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No. 10-1259

In The Supreme Court of the United States

UNITED STATES OF AMERICA,
Petitioner,
v.

ANTOINE JONES,
Respondent.

On Writ of Certiorari to the
United States Court of Appeals
for the District of Columbia Circuit

BRIEF OF THE RUTHERFORD INSTITUTE AND THE NATIONAL MOTORISTS ASSOCIATION *AMICI CURIAE* IN SUPPORT OF RESPONDENT

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QUESTIONS PRESENTED

1. Whether the warrantless use of a GPS tracking device on respondent's vehicle to monitor its movements on public streets violated the Fourth Amendment.

2. Whether the government violated respondent's Fourth Amendment rights by attaching the GPS tracking device to his vehicle without a valid warrant and without his consent.

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INTEREST OF *AMICI*[1]

The Rutherford Institute is an international nonprofit civil liberties organization headquartered in Charlottesville, Virginia. Founded in 1982 by its President, John W. Whitehead, the Institute specializes in providing legal representation without charge to individuals whose civil liberties are threatened or infringed and in educating the public about constitutional and human rights issues. The Rutherford Institute is interested in the instant case because a decision adverse to the respondent will threatens the fundamental rights of all citizens to privacy at a time when advances in surveillance technology raise a real danger of the creation of a police state.

The National Motorists Association (NMA) is a membership-based organization founded in 1982 to protect and uphold the rights of the driving public. Association members, located in all 50 states and the District of Columbia, are keenly interested in maintaining safe and responsible highway travel. That includes advocating for fair traffic laws and proper law enforcement actions that uphold the fundamental tenets of the US Constitution. One of the most important rights afforded to all US citizens, and one that is vital for the nation's motorists, is the Fourth Amendment protection against illegal search

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[1] Pursuant to Sup. Ct. R. 37.6, *amici* certify that no counsel for a party to this action authored any part of this *amicus curiae* brief, nor did any party or counsel to any party make any monetary contribution to fund the preparation or submission of this brief. Counsel of record for the parties to this action have consented to the filing of this *amicus curiae* brief.

and seizure. The use of modern surveillance technology by law enforcement is testing the boundaries of that protection. The current news that General Motors has been using its OnStar monitoring system to continue mining data from unsuspecting former customers is an indication of how, without checks and balances, technology can be used to undermine basic privacy rights. When law enforcement is involved, as with *United States v. Antoine Jones*, proper oversight must be maintained by the judiciary. Motorists must be afforded all the protection of the US Constitution against unwarranted monitoring and data collection.

SUMMARY OF THE ARGUMENT

At stake in this case is nothing less than the continued vitality of the Fourth Amendment in this modern technological age. This case presents an opportunity for the Court to clarify the implications of the Fourth Amendment in the current landscape of surveillance technology—technology that can uncover nearly every detail of an individual's intimate life. While this technology can serve a useful purpose in apprehending criminals, the essence of the Fourth Amendment dictates that law enforcement officials not be permitted free reign to conduct high-tech surveillance absent judicial oversight through the warranting process. It is imperative that the Court recognize this case as an example of the widespread and growing use of surveillance technology by government officials, and that the Court provide meaningful direction to lower

courts in applying the Fourth Amendment in this modern environment.

This case also allows the Court to expound on its prior statements to the effect that even in public places, citizens have certain reasonable expectations of privacy that are transgressed by secretive, all-encompassing government monitoring. Refusing to impose proper Fourth Amendment limits on Global Positioning System ("GPS") monitoring and other methods of technological surveillance would grant police unacceptable levels of discretion and enable the development of an authoritarian surveillance state.

Such a state would not only result in the destruction of the last vestiges of citizens' privacy, but would also have a serious chilling effect on the fundamental freedoms of speech, religious exercise, and association. With no end in sight for the realization of heretofore unimaginable surveillance capabilities, this Court must fulfill its duty to establish meaningful limits on the use of these capabilities by police so as to ensure the continued efficacy of the Fourth Amendment in this digital age, and to preclude a subtle erosion of other liberties guaranteed to American citizens by the Bill of Rights. Requiring police to obtain a search warrant for the use of GPS and similar technology to monitor citizens is essential if the Court is to ensure meaningful protection of these liberties.

Thus, while the warrantless installation and employment of a GPS device to track Jones' movements surely violated his Fourth Amendment right to be free from unreasonable searches and

seizures, the importance of this case transcends the immediate controversy presented.

ARGUMENT

I. The Court Must Delineate Proper Constitutional Limitations on the Use of Surveillance Technology

A. The Court's Application of Fourth Amendment Principles Must Account For the Evolving Nature of Threats to Privacy Posed by Evolving Technology

The advent of radically advanced citizen-monitoring capabilities requires this Court to articulate an interpretation of the Fourth Amendment's protections that facilitates its application in technologically sophisticated contexts. The state's arsenal of surveillance technologies now includes a multitude of devices, described in detail below, which enable it to comprehensively monitor an individual's private life without necessarily introducing the type of physical intrusion into his person or property covered by this Court's well-established Fourth Amendment jurisprudence.

A failure to address the privacy ramifications of these new technologies, thereby permitting nearly limitless government surveillance of the intimate details of citizens' everyday lives, would have disastrous consequences for the nation. As Justice Robert Jackson, chief U.S. prosecutor at the Nuremberg Trials, argued, "Uncontrolled search and

seizure is one of the first and most effective weapons in the arsenal of every arbitrary government…Among deprivations of rights, none is so effective in cowing a population, crushing the spirit of the individual and putting terror in every heart." *Brinegar v. United States*, 338 U.S. 160, 180 (1949) (Jackson, J., dissenting).

