a civilian can change from constitutional to unconstitutional.¹⁰⁰ That is, is there a length of time where perfectly legal warrantless tracking crosses over the line into a search which intrudes upon society's reasonable expectation of privacy?¹⁰¹ Again, the government tracked every single movement of *Jones*' vehicle for four weeks.¹⁰² Unfortunately, these questions were discussed by Justice Alito, but not answered in any meaningful way.¹⁰³ These questions will arguably be raised in future cases of police drone use, but as of now, the U.S. Supreme Court has no clear answer.

2. *Police Aerial Surveillance*

Drones are new to the world of law enforcement, but aerial surveillance is not.¹⁰⁴ Police officers have used airplanes and helicopters for surveillance as aircraft have become more popular in modern society.¹⁰⁵ The cases involving aircraft demonstrate the idea that the prevalence of specific aircraft being used in society has an influence over the extent that police are allowed to use those aircraft for surveillance.

California v. Ciraolo was the Supreme Court's first case in which it had to apply the reasonable expectation of privacy test to aerial surveillance.¹⁰⁶ In *Ciraolo*, police received an anonymous tip that an individual was growing marijuana in his yard.¹⁰⁷ Officers arrived at the house but were unable to see anything due to a fence that completely enclosed the yard.¹⁰⁸ One perseverant police officer chartered a private plane and flew over the suspect's house.¹⁰⁹ In

100. *See id.* (explaining the amount of time where tracking might become a search).

101. *See id.*

102. *Id.* at 946 (Scalia, J., majority).

103. *Id.* at 964 (Alito, J., concurring).

104. Gregory McNeal, *Drones and Aerial Surveillance: Considerations for Legislators*, BROOKINGS (Nov. 2014), <http://www.brookings.edu/research/reports2/2014/11/drones-and-aerial-surveillance>.

105. *Id.*

106. *California v. Ciraolo*, 476 U.S. 207, 207 (1986).

107. *Id.* at 209.

108. *Id.*

109. *Id.*

this flyover, approximately 1000 feet in the air, the officer was able to see marijuana plants in the yard and used this information to obtain a search warrant.¹¹⁰

The majority in *Ciraolo* suggests it was of crucial importance that the officer was flying within public navigable airspace, as defined by the FAA.¹¹¹ This is important because it suggests any individual flying in a commercial airliner or private airplane could peer out of an airline window and see the world below, including the marijuana plants at issue in *Ciraolo*.¹¹² The majority opined that if any member of the public could look out of a plane and see into the yard, there was no reasonable expectation of privacy in that yard.¹¹³ Chief Justice Berger stated that “[i]n 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.”¹¹⁴ This assertion suggests that, as private drone use becomes more popular, an individual’s reasonable expectation of privacy might be reduced.¹¹⁵

The dissent argued that the majority’s decision moved away from the original intention of the Fourth Amendment—to ensure citizens “dwell in reasonable security and freedom from surveillance.”¹¹⁶ Justice Powell analyzed the case by considering the actions law enforcement would have had to take in the absence of technology.¹¹⁷ If the officer had not chartered a private plane to peer into the yard, he would have had to climb the fence or use a ladder to peer over it—which arguably would have been an

110. *Id.*

111. *Id.* at 213.

112. *Id.* at 213–14.

113. *Id.* at 214.

114. *Id.* at 215.

115. See Koerner, *supra* note 1, at 1154 (“The government often employs new instruments to investigate and prosecute criminals. Likewise, criminals often employ new instruments to commit crimes and to evade police detection or capture. Ordinary citizens, however, may employ many of these same instruments to accommodate their everyday conveniences and necessities. According to Professor Orin Kerr, this complex dynamic has contributed to the numerous exceptions and seemingly divergent holdings of Fourth Amendment precedent.”).

116. *Ciraolo*, 476 U.S. at 217 (Powell, J., dissenting) (quoting *Johnson v. United States*, 333 U.S. 10, 14 (1948)).

117. *Id.* at 222.

unreasonable search.¹¹⁸ The dissent challenged the majority's reliance on the absence of physical trespass because the manner of surveillance is not a relevant component of an analysis under *Katz*.¹¹⁹

The holding in *Ciraolo* was then applied in *Florida v. Riley*.¹²⁰ In *Riley*, the Supreme Court confronted a fact pattern very similar to that of *Ciraolo*.¹²¹ The distinguishing factor in *Riley* was the much lower altitude of 400 feet at which the police flew over the suspect's property.¹²² The Court again pointed to the fact that public usage of the airspace approximately 500 feet above the ground is allowed under the FAA guidelines and is a common occurrence.¹²³ Mr. Riley had a greenhouse in his backyard with two of its rooftop panels missing, thus exposing the contents of the greenhouse to any member of the public who might be flying above it.¹²⁴ Since Mr. Riley had exposed this information to the public, he could not have had a reasonable expectation of privacy in the contents of his greenhouse.¹²⁵

Justice Brennan provided another dissent showing a significant amount of concern for possible privacy violations in the future.¹²⁶ Justice Brennan's disagreement with the majority can be summed up succinctly in his own words, "I cannot agree that one 'knowingly exposes [an area] to the public' solely because a helicopter may legally fly above it."¹²⁷ The dissent pointed out that the majority's holding would seem to allow any police invasion of privacy as long as a "single member of the public could conceivably position herself to see into the area in question without doing anything

118. *Id.*

119. *Id.* at 223 ("Reliance on the *manner* of surveillance is directly contrary to the standard of *Katz*, which identifies a constitutionally protected privacy right by focusing on the interests of the individual and of a free society.").

120. 488 U.S. 445, 449 (1989).

121. Compare *Ciraolo*, 476 U.S. 207 (involving police surveillance in a fixed wing aircraft of a suspect's curtilage), with *Florida v. Riley*, 488 U.S. 445 (1989) (involving police surveillance in a helicopter of a suspect's curtilage).

