Nos. 19-1582, 19-1583, 19-1625, 19-1626

UNITED STATES COURT OF APPEALS
FOR THE FIRST CIRCUIT

UNITED STATES OF AMERICA,
Appellant

v.

Nos. 19-1582, 19-1625

NIA MOORE-BUSH, A/K/A NIA DINZEY,
Defendant–Appellee

&

Nos. 19-1583, 19-1626

DAPHNE MOORE,
Defendant–Appellee

ON APPEAL FROM A JUDGMENT OF THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF MASSACHUSETTS

EN BANC BRIEF OF *AMICI CURIAE* AMERICAN CIVIL LIBERTIES UNION, AMERICAN CIVIL LIBERTIES UNION OF MASSACHUSETTS, CENTER FOR DEMOCRACY & TECHNOLOGY, AND ELECTRONIC FRONTIER FOUNDATION IN SUPPORT OF DEFENDANTS–APPELLEES SEEKING AFFIRMANCE

Matthew R. Segal
First Cir. Bar No. 1151872
Jessie J. Rossman
First Cir. Bar No. 1161236
American Civil Liberties Union
Foundation of Massachusetts
211 Congress Street
Boston, MA 02110
(617) 482-3170
msegal@aclum.org
jrsossman@aclum.org

Nathan Freed Wessler
First Cir. Bar No. 1188344
Brett Max Kaufman
American Civil Liberties Union
Foundation
125 Broad Street, 18th Floor
New York, NY 10004
(212) 549-2500
nwessler@aclu.org
bkaufman@aclu.org

Additional counsel listed on next page

Andrew Crocker
First Cir. Bar No. 1177302
Electronic Frontier Foundation
815 Eddy Street
San Francisco, CA 94109
(415) 436-9333
andrew@eff.org

Samir Jain
First Cir. Bar No. 97038
Gregory T. Nojeim
Mana Azarmi
Center for Democracy & Technology
1401 K Street NW, Suite 200
Washington, D.C. 20005
(202) 637-9800
sjain@cdt.org
gnojeim@cdt.org
mazarmi@cdt.org

CORPORATE DISCLOSURE STATEMENT

Amici curiae are non-profit entities that do not have parent corporations. No publicly held corporation owns ten percent or more of any stake or stock in amici curiae.

AUTHORITY TO FILE

Amici submit this brief pursuant to the leave granted by this Court's order of December 9, 2020.

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INTRODUCTION

This case arises from the government's warrantless use of a sophisticated camera aimed at a home—what the government calls a "pole camera"—to surveil everyone who came and went for eight months. During that time, police officers could watch the camera's feed in real time, and remotely pan, tilt, and zoom close enough to read license plates and see faces. Moore-Bush Add. 3; Gov't App. 106–07, 151–59, 180–92. They could also review the searchable, digitized record of this footage at their convenience. Moore-Bush Add. 3. Yet the government sees no missteps in its failure to obtain a warrant to engage in this kind of surveillance. Instead, it argues that the Fourth Amendment's prohibition against unreasonable searches and seizures places no restriction whatsoever on its use of home-facing cameras. On this view, the government could deploy cameras to keep tabs on untold numbers of American homes without ever thinking twice about the Constitution.

The district court correctly rejected this sweeping assertion of surveillance authority. The court reasoned that defendants Nia Moore-Bush and Daphne Moore "did not subjectively expect to be surreptitiously surveilled with meticulous precision each and every time they or a visitor came or went from their home," and this expectation was reasonable in light of the Supreme Court's decision in *Carpenter v. United States*, 138 S. Ct. 2206 (2018). *See* Moore-Bush Add. 6, 8. The district court therefore held that the government's warrantless, long-term use of a home-facing

camera violated the Fourth Amendment. Moore-Bush Add. 2. And that court is not alone. The Massachusetts Supreme Judicial Court has now held that continuous pole camera surveillance directed at the home is a search under the state constitution, explaining that no "resident would expect that every activity would be taped, stored, and later analyzed as part of a months-long pattern of behavior." *Commonwealth v. Mora*, 150 N.E.3d 297, 309, 312–13 (Mass. 2020). *Accord State v. Jones*, 903 N.W.2d 101 (S.D. 2017); *People v. Tafoya*, 2019 COA 176, __ P.3d __ (Colo. App.), *cert. granted*, No. 20SC9 (Colo. June 27, 2020).