Allowing law enforcement to acquire evidence without a warrant by employing advanced technologies opens the door to ceaseless, suspicionless surveillance of innocent Americans with no checks or oversight. Judicial deference to law enforcement in the instant case would be dangerous, rendering the Fourth Amendment effectively obsolete in a wide range of modern-day circumstances. If the Court were to uphold the search at issue, it is difficult to discern any limiting principles to preclude the government from requiring GPS installations on every newly-manufactured car or from amassing enormous databases detailing the intimate lives and habits of every citizen, without judicial oversight or checks of any kind. This case requires the Court to draw a line in the sand, clearly delineating the boundaries of permissible surveillance and reestablishing the Fourth Amendment as a meaningful bar to an increasingly authoritarian national security state.

A brief look at the various technologies that are now available to law enforcement highlights the need for a modern delineation of proper Fourth Amendment boundaries for government surveillance.

1. GPS Tracking

As evidenced by this case, GPS is an increasingly formidable tool in the government's surveillance arsenal. GPS technology involves a tangled fusion of state and private interests. While the Department of Defense is responsible for operating the GPS system, the program receives oversight and guidance through the National Executive Committee for Space-Based Positioning, Navigation, and Timing (PNT)—a joint civil/military body established by presidential directive.[2] The National Executive Committee is chaired jointly by the Deputy Secretaries of Defense and Transportation.[3] The 24 satellites utilized to enable GPS technology were manufactured by third party defense contractors, such as Lockheed Martin, and are owned and operated by the United States Department of Defense.[4] The government allows third-party manufacturers, such as Tom-Tom and Garmin, to make hand-held GPS devices for civilian use in cars.[5] Each GPS-capable device has its own individualized computer chip from the third party manufacturing company that can be used to identify the whereabouts of an individual customer. Individuals using GPS technology cannot

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[2] *The U.S. Government Manages GPS as a National Asset*, Federal Agencies, http://www.gps.gov/policy/agencies (last visited Aug. 5, 2011).

[3] *Id.*

[4] *Lockheed Martin GPS II Team Completes Key Flight Software Milestone*, http://www.lockheedmartin.com/products/GPS (last visited Aug. 5, 2011).

[5] *What is GPS?* Garmin, http://www8.garmin.com/aboutGPS/ (last visited Aug. 30, 2011).

independently protect themselves from spying, as the use of GPS jamming equipment violates federal law.[6]

2. Drones

The government utilizes unmanned aerial vehicles (UAVs) for covert surveillance. UAVs have been successfully employed in military contexts since World War II.[7] Modern-day drones are often piloted remotely, and can be used to produce real-time images.[8] Government programs continue to make drones increasingly discreet and effective. Both the Central Intelligence Agency (CIA), and the Defense Advanced Research Projects Agency (DARPA) have experimented with robotic insects equipped with cameras or microphones.[9] The Air Force's newest UAV model uses panoramic cameras to supply military personnel with images spanning an entire

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[6] *Information About GPS Jamming*, Federal Agencies, http://www.gps.gov/policy/interference/jamming (last visited Aug. 5, 2011) (Use violates 27 U.S.C. § 333 and 47 U.S.C. § 301).

[7] *Spies that Fly: Timeline of UAVs*, PBS (Nov. 2002), http://www.pbs.org/wgbh/nova/spiesfly/uavs.html (last visited Aug. 5, 2011).

[8] Phil Stewart, *U.S. Looks to Export Drone Technology to Allies*, Reuters (Mar. 25, 2010), http://www.reuters.com/article/2010/03/25/us-usa-drones-idUSTRE62O5RW20100325. (last visited Aug. 5, 2011).

[9] Rick Weiss, *Dragonfly or Insect Spy? Scientists Work on Robobugs*, Washington Post (Oct. 9, 2007), http://www.washingtonpost.com/wp-dyn/content/article/2007/10/08/AR2007100801434.html (last visited Aug. 29, 2011).

city.[10] According to one official, the advantage of this model is that "there is no way for the adversary to know what we're looking at, and we can see everything."[11]

Such tools are helpful in the military context in which UAVs have traditionally been used. However, an increasing number of UAV test sites and training facilities on U.S. soil are part of a push to build a UAV infrastructure for flying missions throughout the United States.[12] UAVs are now routinely used in United States border patrols.[13] Currently, two drones are operated out of Grand Forks, North Dakota; one out of Corpus Christi, Texas; and another out of Cocoa Beach, Florida.[14]

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[10] Ellen Nakashima and Craig Whitlock, *With Air Force's Gorgon Drone 'We Can See Everything'*, The Washington Post (Jan 2, 2011), http://www.washingtonpost.com/wp-dyn/content/article/2011/01/01/AR2011010102690.html?sid=ST2011012204147 (last visited Aug. 29, 2011).

[11] *Id.*

[12] Richard Wheeler, *Drones Set to Invade National Parks*, Wired Magazine (Feb. 28, 2011), http://www.wired.com/dangerroom/2011/02/drones-set-to-invade-u-s-national-parks/ (last visited Aug. 5, 2011).

[13] Department of Homeland Security *Unmanned Aerial Vehicles Operating in Arizona to Support Border Security*, Department of Homeland Security (June 25, 2004), http://www.dhs.gov/xnews/releases/press_release_0447.shtm (last visited Aug. 5, 2011).

[14] Brian Bennett, *Predator Drones do Domestic Duty*, latimes.com (Sept. 12, 2011), http://www.latimes.com/news/nationworld/nation/la-na-domestic-drones-20110912,0,3833424.story (last visited Sept. 28, 2011).

