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 AMICUS CURIAE THE CATO INSTITUTE IN SUPPORT OF RESPONDENT

ILYA SHAPIRO
JAMES W. HARPER
Counsel of Record
TIMOTHY LYNCH
PAUL JOSSEY
Cato Institute
1000 Mass. Ave., NW
Washington, D.C. 20001
jharper@cato.org
(202) 842-0200

Counsel for Amicus Curiae

QUESTIONS PRESENTED

- 1. Whether the police violate the Fourth Amendment when they install a GPS device to track someone's movements for nearly a month.
- 2. Whether the police violate the Fourth Amendment when they attach a GPS device to someone's car without a warrant.

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INTEREST OF AMICUS CURIAE1

The Cato Institute was established in 1977 as a nonpartisan public policy research foundation dedicated to advancing the principles of individual liberty, free markets, and limited government. Cato's Center for Constitutional Studies was established in 1989 to promote the principles of limited constitutional government that are the foundation of liberty. Toward those ends, Cato publishes books and studies, conducts conferences, produces the annual Cato Supreme Court Review, and files amicus briefs. The present case centrally concerns Cato because it represents an opportunity to improve Fourth Amendment doctrine and maintain that provision's protections in the modern era.

SUMMARY OF ARGUMENT

Katz v. United States did not turn on a "reasonable expectations of privacy" but on the physical and legal methods that the appellant in that case had used to secure the privacy of his phone conversation. Reasoning backward from a "reasonable expectation of privacy" to constitutional protection has not been a successful approach to the Fourth Amendment's protections from the standpoint of judicial administration, guidance to law enforcement, or privacy.

¹ Pursuant to this Court's Rule 37.3(a), all parties have consented to the filing of this brief with the Court. Pursuant to Rule 37.6, *amicus* affirms that no counsel for any party authored this brief in any manner, and no counsel or party made a monetary contribution in order to fund the preparation or submission of this brief. No person other than amicus, its members, or its counsel made a monetary contribution to the preparation or submission of this brief.

Here, data about respondent Jones's travels in his vehicle would never have come into existence were it not for the extraordinary use of a GPS device surreptitiously planted on his car. For purposes of constitutional analysis, therefore, the conversion of the vehicle to the government's purposes was a seizure and the data-gathering conducted with the surveillance-enabled car a search. Both were unreasonable in the absence of a valid warrant.

ARGUMENT

I. THIS COURT SHOULD UNITE THE MAJORITY'S DECISION IN KATZ WITH THE "REASONABLE EXPECTATIONS OF PRIVACY" LANGUAGE IN JUSTICE HARLAN'S CONCURRENCE TO DECIDE THIS CASE

Katz v. United States, 389 U.S. 347 (1967), is the lodestar of modern Fourth Amendment jurisprudence. Unfortunately, select phraseology has overtaken the rationale of that case, dominating the academic literature and Fourth Amendment case law. By joining the majority holding with the "reasonable expectation" language Justice Harlan used in his concurrence, this Court can clear up the doctrinal mess created by subsequent courts' use of the "reasonable expectation" test alone.

The *Katz* majority did not rely on Justice Harlan's "reasonable expectation of privacy" language. Rather, the Court rested its decision on the physical and legal protections Katz used to secure the privacy of his telephone conversation. It was unreasonable

for the government to overcome these protections in the absence of a valid warrant.

The "reasonable expectation" language in Justice Harlan's concurrence was an attractive addendum, but standing alone it is weak as a rule for deciding cases. As applied, the "reasonable expectation of privacy" test reverses the inquiry required by the Fourth Amendment and biases Fourth Amendment doctrine against privacy.

Having a "reasonable expectation of privacy" arises from giving physical and legal protection to information, but this Court should no longer reason backward from privacy "expectations" to Fourth Amendment protection. Applying *Katz*'s actual holding will do justice in this case and provide superior guidance to courts applying the Fourth Amendment in future cases.

A. Katz Rested on the Physical and Legal Protections Given to Information, Not on Justice Harlan's Concurrence or on "Reasonable Expectations"

Justice Stewart's majority opinion in *Katz* rested on the physical protection that the defendant had given to his oral communications—going into a phone booth—not on his expectations of privacy (let alone whether those expectations were reasonable). *Katz* thus held that Fourth Amendment protection turns on the physical and legal conditions governing access to information.

The striking lines Justice Stewart used to reverse Olmstead v. United States, 277 U.S. 438 (1928), are worth quoting as a reminder of the case's actual holding and rationale. Both parties to the case had

fixated on location, assuming based on precedent that being "in private" garnered constitutional protection, while being "in public" meant all bets were off. Katz, 389 U.S. at 351. But an increasingly mobile society and advancing communications technology had rendered physical location—i.e., the home and curtilage—a weak proxy for having the interest in security against government intrusion that the Fourth Amendment protects. Justice Stewart wrote for the Court:

[T]he Fourth Amendment protects people, not places. What a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection. But what he seeks to preserve as private, even in an area accessible to the public, may be constitutionally protected.

Id. (citations omitted).

This language is not a crystal clear rule for determining what is protected and what is not, but the better reading is that "may" in the third quoted sentence indicates possibility—constitutional protection of Katz's conversation turns on some contingency.² But what contingency? The most likely is right there in the sentence: whether something is "preserve[d] as private." *Id*.