Amici submit this brief to highlight three reasons why this Court should uphold the district court's ruling, and bring this Circuit's "pole camera" jurisprudence into harmony with the binding principles of the Supreme Court's decision in *Carpenter* and the persuasive logic of the Supreme Judicial Court's decision in *Mora*.

First, the surveillance at issue here implicates not only the concerns that animated *Carpenter*, but also additional concerns relating to the home. *Carpenter* held that the Constitution protected an individual's *public* movements revealed by cell site location information (CSLI) maintained by their cellular service provider, because such information was "detailed, encyclopedic," "effortlessly compiled," and "deeply revealing." *Id.* at 2216, 2223. Those conclusions apply with greater force when the government compiles detailed and deeply revealing information about the comings and goings at someone's *home*, which is "first among equals" when it comes to Fourth

Amendment protections. *Florida v. Jardines*, 569 U.S. 1, 6 (2013). Under *Carpenter*, and in light of longstanding protections for the home, warrantless long-term technological surveillance that allows the government to monitor and record who and what is entering a home violates reasonable expectations of privacy.

Second, modern pole camera surveillance radically upends the traditional "relationship between citizen and government in a way that is inimical to democratic society." *United States v. Jones*, 565 U.S. 400, 416 (2012) (Sotomayor, J., concurring) (cleaned up)[2]; *see Carpenter*, 138 S. Ct. at 2214, 2217. This home-facing camera surveillance is not comparable to the historical practice of having individual officers "stake out" homes—with or without cameras—because today's cameras are cheap, efficient, and increasingly susceptible to enhancement by technologies available to law enforcement. These technologies would enable the government to read messages off cellphone screens at one's doorstep, search weeks of footage in a fraction of the time, and identify everyone entering or exiting a house via artificial intelligence-powered face surveillance. The Supreme Court has made clear that this Court's Fourth Amendment analysis must "take account of [these] more sophisticated systems that are already in use." *Kyllo v. United States*, 533 U.S. 27, 36 (2001); *see also Carpenter*, 138 S. Ct. at 2218.

[2] This brief uses "(cleaned up)" to indicate that internal quotation marks, alterations, or citations have been omitted from quotations. *See* Jack Metzler, *Cleaning Up Quotations*, 18 J. App. Prac. & Process 143 (2017).

Third, authorizing warrantless, prolonged camera surveillance of homes would disparately impact those who lack the resources to buy property or barriers capable of thwarting that surveillance. But constitutional protections cannot turn on wealth. To guard against this outcome, and to address the additional concerns described above, this Court should affirm the district court's suppression order.

INTERESTS OF AMICI[1]

The American Civil Liberties Union of Massachusetts, Inc. (ACLUM) and the American Civil Liberties Union (ACLU) are membership organizations dedicated to the principles of liberty and equality embodied in the constitutions and laws of the Commonwealth and the United States. The rights they defend through direct representation and amicus briefs include the right to be free from the government's use of technology to conduct unreasonable searches and seizures.

The Center for Democracy & Technology (CDT) is a nonprofit public interest organization which seeks to ensure that the human rights we enjoy in the physical world are realized in the digital world. Integral to this work is CDT's representation of

[1] No party's counsel authored this brief in whole or in part. No party or party's counsel contributed money that was intended to fund preparing or submitting this brief. Only amici, their members or their counsel contributed money that was intended to fund preparing or submitting this brief. Fed. R. App. P. (29)(c)(5).

the public's interest in protecting individuals from abuses of new technologies that threaten the constitutional and democratic values of privacy and free expression.