The agency plans to add three more domestic drones by the end of this year.[15]

Increasingly worrisome is the use of military surveillance drones in local law enforcement.[16] The precision with which drones can detect intimate activity is remarkable. For instance, a drone can tell whether a hiker eight miles away is carrying a backpack.[17] Law enforcement officials promise to use drones to locate missing children and hunt illegal marijuana plants, but under many states' proposed rules, they could also be used to track citizens and closely monitor them based on the mere suspicions of law enforcement officers.[18]

3. Surveillance Cameras

Surveillance cameras are an ever-growing presence in American cities.[19] Though the use of surveillance cameras may be benign at first, they can ultimately be used to threaten privacy and liberty interests.

Hundreds of wireless digital cameras are being used by police in many major American cities,

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[15] *Id.*

[16] Larry Copeland, *Police Turn to Drones for Domestic Surveillance*, U.S.A. Today (Jan. 14, 2011), http://www.usatoday.com/tech/news/surveillance/2011-01-13-drones_N.htm (last visited Aug. 5, 2011).

[17] Bennett, *supra*.

[18] Copeland, *supra*.

[19] See Martha T. Moore, *Cities Opening More Video Surveillance Eyes*, USA Today (July 18, 2005), http://www.usatoday.com/news/nation/2005-07-17-cameras-cities_x.htm (last visited Sept. 13, 2011).

such as New Orleans, Baltimore, and Chicago.[20] A member of the surveillance camera industry states that, "pretty soon, security cameras will be like smoke detectors: They'll be everywhere."[21] The Department of Homeland Security has given hundreds of millions of dollars to cities for surveillance purposes, much of which was spent on surveillance cameras.[22] The cameras are installed on office buildings, banks, stores, and private establishments. While the cameras have the potential to be an effective tool in preventing crimes and capturing criminals, they can also lead to suspicionless monitoring of innocent individuals that may chill the exercise of First Amendment rights. For example, the New York Police Department has adopted the practice of videotaping individuals engaged in lawful public demonstrations.[23]

The government also uses traffic cameras as a form of visual surveillance. These cameras were designed to identify individuals who speed through the red light phase of traffic signals. The cameras are connected to the traffic signal and to sensors that monitor traffic flow just before the crosswalk or stop line. The system continuously monitors the traffic signal and the camera photographs any vehicle that doesn't stop during the red phase, generally

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[20] *Id.*

[21] *Id.*

[22] *Id.*

[23] *Who's Watching? Video Camera Surveillance in New York City and the Need for Public Oversight*, New York Civil Liberties Union (Fall 2006), at 8, http://www.nyclu.org/pdfs/surveillance_cams_report_121306.pdf (last visited Sept. 28, 2011).

recording the date and time and magnifying the images of the license plate and the motorist's face.[24]

These traffic cameras are no longer used exclusively to enforce traffic laws; they are also employed for tracking individuals as they move about a city. In some areas, a network of traffic cameras provides a comprehensive view of the streets. In 2009, Chicago had 1500 cameras set up throughout the city and actively used them to track persons of interest.[25]

4. Smart Dust

Smart dust devices are tiny wireless microelectromechanical sensors (MEMS) that can detect light and movement.[26] These "motes" could eventually be as tiny as a grain of sand, but will still be capable of gathering massive amounts of data, running computations and communicating that information using two-way band radio between

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[24] *Q&A: Red Light Cameras*. Insurance Institute for Highway Safety (June 2011), http://www.iihs.org/research/qanda/rlr.html (last visited Aug. 5, 2011).

[25] William M. Bulkeley, *Chicago's Camera Network Is Everywhere*, The Wall Street Journal (Nov. 17, 2009), http://online.wsj.com/article/SB10001424052748704538404574539910412824756.html (last visited Aug. 5, 2011).

[26] Thomas Hoffman, *Smart Dust*, Computerworld (Mar. 24, 2003, 12:00 PM), http://www.computerworld.com/s/article/79572/Smart_Dust (last visited Aug. 5, 2011).

motes as far as 1,000 feet away.[27] While currently at a design impasse due to the limitations of existing technology, the goal for researchers is to reduce these chips from their current size of 5 mm to a size of 1 mm per side.[28] In the near future law enforcement officials will be able to use these tiny devices to maintain covert surveillance operations on unsuspecting citizens.

5. Radio Frequency Identification

Another type of computer chip that the government utilizes is Radio Frequency Identification (RFID). RFIDs have the ability to contain or transmit information wirelessly using radio waves.[29] These devices can be as small as a grain of rice and can be attached to virtually anything, from a piece of clothing to a vehicle.[30] If manufacturers and other distributors of clothing, personal electronics, and other items begin to tag their products with RFID, any law enforcement officer armed with an RFID reader could covertly search an individual without his or her knowledge.[31]

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[27] *Id.*

[28] *Id.*

[29] *What is RFID?*, RFID Journal, http://www.rfidjournal.com/article/articleview/1339/1/129/ (last visited Aug. 5, 2011).

[30] Id.

[31] Joseph Christiana, *Law Enforcement Response to Concerns Regarding RFID Technology,* Harvard School of Engineering and Applied Sciences (Mar. 2, 2007), http://www.eecs.harvard.edu/cs199r/bd-rfid/lawEnforcement.pdf (last visited Aug. 5, 2011).