² The auxiliary verb "may" could indicate either permission or possibility. As permission (*i.e.*, Katz is allowed to protect this information), the sentence would be passive, unlike the preceding active sentence that it parallels. It would also beg the question that the Court purports to be answering. Given the parallel sentence structure and the forcefulness of the paragraph, the Court almost certainly intended to use "may" to indicate possibility rather than permission.

The same year that this Court decided *Katz*, scholar Alan Westin characterized privacy in his seminal book as "the claim of individuals, groups, or institutions to determine for themselves when, how, and to what extent information about them is communicated to others." Alan Westin, Privacy and Freedom 7 (1967). This is the strongest sense of the word "privacy": the condition one enjoys when exercising control of personal information. See Jim Understanding Privacy—and the Real Threats to It, Cato Institute, Policy Analysis No. 520 (2004) ("Privacy is the subjective condition that people experience when they have power to control information about themselves and when they exercise that power consistent with their interests and values.")

In the paragraphs following the sentences block-quoted above, the Court discussed the fact establishing that Katz's phone conversations were indeed private: Katz was in a phone booth made of glass that concealed the sound of his voice. 389 U.S. at 352. Against the argument that Katz's body was in public for all to see, stripping any information he produced there of Fourth Amendment protection, the Court wrote: "[W]hat he sought to exclude when he entered the booth was not the intruding eye—it was the uninvited ear." *Id*.

Katz sought to preserve the privacy of his phone conversation, and he succeeded. With that condition cleared up, the final sentence in the block-quote above comes to mean, "What he *preserved* as private is constitutionally protected." Ordinary husbandry of information—the specific information at issue being the sound of his voice—gave Katz privacy and in

turn Fourth Amendment protection for that information.³ It was unreasonable for government agents to use extraordinary technical means to overcome Katz's control of that information.

The majority decision did not raise or explore additional conditions controlling whether phone conversations occurring inside a telephone booth might be protected. Restating the rationale, unfortunately in reverse, the Court later noted that Katz "justifiably relied" on the privacy he enjoyed "while using the telephone booth." *Id.* at 353. This statement is simply an inference from the fact that it is unreasonable for government agents to invade privacy as they had done. Justice Harlan would expound on this inference in a way that further distracted future courts from *Katz*'s actual holding.

B. Taken Alone, Justice Harlan's *Katz* Concurrence Created a Confusing, Unworkable Test

The "reasonable expectation of privacy" formulation Justice Harlan used in his solo concurrence has certainly enjoyed repetition, but it was not the holding in the case. Only one justice dissented from the majority opinion, so *Katz* would have come out the same way regardless of how Justice Harlan voted or what he wrote; his concurrence does not supply the legal principle on which the *Katz* case turned.

The language he used, however, is important:

³ Had Katz objected to evidence of his presence in the phone booth—a photograph and testimony that he was seen there, for example—his objection would have failed because he had not taken control of the photons that revealed his presence the way he did the sound waves that reveal what he said.

My understanding of the rule that has emerged from prior decisions is that there is a twofold requirement, 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."

Id. at 361.

Taken as the sole rationale of the *Katz* case, Harlan's dictum would change the factual question the majority opinion turned on—Was the information physically and legally available to others?—into a murky two-part analysis with a quasi-subjective part and a quasi-objective part. Judicial administration of the Fourth Amendment has suffered ever since, with courts mangling that analysis. And for good reason: It makes little sense as the sole rationale for deciding Fourth Amendment cases.

Take "exhibit[ing] an actual (subjective) expectation of privacy." People keep information about themselves private all the time without "exhibiting" that interest in any perceptible way-indeed, often without any subjective consideration at all. Families obscure their bathing behind the walls of their homes, for example, see Kyllo v. United States, 533 U.S. 27, 38 (2001), without contemplating that their walls provide them that privacy. One need not consider these things—much less "exhibit" anything other than routine behavior—to have a legitimate, actual interest in controlling information about oneself and one's life. Our world is built for ornate combinations of privacy and disclosure that are almost always customary, habitual, or subconscious. See Westin, at 8-22. They are rarely explicit, "exhibited,"

or a subject of a conscious "expectation." This does not diminish the importance of privacy or cut against enforcing the constitutional right that protects it.

Constitutional law does not require people to "exhibit" expectations about other constitutionally protected interests. Take life, for example. There is no argument that the defendant in a capital case should enjoy due process rights only if he eats well and exercises daily, "exhibiting" an interest in long life. An individual's Fourth-Amendment-backed interest in privacy is likewise real, whether or not it is exhibited, consciously considered, or expected.

Perhaps one "exhibits" an interest in the relevant dimension of privacy simply by entering a home or phone booth, or by whatever volition that conceals information from others. In its better reading, the first part of the inquiry Justice Harlan wrote about restates the majority's holding in *Katz*. If a person has privacy—if the information at issue was not generally available—he or she has "exhibited" an "actual (subjective) expectation of privacy."

The second part of Harlan's proposed inquiry is not as easily reconciled with the majority's holding. It seems to call on courts to speculate on what, in any given circumstance, society find reasonable to keep private. These are questions that philosophers would not be able to answer, nor sociologists to gauge—to say nothing of courts trying to administer constitutional rights.

