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POST-*JONES*: HOW DISTRICT COURTS ARE ANSWERING THE MYRIAD QUESTIONS RAISED BY THE SUPREME COURT'S DECISION IN *UNITED STATES V. JONES*

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INTRODUCTION

Much was expected. But in reality, many questions remain. When the United States Supreme Court granted certiorari in *United States v. Jones*,[1] the order was heralded as a harbinger of change.[2] This speculation was fueled in large part by the groundbreaking decision issued below by the D.C. Circuit in *United States v. Maynard*.[3] That decision was hailed as "a potentially revolutionary Fourth Amendment decision,"[4] which could usher in "a fundamental

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1. United States v. Maynard, 615 F.3d 544 (D.C. Cir. 2010), *cert. granted sub nom.* United States v. Jones, 131 S. Ct. 3064 (2011).
2. *See* Adam Cohen, *Should the Government Need a Search Warrant to Track Your Car with GPS?*, TIME, July 5, 2011, *available at* http://www.time.com/time/nation/article/0,8599,2081372,00.html (noting how the *Jones* grant "could produce one of the court's biggest privacy rulings in years"); Jaikumar Vijayan, *Supreme Court to Weigh in on Warrantless GPS Tracking*, COMPUTER WORLD (June 28, 2011, 12:09 PM), http://www.computerworld.com/s/article/9217985/Supreme_Court_to_weigh_in_on_warrantless_GPS_tracking (noting how the grant of certiorari held the potential for "far-reaching privacy implications").
3. United States v. Maynard, 615 F.3d 544 (D.C. Cir. 2010), *aff'd in part sub. nom.* United States v. Jones, 132 S. Ct. 945 (2012). Lawrence Maynard, a co-defendant tried alongside Antoine Jones, was the lead appellant in the D.C. Circuit appeal. However, Maynard did not make any arguments on direct appeal with regard to global positioning system (GPS) evidence. *See id.* at 549. Presumably as a result, while the Supreme Court granted the certiorari petition of Jones, it denied the one filed by Maynard. Maynard v. United States, 131 S. Ct. 671 (2010). Thus, the case was renamed for the sole petitioner, Jones.
4. Orin Kerr, *D.C. Circuit Introduces "Mosaic Theory" Of Fourth Amendment, Holds GPS Monitoring a Fourth Amendment Search*, VOLOKH CONSPIRACY, (Aug. 6, 2010, 2:46 PM), http://www.volokh.com/2010/08/06/d-c-circuit-introduces-mosaic-theory-

rethinking of how to apply Fourth Amendment privacy rights in the 21st century."[5] The reason for this groundswell of enthusiasm was that the court in *Maynard* took a novel approach to the Fourth Amendment: it endorsed what is referred to as the "mosaic theory," to hold that obtaining twenty-eight days of global positioning system (GPS) tracking information without a warrant constituted an unconstitutional "search" under the Fourth Amendment because, when the information obtained was aggregated over a period of time, it impermissibly invaded the defendant's constitutional rights.

Therefore, when the Supreme Court agreed to hear *Jones*, court commentators prognosticated that the resulting decision could deliver a realignment of Fourth Amendment jurisprudence in the area of advancing technologies, particularly if the Supreme Court were to embrace the mosaic theory in the Fourth Amendment arena.[6]

It was not so. In fact, rather than breaking new constitutional ground, the majority opinion in *Jones* reverted back to a property-law-based Fourth Amendment jurisprudence that many believed had been moth-balled more than forty years ago with the Court's decision in *Katz v. United States*.[7] Specifically, the majority opinion in *Jones* applied a common law trespass theory, and the Supreme Court

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of-fourth-amendment-holds-gps-monitoring-a-fourth-amendment-search/ (noting how the D.C. Circuit ruling was novel because it "introduces a new 'mosaic' theory of the Fourth Amendment").

5. Charlie Savage, *Judges Divided Over Rising GPS Surveillance*, N.Y. TIMES, Aug. 13, 2010, *available at* http://www.nytimes.com/2010/08/14/us/14gps.html?pagewanted=all; *see also* Orin Kerr, *The Mosaic Theory of the Fourth Amendment*, 111 MICH. L. REV. 311, 314 (2012) (noting how the mosaic theory adopted by *Maynard* would constitute "a fundamental challenge to current Fourth Amendment law").

6. Priscilla J. Smith et al., *When Machines Are Watching: How Warrantless Use of GPS Surveillance Technology Violates the Fourth Amendment Right Against Unreasonable Searches*, 121 YALE L.J. 177, 178–79 (2011), *available at* http://www.yalelawjournal.org/ 2011/10/11/smith.html; *see also* Lyle Denniston, *Argument Preview: High-Tech Policing*, SCOTUSBLOG (Nov. 5, 2011, 12:03 AM), http://www.scotusblog.com/2011/11/argument-preview-high-tech-policing/.

7. Hon. Kevin Emas & Tamara Pallas, United States v. Jones, *Does* Katz *Still Have Nine Lives?*, 24 ST. THOMAS L. REV. 116, 147 (2012) (noting how the majority in *Jones* applied a "retro-analysis of Fourth Amendment jurisprudence" that resurrected property-law-focused precedents); *see also* Erin Murphy, *Back to the Future: The Curious Case of* United States v. Jones, 10 OHIO ST. J. CRIM. LAW 325, 326–28 (2012). For an extended discussion of the property-law underpinnings of the Fourth Amendment, see Nancy Forster, *Back to the Future:* United States v. Jones *Resuscitates Property Law Concepts in Fourth Amendment Jurisprudence*, 42 U. BALT. L. REV. 445 (2013).

precedents relying on it, to hold that a search under the Fourth Amendment occurred when agents installed a GPS device on the undercarriage of the vehicle Antoine Jones was driving, and then used the device to monitor the car's movements for a period of twenty-eight days.[8] But after reaching this narrow holding, the Court declined to consider whether the search was nonetheless reasonable, or whether some exception to the warrant requirement applied, or whether it would endorse the novel understanding of the Fourth Amendment espoused in *Maynard*.[9] The majority opinion simply found that a search had occurred and affirmed the D.C. Circuit's order reversing and remanding to the district court for further proceedings.[10]

While this holding garnered five votes, the *Jones* case also spawned two concurring opinions.[11] In the first concurring opinion, Justice Sotomayor agreed that, at a minimum, a physical trespass by the Government to obtain information will result in a search.[12] She went on to suggest that *Katz* also still applied, and she expressed a willingness to expand *Katz*'s reasonable expectation of privacy test to emerging technologies.[13] Additionally, in a nod to the mosaic theory suggested by *Maynard*,[14] Justice Sotomayor noted her concern about the potential that the police could utilize new technologies to aggregate broad swaths of information about a person's movements, and thereby invade constitutionally-protected privacy interests.[15] As a result of these concerns, she signaled openness to revisiting the principle that people lose a reasonable expectation of privacy when information is revealed to third parties, particularly when such disclosures are required to utilize new technologies.[16]

In the second concurring opinion, Justice Alito endorsed the view that *Katz* should control, and noted the limited reach of the majority's trespass-based holding in the face of new technologies.[17] But in his

8. *Jones*, 132 S. Ct. at 947–49.
9. *Id.* at 954.
10. *Id.*
11. *Id.* at 947, 954 (Sotomayor, J., concurring), 957 (Alito, J., concurring).
12. *Id.* at 954 (Sotomayor, J., concurring).
13. *Id.* at 955.
14. United States v. Maynard, 615 F.3d 544, 562 (D.C. Cir. 2010), *aff'd in part sub nom.* United States v. Jones, 132 S. Ct. 945 (2012).
15. *Jones*, 132 S. Ct. at 955–56 (Sotomayor, J., concurring).
16. *Id.* at 957.
17. *Id.* at 959, 963–64 (Alito, J., concurring).

own nod to the mosaic theory suggested by *Maynard*, Justice Alito indicated that, at some point, extended surveillance may transform constitutionally-permissible conduct into conduct that is constitutionally prohibited, absent a warrant.[18]

So despite the pre-argument hype, *Jones* delivered a muted result; at bottom, all the Justices concurred in the narrow holding that a Fourth Amendment search occurred on the facts of this case.[19] But roiling below the surface of this unanimity lie the many questions left open by the majority opinion and the two concurrences. These questions can be subdivided into three main categories.

First, what does *Jones* mean in the context of warrantless GPS tracking going forward? Specifically, even if the warrantless installation of a GPS device constitutes a search, could it nonetheless still be considered "reasonable" under certain circumstances, and hence permissible under the Fourth Amendment?[20] Even if the warrantless use of GPS tracking is an unreasonable search, do any exceptions to the warrant requirement apply? Do traditional Fourth Amendment standing requirements still apply to GPS-related evidence? Finally, does *Jones* apply retroactively to cases on direct appeal or collateral review?

The second category of questions raised by *Jones* concerns what implications the decision may have for other modern technologies. Does the property-law-based theory of Fourth Amendment searches extend beyond the context of GPS tracking into, for example, e-mails, cell phone communications, text messages, or social media postings? Relatedly, does the third-party disclosure doctrine still control where these media are concerned?

Third, *Jones* raises fundamental questions about Fourth Amendment jurisprudence in the face of emerging technologies. Specifically, is the combined property-law-based test and *Katz* test approach endorsed by the majority sufficient to protect individual privacy in this modern age? Must the legislature take the lead in regulating police conduct in this area?

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18. *Id.* at 964.

19. *Id.* at 949 (majority opinion) (holding that there was a search); *id.* at 954 (Sotomayor, J., concurring) (concurring that a search occurred); *id.* at 964 (Alito, J., concurring) (agreeing that a search occurred).

20. *See id.* at 954 (declining to consider whether the search was reasonable because the argument had been forfeited).

Because *Jones* raises these questions but leaves them unanswered, the onus now falls to district courts to fill some of the void. Since *Jones* was decided, lower courts are deciding many of these issues in the first instance, with interesting results.[21] Specifically, rather than breaking wholly new constitutional ground, district courts are relying on long-established precedents in a manner that largely preserves much of the status quo.[22] For example, while the Supreme Court held in *Jones* that GPS tracking constituted a search, lower courts have avoided excluding such evidence by holding that such a search could be nonetheless reasonable if it is limited,[23] or by holding that an exception to the warrant requirement applies,[24] or by holding that such evidence falls within the third-party disclosure doctrine.[25] In short, while *Jones* was hailed as being a potentially watershed moment in Fourth Amendment history, district courts applying its holding have reacted with caution and proceeded in a manner that does not upset long-established understandings of the Fourth Amendment.[26]

This article is focused on how district courts are addressing the myriad questions raised by *Jones*. To set the stage for understanding the context in which these decisions are being made, Part I of this article includes a brief overview of the history of the Fourth Amendment and the relevant decisions leading up to *Jones*. Part II provides a brief explication of the holding in *Jones*, and examines the questions raised by the majority opinion and the concurrences. Finally, Part III examines how the district courts are dealing with the questions created—and left unanswered—by *Jones*, and suggests how these questions can be answered in light of prior precedent and amidst emerging and evolving technologies.

21. *See infra* Part III.A–B.
22. *See infra* Part III.A–B.
23. *See infra* notes 229–32 and accompanying text.
24. *See infra* Part III.A.
25. *See infra* notes 343–45 and accompanying text.
26. *See infra* Part III.A–B.

I. MAPPING[27] THE PAST: RECOUNTING THE HISTORICAL DEVELOPMENT OF FOURTH AMENDMENT JURISPRUDENCE

The Fourth Amendment provides that:

> 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.[28]

When the Court in *Jones* construed this provision, it had at its disposal a long, and admittedly sometimes inconsistent,[29] line of precedents to consider. Because *Jones* proved correct the maxim that past is prologue,[30] it is helpful to trace briefly the history of the Fourth Amendment,[31] with an eye toward the important developments that shaped how the Court viewed its application to warrantless tracking methods.

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27. Mapping is perhaps the earliest form of tracking data about one's historical location. Not unlike modern historical GPS data, maps depicted where the cartographer had been at a time in the past. The earliest known map dates back to 2300 B.C., and was excavated from the ruined Mesopotamian city Ga-Sur at Nuzi, which is in present-day Iraq. 100 MAPS: THE SCIENCE, ART AND POLITICS OF CARTOGRAPHY THROUGHOUT HISTORY 18 (John O. E. Clark ed., 2005).

28. U.S. CONST. amend. IV.

29. *See* Kyllo v. United States, 534 U.S. 27, 34 (2001) (noting how Fourth Amendment jurisprudence has been criticized as "unpredictable"); Chapman v. United States, 365 U.S. 610, 618 (1961) (Frankfurter, J., concurring) (noting how the course of Fourth Amendment precedents has not been "smooth").

30. WILLIAM SHAKESPEARE, THE TEMPEST, act 2, sc. 1, ll. 285–90 (Wash. Square Press New Folger Ed. 2004) ("The man i' th' moon's too slow—till newborn chins [b]e rough and razorable; she that from whom [w]e all were sea-swallowed, though some cast again, And by that destiny to perform an act [w]hereof what's past is prologue, what to come, [i]n yours and my discharge.").

31. By no means do I intend this article to provide a comprehensive history of Fourth Amendment jurisprudence; that would take a tome. I simply provide a brief primer here to put later decisions by the Supreme Court and district courts into greater context.

A. 1700–1791: The Origins of the Fourth Amendment

The legislative history detailing the Framers' precise understanding of, and motivation behind, the Fourth Amendment is sparse.[32] The initial draft of the amendment was prepared by James Madison, and sent to the House of Representatives for consideration in a form not dissimilar from the current text.[33] Madison's draft amendment thereafter received slight wordsmithing by the Committee of Eleven,[34] and then by Representative Egert Benson of New York.[35] It was subsequently adopted by both Houses of Congress and ratified by the States in its current form.[36]

Despite the scarcity of legislative history, however, judges and scholars have attempted to divine the original intent from several sources available to the Framers prior to the adoption of the Bill of Rights, including: (1) precedents from English and colonial courts;

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32. Akhil Reed Amar, Terry *and Fourth Amendment First Principles*, 72 ST. JOHN'S L. REV. 1097, 1106 (1998) (noting that "no Framer ever said that this is what the Amendment did or should mean"); Potter Stewart, *The Road to* Mapp v. Ohio *and Beyond: The Origins, Development and Future of the Exclusionary Rule in Search-and-Seizure Cases,* 83 COLUM. L. REV. 1365, 1371 & n.34 (1983) ("The actual 'legislative history' of the fourth amendment reveals little about the intended scope of its protections . . . ."). This conclusion is buttressed by the leading scholarly treatises, which analyze the historical origins of the Fourth Amendment. *See* WILLIAM J. CUDDIHY, THE FOURTH AMENDMENT: ORIGINS AND ORIGINAL MEANING 602–1791, at 669–72, 691–98, 704–08 (2009); JACOB W. LANDYNSKI, SEARCH AND SEIZURE AND THE SUPREME COURT: A STUDY IN CONSTITUTIONAL INTERPRETATION 39–43 (1966); NELSON B. LASSON, THE HISTORY AND DEVELOPMENT OF THE FOURTH AMENDMENT TO THE UNITED STATES CONSTITUTION 51, 65–102 (1970).