122. *Riley*, 488 U.S. at 448.

123. *Id.* at 450.

124. *Id.*

125. *Id.* at 450–51.

126. See *id.* at 456–67 (Brennan, J., dissenting) ("I find considerable cause for concern in the fact that a plurality of four justices would remove virtually all constitutional barriers to police surveillance from the vantage point of helicopters.").

127. *Id.* at 457.

illegal.”¹²⁸ Thus, the majority’s analysis moved away from the *Katz* reasonable expectation of privacy test and into a test of whether it was possible for the public to see the illegal behavior in question.¹²⁹

The holding in *Riley* is crucial for analyzing drone cases because the judgement of the Court seems to suggest if a police aerial vehicle—such as a drone—is in an area in which the public could conceivably and legally be, then it is not a search, no matter what the aerial vehicle happens to see.¹³⁰ The recently released FAA guidelines for unmanned aerial systems sets the acceptable drone elevation at up to 500 feet.¹³¹ The Court’s expansive view on aerial surveillance has been dialed back slightly with subsequent case law; however, based on this holding, it would appear that the Constitution would allow for police drones, flying 500 feet above the ground, to observe and record anything and everything below without being considered a search. Justice Brennan provided a strikingly appropriate hypothetical of a futuristic version of a helicopter that can hover just above an enclosed courtyard or a patio: “Suppose the police employed this miraculous tool to discover not only what crops people were growing in their greenhouses, but also what books they were reading and who their dinner guests were.”¹³² Justice Brennan predicted the fears society has today regarding drone use; however, under the majority’s understanding of privacy and search law, such use of a drone would not be considered a search and would therefore not require a warrant.¹³³

Kyllo and *Riley* both considered how common the vehicle with which the police conducted their surveillance was in everyday life.¹³⁴ In this day and age, drones are not as commonplace as planes or

128. *Id.*

129. *Id.* at 460.

130. Sheehan, *supra* note 49, at 280 (“This is especially problematic because the current COAs allow public UAVs to fly under this [500 foot] limit while still complying with the regulations in the FAA Modernization and Reform Act.”).

131. Press Release, Fed. Aviation Admin., DOT and FAA Propose New Rules for Small Unmanned Aircraft Systems (Feb. 15, 2015), https://www.faa.gov/news/press_releases/news_story.cfm?newsId=18295; see *Fact Sheet—Unmanned Aerial Systems (UAS)*, FED. AVIATION ADMIN. (Feb. 15, 2015), https://www.faa.gov/news/fact_sheets/news_story.cfm?newsId=18297 (describing the FAA’s incremental approach to safe UAS integration into the nation’s airspace).

132. *Riley*, 488 U.S. at 462 (Brennan, J., dissenting).

133. See *id.* at 450 (majority opinion).

134. *Id.* at 458; *California v. Ciraolo*, 476 U.S. 207, 215 (1986).

helicopters, which means that their use for surveillance purposes could be more likely to constitute a search based on society's objective reasonable expectation of privacy from drones.¹³⁵ Some scholars predict that this could change over time: "[I]f the appearance of drones hovering in the sky becomes commonplace rather than novelty, and subsequently society becomes desensitized to seeing drones floating over the backyard or the football field, then a search by drone might cease to interfere with the reasonable expectation of privacy."¹³⁶

The Court has only slightly scaled back its view on aerial surveillance. In *Dow Chemical Co. v. United States*, the EPA hired a professional photographer to fly above the business complex of Dow Chemical Company and take pictures of the 2000 acres of land.¹³⁷ The Court maintained its prior reasoning and ruled that this was not a search.¹³⁸ However, it expressly stated that if the photographer had been using some type of advanced technology that could "pierce" the walls of the complex and either see or hear into the buildings, there would likely be a search.¹³⁹ Justice Powell was greatly concerned by the Court's decision to base whether a search had occurred upon the manner of technology used.¹⁴⁰ As Justice Brennan opined, "Such an inquiry will not protect Fourth Amendment rights, but rather will permit their gradual decay as technology advances."¹⁴¹ This explanation focuses on the fact that as technology advances, the law will simply fall behind. The holding in *Dow Chemical* likely limits the extent to which drones can use features such as enhanced microphones, thermal imaging, and other tools that would "pierce" the walls of a private home or business.¹⁴²

Applying Supreme Court case law up to this point in time suggests that police will arguably have very few limitations on drone use. Police cannot use drones in a way that physically trespasses on

135. Stern & Rubekeil, *supra* note 29, at 8.

136. *Id.*

137. 476 U.S. 227, 229 (1986).

138. *Id.* at 239.

139. *Id.* at 238.

140. *Id.* at 240 (Powell, J., concurring in part, dissenting in part).

141. *Id.*

142. See Taly Matiteyahu, *Drone Regulations and Fourth Amendment Rights: The Interaction of State Drone Statutes and the Reasonable Expectation of Privacy*, 48 COLUM. J.L. & SOC. PROBS. 265, 296 (2015).

one's home.¹⁴³ Police cannot use advanced technology that would allow them to see or hear anything inside of one's home.¹⁴⁴ However, case law shows that police *can* conduct aerial surveillance if they are at an altitude approved by the FAA.¹⁴⁵ Moreover, it is not clear how long a drone can continuously survey an individual before requiring a warrant. One could argue that it would be constitutional for the police, without a warrant, to use a drone to survey an individual anytime he or she entered a public thoroughfare or to investigate the curtilage of a suspect's home.¹⁴⁶ This patchwork assortment of law is particularly concerning in the drone context because drones can simply be manufactured or adjusted in ways that make them more invasive, but still within the minimal boundaries set forth by the Supreme Court's Fourth Amendment jurisprudence.¹⁴⁷

IV. THE MINNESOTA CONSTITUTION AND DRONE LEGISLATION

The U.S. Constitution does not limit the protection provided by state constitutions to the citizens of that state.¹⁴⁸ This system of judicial federalism mandates only that the state constitution provide at least what the U.S. Constitution requires.¹⁴⁹ Minnesota is

143. See *United States v. Jones*, 132 S. Ct. 945, 962 (2012).

144. See *Dow Chemical Co.*, 476 U.S. at 237–38.

145. Sheehan, *supra* note 49, at 281 (“Due to the overwhelming amount of Supreme Court precedent interpreting the Katz test and the lack of information provided by the FAA, any case involving UAV warrantless surveillance which complies with the established FAA regulations would most likely be upheld by the Supreme Court.”).