6. Cell Phones

Many cell phones contain tracking chips which enable cellular providers to identify the location of the user. For instance, the collection of geographic data ("geodata") by Apple began in April 2010, starting with iPhone OS 3.2 and continuing into the current iOS 4 software.[32] According to Apple, geodata is being tracked and transmitted only when the Location Services option in the settings menu is turned on.[33] The device then transmits geodata about nearby cell towers and Wi-Fi access points.[34] The collected geodata is stored on the device, anonymized with a random identification number, and transmitted over an encrypted Wi-Fi network once every 12 hours to Apple.[35] It is reasonable to expect that government will eventually attempt to tap the troves of information maintained by Apple and other cellphone providers.

7. Collection of Wi-Fi Data

Google has been the subject of numerous privacy lawsuits recently as a result of collecting data from computers on unencrypted Wi-Fi networks.[36] The data collected include files and

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[32] Brian X. Chen, *Why and How Apple Is Collecting Your iPhone Location Data*, Wired.com (Apr. 21, 2011), http://www.wired.com/gadgetlab/2011/04/apple-iphone-tracking. (last visited Aug. 5, 2011).

[33] *Id.*
[34] *Id.*
[35] *Id.*
[36] *See e.g.*, Associated Press, *Google Sued Over Street View* (April 5, 2008), http://articles.boston.com/2008-04-

emails sent over the Internet from computers on the networks.[37] The data were collected by a software program installed in Google's "street cars" which was designed to triangulate Wi-Fi signals for mapping purposes.[38] The Google operation collected personal information from literally millions of Internet users without their knowledge or consent.[39] There is no reason to think that government officials are not, or will not be using this technology to collect data from individuals. Recently, a professor at Stevens Institute of Technology invented for a mere $600 an aerial drone that can spy on even private Wi-Fi networks.[40] The drone the professor created was a mere eighteen inches long. [41] Such a device could be used to detect financial information, personal correspondence, and any other data transmitted over the wireless network.[42] Coupled with the visual component of the aerial drones discussed above,

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05/business/29275926_1_street-level-photos-google-site-street-view (last visited Sept. 2, 2011).

[37] *Id.*

[38] Andrew Hough, *Google Wi-Fi Privacy Row: Eric Smidt Admits Search Engine 'Screwed up'*, The Telegraph (June 4, 2010), http://www.telegraph.co.uk/finance/newsbysector/mediatechnologyandtelecoms/digital-media/8549781/Eric-Schmidt-admits-he-screwed-up-over-Facebooks-networking-power.html (last visited September 13, 2011).

[39] *Id.*

[40] Bob Yirka, *Group Shows Botnet Threat in the Future May Come From the Sky*, physorg.com (Sept. 9, 2011), http://www.physorg.com/news/2011-09-group-botnet-threat-future-sky.html (last visited September 13, 2011).

[41] *Id.*

[42] *Id.*

aerial drones will be capable of detecting almost all intimate or personal activity.

8. Social Networks

The government has shown a great deal of interest in utilizing social networking information for a variety of information-gathering activities. Among them is the Drug Enforcement Agency's (DEA's) use of YouTube, twitter, and MySpace to track alleged criminals.[43] A presentation created by the DEA to instruct officers in the uses of social networking details the ways that an agent can utilize these resources to aid in investigations.[44] For instance, the DEA recommends utilizing visualizing programs available online for both MySpace and YouTube that chart connections between users based on subscribers, subscriptions, and friends.[45] It also invites agents to utilize a site that appears to exploit a glitch in MySpace to allow agents to view pictures that users have designated as private.[46]

The Department of Homeland Security has established a Social Networking Monitoring Center ("SNMC") to monitor social networking sites for "items of interest."[47] Documents obtained by the

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[43] *DEA Social Networking Presentation*, Electronic Frontier Foundation (May 14, 2010), http://www.eff.org/files/20100514_dea_socialnetworking.pdf (last visited Aug. 5, 2011).
[44] *Id.*
[45] *Id.*
[46] *Id.*
[47] Jennifer Lynch, *New FOIA Documents Reveal DHS Social Media Monitoring During Obama Inauguration*, Electronic Frontier Foundation (Oct. 13, 2010),

Freedom of Information Act indicate that the Department of Homeland Security has discussed the utility of mass collection and use of social network information.[48] Prior to President Obama's inauguration, the Department of Homeland Security collected a massive amount of data on individuals and organizations tied to the political event.[49] While the document does emphasize the minimization and elimination of "Personally Identifiable Information" (PII) from the public data, it notes that "[o]penly divulged information excluding PII will be used for future corroboration purposes and trend analysis during the Inauguration period."[50] It is unclear whether or not the information was permanently deleted following the inauguration proceedings.[51] Moreover, recent studies and papers indicate that, even without PII, comments and information about people online can be "re-identified" through the use of sophisticated computational techniques.[52]

9. Facial Recognition

Facial-recognition software is another tool in police forces' surveillance arsenal. This technology can work in many ways. Biometric profiling works by taking a photograph of a person's face, then comparing characteristics such as the distance between the eyes and length of the nose to other

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http://www.eff.org/deeplinks/2010/10/new-foia-documents-reveal-dhs-social-media (last visited Aug. 5, 2011).