33. Thomas K. Clancy, *The Role of Individualized Suspicion in Assessing the Reasonableness of Searches and Seizures*, 25 U. MEM. L. REV. 483, 514–15 (1995). The original draft of the amendment read as follows:

> The rights of the people to be secured in their persons, their houses, their papers, and their other property, from all unreasonable searches and seizures, shall not be violated by warrants issued without probable cause, supported by oath or affirmation, or not particularly describing the places to be searched, or the persons or things to be seized.

Id. (quoting 1 ANNALS OF CONG. 434–35 (1789) (Joseph Gales ed., 1834)).

34. *Id.* at 516. For reasons that are not clear, the Committee of Eleven reported a draft of the amendment to the full House that omitted that phrase "unreasonable searches and seizures." *Id.* (citing LANDYNSKI, *supra* note 32, at 41; LASSON, *supra* note 32, at 101).

35. *Id.* Benson is credited with changing the phrase "by warrants issuing" to "and no warrant shall issue." *Id.*

36. *Id.* at 516–17.

(2) various state constitutional documents; and (3) the state ratification debates.[37] Based on these sources, the Fourth Amendment is commonly understood as an attempt to break from the past abuses associated with the use of general warrants[38] and writs of assistance[39] by the British Crown, and to provide a safeguard against unreasonable government trespasses into a person's home or property interests.[40] And as will be seen below, these roots are important to the precedents leading up to *Jones* and the result in the *Jones* decision itself.[41]

The legal precedents that presaged the adoption of the Fourth Amendment concerned civil cases brought by persons aggrieved by trespassory searches executed by government agents on the authority of general warrants and writs of assistance.[42] The first major step toward change actually came in a case where the plaintiffs lost, and the writs of assistance prevailed.[43] In 1760, in Boston, after the then-existing writs of assistance expired, agents of the Crown applied for renewed writs to continue the practice of unfettered searches of property belonging to the colonists by customs officers.[44] The

37. Stewart, *supra* note 32, at 1369–71; *see also* LANDYNSKI, *supra* note 32, at 39–40.

38. General warrants were a tool used by law enforcement in Great Britain throughout much of the 1700's. Buonocore v. Harris, 65 F.3d 347, 353–54 (4th Cir. 1995) (citing LASSON, *supra* note 32, at 24–42). They empowered their holders to "'seize, take hold and burn . . . books, and things . . . offensive to the state,'" all without any showing of probable cause or suspicion of criminal wrongdoing. Stewart, *supra* note 32, at 1369 (quoting LANDYNSKI, *supra* note 32, at 21). These general warrants were principally aimed at suppressing speech deemed libelous against the British Crown. *Id.*

39. Writs of assistance used means similar to those used to execute general warrants, but they were employed to combat a different problem: tax evasion, particularly by inhabitants of the British colonies. Stewart, *supra* note 32, at 1370. Specifically, writs of assistance gave British customs inspectors unlimited power to search anywhere at their discretion to ferret out attempts to smuggle goods into or out of the colonies without paying the Crown's onerous taxes. *Id.*

40. Morgan Cloud, *Searching Through History; Searching for History*, 63 U. CHI. L. REV. 1707, 1726–27 (1996) (reviewing CUDDIHY, *supra* note 32); *see also* Arizona v. Evans, 514 U.S. 1, 23 (1995) ("The use of general warrants to search for evidence of violations of the Crown's revenue laws understandably outraged the authors of the Bill of Rights."); Stewart, *supra* note 32, at 1369–70 (citing LANDYNSKI, *supra* note 32, at 30–48; LASSON, *supra* note 32, at 51–105).

41. *See infra* notes 42–59 and accompanying text; *infra* Part I.B.

42. Stewart, *supra* note 32, at 1369–70.

43. *Id.* at 1370–71.

44. Thomas K. Clancy, *The Framers' Intent: John Adams, His Era, and the Fourth Amendment*, 86 IND. L.J. 979, 991–92 (2011).

colonists retained James Otis to present their case challenging the new writs.[45] The main question presented before the Court in this *Writs of Assistance Case*[46] was whether the Court should permit unconditional writs of indefinite duration, or whether they must be tied to a specific instance, for a search of a specific place, based on information specified under oath.[47] And while the colonists ultimately lost their case, the arguments raised by Otis—which were steeped in dire warnings about government agents having the ability "to enter forceably into a dwelling house, and rifle every part of it"[48]—had profound influence on John Adams, a key Framer, and other colonists who would later seek independence from the British.[49]

Similar battles were being fought across the pond over the use of general warrants. For example, in *Wilkes v. Wood*,[50] John Wilkes brought suit over the general warrant issued by the British Secretary of State, Lord Halifax, authorizing four Crown messengers to search for the printers and publishers of the "seditious" publication, The North Briton, No. 45.[51] Because the warrant did not specify the particular persons to be seized or the places to be searched, those executing the warrant ended up arresting forty-nine people over a three-day period and confiscating vast quantities of their private papers.[52] In awarding damages to Wilkes for the trespass, the English court found the warrant to be "hopelessly defective" because it lacked the "offenders' names" or an inventory of what was to be taken away.[53] The court concluded that the use of the warrant here was "totally subversive of the liberty of the subject [Wilkes]."[54]

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45. *Id.* at 992.
46. This case is also referred to as the *Paxton* Case. *Id.* at 992 n.79.
47. *Id.* at 992.
48. *Id.* at 993–94.
49. *Id.* at 1004–05; *see also* Boyd v. United States, 116 U.S. 616, 625 (1886) (quoting John Adams' observation that Otis' oration was "the first act of opposition" to the British Crown and that "[t]hen and there the child of Independence was born"); Stewart, *supra* note 32, at 1370–71 (citing LASSON, *supra* note 32, at 51).
50. Wilkes v. Wood, (1763) 98 Eng. Rep. 489 (K.B.).
51. Stewart, *supra* note 32, at 1369–70.
52. *Id.* at 1369; Scott E. Sundby, *Protecting the Citizen "Whilst He Is Quiet": Suspicionless Searches, "Special Needs" And General Warrants*, 74 MISS. L.J. 501, 506 (2004) (recounting the *Wilkes* case).
53. Sundby, *supra* note 52, at 506.
54. *Id.*

The English Courts reached a similar result shortly thereafter in *Entick v. Carrington*.[55] In that decision, the court was again called on to decide an action for trespass by the victim of a general warrant.[56] Specifically, Crown messengers entered the plaintiff's house and broke open his desks and boxes in a search for his private papers in an effort to find "seditious" materials.[57] In rendering a verdict for the plaintiff, the court again recognized that property law rendered the home sacrosanct, and that any trespasser therein would be liable in damages.[58] Importantly, however, *Entick* made the simple observation that, absent a physical trespass, observation of things in public view would not result in liability because "the eye cannot by the laws of England be guilty of trespass."[59]

Following these decisions and others, in 1766, the British House of Commons voted to outlaw the use of general warrants in libel investigations.[60] These developments were known to the Framers when they later proposed the Fourth Amendment and influenced their legislative actions.[61]

But the Framers had more than simple legal precedents upon which to rely when they were debating the Fourth Amendment. The basic tenets of the Fourth Amendment were already enshrined in many state constitutional documents that provided protections against unreasonable searches and seizures.[62] As these provisions make clear, the drafters of these protections were still concerned with

55. Entick v. Carrington, (1765) 19 How. St. Tr. 1029.

56. *Id.* at 1030, 1038.

57. *Id.* at 1038.

58. *Entick*, 95 Eng. Rep. at 817 ("[O]ur law holds the property of every man so sacred, that no man can set his foot upon his neighbour's close without his leave; if he does he is a trespasser, though he does no damage at all; if he will tread upon his neighbour's ground, he must justify it by law.").

59. *Entick*, 19 How. St. Tr. at 1066.

60. Eric Schnapper, *Unreasonable Searches and Seizures of Papers*, 71 VA. L. REV. 869, 909–10 (1985); George C. Thomas, III, *Stumbling Toward History: The Framers' Search and Seizure World*, 43 TEX. TECH L. REV. 199, 214 (2010).

61. Boyd v. United States, 166 U.S. 616, 626–27 (1886); Clancy, *supra* note 44, at 1055 n.442 (recounting how Justice Story concluded that the Framers were influenced by the cases emanating from the abuses of writs of assistance and general warrants); Thomas Y. Davies, *Can You Handle the Truth? The Framers Preserved Common-Law Criminal Arrest and Search Rules in "Due Process of Law"—Fourth Amendment Reasonableness" Is Only a Modern, Destructive, Judicial Myth*, 43 TEX. TECH L. REV. 51, 108 (2010); Stewart, *supra* note 32, at 1371.

62. Stewart, *supra* note 32, at 1371.

curbing the abuse of general warrants. For example, the Virginia Declaration of Rights of 1776 provided that

> general warrants, whereby any officer or messenger may be commanded to search suspected places without evidence of a fact committed, or to seize any person or persons not named, or whose offense is not particularly described and supported by evidence, are grievous and oppressive and ought not to be granted.[63]

The constitutions of Maryland, Delaware, North Carolina, and Pennsylvania provided similar protections.[64] But more than reacting to the abuses associated with general warrants, these provisions also safeguarded the right to be "secure" in one's house and in one's property.[65] These state constitutional provisions provided models for the Framers when they were drafting the Fourth Amendment.[66]

But in addition to the groundbreaking legal precedents and the state constitutional forerunners to the Fourth Amendment, scholars have also traced the original intent of the Fourth Amendment from the state ratification debates.[67] Research into these sources shows the Framers were still concerned about trespassory searches, but also searches unbounded by any sense of reason or restraint.[68] For example, in the Virginia debates, Patrick Henry warned against the specter of government intrusion into homes and argued that "unless the general government be restrained by a bill of rights, or some similar restriction, [government agents could] go into your cellars and rooms, and measure everything you eat, drink, or wear. They ought to be restrained within proper bounds."[69] Likewise, during the Maryland debates, concern was raised about whether "an officer of

63. VA. CONST. DECLARATION OF RIGHTS § 10.
64. DEL. CONST. DECLARATION OF RIGHTS § 17; MD. CONST. DECLARATION OF RIGHTS, art. 23; N.C. CONST. DECLARATION OF RIGHTS, art. 11; PA. CONST. DECLARATION OF RIGHTS, art. 10.
65. Clancy, *supra* note 44, at 1028, 1038.
66. *Id.* at 1046–47; *see also* Stewart, *supra* note 32, at 1371.
67. James Leonard, Note, Oliver v. United States: *The Open Fields Doctrine Survives* Katz, N.C. L. REV. 546, 549 n.25 (1984–1985).
68. Clancy, *supra* note 44, at 1032–33.
69. Leonard, *supra* note 67, at 549 n.25.

the United States should force [his way into] the house, the asylum of a citizen," without any check of reasonableness and restraint.[70]

So while the express legislative history behind the Fourth Amendment may be scant, these primary sources do provide some basis upon which to draw inferences about the purpose behind the Amendment. Specifically, these early sources show that the Framers considered the home to be sacrosanct and something to be protected against government intrusions, a concept that was buttressed by the common law theory of trespass.[71] In addition, the Framers were concerned about the overreach associated with general warrants, and strived to ensure some level of specificity of the person and place to be searched.[72] Finally, the Framers recognized the need for law enforcement to engage in searches to ferret out wrongdoing, provided those searches were kept within the bounds of reasonableness.[73]

B. 1791–1967: Early Fourth Amendment Case Law Adopts Property-Law-Based Paradigm

Following the Fourth Amendment's ratification in 1791, there were relatively few early court decisions construing its meaning.[74] Scholars speculate that this largely has to do with the fact that the Fourth Amendment originally only applied to the federal government and not the states,[75] and the scope of federal criminal jurisdiction in the early years of the Republic was much narrower than it is today.[76] But the few cases to reach the Fourth Amendment hewed closely to the property-law-based precepts that motivated the Framers.

The first major construction of the Fourth Amendment by the Supreme Court came in *Boyd v. United States*, a case involving,

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70. Akhil Reed Amar, *Fourth Amendment First Principles*, 107 HARV. L. REV. 757, 777 (1994).

71. *See* Clancy, *supra* note 44, at 1058.

72. *Id.* at 1045–47.

73. *See id.* at 996–97 (noting how even Otis in the Writs of Assistance case argued that "[f]or flagrant Crimes, and in Cases of great public Necessity, the Priviledge [sic] may be incrohd [encroached] on" by execution of a special warrant).

74. Davies, *supra* note 61, at 108.

75. *Id.* at 108–09. The Supreme Court did not hold the Fourth Amendment as incorporated through the Fourteenth Amendment to apply to the States until 1949. *See* Wolf v. Colorado, 338 U.S. 25, 27–28 (1949), *overruled on other grounds by* Mapp v. Ohio, 367 U.S. 643 (1961).

76. Davies, *supra* note 61, at 109.

ironically,[77] violations of customs laws.[78] In that case, federal officers suspected certain goods had been improperly imported.[79] Relying on a federal statute that permitted the U.S. Attorney to apply for a court order mandating that certain books and papers be turned over to the court for potential use as evidence, the district court ordered the defendants to produce invoices that were used as evidence against them in trial.[80] The Supreme Court held that the district court's order violated the Fourth Amendment on the grounds that it mandated an "invasion of [the defendants'] indefeasible right[s] of personal security, personal liberty, and private property."[81]

The next major Fourth Amendment opinion came in 1914 in *Weeks v. United States*.[82] In that case, police officers found a spare key to the defendant's home, entered when he was not there, and searched his papers in order to find evidence he was using the mail to promote an illegal gambling enterprise.[83] Over the defendant's objection on Fourth and Fifth Amendment grounds, the district court permitted the prosecution to introduce evidence of various lottery tickets and correspondence that had been obtained during the search and related to the illegal lottery scheme.[84] The Court recognized that the police have the right to make searches incident to legal arrests, and thereby have the right to "discover and seize the fruits or evidences of crime."[85] However, with regard to what happened here, the Court recognized "that a man's house was his castle, and not to be invaded by any general authority to search and seize his goods and papers."[86] Because the police's trespass violated the sanctity of the defendant's home, the Court reversed and ordered a new trial.[87]

77. The facts are ironic given that, as detailed above, one of the motivations behind the adoption of the Fourth Amendment was the fact that the British customs agents abused writs of assistance to inspect and seize goods that were allegedly imported in violation of customs laws. *See supra* notes 37–49 and accompanying text.
78. Boyd v. United States, 116 U.S. 616, 617–18 (1886).
79. *Id.*
80. *Id.*
81. *Id.* at 630.
82. Weeks v. United States, 232 U.S. 383 (1914).
83. *Id.* at 386.
84. *Id.* at 388–89.
85. *Id.* at 392.
86. *Id.* at 390.
87. *Id.* at 398.