What reconciles Justice Harlan's concurrence to the majority is treating his "reasonable expectation" language as a natural inference from the majority's holding. When one has arranged one's affairs using physics and law to conceal information, it is unreasonable for government agents to defeat those arrangements using surreptitious means, outré technologies, and violations of law. Thus, as Justice Harlan suggested, it is reasonable to expect privacy in information so concealed.

Unfortunately, Harlan's concurrence suggested to later courts that the primary inquiry was to be into the reasonableness of privacy expectations. It is not. Reading his concurrence as a separate, unbounded inquiry into privacy expectations and their reasonableness puts it at odds with the *Katz* majority, which, again, premised constitutional protection on the physical and legal unavailability of the information the government gathered by going to lengths unreasonable without a warrant.

Unworkable as a true legal test, the second part of the "reasonable expectation" formulation has operated in subsequent cases as an open-ended grant of authority to constitutionalize judicial guesses about what society thinks.

C. This Court Has Not Successfully Applied the "Reasonable Expectation of Privacy" Test as the Sole Decision Rule in Subsequent Cases

Courts, including this Court, have been sorely challenged by attempts to apply the "reasonable expectation of privacy" language as a test divorced from the majority holding in *Katz*. They almost never apply it as Justice Harlan articulated it in his separate concurrence. Cases with some parallels to the instant case illustrate that well.

For example, purporting to address the defendant's subjective expectation of privacy in *United States v. Knotts*, 460 U.S. 276 (1983), the Court wrote, "Respondent Knotts . . . undoubtedly had the traditional expectation of privacy within a dwelling place." *Id.* at 282. This is objective treatment—what a normal person would expect—not what Knotts actually expected. Indeed, fealty to Justice Harlan's language would probably have required Knotts's subjective expectation to be a fact found at trial.

The *Knotts* Court continued: "But no such expectation of privacy extended to visual observation of [codefendant] Petschen's automobile arriving on his premises after leaving a public highway, nor to movements of objects such as the drum of chloroform outside the cabin in the 'open fields.' Hester v. United States, 265 U.S. 57 (1924)." Id. The Court cites a 1920s case as though it establishes Knotts's state of mind with respect to the comings and goings of another to and from his property. This again is objective treatment—what he must have thought—not what he actually (subjectively) thought. The Court quickly collapses the first part of the "reasonable expectation of privacy" test into the second, analyzing only the reasonableness of Knotts's asserted constitutional interest.

The reasoning in *Knotts* relies heavily on *Smith v. Maryland*, 442 U.S. 735 (1979), which likewise punted on the subjective part of Justice Harlan's "reasonable expectation" approach. In that case, the Court argued at length, contra the petitioner's own argument, that he had a subjective expectation of privacy. The Court said it was "too much to believe" that a person dialing a phone could expect the num-

bers dialed to remain "secret." *Id.* at 743. Thus the Court found—apparently as a matter of law—what the petitioner held in his head at the time he dialed a phone. This is again, of course, objective treatment, based heavily in surmise, of what should have been a subjective, factual finding.

United States v. Karo, 468 U.S. 705 (1984), likewise illustrates the forbidding challenges in faithfully applying the "reasonable expectation of privacy" test as a stand-alone. As to the installation of a beeper in a can, the Court stated, "It is clear that the actual placement of the beeper into the can violated no one's Fourth Amendment rights." Id. at 711. The Court concluded either that Karo had no subjective expectation of privacy with regard to the placement of a beeper in a can or that the expectation was unreasonable—without saying which—or indeed both.

As to monitoring the beeper once it was in a private residence, *Karo* gave no indication that any court ever actually examined the subjective expectation of the defendant. "[P]rivate residences are places in which the individual normally expects privacy free of governmental intrusion not authorized by a warrant, and that expectation is plainly one that society is prepared to recognize as justifiable." *Id.* at 714. The Court once again treated the subjective question as objective, and then objectively validated what the defendant presumably thought.

That inquiry is not what Justice Harlan's concurrence called for, much less the *Katz* majority. As a constitutional test, the "reasonable expectation of privacy" doctrine has been routinely and regularly misapplied.

D. Applied as the Sole Decision Rule, the "Reasonable Expectation of Privacy" Test Reverses the Inquiry Required by the Fourth Amendment and Imbalances Fourth Amendment Doctrine

With the subjective portion of the "reasonable expectation" test elided in most Fourth Amendment cases and the *Katz* majority's holding nowhere to be found, Justice Harlan's concurrence has been applied as a one-part test in which courts assess assumed "expectations of privacy" for reasonableness. This jurisprudential method is contrary to the Fourth Amendment's focus, which is on the reasonableness of government action, taking private ordering as a given: "The right of the people to be secure in their persons, houses, papers, and effects, against *unreasonable searches and seizures*, shall not be violated." (emphasis added). U.S. Const. amend. IV.

In *Karo*, however, the government arranged with an informant to surreptitiously install a beeper in a container, then used the beeper over a period of several days to locate the container at three different residences and the driveway of a fourth, to locate the container in a pair of self-service storage facilities, and also in transit—all the while unable to suffer the inconvenience of getting a warrant. 468 U.S. at 708-709. But it was the respondent that got the once-over to see if his (presumed) thinking was reasonable.