[48] *Id.*

[49] *Id.*

[50] *Id.*

[51] *Id.*

[52] *Id.*

photographs.[53] Police also employ the Mobile Offender Recognition and Information System (MORIS), which snaps a high resolution photo of the subject and then analyzes 235 unique features in each iris and uses an algorithm to match that person with their identity if they are in the database.[54] The system can easily be placed onto the back of a smart phone and only weighs 12.5 ounces. The photos are stored in a national database of criminal records managed by BI2 (Biometric Identification & Intelligence Technologies).[55] An iPhone and Android application which utilizes facial-recognition software and fingerprint scanners is currently in development.[56]

Facial-recognition software is also currently being used in conjunction with public surveillance cameras at airports and major public events to spot suspected terrorists or criminals.[57] Cities such as Tampa have attempted to use this technology on busy sidewalks and in public places.[58]

Despite its growing usage, evidence indicates that facial-recognition software has an enormous

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[53] *Q&A on Facial-Recognition*, ACLU (Sept. 2, 2003), http://www.aclu.org/technology-and-liberty/qa-face-recognition. (last visited Aug. 5, 2011).
[54] Emily Steel, *How a New Police Tool for Face Recognition Works*, Digits (July 13, 2011), http://blogs.wsj.com/digits/2011/07/13/how-a-new-police-tool-for-face-recognition-works/ (last visited Aug. 29, 2011).
[55] *Id.*
[56] *Id.*
[57] Q&A on Facial Recognition, *supra*.
[58] *Id.*

likelihood of returning a false positive.[59] For instance, a productivity test in Germany revealed that facial recognition software only had a 60% success rate during the day and dropped to 10% success rate at night.[60]

10. Iris Scanners

Iris scanners have quickly moved from the realm of science fiction into everyday public use by governments and private businesses. Though the idea of identifying individuals through eye-scanning sounds very futuristic, the technology behind it is very simple.[61] Essentially, a digital camera takes a high-contrast picture of the iris utilizing visible and near-infrared light.[62] The camera can focus automatically on an eye at increasingly high speeds.[63] After the picture is taken, a computer analyzes the patterns of the iris, as well as its relationship with the rest of the eye, and translates those patterns into a code.[64] There is a small chance of mistaking the iris of one individual for the iris of another, but the iris can be more reliable than fingerprints for identification purposes.[65] Iris

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[59] *Id.*; Peter Jameson, *Facial Profiling*, SF Weekly (July 14, 2010), http://www.sfweekly.com/2010-07-14/news/facial-profiling/ (last visited Aug. 29, 2011).
[60] *Id.*
[61] Tracy V. Wilson, *How Biometrics Works: Iris Scanning*, howstuffworks.com, http://science.howstuffworks.com/biometrics4.htm (last visited Sept. 13, 2011).
[62] *Id.*
[63] *Id.*
[64] *Id.*
[65] *Id.*

recognition is rarely impeded by contact lenses or eyeglasses, and it can work with blind individuals as well.[66]

As explained above, a number of police departments in the United States have already begin using MORIS, and this system can function as an iris scanner.[67] While the device is ostensibly used for identifying criminals and those in custody, there is nothing, in principle, to stop an officer from randomly scanning the population.[68] Although the handheld-variety of these scanners requires overt cooperation from the person being scanned, there is no reason to think that police will not employ more sophisticated scanners in the near future.[69]

The foregoing is evidenced by the recent introduction of sophisticated iris scanners by the city of Leon, Mexico.[70] The city has introduced iris scanners in a number of public locations, including train stations, shopping centers, medical centers,

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[66] *Iris Scanners and Recognition*, Find Biometrics, http://www.findbiometrics.com/iris-recognition/ (last visited Sept. 13, 2011).

[67] Zach Howard, *Police to Begin iPhone Iris Scans Amid Privacy Concerns*, Reuters (July 20, 2011) http://www.reuters.com/article/2011/07/20/us-crime-identification-iris-idUSTRE76J4A120110720 (last visited Sept. 13, 2011).

[68] *See Id.*

[69] *Id.*

[70] Kat Higgins, *Mexican City Tracks Public With Iris Scanners*, Sky News Online (Aug. 20, 2010), http://news.sky.com/home/technology/article/15698769 (last visited Sept. 13, 2011).

and banks.[71] The scanners can scan up to 50 people a minute without requiring the individuals to stop and stand in front of the scanners. The city introduced the scanners to reduce crime and catch criminals, but the information gathered from the scanners is sent to a central database that can be used to track any individual's movement throughout the city.[72] A spokesman for the manufacturer of the devices claims that "every person, place, and thing on this planet will be connected [via the scanners] within the next 10 years."[73] While iris scanners may have sounded like mere science fiction twenty years ago, the truth is that they exist now and the concerns that they present for personal privacy and other freedoms are with us today. Waiting until this sort of surveillance technology is in use everywhere before setting limits on its use by police is imprudent. The Court must act now to preserve our Fourth Amendment rights.

B. The Ramifications of Unchecked Surveillance

Approving the type of warrantless GPS surveillance conducted in the instant case would result in the virtual evisceration of meaningful protection of individual privacy. The current state of technology enables government agents to monitor unsuspecting citizens in virtually any situation. Unless this Court's Fourth Amendment framework includes protection against pervasive spying methods that are physically unintrusive and monitor

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[71] *Id.*
[72] *Id.*
[73] *Id.*

a person's activities in public, the core value of the Fourth Amendment will be fundamentally undermined. Even in public places, every citizen retains a reasonable expectation of privacy that is offended when the government conducts covert, all-encompassing surveillance without judicial oversight.

1. Unchecked Surveillance Will Result in the Conceptual Erosion of Liberty

One of the hallmarks of citizenship in a free society is the expectation that one's personal affairs and physical person are inviolable so long as one conforms his or her conduct to the law. Any meaningful conception of liberty encompasses freedom from constant and covert government surveillance—whether or not that intrusion is physical or tangible and whether it occurs in public or private. Thus, unchecked technological surveillance is objectionable simply because government has no legitimate authority to covertly monitor the totality of a citizen's daily activities. The root of the problem is not that government is doing something inherently harmful, but rather that government is doing something it has no license to do.