146. Andrea Lance, *Back to the Future of Your Privacy Rights: U.S. v. Jones*, 95 MASS. L. REV. 214, 216 (2013) (mentioning the lack of authority regarding long-term surveillance).

147. Koerner, *supra* note 1, at 1154 (“The government can navigate the various doctrinal loopholes by altering the designs and capabilities of drones, the location and flight paths of drones, the means of acquiring information, and the types of information acquired. In effect, drones implicate the most factually diverse aspects of an already diverse and unpredictable jurisprudence.”).

148. See *Michigan v. Long*, 463 U.S. 1032, 1041 (1983); see also *Pruneyard Shopping Ctr. v. Robins*, 447 U.S. 74, 80–81 (1980). *But see* *Benton v. Maryland*, 395 U.S. 784, 795 (1969) (“Once it is decided that a particular Bill of Rights guarantee is ‘fundamental to the American scheme of justice,’ . . . the same constitutional standards apply against both the State and Federal Governments.” (quoting *Duncan v. Louisiana*, 391 U.S. 145, 149 (1968))).

149. See William J. Brennan, Jr., *State Constitutions and the Protection of Individual Rights*, 90 HARV. L. REV. 489, 491 (1977).

among the majority of states that generally adheres to the principle of uniformity.¹⁵⁰ In adherence with this general principle, Minnesota has yet to adopt a stance on aerial surveillance that provides more protection than that of the U.S. Constitution.¹⁵¹

Since Minnesota courts remain in uniformity with the U.S. Constitution in terms of privacy rights and aerial surveillance, the same questions involving police drone use remain unanswered. As Justice Alito pointed out in *Jones*, when the courts remain silent on an issue, it can be useful to turn to the legislature.¹⁵² Unfortunately, the Minnesota legislature also remains silent on the issue. In 2013 and early 2014, two Minnesota Senate bills and one Minnesota House bill were introduced and sent to committee.¹⁵³ These bills died in committee due to an inability to garner the support needed to become law.¹⁵⁴

These three bills represent two different theories of drone legislation. Both HF 1994¹⁵⁵ and SF 2037¹⁵⁶ proposed a blanket warrant requirement over all drone use, with a few exceptions: if the drone is used to counter a high risk of a terrorist attack, if police receive a warrant to use the drone, if the drone would be used to prevent imminent danger to life or to catch a fleeing suspect, and if the drone was needed to prevent the loss of life or property in natural or manmade disasters.¹⁵⁷

150. *Kahn v. Griffin*, 701 N.W.2d 815, 824 (Minn. 2005); *see also* *Minn. Energy & Econ. Dev. Auth. v. Printy*, 351 N.W.2d 319, 351–52 (Minn. 1984) (holding that Minnesota seeks uniformity between state and federal policies to reduce unnecessary confusion).

151. *See* *State v. Anderson*, 414 N.W.2d 747, 750 (Minn. Ct. App. 1987) (“The fly-over inspections (and aerial photography), if conducted in the public airspace, were also not subject to a reasonable expectation of privacy.” (citing *California v. Ciraolo*, 476 U.S. 207 (1986))); *see also* *State v. Nolan*, 356 N.W.2d 670, 670–71 (Minn. 1984) (holding a search warrant was not required for the sheriff to search defendant’s property because the Fourth Amendment does not protect open fields).

152. *United States v. Jones*, 132 S. Ct. 945, 962 (2012) (Alito, J., concurring).

153. *See* H.R. Res. 612, 88th Leg., Reg. Sess. (Minn. 2013); S. Res. 485, 88th Leg., Reg. Sess. (Minn. 2013).

154. *See* Dan Gunderson, *Drone Bills Appear Grounded This Year in Minnesota Legislature*, MPR NEWS (Apr. 1, 2014), <http://www.mprnews.org/story/2014/04/01/politics/drone-legislation-minnesota>.

155. Minn. H.R. Res. 612.

156. Minn. S. Res. 485.

157. *See id.*; Minn. H.R. Res. 612.

The other Minnesota bill, SF 2687, is different in that it laid out a very specific and detailed system for law enforcement's use of drones.¹⁵⁸ It also proposed a prohibition on the police drone use without a warrant, making an exception for emergencies that involve an imminent threat to persons or property.¹⁵⁹ However, the bill also required police drone use to comply with all FAA guidelines, have a clearly and narrowly defined target, not use facial recognition or other biometric technology without a court order, not be equipped with weapons, only retain limited data, and be accompanied by after-the-fact notice to the targets of drone surveillance.¹⁶⁰ The bill goes even further, requiring all law enforcement agencies to occasionally report drone use statistics to the legislature and on their public websites.¹⁶¹ Additionally, the bill proposed any judge approving or denying drone surveillance warrants must report those statistics annually to the State Court Administrator.¹⁶²