This Court does not apply further analysis like the "reasonable expectation" test when a party declines or fails to keep information private. The "plain view" doctrine is a constitutional test so simple that most people do not even realize it is a test. If a thing is visible (or otherwise perceivable) by authorities acting within the law, a person cannot make a Fourth Amendment claim against them observing it and acting on the knowledge of it. See, *e.g.*, *Coolidge v. New Hampshire*, 403 U.S. 443, 465 (1971). If a person has not concealed something from others, he has not concealed it from the government.

The plain view doctrine was stated as common sense in *Katz*—"What a person knowingly exposes to the public . . . is not a subject of Fourth Amendment protection," 389 U.S. at 351—and it is the inverse of the holding, where concealment from others was concealment from the government.

Applying Justice Harlan's concurrence to concealment but not to exposure places a special impediment on the former. Somehow "plain view" is a simple factual question but "plain concealment" gets further consideration.

If courts were to apply a "Harlan concurrence" to the plain view doctrine, they might examine whether a person had "exhibited" the expectation that something would be visible and, if so, whether leaving such things visible was "reasonable." There might be instances where something plainly observable to all could not be noted or considered by law enforcement because of "reasonable expectations of privacy." Judges who thought society demanded greater privacy might reverse convictions when they found that defendants had left things visible that they would not have, in exercise of reasonableness, according to the judge's opinion of society's beliefs.

Such silliness is avoided in the area of plain view doctrine because there is no such gloss on that doctrine. The question whether something is in plain view is a factual one. So should be the question whether something is concealed.

And this is what the *Katz* majority held. To restate again: In *Katz*, the defendant had obscured his voice from others as a matter of fact. The government's acquisition of his conversation by unusual means without a valid warrant was unreasonable and thus violated the Fourth Amendment.

Information that one plainly conceals from the general public, relying on the physics and law affecting the arrangement of objects in the world, is also concealed from the government. One has a "reasonable expectation of privacy" in things so hidden.

Nesting Justice Harlan's concurrence with the actual rule of *Katz*, as a straightforward inference from it, would restore symmetry to Fourth Amendment doctrine. In all but truly exceptional cases, using extraordinary means of accessing concealed information without a valid warrant is unreasonable and thus contrary to the Fourth Amendment.

II. IN APPLYING THE KATZ MAJORITY'S RATIONALE, THIS COURT SHOULD RECOGNIZE THAT FOURTH AMENDMENT PROTECTION STILL RELIES LARGELY ON PROPERTY ARRANGMENTS

Using the *Katz* majority's information-control rationale would vastly improve judicial administration of Fourth Amendment cases because that rationale turns on physical and legal access to information rather than anyone's feelings about privacy. The arrangements of people and things that affect access to

information are largely a question of property rights, another area in which subsequent courts have not fully apprehended the *Katz* majority decision.

Where *Katz* appeared to cut the Fourth Amendment loose from its foundation in property, reaffirming those timeless principles would make *Katz* a sound basis for securing Fourth Amendment interests. Property squares *Katz* with both Fourth Amendment history and the interpretation the amendment needs to serve its role in guiding law enforcement and protecting the privacy and liberty of future generations.

As noted above, Justice Stewart's majority opinion in *Katz* attacked the idea that location was a proxy for Fourth Amendment interests. Bluntly, he wrote, "The Fourth Amendment protects people, not places." *Katz*, 389 U.S. at 351.

That strong statement failed in some respects and worked too well in others. It failed because later courts did not break loose from the "home and curtilage" proxy for Fourth Amendment protection. In both *Knotts* and *Karo*, for example, this Court retreated to the home, so to speak, rather than fully adopting *Katz*'s information-control rationale. *Knotts*, 460 U.S. at 282; *Karo*, 468 U.S. at 714-15; *see also Kyllo*, 533 U.S. at 31. These minor misapplications of the Fourth Amendment and *Katz* did limited damage in these cases because homes are indeed places where physical and legal protections typically allow full maintenance of privacy. But these later Courts had not fully digest *Katz*'s rationale.

Where the "people, not places" idea worked too well was in cutting later courts loose from the prop-

erty principles that still undergird Fourth Amendment protection. The Court quoted a line from *Warden v. Hayden*, 387 U.S. 294 (1967), for the proposition that "property interests" were "discredited" in search and seizure law. 389 U.S. at 353. But *Hayden* validated a seizure of evidence over a criminal defendant's claim it was barred by a superior property right. This says nothing about the use individuals make of property to regulate others' access to their persons, houses, papers, and effects.

Indeed, property in the self and in the legal and physical arrangements of real and movable things—the right to property—is what secures the liberties the Fourth Amendment Framers sought to protect. Property was at the Founding, and still is, an essential component of ordered liberty, and a bulwark against government abuse. It is the individual's counterweight to the power of the state.

In one of his famous "Commentaries," Blackstone wrote: "There is nothing which so generally strikes the imagination, and engages the affections of mankind, as the right of property; or that sole and despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe." 2 William Blackstone, Commentaries on the Laws of England *2.

In his essay on the same subject, James Madison called property "that dominion which one man claims and exercises over the external things of the world, in exclusion of every other individual." Among the items of property he extolled were "land, or merchandize, or money," and "opinions and the free communication of them." The individual has "a prop-

erty very dear to him in the safety and liberty of his person." James Madison, Property, in 14 The Papers of James Madison 266-268, March 29, 1792, available at http://presspubs.uchicago.edu/founders/documents/v1ch16s23.html. Property in the things that a person owns and controls—and in the self—creates a zone of liberty that the Fourth Amendment was intended to protect against arbitrary, "unreasonable" interference.