For the average American, even surveillance limited to one's movements on public roads provides law enforcement with a comprehensive portrait of one's life. The sense of insecurity and suspicion of government intrusion that would result from the advent of warrantless technological surveillance would be highly detrimental to the relationship of the citizenry to its government. This is precisely one

of the harms that the Fourth Amendment was crafted to prevent.

A study conducted by Roger Clarke, the famed Australian specialist in data surveillance and privacy, indicates that the costs resulting from the erosion of personal privacy are so significant that they essentially threaten the very foundation of a democratic society. Some of the most serious harms include:

- A prevailing climate of suspicion and adversarial relationships
- Inequitable application of the law
- Stultification of originality
- Weakening of society's moral fiber and cohesion
- Repressive potential for a totalitarian government
- Blacklisting
- Ex-ante discrimination and guilt prediction
- Inversion of the onus of proof.[74]

The most troubling characteristic of warrantless searches, however, is the extent to

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[74] *The Digital Persona and its Application to Data Surveillance*, The Information Society 10, 2 (June 1994), http://www.rogerclarke.com/DV/DigPersona.html (last visited Aug. 29, 2011).

which they are capable of serving as the backbone for a totalitarian state. The frightening effects of warrantless surveillance are somewhat blunted insofar as those entrusted with such awesome powers exercise them responsibly; however, establishing secretive, unchecked mechanisms of state monitoring is essentially an invitation to abuse. As every student of American history is taught, our governmental system of checks and balances was premised on the awareness that trust in the restraint of those in power is not sufficient to protect liberty. Structural restraints and oversights are imperative. If warrantless use of GPS tracking is allowed, an essential structural protection of liberty—judicial oversight—is lost and the privacy of all citizens is threatened.

2. Unchecked Surveillance Will Result in a Chilling Effect on First Amendment Freedoms

Among the most significant detrimental effects of covert, warrantless government surveillance is the chilling effect it has on free speech and association and the harm such deprivations of First Amendment rights has on democratic institutions. *See Gibson v. Florida Legis. Investigation Comm.*, 372 U.S. 539, 556-57 (1963). Indeed, when citizens—especially those espousing unpopular viewpoints—are aware that the intimate details of their personal lives may be pervasively monitored by government, they are less likely to freely express their dissident views.

Warrantless tracking enables police to give effect to natural biases in targeting individuals for

surveillance. While the government argues that judicial approval for warrantless technological surveillance will not result in widespread "dragnet" searches, its argument to this effect proves too much. For, in fact, the greater cause for concern is that if judicial oversight is not a required component of GPS tracking and other technological surveillance, the likely result will be the government's *selective* installation of GPS tracking devices on vehicles driven by persons who exercise speech and association rights representing "extreme" or disfavored views. Without the gatekeeping function of a warrant requirement, the cost-effective nature of GPS devices will unquestionably allow for this type of viewpoint-based surveillance on a massive scale.

In those instances where government has attempted to compel disclosure of a dissident group's membership, the Supreme Court has recognized it is crucial that speech and association rights be free from government-mandated disclosures that result in a chilling of these core First Amendment rights. For example, in *National Association for the Advancement of Colored People v. Alabama*, 357 U.S. 449 (1958), where the State of Alabama moved to compel the NAACP to disclose the names and addresses of its Alabama members, this Court observed that effective advocacy of controversial viewpoints is enhanced by group association. *Id.* at 460. Based on the unpopular nature of the NAACP and the discriminatory treatment that its members received during the civil rights movement, the Court ultimately concluded that disclosure of the NAACP's membership would hinder the ability of the organization to pursue its efforts. *Id.* at 462-463.

Likewise, in *Gibson*, *supra,* at 544, the Court noted that speech and association rights need breathing space to survive. These freedoms are protected not only against heavy-handed frontal attack, but also from stifling by subtler governmental interference. *Id.*

The government's desire to monitor and ascertain the membership rosters of dissident or unpopular groups continues today.[75] The values protected by this landmark precedent are endangered by the advent of warrantless technological surveillance. Because 24-hour vehicle monitoring—and other new technologies—permit the police to efficiently obtain detailed information about unpopular groups, including the location of meetings and the identities of attendees, allowing the police to freely install GPS tracking devices on vehicles would substantially chill speech and association rights. Individuals will undoubtedly be reluctant to associate with socially taboo groups if they know that Big Brother may be compiling and publishing information about their membership.

The chilling effects of pervasive surveillance extend beyond political dissidents and impact all citizens, for the mere possibility of this type of warrantless surveillance will result in a constant,

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[75] *See e.g.*, Department of Homeland Security: Office of Intelligence and Analysis, *Rightwing Extremism: Current Economic and Political Climate Fueling Resurgence in Radicalization and Recruitment,* Department of Homeland Security (April 7, 2009), http://www.rutherford.org/pdf/2011/02-03-2011_Rightwing-Extremism.pdf (last visited Sept. 28, 2011).

justifiable apprehension in even the most compliant, passive citizen. Americans have heretofore assumed that adherence to the laws of the land earns them a degree of protection from the prying eyes and ears of government, and they should be able to continue to assume this.

II. Technological Surveillance Such as the GPS Tracking In This Case Must Be Held to Implicate Fourth Amendment Warrant Requirements

A. The GPS Tracking Without a Warrant Constituted an Unreasonable "Search"

Because the GPS monitoring conducted by law enforcement violated Jones' reasonable expectation of privacy, this Court should uphold the D.C. Circuit's decision that a search occurred within the meaning of the Fourth Amendment. The Court should further hold that any GPS monitoring, regardless of duration, constitutes a search for purposes of the Fourth Amendment.