As mentioned above, none of these three bills made it through committee, and therefore the legislature did not vote on these bills. This likely reflects the fact that domestic drone technology was a very new and emerging technology in 2013. At the time that these bills were in committee, the FAA was developing new rules for the use of drones in American airspace.¹⁶³ Legislators arguably did not want to set any hard and fast rules until they knew what kind of boundaries the FAA was going to set.¹⁶⁴ Other legislators, such as Representative John Lesch, felt that this was a missed opportunity for "foot-in-the-door legislation."¹⁶⁵ Representative Lesch expressed his concern that this delay in legislation would allow companies that manufacture and distribute drones to lobby against privacy rights: "And then there is the inevitability that when another year passes more and more agencies will decide, 'Hey, I want to use these drones,' and then any privacy legislation gets bogged down in a myriad of interested parties" ¹⁶⁶ These interested parties are

158. See Minn. S. Res. 485.

159. *Id.*

160. *Id.*

161. *Id.*

162. *Id.*

163. See Gunderson, *supra* note 154.

164. See *id.*

165. *Id.*

166. *Id.*

certainly active and lobbying to protect their interests;¹⁶⁷ however, this issue is inherently going to bring privacy rights enthusiasts and law enforcement agencies into direct competition.

V. EXISTING DRONE LEGISLATION

A. *Other State Legislation*

Minnesota is not the only state that has thus far failed to provide guidelines on the use of drones by law enforcement. In 2013 alone, “forty-three states introduced 130 drone-related legislative proposals.”¹⁶⁸ Despite the high number of states introducing proposals, by April 2014, less than one-third of all states passed legislation restricting and/or regulating domestic drone use.¹⁶⁹ Those states that passed drone-use legislation are prime examples of the variations of drone regulation.

Florida’s Freedom from Unwarranted Surveillance Act, originally passed in 2013, represents the more “standard” type of current anti-drone legislation.¹⁷⁰ The Act provides a blanket warrant requirement for any police use of drones, but also lays out a few specific exceptions to the general rule.¹⁷¹ The exceptions include situations involving a high risk of terrorist attack and situations when police have reasonable suspicion that drones are needed to

167. See, e.g., Sheehan, *supra* note 49, at 276 (“While much pressure on the FAA was exerted by lobbying groups such as the Association for Unmanned Vehicle Systems International, the American Civil Liberties Union (ACLU) attempted to counter this pressure by filing a request under the Freedom of Information Act (FOIA) in 2009 for disclosures and further information on the use of UAVs both in foreign nations and domestically.”).

168. Yang, *supra* note 79, at 367 (citing *2013 Unmanned Aircraft Systems (UAS) Legislation*, NAT’L CONF. ST. LEGISLATURES (Apr. 9, 2014), <http://www.ncsl.org/research/civil-and-criminal-justice/unmanned-aerial-vehicles.aspx>).

169. *Id.*

170. See FLA. STAT. ANN. § 934.50 (West, Westlaw through 2015 1st Reg. Sess. and Spec. A Sess. of the Twenty-Fourth Leg.); see also OR. REV. STAT. ANN. § 837.335 (West, Westlaw through 2015 Reg. Sess.) (imposing a blanket warrant requirement for the use of drones, but also including various exceptions to the general rule).

171. FLA. STAT. ANN. § 934.50 (Westlaw); see also 725 ILL. COMP. STAT. ANN. 167/15 (West, Westlaw through P.A. 99-495 of 2015 Reg. Sess.); N.D. CENT. CODE ANN. §§ 29-29.4-01 to -06 (West, Westlaw through 2015 Reg. Sess.); TENN. CODE ANN. § 39-13-609 (West, Westlaw through 2015 1st Reg. Sess.); TEX. GOV’T CODE ANN. § 423.002 (West, Westlaw through 2015 Reg. Sess.).

prevent imminent loss of life or property, escape of suspects, or destruction of evidence.¹⁷²

A style of legislation distinct from the blanket warrant requirement in Florida is Idaho's restriction on the use of unmanned aircraft systems.¹⁷³ That statute categorizes law enforcement's use of drones based on whether the drones target private property or public property.¹⁷⁴ Police drones targeting public property are subject to virtually no legislative restrictions.¹⁷⁵ Law enforcement agencies' only restraint on public property targets is that they cannot photograph or record an individual, without his or her consent, for the purpose of publically disseminating that information.¹⁷⁶ When police drones target private property, they can only be used without a warrant if the private owner consents or if the use is an "emergency response for safety, search and rescue or controlled substance investigations."¹⁷⁷ This categorization of targeting private versus public property reflects the constitutional case law that has developed to limit privacy rights in public areas.

Other states use more amorphous statutory language indicating that their legislatures intend to follow the Supreme Court's interpretation of the Constitution. For example, Wisconsin's Act 213 states that warrantless drone surveillance cannot be used in a criminal investigation "to gather evidence or other information from or at a place or location where an individual has a reasonable expectation of privacy."¹⁷⁸ The Act also expressly states that its privacy protection does not extend to public places.¹⁷⁹ Similarly, Montana's drone regulation statute excludes the use of any evidence gathered by a drone unless the police obtained a warrant for the drone or a judicially recognized exception to the warrant requirement was present.¹⁸⁰ This kind of

172. FLA. STAT. ANN. § 934.50, subdiv. 4 (Westlaw).

173. *Compare id.* § 934.50 (Westlaw), with IDAHO CODE ANN. § 21-213 (West, Westlaw through 2015 1st Reg. Sess. and 1st Ex. Sess.).

174. IDAHO CODE ANN. § 21-213 (Westlaw).

175. *Id.*

176. *Id.*

177. *Id.*

178. WIS. STAT. ANN. § 175.55, subdiv. 2 (West, Westlaw through 2015 Act 127).

179. *Id.*

180. MONT. CODE ANN. § 46-5-109, subdiv. 1 (West, Westlaw through 2015 Sess.).

statutory language allows restrictions on police drone use to shift and adapt alongside the Supreme Court's developing case law.