The Electronic Frontier Foundation ("EFF") is a member-supported, nonprofit civil liberties organization that has worked to protect free speech and privacy rights in the online and digital world for nearly 30 years. EFF represents technology users' interests in court cases and broader policy debates. EFF has served as amicus in numerous cases addressing Fourth Amendment protections against invasive surveillance technologies.

ARGUMENT

I. *Carpenter* confirms that training a pole camera on a home for long-term, continuous surveillance violates a reasonable expectation of privacy.

Where an individual has a reasonable expectation of privacy in an item or location to be searched, a warrantless search is "*per se* unreasonable under the Fourth Amendment." *Arizona v. Gant*, 556 U.S. 332, 338 (2009) (quoting *Katz v. United States*, 389 U.S. 347, 357 (1967)). As the government acknowledges, under *Carpenter* "a person may have a reasonable expectation of privacy that includes activities exposed to the public." Gov't Br. 27. *Carpenter* recognized a reasonable expectation of privacy in a cell phone user's movements, which had not only been exposed to the public but memorialized in a service provider's business records. 138 S. Ct. at 2217, 2223. Here, notwithstanding the government's effort to portray *Carpenter* as "cabined," Gov't

Suppl. Br. 13, that decision simply cannot be shrunk down to a principle that protects people from government intrusion when they are out in public with their cell phones, yet leaves them exposed to government intrusion as soon as they return to the front of their homes. Applying *Carpenter*, the district court correctly held that the defendants manifested a subjective privacy interest in not being subjected to eight months of home surveillance, and that their expectation of privacy was objectively reasonable.

A. The Fourth Amendment does not require people to take extraordinary measures to manifest a subjective expectation of privacy against pervasive technological surveillance.

The district court held that, by their choice of home and neighborhood, the defendants established a subjective privacy interest in avoiding prolonged surveillance from a pole camera. Moore-Bush Add. 5–6. That is correct, but it is also difficult to imagine a situation in which a person would *lack* an expectation that they can live their life free from continuous, prolonged recording of every single detail and event occurring immediately outside their home. *Compare* Gov't Br. 24–25.

In this litigation, the government has argued otherwise. It claims that, when a person does not manage to obstruct the front of their home, it denotes tacit approval for the continuous, prolonged, and digitized recording of all events that occur around their front door. *See id.* But that is not the law. As the Massachusetts SJC put it in *Mora*, "[t]he traditional barriers to long term surveillance of spaces visible to the public have not been walls or hedges—they have been time and police resources." *Mora*, 150

N.E.3d at 306 (citing *Jones*, 565 U.S. at 429 (Alito, J., concurring in judgment)). It is those practical constraints that mean people simply "do not expect that every . . . action [around their home] will be observed and perfectly preserved for the future." *Id.*

The Fourth Amendment does not require people to take extraordinary measures to protect themselves from invasive modern surveillance techniques. Thus, in *Kyllo*, the Court rejected the dissent's suggestion that people should be required to add extra insulation to their homes to avoid thermal-imaging surveillance. *Compare* 533 U.S. at 29–40, *with id.* at 45 (Stevens, J., dissenting). In *Carpenter*, the Court made clear that people need not "disconnect[] the[ir] phone from the network . . . to avoid leaving behind a trail of location data." 138 S. Ct. at 2220. Accepting the government's position would require people to erect towering walls around their homes to shield themselves from pervasive video surveillance. But that is impossible, both because many people lack the resources to erect such a barrier, *see infra* Part III, and because government zoning regulations would, in many jurisdictions, forbid it.

Standard utility poles for residential power delivery are approximately 40 feet tall.[2] Many jurisdictions bar homeowners from erecting fences tall enough to shield their property from even passersby on foot, not to mention pole-mounted cameras.