Relying primarily on *United States v. Knotts*, 460 U.S. 276 (1983), the government argues in this case that a search has not occurred because an individual has no reasonable expectation of privacy in his movements on public roadways.[76] Petition for

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[76] Interestingly, the government initially believed attachment of the device implicated the Fourth Amendment since they sought and obtained a court order to allow attachment of the device. J.A. 21-26. However, when it attempted to incriminate Jones with GPS tracking evidence obtained after that order expired, it

Writ of Certiorari at 11, *U.S. v. Jones*, __ U.S __ (2011) (No. 10-1259). This Court has recognized, however, that an individual retains a right of privacy while in his or her automobile in public places. *See also Cardwell v. Lewis*, 417 U.S. 583, 590 (1974) ("The exercise of a desire to be mobile does not…waive one's right to be free of unreasonable government intrusion."). Furthermore, *Knotts* is not dispositive of the questions presented here. The concerns and questions raised in this case—GPS technology and its potential for mass surveillance—were specifically alluded to and reserved in *Knotts*. *Knotts*, 460 U.S. at 283-84; *see also* Renee McDonald Hutchins, *Tied Up in Knotts? GPS Technology and the Fourth Amendment*, 419 UCLA L. Rev. 409, 457 (2007).

Rapid advances in the field of surveillance technology have qualitatively recast the issues presented in prior Fourth Amendment cases generally, and in *Knotts* particularly. Consequently, an updated jurisprudential approach cognizant of the virtually unlimited potential of modern surveillance technology is required in order to preserve the vitality of the Fourth Amendment.

The beeper utilized by law enforcement personnel in *Knotts* was primitive compared to modern GPS devices. *People v. Weaver*, 909 N.E.2d 1195, 1199 (N.Y. 2009). Beepers are "passive radio transmitters which neither store nor collect data, but rather permit real-time tracking," whereas "a GPS

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adopted the position that no Fourth Amendment search or seizure occurred. *United States v. Jones*, 415 F.Supp. 2d 71, 87-88 (D.D.C. 2006).

device utilizes a network of orbital satellites, which calculate the device's longitude and latitude, information which the GPS then stores in memory or transmits through radio or cell-phone technology." Brief and Record Material for Appellee at n.35, *United States v. Maynard*, 615 F.3d 544 (D.C. Cir. 2009) (Nos. 08–3030, 08–3034). Beepers, unlike GPS devices, require a law enforcement presence within the vicinity in order to receive the beeper's transmissions. In *Knotts*, for instance, vehicle tails and helicopter surveillance were necessary to ensure continued reception of the beeper's radio signals. *Knotts*, 460 U.S. at 278. Thus, GPS permits a covert quality of surveillance that simply cannot be achieved with beeper technology.

The quantity and *undetectability* of monitoring operations made possible by GPS also serves to distinguish the situation in the instant case from mere visual surveillance. Although data gleaned from use of GPS technology theoretically could be obtained via visual surveillance, the two methods stand in stark contrast in terms of resources expended and in terms of the subject's ability to know he is being monitored—an element Amici submits is highly relevant to evaluating reasonable expectations of privacy. *United States v. Garcia*, 474 F.3d 994, 998 (7th Cir. 2007). GPS enables law enforcement to acquire a degree of information "virtually impossible to obtain through visual surveillance…unless police resources were unlimited." April A. Otterberg, *GPS Tracking Technology: The Case for Revisiting Knotts and Shifting the Supreme Court's Theory of Public Space Under the Fourth Amendment*, 46 B.C. L. Rev. 661, 696 (2005). Other experts have concurred with this

sentiment, stating, "no one human or organization of human observers is currently capable of such comprehensive, continuous, and accurate information regarding location and movement monitoring." Lenese Herbert, *Challenging the (Un)Constitutionality of Governmental GPS Surveillance*, 26 Criminal Justice 34, 35 (Summer 2011).

The volume of data obtainable via GPS monitoring is sufficiently comprehensive to render that method of surveillance qualitatively distinct from visual monitoring. GPS tracking substitutes for the natural sensory capacities of law enforcement officers, *State v. Jackson*, 150 Wash.2d 251, 262 (Wash. 2003), rather than merely "augmenting the sensory faculties bestowed upon them at birth with such enhancement as science and technology" can afford them. *Knotts*, 460 U.S. at 282. GPS monitoring does not merely increase police "efficiency," *Knotts*, 460 U.S. at 284; rather, it "facilitates a new technological perception of the world in which the situation of any object may be followed and exhaustively recorded over, in most cases, a practically unlimited period." *Weaver*, 909 N.E.2d at 1199.

Electronic tracking violates reasonable expectations of privacy in part because it reveals "intimate details" that go beyond the data law enforcement could acquire in the absence of technological assistance. *Weaver*, at 1199. Unlike GPS tracking, visual surveillance is "of limited scope, purpose and duration." *Unites States v. Holmes*, 521 F.2d 859, 865 (5th Cir. 1975). Extended GPS monitoring can reveal far more "intimate

details" of a person's habits than one trip viewed in isolation (the scenario present in *Knotts*). A picture of one's entire life can be pieced together from extended GPS monitoring through the aggregation of individual trips on public roadways.

This problem does not arise when law enforcement personnel physically conduct surveillance. First, a reasonably astute individual will have some measure of awareness of the proximity of other persons or vehicles in the vicinity, thus vesting him with a choice as to what information he will "expose" to others. Second, even a full team of officers monitoring an individual around the clock will not catch his every movement. A person can preserve his anonymity from prying eyes, even in public, by changing course, travelling in darkness, moving quickly through buildings, and changing his appearance. *United States v. Pineda-Moreno*, 617 F.3d 1120, 1126 (9th Cir. 2010) (Kozinski, C.J., dissenting from ord. denying reh'g en banc). But a GPS device is different. One cannot hide from the "all-seeing network of GPS satellites that hover overhead, which never sleep, never blink, never get confused and never lose attention." *Id.*, 617 F.3d at 1126 (Kozinski, C.J., dissenting from ord. denying reh'g en banc).