Some states provide bright-line rules meant to combat specific concerns about drone technology. For example, Oregon's drone restriction statute states that any time drone surveillance is conducted, with or without a warrant, the period of continuous surveillance cannot exceed thirty days.¹⁸¹ Tennessee's Freedom from Unwarranted Surveillance Act specifically states that "[t]he use of a drone to gather evidence or information shall constitute a search."¹⁸²

In 2013, Virginia went to the extreme length of imposing a two-year moratorium on all police drone use except in cases of Amber Alerts, Senior Alerts, Blue Alerts, search and rescue missions, and "training exercises related to such uses."¹⁸³ That moratorium expired on July 1, 2015, and was immediately replaced by a statute requiring a warrant for any police drone use other than the exceptions mentioned in the moratorium.¹⁸⁴

VI. RECOMMENDED LEGISLATION

Current application of constitutional law to police use of drones provides more questions than answers. The gaps in privacy protection need to be quickly filled by appropriate legislation and not gradually covered up by the reactive application of judicial interpretation.¹⁸⁵ The key question thus becomes: what is appropriate legislation? Appropriate legislation provides for the vital balance between individual privacy rights and public safety. The law does not need to ban drone use because society fears the capabilities of drones. However, legislation must be narrowly

181. OR. REV. STAT. ANN. § 837.320 (West, Westlaw through 2015 Reg. Sess.). *But see* Yang, *supra* note 79, at 379 (explaining the loophole in time limits that could allow police to use a drone for the length of the limit, land the drone at police headquarters for a minimal period of time, and then resume surveillance).

182. TENN. CODE ANN. § 39-13-609, subdiv. g(1) (West, Westlaw through 2015 1st Reg. Sess.).

183. H.R. 2012, Reg. Sess. (Va. 2013).

184. VA. CODE ANN. § 19.2-60.1 (West, Westlaw through 2015 Reg. Sess. and 2016 Reg. Sess. c. 1).

185. *Cf., e.g.,* O'Brien, *supra* note 45, at 222 ("Legislation that clearly defines whether or not a warrant is needed for a drone search of a vehicle aids law enforcement and puts the public on notice of its rights.").

tailored to ensure that drones cannot be used in the ways that we fear.

Polls taken over the last several years make it clear that U.S. citizens are, at the very least, wary about domestic use of drones by police agencies.¹⁸⁶ A 2012 poll found that only thirty percent of voters favored the use of drones for domestic surveillance.¹⁸⁷ Another report, released in 2013, found that “[Forty-nine percent] of Americans would be very concerned and [twenty percent] would be somewhat concerned about their own privacy if U.S. law enforcement started using unmanned drones with high tech surveillance cameras and recording equipment.”¹⁸⁸

Public concern alone is not enough to justify an outright ban on a promising new tool for police.¹⁸⁹ Many states have responded to public concern by drafting and enacting legislation that effectively bans the use of drones for surveillance without a warrant or absent a high-risk situation.¹⁹⁰ These statutes provide exceptions for various scenarios that are likely to occur very rarely.¹⁹¹ Statutes

186. Matiteyahu, *supra* note 142, at 282 (citing *Voters Are Gung-Ho for Use of Drones But Not over the United States*, RASMUSSEN REP. (Feb. 13, 2012), http://www.rasmussenreports.com/public_content/politics/current_events/afghanistan/voters_are_gung_ho_for_use_of_drones_but_not_over_the_united_states).

187. *Id.*

188. MONMOUTH UNIV. POLL, NATIONAL: U.S. SUPPORTS UNARMED DOMESTIC DRONES BUT PUBLIC PREFERS REQUIRING COURT ORDERS FIRST 2 (Aug. 15, 2013), <https://www.monmouth.edu/assets/0/32212254770/32212254991/32212254992/32212254994/32212254995/40802189893/5f0b18a68abf431a8d84bf6d8138c3b2.pdf>.

189. See Yang, *supra* note 79, at 374 (“Society should not simply hamstring drone use because of its ‘fear that rapidly advancing science and technology is making [surveillance] more and more effective.’ Rather, there should [be a] balance []between legitimate government needs and society’s privacy interest.” (quoting *Berger v. New York*, 388 U.S. 41, 71 (1967) (Black, J., dissenting))).

190. See, e.g., FLA. STAT. ANN. § 934.50(4) (West, Westlaw through 2015 1st Reg. Sess. and Spec. A Sess.); see also OR. REV. STAT. ANN. § 837.335 (West, Westlaw through 2015 Reg. Sess.) (limiting law enforcement use of drones to search and rescue activities, emergencies affecting individuals, and a declared state of emergency).

191. See, e.g., TENN. CODE ANN. § 39-13-609(d)(1) (West, Westlaw through 2015 1st Reg. Sess.) (allowing the unwarranted use of drones “[t]o counter a high risk of a terrorist attack”); VA. CODE ANN. § 19.2-60.1(C)(i) (West, Westlaw through 2015 Reg. Sess. and 2016 Reg. Sess. c. 1) (allowing the unwarranted use of drones for Amber Alerts).

drafted in such a way provide unnecessarily extreme restrictions on police agencies.¹⁹²

On the other hand, not restricting law enforcement's use of drones whatsoever could be viewed as a failure of the legislature's obligation to represent the citizens who elected them. Therefore, some sort of legislation is arguably necessary.