Property—the arrangement of the self and the things of the world around oneself—is a substantial guide for when Fourth Amendment protection applies. Courts can judge far better when a person has oriented himself, tangible things, and legal arrangements so that information is concealed than they can judge what expectations society would uphold as reasonable. Property is but one of the legal institutions individuals use to protect privacy. Tort law, contract, and government regulation also aid the individual in controlling others' access to personal information.

This common-law understanding was in no way reversed by *Katz*'s "people, not places" language. Using his self-possession, Katz oriented himself in a location where his voice was concealed. In doing so, he retained control of the sound of his voice. He did not abandon it to all in the vicinity, and he did not abandon it to the government.

Fourth Amendment doctrine was challenging enough before later judicial opinions and popular reinterpretations treated *Katz* as breaking the link between property and Fourth Amendments interests. Using home-and-curtilage as a proxy for constitutional protection is inapt to modern circumstances, but *Katz* did not reject the Fourth Amendment's

grounding in property law. Rather, it more subtly examined the physical and legal relationship between individuals and the things with which they interact to determine when the government invaded the privacy protected by the Fourth Amendment.

III. PLACING THE GPS DEVICE ON JONES'S VEHICLE WAS A FOURTH AMENDMENT SEIZURE AND ITS OPERATION A FOURTH AMENDMENT SEARCH

However it applies the rationale used by the *Katz* majority, this Court should find that the placement of a GPS device on respondent Jones's vehicle was a Fourth Amendment seizure of his property, and the operation of the device a Fourth Amendment search.

A. Converting Jones's Vehicle to a Surveillance Device Was a Constitutional Seizure

In the recent case of *Sorrell v. IMS Health Inc.*, 131 S. Ct. 2653 (2011), this Court was urged to treat data bought and sold for marketing purposes as "a mere 'commodity' with no greater entitlement to First Amendment protection than 'beef jerky." *Id.* at 2666. Recognizing the relationship between information and protected speech, this Court preserved constitutional values in an Information Age context.

The instant case similarly calls on the Court to recognize core constitutional values and interests where new uses of information and technology may obscure them. Doing so does not require legal experimentation. Resorting to first principles, including more careful examination of the characteristics of property, supplies the needed reasoning.

Before the information revolution, it may have been sound to treat deprivation of "possessory interests" and constitutional "seizures" as one and the same. Nearly always, possession was the aspect of ownership material to Fourth Amendment cases. Casual use of language in *Knotts*, *Karo*, and related cases thus seems to narrow the question of property seizure to only whether defendants lost "possessory" interest in articles they bought and transported. *Knotts*, 460 U.S. at 280-281; *Karo*, 486 U.S at 712. This approach does not translate to the information technology context if the interests secured by the Fourth Amendment are to survive.

Treating "seizure" and deprivation of "possessory interests" as interchangeable can barely withstand scrutiny even before considering the effects of information technology. Assume an individual who parks his car in an office parking lot, for example. Government agents hotwire the car, drive it 16 miles, and return it to the same location topped up with gas before the owner returns. This would not deprive the owner of a "possessory interest," but it would most certainly be a seizure of his property.

And if a government agent accessed the bank account of an individual and withdrew \$800, spent the money, then replaced the funds before the individual sought to access it, this, too, would be a seizure of property that does not affect a "possessory" interest. Possession is not all there is to property. Nor is deprivation of possession the only form of seizure.

A third example illustrates in an information context how restricting property seizure to only the "possessory" interest is an error. Posit a government agent who picks up a smart phone left on a cocktail table while its owner is in the restroom. In a few brief moments she downloads a "parental control" application that sends a copy of each text message sent and received, each website visited, and each posting on social networks, to an address she designates. Restoring the imperceptibly different phone to its original place before the owner returns, the government agent has denied the owner no "possessory" interest. But that phone now reveals comprehensive information to a stranger about the owner's workaday and intimate communications, business interactions, and much more. These digital effects are within the ambit of what the Fourth Amendment is meant to secure.

Possession is but one of the rights in the "bundle of sticks" that constitute property. That conception of property as a bundle of sticks, see Andrus v. Allard, 444 U.S. 51, 65-66 (1979), is due in large part to the work of legal philosopher Tony Honoré. In his essay, "Ownership," he articulated the incidents of ownership common to "mature legal systems." Tony Honoré, Ownership, in Making Law Bind: Essays Legal and Philosophical 161, 162 (1987). That is:

Ownership comprises the right to possess, the right to use, the right to manage, the right to the income of the thing, the right to the capital, the right to security, the rights or incidents of transmissibility and absence of term, the duty to prevent harm, liability to execution, and the incident of residuarity.

Honoré at 165.

Several of these property rights are invaded by the installation of a GPS device on a vehicle. If the government did not invade Jones's right to possess his vehicle significantly enough during its exercise of dominion to install the device, the government did invade the trio of rights to use, manage, and enjoy income. Government agents used the car during the entire period of the device's installation to transport their monitoring tool. Indeed, they made the same use of the vehicle for transporting their device that Jones made of it for transporting himself, his things, and his guests. Then there is the right to manage, "the right to decide how and by whom the thing owned shall be used." Honoré at 168. This right the government invaded by making the car an auxiliary of its surveillance project. Government agents also invaded the right to the income, using the car to produce digital records for their use. Income need not be pecuniary, as Honoré wrote, "[R]ent-free use or occupation of a home is a form of income." Honoré at 169. So is using another's property for the production of data. Income is the enjoyment of emoluments that an item produces, whatever their nature.