[2] *See* David Brooks, *There are 500,000 Utility Poles in New Hampshire, Yet We Hardly Notice Them*, Concord Monitor (Dec. 24, 2016), https://perma.cc/XT7U-8MYT.

For example, in Springfield, where the defendants live, local law prohibits construction of fences at the front of certain residential properties, and limits the height of fences to three feet at others. Springfield, Mass., Zoning Ordinances, art. 7, § 7.4.23. Similar restrictions are widespread. *See, e.g.*, Code of Marlborough, Mass., § 270-20(A) (six-foot maximum); Concord, N.H., Code of Ordinances § 28-5-40(b)(1) (four-foot maximum in front yards); Lewiston, Me., Zoning & Land Use Code, art. XII, § 7(a)(1) (three-and-a-half–foot maximum in front yards); City of Providence, RI, Zoning Ordinance § 1302(I)(2)(a) (36-inch maximum at front of property).[3] And even where high walls are legal, they would protect only those with the resources to purchase them, *see infra* Part III, and would exclude renters, who lack license to build on the property they occupy. Accepting the government's rule would "make a crazy quilt of the Fourth Amendment." *Smith v. Maryland*, 442 U.S. 735, 745 (1979). This Court should reject it.

[3] Legal restrictions on attachment of extraneous materials to utility poles further shape people's expectation that they will not be subject to round-the-clock surveillance from a camera mounted on a nearby pole. *See, e.g.*, *Verizon New England, Inc. v. Fibertech Networks, LLC*, Nos. Civ.A. 02-831, 02-843, 2002 WL 32156845, at *3 (Mass. Super. Aug. 19, 2002) (Where a party "has made attachments to . . . poles without right to do so," they are "committing a continuing trespass.").

B. Long-term around-the-clock pole camera surveillance of a home reveals deeply personal information and impinges on objectively reasonable expectations of privacy.

It is reasonable for people to expect that the government will not use a sophisticated camera trained at their home to surveil their comings and goings for eight months.

As an initial matter, the home and its surroundings represent "the very core" of individual privacy under the Fourth Amendment. *Jardines*, 569 U.S. at 6. That law enforcement trains pole camera surveillance on the exterior of the home, rather than the interior, does not put this concern to rest: "there exist no 'semiprivate areas' within the curtilage where governmental agents may roam from edge to edge." *Bovat v. Vermont*, 141 S. Ct. 22, 24 (2020) (Gorsuch, J., respecting the denial of certiorari) (discussing *Jardines*); *accord Jardines*, 569 U.S. at 6 (curtilage is "part of the home itself for Fourth Amendment purposes"); *Collins v. Virginia*, 138 S. Ct. 1663, 1671 (2018) (describing curtilage as "an area adjacent to the home and to which the activity of home life extends" (cleaned up)).

In *Carpenter*, the Court explained that individuals have a "reasonable expectation of privacy in the whole of their physical movements" revealed by cell site location information because of "the deeply revealing nature of CSLI, its depth, breadth, and comprehensive reach, and the inescapable and automatic nature of its collection." *Carpenter*, 138 S. Ct. at 2217, 2223. Like longer-term cell phone location

data, prolonged pole camera surveillance of a home opens an "intimate window into a person's life, revealing . . . his 'familial, political, professional, religious, and sexual associations.'" *Id.* at 2217 (quoting *Jones*, 565 U.S. at 415 (Sotomayor, J., concurring)). Over time, a pole camera trained on a person's home records the patterns and timing of residents' movements to and from home, the items they carry with them when they leave and arrive, and the people who visit them and how long those visitors stay. Watching a resident leave home on Sunday morning with a hymnal, Saturday morning with a prayer shawl, or mid-day Friday with a prayer rug reveals details of religious observance. Leaving with a protest sign suggests political activity, while carrying an oversized X-ray film envelope indicates medical travails. A visitor arriving at the house on a weekend evening with flowers could reveal a romantic liaison, while that visitor spending the night might disclose an affair. *Cf.* Moore-Bush Add. 10–11. In short, watching the comings and goings at a home can permit law enforcement to chart out a detailed picture of the occupant's private life.