Some technology, by its very nature, revolutionizes police practices.¹⁹³ There are scholars who believe that when this happens, the law adapts to the new technology by restoring police power to what it was before the technological advancement.¹⁹⁴ In doing so, the balance between privacy rights and public safety is maintained.¹⁹⁵ Of course, it would be advantageous for the law to preemptively adapt to the new technology before that technology is used to the detriment of society.¹⁹⁶

Legislation needs to preemptively and specifically attack the uses of drones that clearly violate the public's sense of privacy (not necessarily under the *Katz* analysis) but that are not clearly

192. See Yang, *supra* note 79, at 388 (“[T]he Court simply has not addressed the limits of drone use as of yet, and the legislatures have misapplied warrant requirements to drones when such requirements are too broad, too blunt, and unreasonably restrictive.”).

193. Cf. Hillary B. Farber, *Eyes in the Sky: Constitutional and Regulatory Approaches to Domestic Drone Deployment*, 64 SYRACUSE L. REV. 1, 34–35 (2014) (“Professor Paul Ohm observes that, given how rapidly technology is changing our everyday lives and our notions about what is considered ‘private,’ a more appropriate way to understand the purpose of the Fourth Amendment is as a restraint on police power.” (citing Paul Ohm, *The Fourth Amendment in a World Without Privacy*, 81 MISS. L.J. 1309, 1336–38 (2012))).

194. Cf. Orin S. Kerr, *An Equilibrium-Adjustment Theory of the Fourth Amendment*, 125 HARV. L. REV. 476, 485 (2011) (“The law intentionally limits the scope of police power to limit the government’s capacity for abusive practices. It allows particularly invasive government practices only in limited circumstances when investigators have specific reasons to link the person or place to the crime in a way that justifies the intrusion.”).

195. See *id.* at 487–88 (“Equilibrium-adjustment acts as a correction mechanism. . . . [W]hen judges perceive that changing technology or social practice significantly enhances government power, courts embrace higher protections to counter the expansion of government power.”).

196. See Richard W. Tast, Comment, *Unmanned Aerial Systems: Domestic Statutory Issues*, 93 NEB. L. REV. 773, 802 (2015) (“Domestic use of [unmanned aerial systems] has many potential benefits, so it is important for the laws regarding their use to address negative ramifications in advance of implementation. Addressing these issues in advance will ensure their public acceptance, allowing the positive benefits to be fully realized.”).

unconstitutional.¹⁹⁷ Some categories of uses include: (1) duration of drone surveillance; (2) drone proximity; (3) sense-enhancing technology; (4) data retention; (5) dragnet versus targeted surveillance; and (6) weaponization.¹⁹⁸

A. *Duration of Drone Surveillance*

Justice Alito, in his concurring opinion in *Jones*, introduced the idea that the duration of surveillance may have an effect on the constitutionality of a search.¹⁹⁹ This question was not resolved, but the public would arguably be uncomfortable with the idea of constant surveillance spanning an unlimited amount of time.²⁰⁰ Long-term surveillance is dangerous because it “reveals patterns, habits, and preferences of an individual’s life in a way that other forms of surveillance do not.”²⁰¹ A traditional police stakeout could gather similar information, but drones can do so for significantly less in operational costs.²⁰²

Therefore, legislation should limit the maximum duration of warrantless drone surveillance to something similar to twenty-four hours in a seventy-two-hour window.²⁰³ It is important to draft the legislation with a window of time that closes the loophole situation where the police may use a drone for twenty-three hours, momentarily land the drone back at headquarters, and then send it back to resume surveillance.²⁰⁴

197. Cf. Yang, *supra* note 79, at 388 (“[C]ourts and legislatures should look to bright-line rules that are more precise, attuned, and reasonable, while affording a similar level of protection that an ordinary person enjoys today.”).

198. See *id.* at 375–76.

199. *United States v. Jones*, 132 S. Ct. 945, 961 (2012) (Alito, J., concurring) (“If the police attach a GPS device to a car and use the device to follow the car for even a brief time, under the [majority’s] theory, the Fourth Amendment applies. But if the police follow the same car for a much longer period using unmarked cars and aerial assistance, this tracking is not subject to any Fourth Amendment constraints.”).

200. See Farber, *supra* note 193, at 40 (“The concern regards the duration of the monitoring—the greater the duration, the more intrusive the invasion and the greater the amount of information the government can gather.”).

201. Victoria T. San Pedro, Student Work, *Drone Legislation: Keeping an Eye on Law Enforcement’s Latest Surveillance Technology*, 43 STETSON L. REV. 679, 715 (2014).

202. See *id.* at 714–15.

203. Yang, *supra* note 79, at 379.

204. *Id.*

B. *Drone Proximity*

Another “fuzzy” area of constitutional surveillance law deals with the places that drones can conduct surveillance. Using legislation to limit drone proximity to homes and possibly the curtilage would allow a clear consensus that the police cannot fly a drone in your backyard. However, the legislation must strike a balance between the inherent privacy interest in one’s backyard and the need of law enforcement to protect the public safety.²⁰⁵ Laws such as those enacted by Idaho—which effectively ban any warrantless use of drones over private property—are far too broad.²⁰⁶ Private areas, for purposes of Idaho’s law, include farmland and open fields, making it virtually impossible for police to fly drones at all.²⁰⁷

Appropriate legislation would consider the “reasonable expectation of privacy test,” the *Jones* trespass analysis, and the FAA guidelines for drones.²⁰⁸ This type of legislation would outlaw the use of drones unreasonably close to private property, in violation of the applicable FAA guidelines, or in a way that presents a nuisance to the private property.²⁰⁹ This would clarify and reinforce the constitutional case law that has developed to this point. It would also balance the right of privacy and the need for public safety by allowing police to conduct demonstrably necessary surveillance without violating the Constitution.²¹⁰

C. *Sense-Enhancing Technology*

One of the areas that presents the most potential for abuse is the use of sense-enhancing technology in drones. Drones are capable of using thermal imaging technology, license plate reading technology, and many other functions.²¹¹ Under *Kyllo*, it is

205. See *id.* at 379–80.

206. See *id.* at 380.

207. See *id.*

208. See *id.* at 381–82.

209. See *id.*

210. See O’Brien, *supra* note 45, at 223 (“[B]roadly prohibiting all warrantless use of governmental drones is unnecessary and fails to adequately balance the needs of privacy protection and law enforcement.”).