The culmination of this property-law-based view of the Fourth Amendment, and the first major Supreme Court case to deal with the application of the Fourth Amendment to emerging communication technologies, was *Olmstead v. United States*.[88] At issue in *Olmstead* was whether the police had violated the Fourth Amendment by intercepting private telephone conversations through the use of wiretaps.[89] The federal officers investigating the defendants had reason to believe they were involved in a large bootlegging conspiracy to sell prohibited liquors.[90] To further their investigation, the federal officers tapped the phones of four of the conspirators by installing small wires onto the ordinary telephone wires outside of the homes of these conspirators.[91] The Court upheld the convictions, principally because "[t]here was no entry of the houses or offices of the defendants."[92] The Court reasoned that the telephone wires were no more a part of the homes of the defendants than the public highways.[93] But also underlying the Court's decision was the fact that the signals that were actually intercepted did not constitute the kind of "material thing" that the Fourth Amendment covered.[94] Finally, undergirding the Court's rationale was that the defendants had chosen to use the technology of the phone to amplify their voices outside their homes, and hence were exposing their incriminating statements to anyone in the world who could hear them.[95] The Court concluded that Congress could pass legislation providing further protections in this area;[96] but as for the Fourth Amendment, it simply did not reach so far.[97]

While the decision in *Olmstead* was a high-water mark for the property-law-based understanding of the Fourth Amendment, it was

88. Olmstead v. United States, 277 U.S. 438, 455 (1928).
89. *Id.*
90. *Id.* at 455–56.
91. *Id.* at 456–57.
92. *Id.* at 464.
93. *Id.* at 465.
94. *Id.* at 464.
95. *Id.* at 466 ("The reasonable view is that one who installs in his house a telephone instrument with connecting wires intends to project his voice to those quite outside, and that the wires beyond his house, and messages while passing over them, are not within the protection of the Fourth Amendment.").
96. *Id.* at 465–66.
97. *Id.* at 466.

not unanimous.[98] Specifically, in one of several dissents, Justice Brandeis postulated a theory of the Fourth Amendment that reached beyond the property-law-focused strictures of past precedents.[99] He argued that the Framers meant to protect not just people's material things, but also "their beliefs, their thoughts, their emotions and their sensations."[100] Recognizing this, and that advancing technologies allow the government to exercise "[s]ubtler and more far-reaching means of invading privacy," Justice Brandeis would have reversed the convictions.[101] This dissent is significant because it would lay the groundwork for the Court's later, more expansive interpretation of what the Fourth Amendment protects.[102]

In addition to not being unanimous, Justice Taft's majority in *Olmstead* also was not the last word on the issue of wiretapping of telephone communications.[103] Specifically, just six years after the decision, Congress passed the Federal Communications Act of 1934,[104] which outlawed wiretapping.[105] And this is notable because it would not be the last time that Congress legislated in an area of technology that the Court held was not protected by the Fourth Amendment.[106]

Thus, while trespass theory won the day in *Olmstead*, and indeed prevailed in remaining good law for another thirty years,[107] these

98. *See id.* at 475–76 (Brandeis, J., dissenting).

99. *Id.* at 478.

100. *Id.*

101. *Id.* at 473, 479.

102. Amy L. Peikoff, *Pragmatism and Privacy*, 5 N.Y.U. J.L. & LIBERTY 638, 645 (2010); *see also* Scott E. Sundby & Lucy B. Ricca, *The Majestic and the Mundane: The Two Creation Stories of the Exclusionary Rule*, 43 TEX. TECH L. REV. 391, 402–03 (2010).

103. *See generally* Orin S. Kerr, *The Fourth Amendment and New Technologies: Constitutional Myths and the Case for Caution*, 102 MICH. L. REV. 801 (2004) (analyzing the Fourth Amendment jurisprudence of wiretapping).

104. Federal Communications Act of 1934, Pub. L. No. 90-351, 82 Stat. 223 (1934).

105. *See* Alexander Scolnik, Note, *Protections for Electronic Communications: The Stored Communications Act and the Fourth Amendment*, 78 FORDHAM L. REV. 349, 363 n.117 (2009); *see also* Robert A. Pikowski, *An Overview of the Law of Electronic Surveillance Post September 11, 2011*, 94 LAW LIBR. J. 601, 603 (2002).

106. *See* Scolnik, *supra* note 105, at 372.

107. *See* Silverman v. United States, 365 U.S. 505, 509 (1961) (holding that police's use of "spike mike" inserted from an adjoining row house onto the wall of the defendant's home constituted a Fourth Amendment violation because "the eavesdropping was accomplished by means of an unauthorized physical penetration into the premises occupied by the petitioners"); Goldman v. United States, 316 U.S. 129, 134–35 (1942) (holding that no Fourth Amendment violation occurred when agents held a

ancillary developments—Brandeis' dissent and the legislative response—would lay the groundwork for the next evolution of Fourth Amendment jurisprudence in the coming decades.[108]

C. *1967–2011:* Katz *Ushers in a Fourth Amendment Jurisprudence Based on Reasonable Expectations of Privacy*

The Supreme Court's 1967 opinion in *Katz v. United States* represented a sea change in Fourth Amendment jurisprudence.[109] In *Katz*, the defendant was convicted of transmitting illegal wagering information using a public telephone.[110] The key pieces of evidence were recordings of the defendant's own telephone conversations, which FBI agents accessed by attaching an electronic listening and recording device to the outside of the public telephone booth that the defendant used to relay the bets.[111] The Court started its analysis by jettisoning the notion that the Fourth Amendment protected only specific "constitutionally protected area[s]";[112] rather, the Court held that "the *Fourth Amendment* protects people, not places."[113] Then, the Court rejected the notion that, absent a trespass, there can be no Fourth Amendment violation, and seemingly overruled *Olmstead* and its property-law-based progeny.[114] The Court held that the "Government's activities in electronically listening to and recording the [defendant's] words violated the privacy upon which he justifiably relied" while in the closed phone booth.[115] In reaching this decision, the Court noted "the vital role that the public telephone has come to play in private communication."[116] Finally, the Court held

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detectaphone device up to a wall to hear what was happening within because "use of the detectaphone was not made illegal by trespass or unlawful entry").

108. *See supra* notes 99–102, 105–06 and accompanying text.

109. *See* 389 U.S. 347 (1967); *infra* notes 121–23 and accompanying text.

110. *Katz*, 389 U.S. at 348.

111. *Id.*

112. *Id.* at 350–51.

113. *Id.* at 351.

114. *Id.* at 353 ("Thus, although a closely divided Court supposed in *Olmstead* that surveillance without any trespass and without the seizure of any material object fell outside the ambit of the Constitution, we have since departed from the narrow view on which that decision rested.").

115. *Id.*

116. *Id.* at 352.

that such a warrantless search was "*per se* unreasonable," and that no exception to the warrant requirement applied.[117]

While the decision was 7–1, Justice Harlan wrote a concurring opinion that was later adopted as reflecting the reorientation and enlargement of the protections of the Fourth Amendment that the Court recognized in *Katz*.[118] In his concurrence, Justice Harlan held that the Court would recognize a search occurred under the Fourth Amendment if two conditions were met: "first that a person have exhibited an actual (subjective) expectation of privacy and, second, that the expectation be one that society is prepared to recognize as 'reasonable.'"[119] It is this formulation that is commonly referred to as "the *Katz* test."[120]

The *Katz* decision was a watershed moment for a variety of reasons. Principally, by reorienting the analysis away from a trespassory theory, the Court opened up broad new swaths of territory where the Fourth Amendment could provide protections, including new technologies.[121] But the decision also raised a number of new ways in which individuals could cede Fourth Amendment protections by exposing their conduct to the world in a manner that society would not reasonably afford privacy protections.[122] In other words, even if strict property law theories might have provided protections in the past, the use of new technologies might not be protected if common usage or the particular characteristics of the device might not be considered sufficiently "private" by "society."[123] A number of decisions in the aftermath of *Katz* attempted to sort out these new

117. *Id.* at 357–58.

118. *See* Minnesota v. Carter, 525 U.S. 83, 97 (1998) (Scalia, J., concurring) (explaining that the established *Katz* test "has come to mean the test enunciated by Justice Harlan's separate concurrence in *Katz*"); Renée McDonald Hutchins, *Tied Up in* Knotts*? GPS Technology and the Fourth Amendment*, 55 UCLA L. REV. 409, 427 (2007) ("In subsequent cases, the Court has adopted Justice Harlan's two-pronged formulation of Fourth Amendment application as the standard analysis for determining whether or not a search has occurred.").

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

120. Peter Winn, Katz *and the Origins of the "Reasonable Expectation of Privacy" Test*, 40 MCGEORGE L. REV. 1, 6–7 (2009).

121. Aya Gruber, *Garbage Pails and Puppy Dog Tails: Is That What* Katz *Is Made of?*, 41 U.C. DAVIS L. REV. 781, 789–90 (2008).

122. *See id.* at 790.

123. *See id.*

boundaries, and in the process created several new contours to the Fourth Amendment.[124]

For example, the Supreme Court established[125] the third-party doctrine post-*Katz* on the theory that information revealed to a third party loses Fourth Amendment protections, thereby allowing the Government to acquire the information from the third-party without a warrant.[126] This rule was exemplified in the case of *United States v. Miller*.[127] In that case, the defendant, a bootlegger, challenged the federal prosecutor's use of subpoenas to his bank to obtain bank records.[128] Building off of its prior precedent that a defendant had no reasonable expectation of privacy in voluntary communications with an undercover informant,[129] the Court held that, by sharing the financial information with a third party, the defendant had assumed the risk it would be turned over to the government.[130] Importantly, the Court held that the third-party doctrine would apply "even if the information is revealed on the assumption that it will be used only for a limited purpose and the confidence placed in the third party will not be betrayed."[131] *Miller* thus represented an early application of the *Katz* reasonable expectation test, and in it the Court concluded that

124. Aside from spawning new case law, the decision in *Katz* also spurred legislative action in the area of wiretaps. For example, Congress passed Title III of the Omnibus Crime Control and Safe Streets Act of 1968, 18 U.S.C. § 2510 (2006). United States v. Jones, 132 S. Ct. 945, 962–63 (2012); Laura K. Donohue, *Technological Leap, Statutory Gap, and Constitutional Abyss: Remote Biometric Identification Comes of Age*, 97 MINN. L. REV. 407, 488 & n.449 (2012).

125. Perhaps it is more accurate to say the Court reaffirmed the doctrine post-*Katz*. This is because the Court had previously ruled that one's use of the telephone wires had the result of amplifying his voice to the outside world and thus any Fourth Amendment protections were lost. *See* Olmstead v. United States, 277 U.S. 438, 466 (1928). Likewise, when a person's voice was so loud that it could be heard through a spike mike on the adjoining wall, no Fourth Amendment protections inured. Silverman v. United States, 365 U.S. 505, 509–10 (1961). These could be construed as early precursors to the third-party doctrine.

126. United States v. Miller, 425 U.S. 435, 443 (1976).

127. *Id.*

128. *Id.* at 438–39.

129. *See id.* at 440 (citing Hoffa v. United States, 385 U.S. 293, 301–02 (1966)).

130. *Id.* at 442–43.

131. *Id.* at 443.

society would not recognize as reasonable a defendant's claim to a privacy interest in information voluntarily shared with a third party.[132]

In addition, the Court established the Fourth Amendment standing doctrine.[133] Specifically, in *Rakas v. Illinois*,[134] the Court rejected a Fourth Amendment challenge to a warrantless search by passengers in a car on the theory that Fourth Amendment rights are personal and cannot be asserted vicariously.[135] The Court held that because the passengers in the car had neither a property nor a possessory interest in the vehicle, they could not claim *their* Fourth Amendment rights were violated when the car was searched and the officer found a shotgun.[136] This decision thus applied the *Katz* reasonable expectation test, and concluded that society would not deem passengers to have a reasonable expectation of privacy when traveling in someone else's car.[137]

Finally, the Court established the open fields doctrine, which provides that there is no expectation of privacy in the open fields away from the curtilage of one's home.[138] While this doctrine could be seen as a corollary to the third-party doctrine (i.e., that people essentially share with the world what can be viewed in open fields because they have not taken steps to shield all views), it is significant because it permitted a technical trespass onto lands without a Fourth Amendment violation.[139] The doctrine was developed[140] in the case of *Oliver v. United States*.[141] In that case, state police trespassed onto

132. *Id.* at 442–44; *see also* Smith v. Maryland, 442 U.S. 735, 745–46 (1979) (holding that the installation of pen register did not violate the Fourth Amendment because the caller was exposing to the phone company the numbers he was dialing).

133. Rakas v. Illinois, 439 U.S. 128, 129–30 (1978).

134. *Id.*

135. *Id.* at 130, 133–34 (quoting Alderman v. United States, 394 U.S. 165, 174 (1969)).

136. *Id.* at 148.

137. *See id.* at 148–49.

138. Oliver v. United States, 466 U.S. 170, 179 (1984).

139. *Compare* Smith v. Maryland, 442 U.S. 735, 743–44 (1979) (stating that the Court has consistently held that "a person has no legitimate expectation of privacy in information he voluntarily turns over to third parties"), *with Oliver*, 466 U.S. at 177–79 (holding that the expectation of privacy in open fields is not an expectation that society recognizes as reasonable, and thus, government intrusion upon such open fields does not constitute an unreasonable search).

140. Again, it may be more accurate to say that the Court was simply reaffirming the open fields doctrine in this case because it had previously recognized that law enforcement could enter open fields without violating the Constitution in Court in *Hester v. United States*, 265 U.S. 57, 59 (1924).

141. *Oliver*, 466 U.S. at 178.

the defendant's lands and eventually came upon a field of marijuana nearly a mile from the defendant's home.[142] In holding that no Fourth Amendment violation occurred, the Court applied *Katz* and held that "an individual may not legitimately demand privacy for activities conducted out of doors in fields, except in the area immediately surrounding the home."[143]

Based on the establishment of these basic principles in the application of the *Katz* test, the Supreme Court went on to reach decisions in several areas involving new technologies.[144] First, in perhaps the most low-tech example, the Court in *Texas v. Brown* held that a police officer did not violate the Fourth Amendment rights of a driver of a car when he used a flashlight to illuminate the inside of the vehicle and found contraband.[145] Applying a corollary to the open fields and third-party doctrines, the plain view exception, the Court held that the officer simply used "artificial" means to enhance his view of what the defendant was already displaying to the public, and hence there could be no reasonable expectation of privacy.[146]

The second category of cases applying post-*Katz* rules involved the use of beepers that emit a signal to track the beeper's movements.[147] In *United States v. Knotts*,[148] in an effort to track the movements of a suspected manufacturer of illicit drugs, the police attached a beeper to a container of chemicals with the consent of the vendor, and the container was then sold to the defendant.[149] In analyzing the information that the police obtained, the Court recognized that the beeper simply gave the police information about where the defendant

142. *Id.* at 173.