Amici submits that the key to unlocking a proper, workable interpretation of the Fourth Amendment in the context of technological surveillance may simply require careful application of the *Katz* Court's articulated standard. Under the analysis employed there, activity is beyond the scope of one's "reasonable expectation of privacy" where it is "knowingly expose[d] to the public." *Katz v.*

United States, 389 U.S. 347, 351 (1967). *Amici* submits that a proper emphasis on the extent to which a person *knows* that information is being exposed to others would provide a substantial degree of protection of citizens' privacy from technological surveillance.

Under this standard, warrantless GPS tracking is unsustainable because an individual does not "knowingly" expose his vehicular whereabouts to any member of the public over a span of multiple days. Moreover, to the extent that a motorist's travels take him to secluded locations where no members of the public are visibly present, he is not "knowingly" exposing this information to the public. Under such circumstances, the average American reasonably believes himself to be enjoying a degree of privacy and reasonably expects such privacy exists.

Recognizing Jones' expectation of privacy in his vehicular whereabouts over time and in unpopulated areas as reasonable would comport with this Court's Fourth Amendment jurisprudence and help to ensure the relevance of the Fourth Amendment in the digital age. This Court should further conclude—for the doctrinal reasons enumerated above—that *all* GPS monitoring of potential suspects constitutes a search for purposes of the Fourth Amendment. Predicating Fourth Amendment protections solely on the volume of data obtained or the temporal length of surveillance involved would significantly muddy Fourth Amendment jurisprudence and saddle law enforcement personnel and private citizens with unnecessary confusion regarding the scope of

citizens' constitutionally-protected civil liberties. While the government also seeks a clear rule respecting the use of GPS devices, its request that use in no case violates the Fourth Amendment grossly undervalues the right and expectation of privacy enjoyed by citizens. A clear rule finding one's "reasonable expectation of privacy" to be transgressed when secretive technological surveillance escalates an individual's "exposure" beyond that which an average person anticipates from the general public would provide a desperately-needed check on the privacy-eroding tendencies of law enforcement and modern technology.

B. The Installation of the GPS on Jones' Vehicle Without His Knowledge Constituted a Seizure

Not only does the GPS monitoring conducted by law enforcement in the instant case constitute a search, but the physical installation of the GPS device on Jones' car also qualifies as a seizure under the Fourth Amendment. A seizure occurs when "there is some meaningful interference with an individual's possessory interests" in his property. *United States v. Jacobsen*, 466 U.S. 109, 113, 114 (1984). "Meaningful interference" includes not only the physical taking of property, but also property damage or even the temporary interruption of property use (as in a roadside traffic stop). *Notice v. Koshes*, 386 F.Supp. 2d 23 (D. Conn. 2005); *United States v. Maltais*, 295 F.Supp. 2d 1077 (D.N.D. 2003), *affirmed*, 403 F.3d 550 (8th Cir. 2005).

In seizure cases involving actual physical intrusions into citizens' property, this Court has

applied an especially exacting standard. Thus, in *Silverman v. United States*, 365 U.S. 505 (1961), police use of a spike mike protruding ever-so-slightly into the air duct of Silverman's home was found unconstitutional. The Court based its decision on the fact the there was "an actual intrusion into a constitutionally protected area." *Id.* at 512. This Court has noted that the Fourth Amendment protects property as well as privacy. *Soldal v. Cook County, Illinois*, 506 U.S. 56, 62 (1992). In the present case, there was undoubtedly an intrusion into Jones' personal property that transgressed the Fourth Amendment's protection of the right of a property owner to exclude government officials from unreasonable, unauthorized use of that property.[77]

While judicial frameworks, doctrines, and interpretive lenses undoubtedly aid in the application of constitutional language to specific cases in most instances, there are times when these multiple lenses can instead effect the obscuring of what is otherwise relatively clear from the language of the Constitution itself. 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…" Clearly, this provision was intended to forbid government interference with the rights inherent in property ownership for the purpose of acquiring information. One right inherent in property ownership is the right to exclude others from using that property in a way that is helpful to

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[77] See Thomas K. Clancy, *What Does the Fourth Amendment Protect: Property, Privacy, or Security?*, 33 Wake Forest L. Rev. 307, 351 (1998).

them, but potentially detrimental to oneself. Surely, then, the Fourth Amendment was meant to protect a citizen against government tinkering with one's private property—however harmless to the property itself—that effectively converts the property into an instrument used by unknown agents to spy on the owner.

Black's Law Dictionary defines "possessory interest" as a "Right to exert control over specific land to exclusion of others." Clearly, this right of exclusion is a fundamental component of the possessory interest that implicates the warrant requirement under the Fourth Amendment.

CONCLUSION

New technologies which enable the radical expansion of police surveillance operations require correspondingly robust legal frameworks in order to maintain the scope of freedom from authoritarian oversight envisioned by the Framers; such technologies are "doctrine-forcing." *Weaver*, 909 N.E.2d at 1198. Establishing a clear rule requiring warrants for GPS monitoring would provide needed guidance to law enforcement agencies, quell litigation, protect civil liberties including cherished First Amendment rights, and ensure the viability of the Fourth Amendment even at the dawn of a new age of surveillance technology.

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