Treating the issue slightly differently, this Court has emphasized the "right to exclude others" as "one of the most essential sticks in the bundle of rights that are commonly characterized as property." Kaiser Aetna v. United States, 444 U.S. 164, 176 (1979); see also Dolan v. City of Tigard, 512 U.S. 374, 384 (1994); Lucas v. South Carolina Coastal Council, 505 U.S. 1003, 1044 (1992); Nollan v. California Coastal Comm'n, 483 U.S. 825, 831 (1987). One is not "excluded" from the property of another when attaching

items to it and enjoying the benefits of that attachment. A constitutional seizure can occur when the government invades a property right other than possession.

When determining whether a search or seizure implicating the Fourth Amendment has occurred, there is no need to weigh or balance such things as the amount of data a device produces, the quality or intimacy of the data, or the "power" of a device to reveal sensitive information—though GPS is indeed powerful. These are relevant when considering whether a seizure (or search facilitated by seizure) is reasonable. The invasion of a property right that converts one's property to the government's surveil-lance purposes is a constitutional seizure that merits that examination for reasonableness.

This Court's cases have rarely defined "seizure" distinct from "search," United States v. Jacobsen, 466 U.S. 109, 114 n.5 (1984) ("the concept of a 'seizure' of property is not much discussed in our cases"); but see Soldal v. Cook County, 506 U.S. 56 (1992) (holding that seizure of mobile home violates Fourth Amendment). In Arizona v. Hicks, 480 U.S. 321 (1987), this Court characterized the movement of stereo equipment to gather a serial number as a "search," though it might more precisely have characterized it as a seizure incident to a search. Whatever the case, the stereo equipment was not law enforcement's to move. "The distinction between looking at a suspicious object in plain view and moving it even a few inches is much more than trivial for purposes of the Fourth Amendment." Id. at 325. Turgid reasoning and makeweight argument (calling Vehicle Identification Numbers "a significant thread in the web of regulation of the automobile") confess the weakness of contrary cases such as *New York v. Class*, 475 U.S. 106, 111-12 (1986), which approved a police officer's "unintrusive" reaching into a vehicle to move papers so he could see a VIN, though he had no suspicion that the car was stolen. *Id.* at 108, 119.

Jones's vehicle was not the government's to commandeer and convert to their surveillance purposes. Doing so was a constitutional seizure.

B. Using Jones's Vehicle to Track Him Was a Constitutional Search

Whether or not the application of a GPS monitoring device to Jones' vehicle was a Fourth Amendment seizure, the use of that device to study his movements over four weeks was a search that implicates the Fourth Amendment.

As a preliminary matter, this Court should recognize and clearly affirm here that digital materials have the same constitutional status as those that are recorded on other media (such as paper). The federal trial court system has recognized, as it must, that digital representations of information are equivalent to paper documents for purposes of both filing and discovery. See Committee on Rules of Practice and Procedure of the Judicial Conference of the United States, Report of the Civil Rules Advisory Committee 2, 18-22, May 27, 2005. The subject matter held in digital documents and communications is at least as extensive and intimate as what is held on paper records, and probably much more so. See Mary Czerwinski et al., Digital Memories in an Era of Ubiquitous Computing and Abundant Storage, Communications of the ACM 45, Jan. 2006, available at

http://research.microsoft.com/pubs/79673/CACMJan2 006DigitalMemories.pdf. The representation of personal information on media other than paper changes nothing about its Fourth Amendment significance. The same information about each American's life that once resided in a desk drawer, or simply in one's memory—if remembered at all—is now recorded on digital media.

Digital representations of information are constitutional "papers," or at least digital "effects," secured by the Fourth Amendment. It is essential to make clear that the coverage of the Fourth Amendment extends to these other media.

On the question of when such papers and effects have been searched, once again the "reasonable expectation of privacy" doctrine has confused matters. This Court should still find, however, consistent with the outcomes of past cases, that a "search" has occurred when technological enhancement takes what the government observes far beyond what is ordinarily accessible.

This Court has episodically grappled with the question whether "technological enhancement of ordinary perception . . . is too much." *Kyllo*, 533 U.S. at 33. Such enhancement this Court should recognize as a "search."

"When the Fourth Amendment was adopted, as now, to 'search' meant '[t]o look over or through for the purpose of finding something; to explore; to examine by inspection; as to search the house for a book; to search the wood for a thief." *Id.* at 33 n.1 (quoting N. Webster, An American Dictionary of the English Language 66 (1828) (reprint 6th ed. 1989)).

As the Court noted in *Kyllo*, "visual observation is no 'search," 533 U.S. at 32. The Court's long-held and pragmatic position is that what is plainly observable by government agents from a position they are legally entitled to occupy is not a constitutional search requiring reasonableness or a warrant. They are "just looking."