143. *Id.* at 177–78.

144. *See* United States v. Karo, 468 U.S. 705, 708, 712 (1984) (holding that the Government did not engage in a search by placing a beeper into a can of ether that was later sold to the defendant and used to track his whereabouts); Texas v. Brown, 460 U.S. 731, 739–40 (1983) (discussing the applicability of the plain view doctrine when an officer is aided by a flashlight); United States v. Knotts, 460 U.S. 276, 277, 281 (1983) (discussing one's expectation of privacy while traveling on public roads in the context of a beeper being placed within a container of chloroform, which law enforcement officials then tracked to respondent's secluded cabin).

145. *Brown*, 460 U.S. at 739–40.

146. *Id.*

147. Daniel T. Pesciotta, Note, *I'm Not Dead Yet:* Katz, Jones, *and the Fourth Amendment in the 21st Century*, 63 CASE W. RES. L. REV. 187, 203 (2012).

148. United States v. Knotts, 460 U.S. 276 (1983).

149. *Id.* at 278.

was while on public roads.[150] And so again applying a principle akin to the third-party doctrine, the Court found no search had occurred under *Katz* because "[a] person travelling in an automobile on public thoroughfares has no reasonable expectation of privacy in his movements from one place to another."[151] But as the Court found the following year in *United States v. Karo*,[152] this beeper technology could not be used to monitor what was going on inside a dwelling because that would give the police "information that it could not have obtained by observation from outside the curtilage of the house."[153]

In the next major case to test the breadth of *Katz* where new technologies were involved, the Court was called on again to revisit and reaffirm the open fields and the third-party doctrines.[154] In *California v. Ciraolo*,[155] the Court confronted whether the police violated the defendant's rights when they used a helicopter to conduct aerial surveillance and saw from 1,000 feet in the air that the defendant was growing marijuana in his backyard behind large fences.[156] In ruling against the defendant, the Court reaffirmed the notion that the police do not conduct a search when they simply view what a person exposes to the public, even if some effort must be undertaken to see what is revealed.[157] In addition, the Court noted that air travel was routine and that this vitiated any expectation that one's backyard would never be exposed to aerial surveillance.[158]

The next major technologically advanced Fourth Amendment case was *Kyllo v. United States*.[159] In that case, agents from the Department of the Interior, while sitting in their car on the street, used a thermal imaging device to scan the outside of the home of a suspected manufacturer of marijuana.[160] After the imager reported elevated levels of heat being given off, which suggested a high-power grow-light was being used, the agents obtained a warrant to the

150. *Id.* at 281.
151. *Id.*
152. United States v. Karo, 468 U.S. 705 (1984).
153. *Id.* at 714–15; *see also id.* at 712 (noting that "[i]t is the exploitation of technological advances that implicates the Fourth Amendment, not their mere existence").
154. *See* Pesciotta, *supra* note 147, at 206.
155. California v. Ciraolo, 476 U.S. 207 (1986).
156. *Id.* at 209.
157. *Id.* at 213.
158. *Id.* at 215.
159. Kyllo v. United States, 533 U.S. 27 (2001).
160. *Id.* at 29–30.

search the home, which yielded evidence of the indoor marijuana growing operation.[161] In reversing the defendant's conditional guilty plea, the Supreme Court held that the agents obtained information about the interior of the home through artificial means not in use by the general public, and hence a Fourth Amendment search had occurred.[162] In reaching this decision, the Court shucked off the notion that the imager was simply recording what the inhabitants inside the home were exposing to the public.[163] Thus, while the Court recognized that "the degree of privacy secured to citizens by the Fourth Amendment" may be affected by the "advance of technology,"[164] pursuant to *Karo* (and perhaps even also *Boyd* and *Weeks*) it would still constitute a Fourth Amendment violation if agents used technology to accomplish a "virtual" trespass to learn information about what is going on inside the home.[165]

Finally, the most recent post-*Katz* but pre-*Jones* case involving emerging technologies was *Ontario v. Quon*.[166] Rather than arising in the context of a criminal investigation, this case involved a challenge under 42 U.S.C. § 1983 brought by a police officer who was disciplined after his supervisors reviewed the contents of his text messages sent over a work-issued pager and found he sent a large volume of non-work-related text messages.[167] Using the Fourth Amendment test applicable when the government acts in its capacity as an employer and not as a criminal investigator, the Court held that the search was reasonable because it was related to a legitimate work purpose and it was not excessive in scope.[168] But the opinion is more notable for what it did not decide. Specifically, the Court simply assumed that the officer had a reasonable expectation of privacy in his text messages, without reaching a holding on that question.[169] But the Court provided fascinating guideposts for the relevant inquiry into whether an individual has a reasonable expectation in the use of a new technology, including whether the use of the technology is

161. *Id.* at 30.
162. *Id.* at 34–35.
163. *Id.* at 35–36.
164. *Id.* at 33–34.
165. *See id.* at 34.
166. Ontario v. Quon, 130 S. Ct. 2619 (2010).
167. *Id.* at 2625–26.
168. *Id.* at 2632–33.
169. *Id.* at 2630.

essential to modern living, whether the technology is ubiquitous and able to be personally owned, and whether there are stated policies *ex ante* about the privacy expectations in the use of the technology.[170] But while the Court raised these issues, it left deciding them for another day, particularly because the ramifications of these emerging technologies were not yet fully understood.[171]

In sum, in the aftermath of *Katz*, the Supreme Court confronted new questions involving the application of the Fourth Amendment to new technologies. And while some critics suggest the post-*Katz* jurisprudence is "subjective and unpredictable,"[172] a few guiding principles emerge. It is certainly permissible for the police to observe what is in plain view[173] and revealed to third parties.[174] The police may even use artificial aids and new technologies to enhance their sensory perception.[175] But the home is still sacrosanct, and it is a search when new technologies that are not routinely used by ordinary citizens are utilized by the police to accomplish an electronic or virtual trespass into the confines of the home.[176] Pre-*Jones*, these guiding lights were generally accepted as the reigning Fourth Amendment jurisprudence. But the Court's decision in *Jones* signals, perhaps, another evolution.

II. PINGING[177] THE PRESENT: EXAMINING THE DECISION IN *UNITED STATES V. JONES*

Starting in 2004, the police suspected that Antoine Jones, an owner of a D.C. nightclub, was involved in a narcotics trafficking

170. *Id.*
171. *Id.*
172. Kyllo v. United States, 533 U.S. 27, 34 (2001) (citing critical sources).
173. Horton v. California, 496 U.S. 128, 133–37 (1990).
174. United States v. Miller, 425 U.S. 435, 443 (1976).
175. California v. Ciraolo, 476 U.S. 207, 213–14 (1986); Texas v. Brown, 460 U.S. 730, 739–40 (1983).
176. *Kyllo*, 533 U.S. at 34–35; United States v. Karo, 468 U.S. 705, 714–15 (1984).
177. "Pinging" refers to when a cell phone company sends a signal to a cellphone to determine its location. *See* Recent Case, *Criminal Procedure—Fourth Amendment—Sixth Circuit Holds that "Pinging" a Target's Cell Phone to Obtain GPS Data Is not a Search Subject to the Warrant Requirement*—United States v. Skinner, *690 F.3d 772 (6th Cir. 2012), reh'g and reh'g en banc denied, No. 09-6497 (6th Cir. Sept. 26, 2012)*, 126 HARV. L. REV. 802, 806 & n.41 (2013); Jeremy H. Rothstein, Note, *Track Me Maybe: The Fourth Amendment and the Use of Cell Phone Tracking to Facilitate Arrest*, 81 FORDHAM L. REV. 489, 494–95 (2012).

conspiracy.[178] After a joint FBI and D.C police team had engaged several other investigative techniques, the Government applied for a warrant to install a GPS tracking device to the undercarriage of a car registered to Jones's wife.[179] The application was granted, directing that the device be installed in D.C. and within ten days.[180] The device was not installed, however, until eleven days after the warrant was issued, and it was installed in Maryland.[181] Nevertheless, the device was utilized, and provided information on Jones's whereabouts for a period of twenty-eight days because Jones was the exclusive driver of the vehicle.[182] Jones was later convicted, but his conviction was reversed by the D.C. Circuit.[183] In its opinion, the D.C. Circuit held that a search had occurred, predominately because the GPS device allowed the police to know "the whole of Jones's movements during the month," which the court held inimical to reasonable expectations of privacy.[184] In other words, the court held it might be reasonable for one to expect one's movements to be observed by someone else on one day or on a single journey;[185] however, when every movement is tracked over an extended period of time, that reveals the full picture of what the person was doing, and at that point reasonable expectations of privacy are invaded.[186] Scholars have termed this understanding of the Fourth Amendment the "mosaic theory."[187]

On certiorari, all the Justices of the Court agreed that a search had occurred on the facts presented, but they were fractured as to the reasoning.[188] Writing for the five-Justice majority, Justice Scalia focused on the installation of the GPS device to the undercarriage of the car, an "effect" for Fourth Amendment purposes.[189] Relying on the property-law-based underpinnings of the Fourth Amendment, stretching back to the *Entick* case for support, the majority concluded

178. United States v. Jones, 132 S. Ct. 945, 948 (2012).
179. *Id.*
180. *Id.*
181. *Id.*
182. *Id.*
183. *Id.* at 949.
184. United States v. Maynard, 615 F.3d 544, 560–61 (D.C. Cir. 2010), *aff'd in part sub nom.* United States v. Jones, 132 S. Ct. 945 (2012).
185. *Maynard*, 615 F.3d at 556.
186. *Id.* at 563.
187. *See* Kerr, *supra* note 5, at 313, 320.
188. *Jones*, 132 S. Ct. at 949, 953.
189. *Id.* at 949.

that "[w]e have no doubt that such a physical intrusion [of installing and using the GPS device] would have been considered a 'search' within the meaning of the Fourth Amendment when it was adopted."[190] In reaching this decision, the Court resurrected the property-law-based approach of the Fourth Amendment espoused in *Olmstead*, and held that trespass theory provides a constitutional "minimum" of protection, and that the *Katz* test could provide a greater zone of protection even when information is obtained in the absence of a physical trespass.[191] But after reaching this narrow holding that a search had occurred, the Court declined to consider whether the search was nonetheless reasonable, or whether some exception to the warrant requirement applied.[192]

Despite joining the majority opinion, Justice Sotomayor also wrote a separate concurrence that raised a number of new questions.[193] She indicated she agreed that, at a minimum, a physical trespass by the Government to obtain information will result in a search, which was sufficient to decide Jones's case.[194] However, she went on to signal a willingness to embrace some of what the proponents of the mosaic theory espouse, namely that "longer term GPS monitoring" might violate expectations of property for the investigations of "most offenses."[195] She expressed concern about the use of investigative technologies that "generate [] a precise, comprehensive record of a person's public movements."[196] Finally, recognizing that people often cede vast amounts of information to third parties to carry out everyday tasks, Justice Sotomayor hinted that "it may be necessary to reconsider the premise that an individual has no reasonable expectation of privacy in information voluntarily disclosed to third parties."[197]

In his own concurrence, Justice Alito raised many of the concerns shared by Justice Sotomayor.[198] Specifically, Justice Alito noted that society would not consider it reasonable for the police to "secretly

190. *Id.*
191. *Id.* at 950, 953–54.
192. *Id.* at 954.
193. *Id.* at 954–55 (Sotomayor, J., concurring).
194. *Id.* at 954.
195. *Id.* at 955 (quoting *id.* at 964 (Alito, J., concurring)).
196. *Id.*
197. *Id.* at 957.
198. *See id.* at 964 (Alito, J., concurring).

monitor and catalogue every single movement of an individual's car for a very long period."[199] He opined that four weeks of such surveillance "surely" was too long for most routine criminal investigations.[200] However, he held out the possibility that longer monitoring would be permissible for investigations of certain "extraordinary offenses."[201]

So, at root, the *Jones* opinion decided very little, and seems to raise more questions than it answered. The opinion raises substantial issues specifically with regard to GPS tracking, generally with regard to new technologies, and fundamentally with regard to the Fourth Amendment. Given the amount of dicta and open questions in the *Jones* decision, it has naturally spawned a great deal of litigation in the lower courts. And as detailed below, district courts are filling in these gaps, often with surprising results, potentially setting up further review by the Supreme Court.

III. TRIANGULATING[202] THE FUTURE: EXPLORING HOW DISTRICT COURTS ARE ANSWERING THE QUESTIONS LEFT OPEN IN *JONES*

In the 365 days since the *Jones* opinion was issued on January 23, 2012, it has been cited by lower federal and state courts 193 times.[203] And with few exceptions, those decisions show the lower courts are moving cautiously, and relying on long-established doctrines and precedents in a way that prevents *Jones* from operating as a major realignment of Fourth Amendment jurisprudence. This Part describes first the ways in which federal and state trial courts are evaluating GPS evidence in the aftermath of *Jones*, with an eye towards evaluating whether courts in fact are requiring a warrant to obtain GPS evidence or whether any of the long-established

199. *Id.*

200. *Id.*

201. *Id.*

202. Triangulating refers to a method in which location information is derived from cell phone or GPS data. When a cell phone or GPS-enabled device is activated, it sends a signal to cell phone towers in the area or satellites overhead. By comparing the length or angle of the radio signals between several of these structures, it is possible to triangulate the location of the signal-emitting phone. *See Who Knows Where You've Been? Privacy Concerns Regarding the Use of Cellular Phones as Personal Locators*, 18 HARV. J.L. & TECH. 307, 308–09 (2004).

203. *See Jones*, 132 S. Ct. 945.

exceptions to the warrant requirement apply. Then, this Part goes on to examine *Jones*'s effect on other technologies, including smartphones, pole cameras, peer to peer sharing, key fobs, and wireless internet networks. Finally, this Part looks at how district courts are evaluating the Fourth Amendment in a more general sense after *Jones*, including whether they are evaluating the Amendment under the now-revived property-law paradigm, or whether they are embracing the mosaic theory, or whether the *Katz* paradigm still reigns supreme.