211. See *id.* at 217 (“A drone is augmenting the senses by providing long-term surveillance with video, detailed images, and tracking technology that exceeds human capabilities.” (citing *Government Applications*, DRAGANFLY INNOVATIONS, INC., <http://www.draganfly.com/uav-helicopter/draganflyer-x4/applications>)).

considered a search for police to use sense-enhancing technology that is not available to the public in order to view the interior of a person's home.²¹² However, due to the nature of drones and the ever-increasing prevalence of sense-enhancing technology to the public, the *Kyllo* holding is not enough to protect privacy rights from drones.²¹³ Any drone legislation should prohibit the warrantless use of any sense-enhancing technology used to view the inside of a constitutionally protected area whether or not that technology is available to the public.²¹⁴ This would preemptively answer the question of how the law will react if drones equipped with thermal imaging cameras or other technology become available to the general public.

/government.php (last visited Nov. 11, 2015)); Justin Lee, *Public Drones Equipped with Facial Recognition Software Raise Privacy Concerns*, BIOMETRIC UPDATE (May 7, 2015), <http://www.biometricupdate.com/201505/public-drones-equipped-with-facial-recognition-software-raise-privacy-concerns>.

212. *Kyllo v. United States*, 533 U.S. 27, 34 (2001) (“We think that obtaining by sense-enhancing technology any information regarding the interior of the home that could not otherwise have been obtained without physical ‘intrusion into a constitutionally protected area . . . constitutes a search—at least where (as here) the technology in question is not in general public use. This assures preservation of that degree of privacy against government that existed when the Fourth Amendment was adopted.” (citation omitted)).

213. See Chris Schlag, *The New Privacy Battle: How the Expanding Use of Drones Continues to Erode Our Concept of Privacy and Privacy Rights*, 13 U. PITT. J. TECH. L. POL'Y 1, 16 (2013) (“As these technologies are not necessarily in general public use, law enforcement's use of them would likely trigger Fourth Amendment protections under *Kyllo*. However, because the general public can actually purchase the technology relatively easily, drone technology may be considered more pervasive than originally believed.”); see also *XIRO Xplorer Aerial UAV Drone Quadcopter*, AMAZON.COM, http://www.amazon.com/XIRO-Xplorer-Aerial-Quadcopter-Version/dp/B01233S0TO/ref=sr_1_5?s=toys-and-games&ie=UTF8&qid=1447256983&sr=1-5&keywords=drone&refinements=p_36%3A50000-99999999 (last visited Feb. 15, 2016) (illustrating the example of a remote-controlled drone which can be purchased online by anyone for \$639.00. The drone shoots full HD video at 1080p/30fps and 720p/30fps, has several photography modes, and has built in functions allowing the drone to autonomously follow or circle around the pilot).

214. See Yang, *supra* note 79, at 384 (“As it pertains to private property, [this Rule] restricts the government to ‘see[ing] what may be seen from a public vantage point where [they have] a right to be.’” (quoting *Florida v. Riley*, 488 U.S. 445, 449 (1989))).

D. *Data Retention*

An important question involving the use of drones is: what happens to the data that is collected by drones after they complete their surveillance? Any aerial surveillance is likely to capture a variety of individuals participating in legal and possibly illegal behavior. What happens if a lawfully utilized drone is conducting surveillance on a target of investigation and inadvertently captures the day-to-day life of a neighbor of the target? Does the government get to keep that data and store it away in case they need information on the neighbor in the future? Drone legislation in this area should mirror the Illinois statute that imposes a thirty-day retention limit on any information collected by a drone, unless it is needed for criminal prosecution.²¹⁵ Any violation of this rule should result in the exclusion of that evidence.²¹⁶

E. *Dragnet Versus Targeted Surveillance*

Dragnet surveillance is an issue that absolutely must be addressed in drone legislation because the National Security Agency has recently taken part in warrantless, dragnet surveillance/collection of private phone data.²¹⁷ “Massive, unabridged and unfiltered information gathering presents a significant threat to privacy.”²¹⁸ State legislation should be used to expressly prohibit the practice of massive surveillance and dragnet data collection. All drone use, including drone use without a warrant, must be limited to a specific and identifiable target.²¹⁹

215. 725 ILL. COMP. STAT. ANN. 167/20 (West, Westlaw through P.A. 99-495 of the 2015 Reg. Sess.); see also Allie Bohm, *The Year of the Drone: An Analysis of State Legislation Passed This Year*, ACLU (Nov. 7, 2013, 8:50 AM), <https://www.aclu.org/blog/year-drone-analysis-state-legislation-passed-year>.

216. See Yang, *supra* note 79, at 387.

217. See Jonathan Weisman, *Momentum Builds Against N.S.A. Surveillance*, N.Y. TIMES (July 28, 2013), <http://www.nytimes.com/2013/07/29/us/politics/momentum-builds-against-nsa-surveillance.html?pagewanted=all> (describing the NSA’s telephone data collection program and the massive public outcry against it).

218. Yang, *supra* note 79, at 386.

219. See San Pedro, *supra* note 201, at 719 (citing Zachary Fagenson, *Florida Keys Considering Drones to Help Eradicate Mosquitoes*, MIAMI HERALD (Aug. 17, 2013), <http://www.miamiherald.com/latest-news/article1954207.html>), (“With the ubiquity of drone licenses among American law enforcement agencies, the dragnet surveillance that was once a laughable concept is now a reality.”).

Drafting legislation in such a way prohibits the use of the Gorgon Stare or other wide-angle drone camera technology that could effectively surveil an entire city.