Indeed, the universe of things observable can be divided into two parts: those things that are in plain view (or otherwise plainly observable) and those that are observable based on a Fourth Amendment search. This Court's cases show that observation or "looking" has taken a sharp enough focus and risen to the level of "search" in two circumstances. One is when observation is accompanied by a seizure, such as of people, see, e.g., Terry v. Ohio, 392 U.S. 1 (1968), or of things, see, e.g., Arizona v. Hicks, 480 U.S. 321. The second is when observation is technologically enhanced, such as by wiretap, beeper, or thermal imager. In these latter cases, this Court has struggled, both with recognizing the existence of a search, Olmstead, 277 U.S. at 466, rev'd by Katz, 389 U.S. at 353, and sometimes the existence of a security interest that the Fourth Amendment was meant to protect. Knotts, 460 U.S. at 282; Karo, 468 U.S. at 714-715; but see *Katz*, 389 U.S. at 353. The Court should evaluate these considerations with great care in this case.

Capturing Jones's movements was "technologically enhanced" observation that rises well beyond "looking" at items and events in plain view. Such observation rises to the level of a Fourth Amendment search no less than the technologically enhanced search in *Kyllo*.

GPS technology uses satellite signals to triangulate fairly precise location observations, and—just as importantly—captures this data in highly useful digital form at regular intervals for any period that the operator chooses. It is not "just looking" when an electronic device triangulates its location using signals beamed from space and records them every 10 seconds for several weeks.

Of course, not all technological enhancement converts looking to constitutional searching. Wearing corrective glasses while examining something in plain view does not convert ordinary "looking" into constitutional "searching." Using high-powered binoculars to observe something at a long distance may or may not be a constitutional search, depending on the factual circumstances. But using GPS-tracking devices is an exotic technical enhancement of observation, use of which this Court should find—at this stage of technological development—to constitute a search for Fourth Amendment purposes.⁴

Government agents' use of an uncommon technological enhancement thus raises the question of whether that resulting search was reasonable in the absence of a valid warrant.

⁴ The "stage of technological development" is an important factor because the dividing line between plain-view "looking" and constitutional "searching" will always be technologically contingent. Future courts in harder cases can make judgments about whether a technology has become common enough to be thought of as an "ordinary" way of perceiving the world. In any event, surreptitious GPS tracking is not today an ordinary way that anyone in the general public uses to learn the whereabouts of anyone else in minute detail over extended periods.

IV. MONITORING THE MOVEMENTS OF A CAR FULL-TIME FOR FOUR WEEKS VIA GPS DEVICE WITHOUT A VALID WARRANT IS UNREASONABLE

In the ordinary course of events, information cataloguing the movements of respondent Jones's vehicle over four weeks, and even far shorter periods, was available to *nobody*. The government's use of very powerful technology was inconsistent with emerging norms that limit information collection of this type and restrict access to it when it is created. The creation and collection of that data without a warrant was thus an unreasonable search, product of an unreasonable seizure, and a violation of Jones's Fourth Amendment rights.

A. The Government Used Very Powerful Information Technology

Like Katz walking into a telephone booth, Jones used ordinary husbandry of information to maintain his movements as private. Government agents unreasonably defeated his privacy by maintaining a GPS device on his car during a four-week period without a valid warrant.

If it seems strange that doing nothing in particular to prevent others accessing data is "ordinary husbandry," that reflects the extraordinary nature of the measure government agents took to create and collect this data. Because nobody ever follows anybody that long, preserving privacy in the information reflecting all of one's movements for four weeks can be achieved simply by relying on the physical difficulty and costs of such surveillance. The distances Jones traveled over elapsing time served the same informa-

tion-control purposes the glass walls of the phone booth did in *Katz*. As the lower court found, "the whole of one's movements over the course of a month is not actually exposed to the public because the likelihood anyone will observe all those movements is effectively nil." *United States v. Maynard*, 615 F.3d 544, 560 (D.C. Cir. 2010). The record of Jones's movements was available to nobody, so, taking private ordering as a given, it was not available to the government. Producing and accessing that information using extraordinary technical means without a valid warrant was unreasonable.

In *Kyllo*, this Court grappled similarly with the shifting interplay of privacy and technology. In that case, government agents had used a thermal imager to note unusual heat patterns emanating from the wall of a home. The imager augmented what was visible to law enforcement by bringing otherwise invisible heat patterns within the visual spectrum for them to observe and record on tape. 533 U.S. at 34. Doing so violated Kyllo's Fourth Amendment rights.

The GPS device here augmented human perception in not just one, but at least three ways. First, it produced location data that was far more accurate than anything a human might have recorded. The device recorded location to latitudinal and longitudinal measurements at 10-second intervals while the car was in motion. JA 81-82, 85. This is a level of precision and productivity no human observer could have matched.

More importantly, this data was recorded digitally and in a highly interoperable, structured format, something ordinary human observation and commonly used cameras and voice recorders do not

do. Digital information can be stored, transmitted, copied, and processed far more quickly and cheaply than analog information. That means that records can last forever, they can be shared widely over their indefinite lifetimes, and as many copies can be made as their controllers please.

Processing is where the power of digital data really lies, though. Nearly instant scans of the data can turn up otherwise unknown (and thus private) patterns of behavior. Because of the data's structure, combinations of GPS data, or mash-ups of GPS data with maps, directories, and other data can reveal many of the relationships and behaviors that the person being tracked keeps obscure to all others. See Jeff Jonas, Your Movements Speak for Themselves: Space-Time Travel Data is Analytic Super-Food!, Aug. 16, 2009, http://jeffjonas.typepad.com/jeff_jonas/ 2009/08/your-movements-speak-for-themselvesspacetime-travel-data-is-analytic-superfood.html. In quantity, digital data has vastly more insightful uses—for good and bad—than a logbook of a suspect's movements taken down via visual (or any other analog) surveillance. "[L]arge amounts of data yield discoveries and intuitions that surprise even experts." Jiawei Han et al., Data Mining: Concepts and Techniques xix (2012).