A. Jones's Impact on the Use of GPS Tracking Information Without a Warrant

As detailed above, the Supreme Court in *Jones* left open a number of questions with regard to obtaining GPS tracking evidence.[204] Specifically, the Court declined to decide whether a warrantless search to obtain GPS evidence could nonetheless still be considered a "reasonable" search, and hence constitutional.[205] In addition, the Court's decision in favor of Jones raised a number of issues with regard to what should happen to other cases in which warrantless GPS evidence was already used, including who had standing to use *Jones* to contest the use of GPS evidence, whether any exception to the warrant requirement applied even where the defendant has standing, and whether the decision could apply retroactively to cases on collateral review.[206] In the year since *Jones* was decided, district courts are answering these questions in a manner that shows a clear pattern of caution is emerging.[207]

The first area that district courts have evaluated is whether a warrantless search for GPS evidence could nonetheless still be reasonable. This is significant because according to its text, the Fourth Amendment "does not proscribe all searches and seizures, but only those that are unreasonable."[208] What is reasonable "depends on all of the circumstances surrounding a search or seizure and the nature of the search or seizure itself."[209] As a general matter, when law enforcement engages in a search under the Fourth Amendment, a

204. *See supra* notes 199–203 and accompanying text.
205. *See infra* notes 206–23 and accompanying text.
206. *See infra* notes 239–79 and accompanying text
207. *See supra* Part III.A.
208. Skinner v. Ry. Labor Exec. Ass'n, 489 U.S. 602, 619 (1989).
209. *Id.* (quoting United States v. Montoya de Hernandez, 473 U.S. 531, 537 (1985)).

warrant is usually required.[210] However, the Court has recognized certain exceptions to the warrant requirement, including, when under the "totality of the circumstances," the search is nonetheless reasonable.[211] Specifically, to make the required showing of reasonableness, the court must balance "the degree to which [the search] intrudes on an individual's privacy and, . . . the degree to which it is needed for the promotion of legitimate government interests."[212]

Four lower court decisions have applied this test to GPS evidence post-*Jones*,[213] and the majority—three—have found warrantless searches for GPS information to be reasonable.[214] For example, in *United States v. Robinson*,[215] the Court noted that the installation of a GPS tracking device on the defendant's car was "non-invasive and did not interfere with the operation of the vehicle" and that the agents "had reasonable suspicion that Robinson was engaged in criminal activity . . . ."[216] Pursuant to the *Samson* balancing test, this showing was sufficient to permit the warrantless search.[217] Furthermore, and importantly, the Court recognized that "[i]t may well be that in a future opinion the Eighth Circuit will modify its approach to the issue in light of *Jones*, but until such time," the Court will continue to apply prior precedents on the issue.[218] This kind of caution is emblematic of the approach taken by lower courts in the aftermath of *Jones*.[219] Following this logic and guided by a jurisprudential caution

210. *Id.*

211. Samson v. California, 547 U.S. 843, 848 (2006).

212. *Id.*

213. *See, e.g.*, *In re* Application of U.S. for an Order Pursuant to Title 18, U.S. Code, Section 2703(d) to Disclose Subscriber Info. & Cell Site Info., 849 F. Supp. 2d. 177, 179 (D. Mass. 2012) [hereinafter *In re* Application of U.S.]; United States v. Ford, No. 1:11-CR-42, 2012 WL 5366049, at *7 (E.D. Tenn. Oct 30, 2012); United States v. Robinson, No. S2–4:11CR00361AGF, 2012 WL 4893643, at *1 (E.D. Mo. Oct. 15, 2012); United States v. Nelson, No. CR612–005, 2012 WL 3052914, at *3 (S.D. Ga. July 25, 2012).

214. *See In re* Application of U.S., 849 F. Supp. 2d at 179; *Robinson*, 2012 WL 4893643, at *1; *Nelson*, 2012 WL 3052914, at *3.

215. *Robinson*, 2012 WL 4893643, at *16–17.

216. *Id.* at *16. These arguments echoed the arguments made by the United States in its brief before the Supreme Court in *Jones*.

217. *Id.*

218. *Id.* at *17.

219. *See also In re* Application of U.S., 849 F. Supp. 2d at 179 ("Until either the First Circuit Court of Appeals or the Supreme Court rule otherwise, or Congress enacts

steeped in adherence to stare decisis, most lower courts to consider the question have concluded that the warrantless installation and monitoring of a GPS tracking device is "reasonable" under the Fourth Amendment provided the installation is minimally invasive, lasts a short duration, and is supported by a reasonable suspicion of criminal wrongdoing.[220]

This result also makes sense in light of historical precedents. Simply installing a beeper device in a package that is carried on public roads (*Knotts*),[221] or flying in airspace over an exposed area (*Ciraolo*),[222] or shining a flashlight into the interior of a car (*Brown*)[223] were upheld as minimally invasive searches that did not otherwise impair the activities of the target, but rather simply further exposed what would otherwise be visible to any member of the public should they choose to look.[224] Likewise, GPS evidence is non-invasive, does not restrict the defendant's movements or otherwise impinge on the use of the vehicle, and simply reveals what could be learned from public observation. Thus, provided there is a showing that the police have some legitimate law enforcement interest in the target, the use of GPS tracking could be deemed reasonable post-*Jones*, just as it was in *Robinson*.

Relatedly, when evaluating reasonableness, district courts are also answering one of the questions raised by Justice Alito's concurrence: How long is too long? In his opinion in *Jones*, Justice Alito opined

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legislation dealing with the problem, the Court will follow [its previous rulings on the issue].").

220. *See In re* Application of U.S., 849 F. Supp. 2d at 178–79 (holding that a search for historical cell phone tower information was reasonable where it was simply sufficient to satisfy the standard for an order under 18 U.S.C. § 2703(d), i.e., the government must only demonstrate "specific and articulable facts" showing that there are "reasonable grounds" to believe the information sought is relevant to a criminal investigation); United States v. Nelson, No. CR612–005, 2012 WL 3052914, at *3 (S.D. Ga. July 25, 2012) (holding that officers had reasonable suspicion that defendant was involved in kidnappings, and hence it was reasonable for them to place GPS tracking device on his vehicle to gather information about his movements). *But see* United States v. Ford, No. 1:11-CR-42, 2012 WL 5366049, at *8 (E.D. Tenn. Oct. 30, 2012) (holding that use of a GPS device was unreasonable where police used it as substitute for 24/7 physical monitoring and used it to confirm target was perpetrator of string of robberies: "Both prongs of the totality of the circumstances test weigh in favor of applying the traditional warrant requirement to GPS tracking device cases").

221. United States v. Knotts, 460 U.S. 276, 284–85 (1983).

222. California v. Ciraolo, 476 U.S. 207, 207–10 (1986).

223. Texas v. Brown, 460 U.S. 730, 739–40 (1983).

224. *See supra* notes 144–158 and accompanying text.

that four weeks of GPS surveillance would "surely" be long enough as to constitute a search, but he stopped short of suggesting what precise length of time would demarcate a constitutional threshold.[225] The majority opinion chided Justice Alito for failing to support or elucidate further where his bright line would be.[226] Notwithstanding this lack of specificity, or perhaps because of it, lower courts have been forced to respond to the dicta raised by Justice Alito's concurrence on this issue. Specifically, defendants are raising challenges in lower courts in the hopes that Justice Alito's suggestion about the outer marker for the length of surveillance will resonate with a future court.[227] And while lower courts might be reluctant to break new ground on other issues in the absence of clearer Supreme Court edicts, on this issue, lower courts are actually hewing closer to Justice Alito's suggested framework.[228] Specifically, since *Jones*, lower courts have upheld warrantless searches of GPS data that lasted for "only a few hours,"[229] "under 24 hours,"[230] three days,[231] four days,[232] and twelve days,[233] but held that GPS tracking of seventeen days[234] and twenty-six days[235] was unconstitutional. But in another nod to judicial caution in this area, at least a few courts have decided

225. United States v. Jones, 132 S. Ct. 945, 964 (2012) (Alito, J., concurring).

226. *Id.* at 954 (majority opinion).

227. Defendant Marquis Lopez' Reply Memorandum of Law in Support of Second Motion to Suppress Evidence at 1–2, United States v. Lopez, 2012 WL 3930317 (D. Del. Sept. 10, 2012), (No. 10-67-GMS), 2012 WL 3561010; Motion to Suppress Evidence and Memorandum of Law at 3–4, United States v. Sereme, No. 2:11–CR–97–FtM–29SPC, 2012 WL 1757702 (M.D. Fla. Mar. 27, 2012), (No. 2:11–CR–97–FTM–29SPC), 2012 WL 2522104.

228. *See infra* notes 229–34 and accompanying text.

229. United States v. Wahchumwah, No. 11–30101, 2012 WL 5951624, at *3 (9th Cir. Nov. 27, 2012) (holding that an undercover agent's warrantless use of a concealed audio-video device was reasonable where it was for such a short duration).

230. United States v. Shelburne, No. 3:11–cr–156–S, 2012 WL 2344457, at *5 (W.D. Ky. June 20, 2012).

231. United States v. Skinner, 690 F.3d 772, 780 (6th Cir. 2012) (distinguishing *Jones* because "[w]hile *Jones* involved intensive monitoring over a twenty-eight day period, here the DEA agents only tracked Skinner's cell phone for three days").

232. State v. Estrella, 286 P.3d 150, 154 (Ariz. App. 2012); *see also* Appellant's Opening Brief at *3, 2012 WL 486827 (describing facts more specifically).

233. United States v. Sereme, No. 2:11–CR–97–FtM–29SPC, 2012 WL 1757702, at *10 (M.D. Fla. Mar. 27, 2012).

234. United States v. Lopez, No. 10–cr–67(GMS), 2012 WL 3930317, at *7 (D. Del. Sept. 10, 2012).

235. State v. Zahn, 812 N.W.2d 490, 496 (S.D. 2012).

that, absent further guidance by a majority of the Supreme Court, they will not pinpoint how long is too long in the first instance.[236]

Looking at the constellation of these decisions, it shows some modest movement towards authorizing warrantless surveillance for more discrete periods of time, i.e. less than three weeks, before obtaining a warrant is indicated. Interestingly, however, no court has yet considered the exception floated by Justice Alito that certain crimes might require longer surveillance,[237] such as a complex drug conspiracy or a price-fixing scheme, or some other criminal enterprise that requires a good deal of police legwork before the full contours of the scheme come together in a manner sufficient to make a charging decision. While this case may present itself in the future, it is arguable whether such complex investigations could be defended as constitutional on the argument that the very nature of these crimes requires longer term surveillance and evidence-gathering.[238] In any event, while the lower courts are still moving cautiously in this area, the early post-*Jones* decisions show some movement toward the framework suggested by Justice Alito.[239]

A second major question that district courts are confronting is whether, even if the installation of a GPS device is a search and an unreasonable one, an exception to the warrant requirement nonetheless still applies that prevents the exclusion of the evidence. Patently, the exclusion of evidence obtained through an unconstitutional search "is 'not a personal constitutional right,' nor is it designed to 'redress the injury' occasioned by an unconstitutional

236. United States v. Graham, 846 F. Supp. 2d 384, 389–90 (D. Md. 2012) (holding that "the Fourth Amendment, as currently interpreted, does not contemplate a situation where government surveillance becomes a 'search' only after some specified amount of time"); *cf.* Paige v. New York City Police Dept., No. 10–CV–3773 (STL)(LB), 2012 WL 1118012, at *4 (E.D.N.Y. Mar. 30, 2012) (holding that even "continued" surveillance would not run afoul of the Fourth Amendment, so long as the surveillance was done while the target was in public).

237. *See* United States v. Jones, 132 S. Ct. 945, 963–64 (2012) (Alito, J., concurring).

238. *See* United States v. Martinez-Fuerte, 428 U.S. 543, 561–63 (1976) (holding that suspicionless stops were justified near a border crossing because of unique circumstances and challenges related to stopping crimes at that location). *But see* City of Indianapolis v. Edmond, 531 U.S. 32, 41–43 (2000) (declining to apply special needs exception to suspicionless roadblocks simply because law enforcement considered narcotics-related crime to present a "severe and intractable" problem that was difficult to combat).

239. *See* United States v. Amaya, 853 F. Supp. 2d 818, 831 (N.D. Iowa 2012).

search."[240] In fact, the Supreme Court has clarified that the "sole purpose" of the exclusionary rule "is to deter future Fourth Amendment violations."[241] And not just any minimal or theoretical deterrence will suffice; there must be a finding that suppression will result in "'appreciable deterrence.'"[242] Pursuant to this understanding, the Supreme Court has endorsed a number of exceptions to the exclusionary rule where such deterrence will not be achieved by suppression, including the good faith exception, the independent source exception, and the inevitable discovery exception.[243] And consistent with the notion that district courts are applying long-established precedents in a manner that prevents the *Jones* holding from fundamentally realigning Fourth Amendment jurisprudence, the lower courts are applying these exceptions and refusing to exclude evidence obtained through warrantless GPS tracking.[244]

The post-*Jones* case law is legion with decisions applying the good faith exception to warrantless GPS surveillance. In recently articulating the good faith exception, the Supreme Court stated that "searches conducted in objectively reasonable reliance on binding appellate precedent are not subject to the exclusionary rule."[245] Prior to *Jones*, four appellate courts—the Fifth, Seventh, Eighth, and Ninth Circuits—held that the installation and use of GPS tracking devices without a warrant was constitutional.[246] Accordingly, pursuant to a

240. Davis v. United States, 131 S. Ct. 2419, 2426 (2011) (quoting Stone v. Powell, 428 U.S. 465, 486 (1976)).

241. *Id.*

242. *Id.* at 2426–27 (quoting United States v. Janis, 428 U.S. 433, 454 (1976)).

243. *See* Herring v. United States, 555 U.S. 135, 142 (2009); Murray v. United States, 487 U.S. 533, 538–39 (1988).

244. *See, e.g.*, United States v. Brooks, No. CR11-2265-PhX-JAT-003, 2012 WL 5984796, at *3 (D. Ariz. Nov. 28, 2012).

245. *Davis*, 131 S. Ct. at 2423–24.

246. United States v. Hernandez, 647 F.3d 216, 221 (5th Cir. 2011); United States v. Marquez, 605 F.3d 604, 609–10 (8th Cir. 2010); United States v. Garcia, 474 F.3d 994, 996–99 (7th Cir. 2007); United States v. McIver, 186 F.3d 1119, 1126–27 (9th Cir. 1999). The only circuit to hold otherwise was the D.C. Circuit. *See* United States v. Maynard, 615 F.3d 544, 560 (D.C. Cir. 2010).

Additionally, some courts in the Eleventh Circuit have concluded that there was binding precedent in their circuit on this issue prior to *Jones*. *See* United States v. Barbary, No. 12-60011-CR, 2012 WL 4839127 at *2 (S.D. Fla. Sept. 6, 2012). These courts point to the decision in *United States v. Michael*, 645 F.2d 252 (5th Cir.1981), which allowed the installation of a beeper onto a car. *See id.* at 257–59. And because

straightforward application of *Davis*, the fourteen post-*Jones* decisions from these circuits considering the exclusion of GPS tracking evidence have unanimously applied the good faith exception and declined exclusion.[247]

And while the picture gets somewhat more muddled in those circuits where there was no binding precedent on GPS tracking pre-*Jones*, the clear majority of decisions—thirteen—in those circuits have also applied the good faith exception.[248] Indeed, even Antoine

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Fifth Circuit decisions prior to the Eleventh Circuit's split from it constitute binding precedent for the Eleventh Circuit, *see* Bonner v. Prichard, 661 F.2d 1206, 1209 (11th Cir. 1981) (en banc), these courts hold that binding precedent existed in the Eleventh Circuit on this issue sufficient to trigger *Davis*. However, because the beeper used in *Michael* was more akin to the now-antiquated beepers considered in *Karo* and *Knotts*, it is uncertain whether that stance will prevail. Accordingly, at the very least, we can say with some level of certainty that the Fifth, Seventh, Eighth, and Ninth Circuits had binding precedent pre-*Jones* on this issue of GPS tracking.