F. *Weaponization*

Domestic drone weaponization is another hot-button issue that needs to be addressed with legislation.²²⁰ Most Americans are familiar with the use of drones in foreign wars and understand the power that these tools possess. Obviously, any legislation should disallow the use of predator-style drones equipped with missiles to roam the national airspace, surveil, or target U.S. citizens.²²¹ However, drones are capable of more discrete weaponization. For example, in Lucknow, India the local police purchased four drones and equipped them with pepper spray, which the drones will use for crowd control on angry or unruly crowds.²²² Closer to home, North Dakota has enacted legislation that allows drones to be equipped with non-lethal weapons.²²³

Domestic drone weaponization is unnecessary and presents a litany of dangers, which would be best to avoid. Legislation passed by Oregon,²²⁴ Utah,²²⁵ Virginia,²²⁶ and Wisconsin²²⁷ all expressly prohibit any type of weaponization of domestic drones. Domestic drones should be left to the use of surveillance. Therefore, any legislation should expressly prohibit equipping drones with lethal or non-lethal weapons.²²⁸

220. See Brinkerhoff, *supra* note 43.

221. See *MQ-1B Predator Drone Fact Sheet*, U.S.A.F. (Sept. 23, 2015), <http://www.af.mil/AboutUs/FactSheets/Display/tabid/224/Article/104469/mq-1b-predator.aspx> (describing the technical aspects of the MQ-1B Predator drone).

222. Monica Sarkar, *Security From the Sky: Indian City to Use Pepper-Spray Drones for Crowd Control*, CNN (last updated Apr. 9, 2015, 8:48 AM), <http://www.cnn.com/2015/04/09/asia/india-police-drones>.

223. See Brinkerhoff, *supra* note 43.

224. OR. REV. STAT. ANN. § 837.365 (West, Westlaw through 2015).

225. UTAH CODE ANN. §§ 63G-18-101 to 63G-18-105 (West, Westlaw through 2015) (restricting government use of data collected by drones).

226. 2013 Va. Acts 755 § 1 (prohibiting weaponization of domestic drones before July 1, 2005).

227. S.B. 196, Reg. Sess. (Wis. 2013).

228. Eric Brumfield, *Armed Drones for Law Enforcement: Why It Might Be Time to Re-Examine the Current Use of Force Standard*, 46 MCGEORGE L. REV. 543, 555 (2014) (citing Chris Calabrese & Jay Stanley, *Ban on Arming Domestic Drones: Let's Draw a Line in the Sand*, ACLU (June 15, 2012, 7:44 AM), <https://www.aclu.org/blog>).

VII. CONCLUSION

Whether society likes it or not, drone technology is expanding at a rapid rate. Law enforcement agencies are noticing the potential benefits that such technology could have in their operations. However, this new technology does not translate well into the current constitutional case law regarding tracking and aerial surveillance. Therefore, there is a massive amount of room for abuse. The potential for violations of American citizens' privacy rights is unsettling.

The Minnesota Constitution does not clear up the potential issues raised under federal constitutional law, and Minnesota legislation has yet to enact a law that would regulate drone technology abuse. Other states have approached the issue in their own ways. Reviewing these other state statutes and weighing their strengths and weaknesses allows future legislation to build and improve upon the initial laws.

Many of these initial state statutes lean towards the prohibition of police drone use instead of drone regulation. These statutes only allow drones to be used in certain exigent circumstances as defined in their respective statutes. While doing so, the said statutes ignore the benefits to society that drones can offer.

The FBI's National Crime Information Center reports that there were 635,155 missing person reports in 2014 alone.²²⁹ Drones are particularly well suited to search areas for individuals and to surveil designated locations. In cases where time is of the essence, does society really want to bog down deployment of potentially life-saving technology with specific, cumbersome warrant procedures and protocols? Does society want to limit the use of drones only to situations where probable cause exists even if similar, but less effective, forms of surveillance could be conducted without a warrant?²³⁰

/technology-and-liberty-free-speech-nationalsecurity/ban-arming-domestic-drones) ("The ACLU believes it will be easier for a LEA to use force against the public, and therefore 'force will be used more . . . [and armed d]rones may also be more likely to result in harm to innocent bystanders.'").

229. *NCIC Missing Person and Unidentified Person Statistics for 2014*, FBI, <https://www.fbi.gov/about-us/cjis/ncic/ncic-missing-person-and-unidentified-person-statistics-for-2014> (last visited Apr. 28, 2016).

230. See Yang, *supra* note 79, at 374 ("Here, the inexact application of a broad restriction inevitably leads to an odd and unreasonable result: under a blanket warrant requirement scheme drones would be unable to perform, without a

The appropriate legislation for domestic law enforcement use of drones is to enact bright-line rules restricting the use of drones in ways that violate society's general notions of privacy. These bright-line rules should, at least, regulate: (1) the duration of drone surveillance; (2) drone proximity; (3) sense-enhancing technology; (4) data retention; (5) dragnet versus targeted surveillance; and (6) weaponization.²³¹

Drone technology will continue to advance. The police will continue to utilize this technology. Therefore, the privacy rights of U.S. citizens are dependent upon the preemptive passage of legislation that lays out a vision of how police drones will be used in the future. Without such legislation, we will continue to stumble blindly through the unknown. The suggestions made herein would provide a guiding light for law enforcement agencies to follow so that they may fulfill their legitimate duty to protect the public while maintaining society's fundamental values.

warrant, some of the same surveillance tasks from the same locations that helicopters and airplanes have been authorized to execute without warrants for decades.”).

231. *See id.* at 388 (“Instead of applying a near-universal warrant requirement, courts and legislatures should look to bright-line rules that are more precise, attuned, and reasonable, while affording a similar level of protection that an ordinary person enjoys today.”).