The final way that GPS augments human observation is by vastly expanding observation along the time dimension. A team of human observers could not produce the location data that a GPS device can for the period of time, day and night, that a GPS device does. If the problem is learning where a suspect goes, using a GPS device is like bringing a bazooka to a knife-fight. Given the consequences for

privacy of the innocent, that kind of power should be used subject to the grant of permission by a court.

The power of GPS data-recording also distinguishes this case from *Karo* and *Knotts*, in which government agents used comparatively impotent "beeper" technology to locate and track objects that were allegedly in criminal use. The beepers at issue in these cases were equivalent to directionless, analog radio "hollers," indicating their presence over limited distances and making themselves and the canisters that contained them easier to find. The beepers recorded nothing at all, much less did they make detailed digital records of location data. Beepers have trivial power compared to GPS technology.

The government's employment of a device such as GPS to explore the details of people's lives that would otherwise not have been knowable is unreasonable without a valid warrant.

B. Emerging Norms Limit Collection and Use of Location Data

Emerging norms support a finding specifically that collection of GPS data correlating to an individual's movements is unconstitutional without a valid warrant. Society continues to grapple with GPS data and location tracking, of course. While there are many beneficial uses of location data, few of them amount to publishing one's location around the clock for weeks. And no location-based service collects and publishes location information surreptitiously. Even as location information sees more uses in society, the warrant requirement will help to ensure that law enforcement does not use changing technology to violate individual rights.

As to collection norms, recent events illustrate the sensitivity of consumers to GPS data. The "On-Star" telematics (integrated telecommunications and informatics) service recently suffered public wrath when it changed its Terms of Service to allow it to collect GPS data from the cars of people who no longer use the service. After a short time, OnStar reversed course and now will not collect GPS data unless former customers consent to its collection. David Kelly, *GM's OnStar Reverses After Complaints Over Privacy*, AOL Autos, Sept. 28, 2011, http://autos.aol.com/article/gms-onstar-reverses-after-complaints-over-privacy/.

The fact that location information is part of the Terms of Service in telematics services is worth noting. The OnStar privacy policy specifically indicates that collection of GPS data is limited to specific, relatively rare, circumstances, and that location information is not shared. OnStar Corporation, Privacy Policy, available at: http://www.onstar.com/web/portal/privacy (last visited Sept. 29, 2011).

Similarly, our society is converging on restrictive treatment of data automobiles generally create and collect. The California legislature, for example, passed a law in 2003 that tightly restricts retrieval of data from automobile "event data recorders" (black boxes) by anyone other than vehicles' registered owners. Cal. Veh. Code § 9950-9953. Twelve other states have enacted similar laws. Ark. Code Ann. § 27-37-103; Colo. Rev. Stat. § 12-6-4; Conn. Gen. Stat. § 14-164aa; Me. Rev. Stat. § 29A-1-17-3; N.H. Rev. Stat. Ann. § 357-G:1; NY CLS Veh. & Tr. § 4A16 416-B; Nev. Rev. Stat. Ann. § 484.638; N.D. Cent. Code, § 51-07-28; Or. Rev. Stat. §§ 105.925-45; Tex.

Transp. Code § 547.615; Va. Code Ann. § 46.2-1088.6; Rev. Code Wash. § 46.35.010-50.

Surreptitious collection of location information on a continuous basis is contrary to societal norms. Use of GPS by a private party to monitor the movements of another without consent would probably result in liability under stalking laws, and perhaps other criminal statutes. District of Columbia anti-stalking legislation provides for imprisonment and fines of those who violate its terms, including through the use of GPS. D.C. Code § 22-3133. "Where a single act is of a continuing nature," the law says, "each 24-hour period constitutes a separate occasion." D.C. Code § 22-3133(c).

Police investigatory work is not stalking, of course. It neither fits the legal definition, nor has it any of the same moral content. But persistent and intensive observation of others is behavior that society regards as abnormal. It is out of the ordinary, contrary to common values, and—unlike ordinary observation—a behavior that should be conducted with restraint, subject to judicial oversight.

CONCLUSION

The information-control rationale of *Katz v. United States* turns on physical and legal protections for information that, when in place, create a "reasonable expectation of privacy." Reasoning backward from "reasonable expectations of privacy" to constitutional protection has not been a successful approach to the Fourth Amendment from the standpoint of judicial administration, guidance to law enforcement, or privacy.

Data about respondent Jones's travels would never have come in to existence without the extraordinary use of a GPS device surreptitiously planted on his car. The conversion of the car to the government's purposes, and the surveillance conducted with that converted car, constitute an unreasonable search and seizure in the absence of a valid warrant.

For the foregoing reasons, this Court should affirm the D.C. Circuit's judgment.

Respectfully submitted,

ILYA SHAPIRO
JAMES W. HARPER
Counsel of Record
TIMOTHY LYNCH
PAUL JOSSEY
Cato Institute
1000 Mass. Ave., NW
Washington, D.C. 20001
jharper@cato.org
(202) 842-0200

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