247. United States v. Andres, 703 F.3d 828, 834 (5th Cir. 2013) ("Even assuming that a Fourth Amendment violation occurred and that suppression would otherwise be appropriate, the evidence should not be suppressed in this case because the officers acted in reasonable reliance on [then-existing] circuit precedent."); United States v. Pineda-Moreno, 688 F.3d 1087, 1090 (9th Cir. 2012); United States v. Orbegoso, No. CR–11–02372, 2013 WL 161194, at *2–3 (D. Ariz. Jan. 15, 2013) (same); United States v. Guyton, No. 11-271, 2013 WL 55837, at *3 (E.D. La. Jan. 3, 2013) (same); United States v. Villa, No. 10-30080, 2012 WL 535210,1 at *1 (9th Cir. Oct. 31, 2012) (same); *Brooks*, 2012 WL 5984796 at *3 (same); United States v. Smith, No. 2:11-cr-00058-GMN-CWH, 2012 WL 4898652, at *4–5 (D. Nev. Oct. 15, 2012) (same); United States v. Hardrick, No. 10-202, 2012 WL 4883666 (E.D. La. Oct. 15, 2012) (same); United States v. $22,361.83 U.S. Funds Seized from Various Accounts, No. CV-11-0317-EFS, 2012 WL 1884386, at *3 (E.D. Wash. May 23, 2012) (same); United States v. Aquilar, No. 4:11-cr-298-BLW, 2012 WL 1600276, at *2 (D. Idaho May 7, 2012) (same); United States v. Amaya, 853 F. Supp. 2d 818, 825–26 (N.D. Iowa Apr. 10, 2012) (same); United States v. Leon, 856 F. Supp. 2d 1188, 1191–93 (D. Haw. 2012) (same); United States v. Fata, No. 2:11-cr-00188-RHL, 2012 WL 1715496, at *5–6 (D. Nev. Mar. 15, 2012); United States v. Nwobi, No. CR10-952(c)-7, 2012 WL 769746, at *3–4 (C.D. Cal. Mar. 7, 2012) (same).

248. United States v. Fisher, No. 2:10-cr-28, 2013 WL 214379, at *2–3 (W.D. Mich. Jan. 18, 2013); United States v. Jones, No. 05-0386(ESH), 2012 WL 6443136, at *7–9 (D.D.C. Dec. 14, 2012); United States v. Figueroa-Cruz, No. CR11-S-424-S, 2012 WL 6186088, at *13–14 (N.D. Ala. Dec. 11, 2012) (rejecting the argument that there must be explicit binding authority because "[s]uch cases strain at self-bred legal gnats to reach a conclusion that neither the Fourth Amendment nor the exclusionary rule require"); United States v. Ford, No. 1:11-CR-42, 2012 WL 5366049, at *10–11 (E.D. Tenn. Oct. 30, 2012); United States v. Lewis, No. 12-60011-CR, 2012 WL 4838889, at *2 (S.D. Fla. Oct. 10, 2012) ("This Court is aware of no case requiring the Government to obtain a warrant based on the possibility that the Supreme Court might in the future issue an opinion abrogating existing binding circuit precedent that did not

Jones, who won the battle before the Supreme Court on certiorari, lost the war below because the district court in his case held on remand that the good faith exception permitted the introduction of the GPS evidence against him.[249] These decisions take stock of the legal landscape as it existed when the warrantless GPS tracking was engaged, and because at that time there were several circuit-level decisions directly on point permitting warrantless GPS surveillance, these courts have concluded that the good faith exception applies.[250] A minority of decisions—six—have opted, however, to read *Davis* narrowly, and have held that absent binding precedent from their circuit directly on point with regard to GPS surveillance, the good faith exception cannot be applied.[251] These decisions are principally concerned with allowing law enforcement officers in circuits that do not have controlling precedents to push the envelope by relying on other circuits that favor their predilections.[252] However, as the Court

require one."); United States v. Rose, No. 11-10062-NMG, 2012 WL 4215868, at *3–5 (D. Mass. Sept.14, 2012); United States v. Lopez, 895 F. Supp. 2d 592, (D. Del. 2012); United States v. Barbary, No. 12-60011-CR, 2012 WL 4839127, at *2 (S.D. Fla. Sept. 6, 2012); United States v. Oladosu, No. 10-056-01S, 2012 WL 3642851, at *9–10 (D.R.I. Aug. 21, 2012); United States v. Baez, 878 F. Supp. 2d 288, 289 (D. Mass. 2012) ("Where, as here, law enforcement officers at the time they act have a good faith basis to rely upon a substantial consensus among precedential courts, suppression of probative evidence is too high a price to pay because of the subsequent supervention of that consensus by the Supreme Court."); United States v. Shelburne, No. 3:11-cr-156-S, 2012 WL 2344457, at *4–6 (W.D. Ky. June 20, 2012); United States v. Rosas-Illescas, 872 F. Supp. 2d 1320, 1326–27 (N.D. Ala. 2012); Kelly v. State, 208 Md. App. 218 (2012).

249. *Jones*, 2012 WL 6443136, at *7–9.

250. *See, e.g.*, *Figueroa-Cruz*, 2012 WL 6186088, at *13–14 (holding that the good faith exception applied to warrantless use of GPS tracker because while the agents were tracking the defendant's car, "three Circuit Courts had expressly concluded that such surveillance did not implicate the Fourth Amendment warrant requirement").

251. United States v. Lee, 862 F. Supp. 2d 560, 571 (E.D. Ky. 2012) ("And because the DEA agents did not rely on binding appellate precedent, the good-faith exception cannot apply."); United States v. Ortiz, 878 F. Supp. 2d 515, 540–42 (E.D. Pa. 2012); United States v. Robinson, No. S2–4:11CR000361AGF(DDN), 2012 WL 4893643 (E.D. Mo. Oct. 15, 2012) (declining to apply Davis because the Eighth Circuit's decision in *Marquez* had not yet been decided when the warrantless GPS surveillance was employed); State v. Henry, No. 11–CR–829, 2012 WL 4859072, at *3 (Ohio App. Oct. 12, 2012); United States v. Lujan, No. 2:11CR11–SA, 2012 WL 2861546, at *3 (N.D. Miss. July 11, 2012); United States v. Katzin, No. 11–226, 2012 WL 1646894, at *7–10 (E.D. Pa. May 9, 2012).

252. *See, e.g.*, *Katzin*, 2012 WL 1646894, at *7–10 (declining to permit law enforcement to rely on "non-binding authority" to trigger the good faith exception in *Davis* because it

in *Ford* aptly recognized,[253] the government likely has the better of the argument here under the strictures placed on the exclusionary rule by the Supreme Court in *Davis*.[254] Specifically, the Court recognized in *Davis* that exclusion is solely about deterrence where officers engage in culpable conduct that violates sacrosanct rights.[255] By contrast, exclusion is not merited where the conduct is not culpable.[256] And as the court in *Ford* recognized, it is difficult to describe an officer's action as culpable or deliberately reckless when he or she relies on the legal pronouncements of a panel of three circuit judges, notwithstanding that those judges are from outside the officer's circuit.[257] To exact such a high price as exclusion in such a situation seems disconnected from the level of culpability. This calculus may likely be why the majority of lower courts apply the good faith exception in post-*Jones* cases where GPS evidence was obtained without a warrant.

In addition to the good faith exception, several post-*Jones* decisions are applying the independent source exception to GPS tracking data.[258] This exception permits evidence to be introduced if it was initially unlawfully seized, but later the same evidence was obtained by leads based on independent information that was lawfully obtained.[259] Accordingly, in *United States v. Patel*,[260] the Fifth Circuit was confronted with a situation in which a whistleblower was deemed to have become a government agent, and hence his cooperation with obtaining evidence of the defendant's mobile medical lab constituted an illegal search.[261] Rather than consider the implications of *Jones* in this trespassory situation, the Court noted that there was an independent source of information that provided the fodder for the subsequent search warrant, which in turn meant exclusion was not required.[262] Other decisions have also applied this

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would incentivize officers to "beg forgiveness rather than ask permission in ambiguous situations involving basic civil rights").

253. *See Ford*, 2012 WL 5366049 at *10–11.
254. *Id.*
255. *Davis*, 131 S. Ct. at 2423–27.
256. *Id.*
257. *See* 2012 WL 5366049 at *10–11.
258. *See, e.g.*, Murray v. United States, 487 U.S. 533, 538–39 (1988).
259. *Id.*
260. 485 Fed. Appx. 702 (5th Cir. 2012).
261. *Id.* at 711.
262. *Id.*

independent source exception to avoid applying *Jones* in a manner that results in exclusion.[263]

Other courts have applied the doctrine of inevitable discovery—which is related intellectually to the independent source exception—to permit the introduction of warrantless GPS tracking data. For example, in *United States v. Orbegoso*,[264] the police placed a GPS device on the bottom of the defendant's car and obtained information on what banks he frequented as part of his currency smuggling operation.[265] While the court held that the use of the GPS tracker without a warrant was a violation, the court noted that the officers were also conducting physical surveillance, and would have obtained the same information by visual inspection as they received through the GPS tracker.[266] As such, the court applied the inevitable discovery rule and declined to exclude that evidence that the police would have obtained even without the GPS device.[267] This result coincides with a number of historical Fourth Amendment rulings. Just as the court in *Entick* remarked that "the eye cannot . . . be guilty of trespass,"[268] and the Court in *Brown* permitted a flashlight to enhance an officer's eyesight to peer into the interior of a car,[269] so too are some district courts holding that GPS technologies are permitted under the inevitable discovery exception because the GPS evidence simply enhances the police's ability to see what they would otherwise be able to see with extended visual surveillance.[270] These

263. *See, e.g.*, Hill v. Commonwealth, No. 1828–11–3, 2012 WL 4773583, at *2–3 (Va. App. Oct. 9, 2012) (applying the independent source exception with regard to GPS tracking data obtained without a warrant).

264. *See* United States v. Orbegoso, No. CR-11-02372-PHX-GMS, 2013 WL 161194 (D. Ariz. Jan. 15, 2013).

265. *Id.* at *1.

266. *Id.* at *2–4.

267. *Id. But see* State v. Bone, No. 12-KA-34, 2012 WL 3968515, at *27 (La. App. Sept. 11, 2012) (holding that the inevitable discovery rule does not apply where the investigating officer obtained a copy of text messages sent by defendant).

268. *See* Entick v. Carrington (1765), *in* 19 A COMPLETE COLLECTION OF STATE TRIALS AND PROCEEDINGS FOR HIGH TREASON AND OTHER CRIMES AND MISDEMEANORS FROM THE EARLIEST PERIOD TO THE PRESENT TIME 1029, 1066 (T.B. Howell Esq., comp., 1813).

269. *See* Texas v. Brown, 460 U.S. 730, 739–40 (1983).

270. *See, e.g.*, United States v. Sparks, 750 F. Supp. 2d 384, 393–94 (D. Mass. 2010) ("Warrantless visual surveillance or 'tailing' of [suspect's] vehicle would have been permissible and would have revealed to the FBI all of the same detail the GPS device provided, only at a much higher cost . . . .").

precedents make the use of the inevitable discovery exception uniquely applicable to GPS tracking evidence obtained without a warrant.

Accordingly, district courts are applying a myriad of exceptions in order to permit GPS information obtained without a warrant to nonetheless still be admitted at trial and not excluded. This further reinforces the notion that district courts are falling back on long-established judicial precedents in a way that has kept *Jones* from working any cataclysmic change in the year since it was decided.

The third major question that district courts are confronting with regard to GPS evidence post-*Jones* is whether traditional standing doctrines apply. As detailed above, the Supreme Court in *Rakas v. Illinois*[271] recognized that Fourth Amendment rights are personal, and cannot be asserted vicariously by individuals who lack an ownership interest in the constitutionally-protected area that was invaded.[272] And the majority opinion in *Jones* seemed to affirm this precedent by going out of its way to mention that Jones held the status of a bailee because he was the primary driver of his wife's car.[273] Taking this cue from the Court, all eleven district court decisions to reach the issue have applied the bedrock standing rules from *Rakas* and concluded that without owning, renting, or being the exclusive user of the vehicle on which the GPS device was placed, that defendant lacks standing to raise a Fourth Amendment suppression claim because the search was of an area that was not constitutionally protected as to him.[274] This reaffirmation of the standing doctrine

271. *See* Rakes v. Illinois, 439 U.S. 128 (1978).

272. *Id.* at 133–34.

273. *See* United States v. Jones, 132 S. Ct. 945, 949 n.2 (2012).

274. United States v. Martinez-Turcio, No. 10-5046, 2012 WL 4054875, at *9 (4th Cir. Sept. 17, 2012); United States v. Shephard, No. 11-6037, 2012 WL 3117513, at *5 (6th Cir. Aug. 1, 2012); United States v. Figueroa-Cruz, No. 11-S-424-S, 2012 WL 6186088, at *9 (N.D. Ala. Dec. 11, 2012) ("Mr. Figueroa has likewise offered no proof of exclusivity, indicia of ownership or even an unqualified permission to use the [vehicle to which a tracking device was attached]."); United States v. Cannon, No. 6:11–cr–02302–JMC–1, 2012 WL 5386045, at *2 (D.S.C. Nov. 1, 2012); United States v. Smith, No. 2:11-cr-00058-GMN-CWH, 2012 WL 4898652, at *3 (D. Nev. Oct. 15, 2012); Bad v. Heaney, No. 12-1589 (DWF/JJK), 2012 WL 3984550, at *1 (D. Minn. Sept. 11, 2012); United States v. Lopez, No. 10-cr-67 (GMS), 2012 WL 3930317, at *5–6 (D. Del. Sept. 10, 2012); United States v. Tan, No. CR 2:10-0262 WBS, 2012 WL 3535887, at *2 (E.D. Cal. Aug. 15, 2012); United States v. Ramos, No. 1:11-cr-111-jgm, 2012 WL 3307006, at*2 (D. Vt. Aug. 13, 2012); United States v. Coleman, No. 3:10-cr-238, 2012 WL 3202957, at *3–4 (W.D.N.C. Aug. 6, 2012);

subsequent to *Jones* is highly significant. This is because it will permit law enforcement to engage in warrantless GPS data-collection and use such evidence against a defendant, provided he lacks standing to assert a violation of his personal rights. This rule allows for ample use of GPS tracking to continue, even without a warrant, depending on who the target is and whether he has a property-law-based interest in the area to be searched.

The fourth and final GPS-related question that district courts have been called to rule on in the aftermath of *Jones* is whether the decision applies retroactively. Patently, for cases on direct appeal, the defendants can turn to *Jones* for assistance because a defendant can invoke "[a] newly announced rule of substantive Fourth Amendment law" until his "conviction . . . become[s] final on direct review."[275] As such, any defendant on direct appeal may turn to *Jones* for potential arguments.[276]

A different approach applies, however, for defendants seeking collateral review in federal court.[277] The Supreme Court has held that, as a general matter, "new constitutional rules of criminal procedure will not be applicable to those cases which have become final before the new rules are announced."[278] Only in those cases where (1) the new rule places certain individual conduct outside of what was previously proscribed by criminal statute, or (2) where a new rule fundamentally alters bedrock procedural elements, would a court decision have retroactive effect.[279] Applying these criteria, all ten court decisions to consider retroactivity have held that *Jones* is not retroactive on collateral review.[280] This makes eminent sense in

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United States v. Barraza-Maldonado, 879 F. Supp. 2d 1022, 1029 (D. Minn. 2012); United States v. Luna-Santillanes, No. 11-20492, 2012 WL 1019601, at *7 (E.D. Mich. Mar. 26, 2012); United States v. Johnson, 871 F. Supp. 2d 539, 547 (W.D. La. 2012); United States v. Hanna, No. 11-20678-CR, 2012 WL 279435, at *4 (S.D. Fla. Jan. 30, 2012); State v. Estrella, 286 P.3d 150, 153 (Ariz. App. 2012).

275. Davis v. United States, 131 S. Ct. 2419, 2431 (2011).

276. *See, e.g.*, State v. Bell, 366 S.W.3d 712, 713–14 (Tex. Crim. App. 2012) (granting petition for discretionary review on direct appeal and remanding for consideration of *Jones*).

277. *See* Teague v. Lane, 489 U.S. 288, 310 (1989); *Bell*, 366 S.W.3d at 713–14.

278. *Teague*, 489 U.S. at 310.

279. *Id.* at 310–11.

280. United States v. Jesus-Nunez, No. 1:10-CR-017-01, 2013 WL 312387, at *7 (M.D. Pa. Jan. 25, 2013); Connolly v. Roden, No. 09-11987-RWZ, 2013 WL 139702, at *2 n.3 (D. Mass. Jan. 11, 2013); Reyes-Sotero v. United States, No. DKN 12-1036, DKC 08-0593, 2012 WL 6681963, at *3 (D. Md. Dec. 21, 2012); Vazquez v. United States,

that the Court's ruling on GPS tracking was about collection of evidence of wrongdoing; it did not go the heart of decriminalizing an act itself.[281] In addition, the *Jones* decision simply indicated a search occurred on the facts of that case; it did not create a new watershed procedural rule that was applicable going forward.[282] Accordingly, *Jones* has not been applied retroactively on collateral review, which further limits its reach.[283]

In sum, the various opinions in *Jones* raised a number of questions with regard to evidence obtained from GPS tracking devices.[284] The post-*Jones* decisions show district courts answering those questions cautiously, and resorting to long-established judicial doctrines and precedents.[285] Thus, while *Jones* did hold that installing and monitoring a GPS tracking device was a search under the Fourth Amendment, it might not be an unconstitutional one if the monitoring of the device was for a short, reasonable duration.[286] Likewise, even if the GPS surveillance constituted an unconstitutional search, it still might not lead to exclusion if the officers relied on then-existing

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No. 2:09-cv-673-FtM-29SPC, 2:08-cr-FTM-29SPC, 2012 WL 5188027, at *7–8 (M.D. Fla. Oct. 19, 2012) ("The *Jones* decision did not recognize a new right, and *Jones* has not been made retroactively applicable to cases on collateral review."); Pickett v. United States, No. 12-2239 (RBK), 2012 WL 5199142 at *2–3 (D.N.J. Oct. 18, 2012); United States v. Reyes, No. 12CV555-MMA, 09CR2487-MMA, 2012 WL 4339070, at *6–7 (S.D. Cal. Sept. 19, 2012) ("*Jones* does not apply retroactively."); Bad v. Heaney, No. 12-1589(DWF/JJK), 2012 WL 3984550 (D. Minn. Sept. 11, 2012); Garcia v. Bradt, No. 09CV7491(VB), 2012 WL 3027780, at *5 (S.D.N.Y. July 23, 2012); United States v. Heath, No. Cr 12-4-H-DWM, 2012 WL 1574123, at *1 (D. Mont. May 3, 2012) ("Unfortunately for Heath, the *Jones* decision is not retroactive."); United States v. Walker, No. 09CR1533WQH, 12CV0410WQH, 2012 WL 666794, at *2 (S.D. Cal. Feb. 29, 2012).

281. *See* United States v. Jones, 132 S. Ct. 945, 953–54 (2012).

282. *See id.*

283. *See, e.g.*, *Jesus-Nunez*, 2013 WL 312387, at *7; *Connolly*, 2013 WL 139702, at *2 n.3; *Reyes-Soters*, 2012 WL 6681963, at *3; *Vazquez*, 2012 WL 5188027, at *7–8; *Pickett*, 2012 WL 5199142, at *2–3; *Reyes*, 2012 WL 4339070, at *6–7; *Bad*, 2012 WL 3984550, at *1; *Garcia*, 2012 WL 3027780, at *5; *Heath*, 2012 WL 1574123, at *1; *Walker*, 2012 WL 666794, at *2.

284. *See Jones*, 132 S. Ct. at 953–54; *id.* at 955–57 (Sotomayor, J., concurring); *id.* at 961–62 (Alito, J., concurring).

285. *See, e.g.*, *Jesus-Nunez*, 2013 WL 312387, at *7; *Connolly*, 2013 WL 139702, at *2 n.3; *Reyes-Soters*, 2012 WL 6681963, at *3; *Vazgez*, 2012 WL 5188027, at *7–8; *Pickett*, 2012 WL 5199142, at *2–3; *Reyes*, 2012 WL 4339070, at *6–7; *Bad*, 2012 WL 3984550, at *1; *Garcia*, 2012 WL 3027780, at *5; *Heath*, 2012 WL 1574123, at *1; *Walker*, 2012 WL 666794, at *2.

286. *See Jones*, 132 S. Ct. at 954.

precedent, or if the officers could have obtained the same evidence through an independent source (such as physical, visual surveillance).[287] And defendants cannot even take advantage of *Jones* if they lacked standing in the area that was monitored.[288] These lines of authority all have the net result of limiting *Jones*'s effect on Fourth Amendment jurisprudence, and certainly give some latitude for warrantlessly-obtained GPS evidence to still come into play at trial.[289]

B. Jones's Impact on the Use of Information Obtained from Other New Technologies

While *Jones* involved the installation of a GPS tracking device to the undercarriage of a vehicle, this has not stopped defendants from attempting to apply the principles enunciated in *Jones* to other technologies and situations.[290] Indeed, the dicta in some of the concurrences in *Jones* seemed to invite attempts to reconsider a number of longstanding principles as they applied to the Fourth Amendment across a wide spectrum of evidence.[291] But as with the tracking device cases described in Part III.A above, decisions in these other areas also show courts moving cautiously, and declining to give an expansive interpretation of *Jones*.[292] Particularly, while lower courts might be applying the property-law-focused test from *Jones*, and while they might note the ideas floated in the concurrences of Justices Sotomayor and Alito, courts have nonetheless deflected many *Jones*-based Fourth Amendment challenges where law enforcement obtained evidence emitted by new technologies.[293]

Verily, *Jones* was significant for reviving a property-law-based test for evaluating a potential Fourth Amendment violation.[294] Because

287. *See id.* at 953–54; United States v. Knotts, 460 U.S. 276, 284–85 (1983).
288. *See* United States v. Karo, 468 U.S. 705, 716, 719–20 (1984).
289. *See Jones*, 132 S. Ct. at 953–54; *Karo*, 468 U.S. at 716, 719–20; *Knotts*, 460 U.S. at 284–85.
290. *See, e.g.*, United States v. Graham, 846 F. Supp. 2d 384 (2012) (applying the reasoning in *Jones* to suppress Cellular Phone Data and Historical Cell Site Location Data).
291. *See Jones*, 132 S. Ct. at 953–54; *id.* at 955–57 (Sotomayor, J., concurrence); *id.* at 961–62 (Alito, J., concurring).
292. *See supra* Part III.A.
293. *See supra* Part III.A.–B.
294. *See Jones*, 132 S. Ct. at 945.

there was a trespass to Mr. Jones's "effect," his car, the Court held a search had occurred.[295]

And trial courts have picked up on this "new" property-law-focused test and applied it to other new technologies. For example, in *State v. Bailey*, the court there considered whether video surveillance taken by the police somehow constituted a trespass onto the defendant's land, and hence ran afoul of *Jones*.[296] The court rejected this view because, in taking the video, "the police did not touch [the defendant's] property, invade [his] private space, or follow [him]."[297] Other lower and intermediate appellate courts have applied property-law tests to new Fourth Amendment challenges as well.[298] So, at the very least, *Jones* has spawned an additional analytical step in which courts must engage when evaluating a Fourth Amendment issue.

But simply applying these property-law tests to new technologies has not meant that more evidence has been suppressed. In fact, in the area of new technologies, courts have increasingly declined to hold that virtual or electronic trespasses result in Fourth Amendment violations. For example, in *United States v. Skinner*, the Sixth Circuit confronted the issue of evidence obtained from the defendant's pay-as-you-go cell phone that emitted a GPS signal that allowed the location of the phone to be tracked.[299] In rejecting his challenge to the evidence, the court relied on the fact that "[n]o such physical intrusion occurred," and that the defendant himself obtained a phone that already had a GPS tracker installed in it when it was purchased.[300] In recognizing that the GPS device came pre-installed, the case was in line with the Supreme Court's decision in *Knotts*, which recognized that no Fourth Amendment violation occurred

295. *See id.*

296. *See* State v. Bailey, No. 009007758, 2012 WL 3655243, at *1 (Del. Super. July 20, 2012).

297. *Id.*

298. *See* United States v. Davis, 690 F.3d 226, 241 n.23 (4th Cir. 2012) (applying *Jones*'s property law analysis to the issue of whether police could search a seized shirt for blood sample); United States v. Perea-Rey, 680 F.3d 1179, 1184–85 (9th Cir. 2012) (applying property law concepts and holding that trespass into the curtilage meant it was a search); Gilbert v. State, No. 58240, 2012 WL 5378174, at *1–2 (Nev. Oct. 31, 2012) (applying property law concepts enunciated in *Jones* to surveillance of open fields on ranch lands).

299. *See* United States v. Skinner, 690 F.3d 772, 774 (6th Cir. 2012).

300. *Id.* at 780.

when a tracking device was implanted by a third party prior to purchase by the defendant.[301] This holding goes right to the point made by Justice Alito in his concurrence in *Jones* in which he noted that the majority's trespassory test would have little utility in the era of smartphones, which already come equipped with GPS devices.[302] Accordingly, *Skinner* shows that because the Supreme Court's decision in *Jones* turned on the initial trespass, its reach has been muted in the area of smartphones, which already have GPS technology and for which no trespass is needed to install the GPS system.[303]

A similar result has been reached with regard to the use of pole camera surveillance. For instance, in *United States v. Nowka*,[304] ATF agents had a third-party utility company install a camera on the utility pole immediately adjacent to the defendant's property.[305] The camera was trained on the defendant's driveway, and showed him placing several firearms into his car, which evidence was later used to obtain a search warrant in an investigation into unlicensed firearms sales.[306] In rejecting the defendant's motion to suppress based on *Jones*, the court recognized that "there was no physical trespass when the camera was attached to the pole," and the camera only showed images that anyone could see standing on the sidewalk, and hence the camera evidence was not unlawfully obtained.[307] Similar results were reached in *United States v. Anderson-Bagshaw*,[308] and *United States v. Brooks*.[309] In both cases, the courts rejected challenges to pole cameras that had been installed adjacent to where the defendants

301. *See* United States v. Knotts, 460 U.S. 276, 279–80 (1983).

302. *See* United States v. Jones, 132 S. Ct. 945, 962–63 (2012).

303. *But see* Commonwealth v. Pitt, No. 2010-0061, 2012 WL 927095 at *6–10 (Mass. Super. Feb. 23, 2012) (holding that even though smartphone contained a GPS tracker, obtaining defendant's location information still required a warrant because the technology provides "a window into the most private dimensions of [our] lives").

304. United States v. Nowka, No. 5:11-cr-00474-VEH-HGD, 2012 WL 2862139, at *4 (N.D. Ala. May 14, 2012).

305. *Id.* at *4–5.

306. *See id.*

307. *Id.* at *4.

308. United States v. Anderson-Bagshaw, No. 1:11-CR-257, 2012 WL 774964 (N.D. Ohio Mar. 8, 2012).

309. United States v. Brooks, No. CR–11–2265–PHX–JAT–003, 2012 WL 5984804 (D. Ariz. Nov. 28, 2012).

lived because no trespass had occurred during the installation.[310] However, what is significant here is that these courts also considered arguments made by the defendants that echoed the arguments by Justices Sotomayor and Alito that, at some point, 24/7 surveillance might be so pervasive that it triggers Fourth Amendment concerns.[311] Emblematic of the caution being taken by district courts in this area, both courts declined to read the tea leaves about what the Court might do in a future case based on the dicta in the concurrences.[312] As such, just like smartphone GPS tracking, the questions raised in *Jones* have not resulted in pole camera evidence being suppressed so far.

Likewise, district courts have continued to uphold investigative techniques where agents access peer-to-peer network shared files.[313] For example, in *United States v. Brooks*,[314] the defendant had a closed peer-to-peer file-sharing network set up, which allowed him to accept "friend" requests and share files from his network with those friends to whom he allowed access.[315] After he accepted a friend request from an undercover agent, the agent was able to access certain files on the defendant's network that contained child pornography.[316] In the defendant's motion to suppress, he raised *Jones* and held that the agent committed an electronic trespass to his network files.[317] The court rejected this argument and held that "'merely the transmission of electronic signals'" did not result in an unlawful trespass.[318] At least one other court has reached a similar result and rejected the argument that an undercover agent commits a virtual trespass by

310. *Brooks*, 2012 WL 5984804, at *1, *4–7; *Anderson-Bagshaw*, 2012 WL 774964, at *1, *3.

311. *See Brooks*, 2012 WL 5984804, at *4–6 (citing United States v. Jones, 132 S. Ct. 945, 962–64 (2012) (Alito, J., concurring)); *Anderson-Bagshaw*, 2012 WL 774964, at *2.

312. *Brooks*, 2012 WL 5984804, at *5–6; *Anderson-Bagshaw*, 2012 WL 774964, at *2.

313. *See* United States v. Brooks, No. 12-CR-166 (RRM), 2012 WL 6562947 (E.D.N.Y. Dec. 17, 2012); United States v. Nolan, No. 1:11CR 82 CEJ., 2012 WL 1192183, at *10–11 (E.D. Mo. Mar. 6, 2012) (Report and Recommendation), *adopted by* United States v. Nolan, no. 1:11-CR-82 CEJ, 2012 WL 1192757, at *1 (E.D. Mo. Apr. 9, 2012).

314. 2012 WL 6562947.

315. *Id.* at *1.

316. *Id.*

317. *Id.* at *1–2, 5.

318. *Id.* at *5 (quoting United States v. Jones, S. Ct. 945, 953 (2012)).

accessing files on a peer-to-peer network to which he was given access by the defendant.[319]

In a similar vein, courts have declined to suppress evidence obtained by the use of electronic "key fobs."[320] Key fobs are electronic devices that send a signal to a particular vehicle and allow the vehicle to be unlocked or to set off the car's theft alarm.[321] In *United States v. Cowan*,[322] officers executed a search warrant on the defendant's home, and during a protective pat-down they felt a set of keys and a key fob in the defendant's pocket.[323] The officers subsequently pressed the alarm button on the key fob in order to determine if the defendant's vehicle was located outside.[324] In rejecting the defendant's suppression argument, the court declined to hold that merely sending the electronic signals from the fob resulted in a trespass to the vehicle.[325] A similar result was reached in *Nunley v. State* in which an officer pressed a key fob's remote door-lock button: the court held that "[t]he act of transmitting the electronic signal from the key to the car did not constitute a trespass."[326] These and other cases involving key fobs show courts declining to extend *Jones*'s trespassory test to the extreme and to the virtual.[327] Rather, these courts recognize that electronic "trespasses" using key fobs should not automatically result in suppression.[328]

319. *Nolan*, 2012 WL 1192183 at * 10–11, *adopted by* United States v. Nolan, No. 1:11-CR-82 CEJ, 2012 WL 1192757, at * 1 (E.D. Mo. Apr. 9, 2012).

320. *See* United States v. Cowan, 674 F.3d 947, 952–57 (8th Cir. 2012); Nunley v. State, No. 05-11-01066-CR, 2012 WL 6035512, at *2–3 (Tex. Ct. App. Dec. 5, 2012); Wiley v. State, No. 01-11-00147-CR, 2012 WL 3773293, at *9–10 (Tex. Ct. App. Aug. 30, 2012).

321. *Cowan*, 674 F.3d at 951; *Wiley*, 2012 WL 3773293, at *9.

322. United States v. Cowan, 674 F.3d 947 (8th Cir. 2012).

323. *Id.* at 951.

324. *Id.*

325. *Id.* at 955–57. Alternatively, the court held that even if the use of the fob was a search, it was justified by the automobile exception. *Id.*

326. Nunley v. State, 2012 WL 6035512 at *2–3.

327. *See, e.g.*, Wiley v. State, No. 01–11–00157–CR, 2012 WL 3773293 at *9–10 (Tex. App. Aug. 30, 2012) (holding that use of car alarm button did not violate defendant's Fourth Amendment rights).

328. *See supra* notes 322–327.

Wireless networks provide an additional example of where courts are being asked to outline the limits of *Jones*.[329] Wireless network routers emit radio signals that permit a user in one's home or business to access the internet without requiring the computer to be physically attached to an ethernet cable and cable router.[330] While these systems are convenient, they have the downside of being vulnerable to hackers and intrusion from the outside.[331] In addition, as a simple factual matter, the networks often broadcast radio signals that broadcast to everyone in the vicinity that the user has a wireless network set up.[332] This dynamic came to a head in *United States v. Ahrndt*.[333] In that case, a neighbor of the defendant obtained access to the internet through the defendant's nearby wireless connection.[334] However, when the neighbor did so, the neighbor got access to a shared library the defendant had created on iTunes, which contained images of child pornography.[335] After the neighbor alerted police, an officer asked the neighbor to repeat for him how the neighbor accessed the defendant's network, which in turn led the officer to obtain a search warrant.[336] In denying the defendant's motion to suppress, the district court held that by using a wireless network that was unsecured, the defendant had essentially broadcast his files to anyone in the public who might care to see.[337] In reaching this decision, the court was echoing the holding in *Olmstead* that the use of telephone lines had the result of magnifying one's voice to the outside world.[338] While the Ninth Circuit remanded the case for

329. *See Wi-Fi*, *in* ENCYCLOPEDIA BRITANNICA (2013), *available at* http://www.britannica.com/EBchecked/topic/1473553/Wi-Fi (explaining how wireless networks function).

330. *See WLAN*, in *Glossary*, WI-FI ALLIANCE, http://www.wi-fi.org/knowledge-center/glossary (last visited May 23, 2013).

331. *See* Christopher Soghoian, *Caught in the Cloud: Privacy, Encryption, and Government Back Doors in the Web 2.0 Era*, 8 J. TELECOMM. & HIGH TECH. L. 359, 373–75 (2010).

332. *See supra* notes 329–30.

333. United States v. Ahrndt, 475 Fed. App'x. 656 (9th Cir. 2012).

334. *Id.* at 657.

335. *Id.*

336. *Id.*

337. *See* United States v. Ahrndt, No. 08-468-KI, 2010 WL 373994, at *5 (D. Or. Jan 28, 2010) *rev'd*, 475 F. App'x 656 (9th Cir. 2012).

338. *See* Olmstead v. United States, 277 U.S. 438, 465–66 (1928), *overruled by* Katz v. United States 389 U.S. 347 (1967), *and* Berger v. New York, 388 U.S. 41 (1967) ("The reasonable view is that one who installs in his house a telephone instrument

further fact-finding,[339] the decision shows once again that lower courts are not employing *Jones* to suppress evidence based on the electronic or virtual trespasses.

What undergirds these decisions is the long-established third-party doctrine recognized in *United States v. Miller*.[340] This doctrine holds that individuals lose a reasonable expectation in privacy information they voluntarily share with a third-party who may give that information up to the government.[341] And notwithstanding the fact that Justice Sotomayor in *Jones* suggested that it might be time to reassess the validity of the third-party doctrine in this electronic age of data-sharing with third parties,[342] numerous post-*Jones* decisions have applied the third-party doctrine to permit law enforcement to obtain historical cell phone location data,[343] text messages,[344] tweets,[345] and telephone numbers dialed and calls received[346] because they all were shared with third-party communication providers in transmission. In reaching these decisions, these courts have recognized Justice Sotomayor's concurrence, but have concluded that "Justice Sotomayor's potential willingness to reconsider the third party doctrine says very little about how the Supreme Court as a

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with connecting wires intends to project his voice to those quite outside, and that the wires beyond his house, and messages while passing over them, are not within the protection of the Fourth Amendment.").

339. 475 Fed. App'x. at 658.

340. 425 U.S. 435 (1976).

341. *Id.* at 443.

342. United States v. Jones, 132 S. Ct. 945, 957 (2012) (Sotomayor, J., concurring).

343. *See* United States v. Graham, 846 F. Supp. 2d 384, 398–403 (D. Md. 2012) (declining to reconsider third-party doctrine where agents had sought historical cell phone location data because "unless and until the Supreme Court affirmatively revisits the third-party doctrine the law is [still the same under *Miller*]"). *Accord* United States v. Madison, No. 11-60285-CR, 2012 WL 3095357, at *8–10 & n.10 (S.D. Fla. July 30, 2012).

344. State v. Roden, 279 P.3d 461, 464–66 (Wash. Ct. App. 2012). *But see* State v. Patino, No. P1-10-1155A, 2012 WL 3886269 (Super. Ct. R.I. Sept. 4, 2012) (holding that defendant retained privacy interest in text messages); *Roden*, 279 P.3d at 472–74 (Van Deren, J., dissenting) (stating that third-party doctrine should not apply given the reasonable expectation of privacy in text messages).

345. People v. Harris, 949 N.Y.S.2d 590, 593–96 (N.Y. Crim. Ct. 2012) (rejecting defendant's reliance on Justice Sotomayor's concurrence and holding that tweets constitute "[p]ublication to third parties," and hence there is no reasonable expectation of privacy).

346. United States v. Gomez, No. 10-321, 2012 WL 3844370, at *2 (E.D. Pa. Sept. 5, 2012).

whole would view such a challenge, and certainly does not give a district court much comfort in making a decision that would directly conflict with long-established Supreme Court precedent."[347] This stance is emblematic of the caution with which district courts have approached these issues involving new technologies.

So, while *Jones* raised a number of questions that defendants have used to mount challenges to evidence collected by law enforcement from the use of new technologies, subsequent decision-making has not led to widespread or even consistent suppression. Perhaps as a result of the fact that the majority in *Jones* rested on a trespass-based theory and not upon any of the more far-reaching notions mentioned in the two concurrences, district courts have largely declined to break new Fourth Amendment ground where novel technologies are concerned. These courts have declined to give expansive interpretations to *Jones* by declining to hold that every virtual or electronic intrusion into a new technology might be a "trespass" that results in a search.[348] Likewise, these courts have continued to apply the third-party doctrine enunciated in *Miller*.[349] And as a result, the post-*Jones* Fourth Amendment jurisprudence looks much the same as it did before.

C. Jones's Impact on the Fourth Amendment Generally

As detailed above, when the Supreme Court granted certiorari in *Jones*, there was much anticipation that the Court might embrace the mosaic theory suggested by the D.C. Circuit's decision in *Maynard*.[350] And between the concurrences of Justices Sotomayor and Alito, it appears that five Justices might be open to such a new rule.[351] However, while raising the question, a majority of the Court did not decide it.

And as with the other questions raised by *Jones*, district courts have declined to adopt such an understanding in the absence of a more definitive embrace by a majority of the Court. For example, in *United States v. Graham*, the court recognized that the *Jones* majority did not reach the issue of the mosaic theory.[352] The court furthermore

347. *Id.*
348. *See supra* notes 292–339.
349. *See supra* notes 125–132, 342–45 and accompanying text.
350. *See supra* notes 1–6 and accompanying text.
351. *See supra* notes 8–18 and accompanying text.
352. United States v. Graham, 846 F. Supp. 2d 384, 401 (D. Md. 2012).

noted the "problematic" consequences of adopting a mosaic theory test, including how it would penalize law enforcement for being thorough and engaging in information-gathering techniques, which would be permissible in isolation.[353] After considering the difficulties involved with applying such a theory, the district court in *Graham* held that "[u]ntil the Supreme Court or the United States Court of Appeals for the Fourth Circuit definitively conclude that an aggregation of surveillance records infringes a Fourth Amendment legitimate expectation of privacy, this Court must apply the facts of this case to the law as currently interpreted."[354] A number of other district courts have followed suit and declined to adopt a mosaic theory approach to the Fourth Amendment.[355]

Accordingly, the *Jones* decision has not ushered in a general realignment of Fourth Amendment jurisprudence, at least not yet. Perhaps such a realignment in the area of emerging technologies will have to wait for legislative action. Specifically, in his concurrence, Justice Alito suggested that legislation in this area would be merited and perhaps the best way forward.[356] At least one district court has joined in that call, by stating that "if the arc of technological improvement (or the implementation of that technology by the government) should be altered in a way that does infringe a person's legitimate expectation of privacy, the solution is properly for the legislature to address."[357] And it would not be unprecedented for the legislature to take such action.[358] After the Court decided *Olmstead*, Congress passed the Federal Communications Act of 1934.[359]

353. *Id.* at 401–03.

354. *Id.* at 394.

355. United States v. Brooks, No. CR 11-2265-PHX-JAT-003, 2012 WL 5984804, at *5–6 (D. Ariz. Nov. 28, 2012) (declining to adopt mosaic theory); United States v. Mohamud, No. 3:10-CR-00475-KI, 2012 WL 5208173, at *7 (D. Or. Oct. 22, 2012) (applying the standard enunciated in *Smith*); United States v. Anderson-Bagshaw, No. 1:11-CR-257, 2012 WL 774964, at *3 (N.D. Ohio Mar. 8, 2012). *But see* Commonwealth v. Wyatt, No. 2011-00693, 2012 WL 4815307, at *7 (Mass. Super. Aug. 7, 2012) (suggesting the mosaic theory should apply with regard to historical cell data); Montana State Fund v. Simms, 270 P.3d 64, 69–70 (Mont. 2012) (Nelson, J., specially concurring) (suggesting that the mosaic theory should apply to public camera surveillance).

356. United States v. Jones, 132 S. Ct. 945, 964 (2012) (Alito, J., concurring).

357. *Graham*, 846 F. Supp. 2d at 390.

358. *See supra* notes 103–105, 124 and accompanying text.

359. *See supra* notes 103–105 and accompanying text.

Likewise, after the *Katz* decision, Congress passed Title III. [360] What this history has shown is that when Congress acts in this manner, it sets clear ground rules that law enforcement can understand and follow, and that courts can easily apply. And given that Congress is accountable to the people through the democratic processes, any legislation passed should likely have popular legitimacy, and be subject to further amendment should the need arise.

So, it remains to be seen whether the mosaic theory will ever get a definitive ruling from the Supreme Court, or whether the Court desires to usher in a new paradigm when it comes to the Fourth Amendment. Rather, at least for now, any realignment of the Fourth Amendment and its protections in the area of new technologies may have to come from the federal and state legislatures and not from the courts.

CONCLUSION

The Fourth Amendment protects some of our most important and sacrosanct rights as American citizens. As a Nation, we were born out of a search for liberty, freedom, and independence from the British Crown. In reaction to the abuses of general warrants and writs of assistance, the Framers adopted a Fourth Amendment that guaranteed each of us certain rights against unreasonable searches and seizures. And while the Supreme Court has continued to safeguard these rights amidst advancing technologies—from the advent of the telephone, to the invention of the flashlight, to the use of thermal imagers, and now to the use of GPS trackers—new challenges have arisen with regard to how we understand and apply the Fourth Amendment to modern times.

Jones represented an opportunity for the Court to make a far-reaching change in Fourth Amendment jurisprudence. But instead of fundamentally making new constitutional ground, the Court in *Jones* revived a property-law-based approach to the Fourth Amendment, and grafted a new/old test onto the *Katz* test that had reigned for the past thirty years. But while the Court revived property-law theory to find there was a search, it did not decide much else. In fact, while a number of Justices suggested they would be ready to reconsider certain bedrock principles, they declined to do so as a majority in *Jones*.

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360. *See supra* note 124 and accompanying text.

As a result, district courts left to answer the issues raised by the various opinions in *Jones* have responded with caution. Rather than fly headlong into uncharted territory, district court have applied long-standing precedents to deal with the new challenges raised by new technologies. Consequently, while *Jones* might signal changes on the horizon, a year's worth of post-*Jones* data shows that widespread change has not yet come. Thus, while *Jones* might not have been the harbinger of change it was hyped to be, it will take a future case to see if it was the start of a wholly new chapter in Fourth Amendment jurisprudence.