Finally, to the extent the government contends that pole camera surveillance captures what someone has "exposed" to public view, *see* Gov't Suppl. Br. 3, 7–10, 12, it is on even weaker footing than it was in *Carpenter*. Exposing the outside of one's home to public view is at least as "inescapable" as using a cell phone, because "in no meaningful sense" does living in a place amount to a decision to "assume the risk" of having that home under constant government surveillance. *Carpenter*, 138 S. Ct. at

2220, 2223 (cleaned up). And unlike in *Carpenter*, where the government repeatedly emphasized that it sought business records that the cell phone user neither owned nor possessed, here it can assert no comparable reliance on the third-party doctrine. *Cf.* Brief of the United States at 11, 13–18, 23, 33, 35, 37–38, 40, 42–43, 47, 50–51, *Carpenter*, 138 S. Ct. 2206 (No. 16-402). Instead, with pole camera surveillance, the government seeks to create its own surveillance record from scratch.

II. To protect the degree of privacy the public enjoyed before the current technological age, the government must obtain a warrant before conducting long-term pole camera surveillance of a home.

When the government uses or exploits emerging technologies, the Supreme Court's Fourth Amendment analysis takes account of whether the government's conduct threatens to disrupt the traditional "relationship between citizen and government in a way that is inimical to democratic society." *Jones*, 565 U.S. at 416 (Sotomayor, J., concurring) (cleaned up). In *Carpenter*, confronted with the power of CSLI "to encroach upon areas normally guarded from inquisitive eyes," the Court "sought to 'assure preservation of that degree of privacy against government that existed when the Fourth Amendment was adopted.'" *Carpenter*, 138 S. Ct. at 2213–14 (cleaned up) (quoting *Kyllo*, 533 U.S. at 34). In *Jones*, Justice Alito noted that, before the advent of modern technologies, practical considerations best protected privacy because "[t]raditional surveillance for any extended period of time was difficult and costly and therefore rarely undertaken." *Jones*, 565 U.S. at 429 (Alito, J., concurring in

judgment). Technology can remove these protective barriers, decreasing logistical impediments to long-term surveillance and increasing the ability to evade detection and obtain previously unobtainable information. *Cf. Carpenter*, 138 S. Ct. at 2217–18. In such instances, a warrant requirement maintains the proper equilibrium of privacy protections under the Fourth Amendment.

The government's contention that pole cameras have "importance as a crime-fighting tool" and are "used as an initial form of surveillance to determine whether 'a more invasive surveillance' . . . is warranted," Gov't Suppl. Br. 6–7, has no relevance to the question whether a warrant is required. That argument was raised in *Carpenter* too, *see* 138 S. Ct. at 2234 (Kennedy, J., dissenting), but failed to sway the Court. Of course, the implication of affirming the district court is not to preclude police from using pole cameras; rather, the "answer to the question of what police must do before" conducting extended pole camera surveillance of a home "is accordingly simple—get a warrant." *Riley v. California*, 573 U.S. 373, 403 (2014).

A. Prolonged pole camera surveillance significantly encroaches upon traditional spheres of privacy.

The long-term use of pole cameras is a surveillance innovation that radically transforms the capabilities of law enforcement to peer into individuals' private lives.

Forget the classic "stakeout" of yore. Like the cellphone tracking at issue in *Carpenter*, pole camera surveillance "is remarkably easy, cheap, and efficient compared to traditional investigative tools," enabling a heretofore incredibly costly and resource-

intensive kind of monitoring "at practically no expense."[4] 138 S. Ct. at 2218. The government musters a handful of cases in support of its suggestion that because "days or weeks-long stakeouts are certainly not unknown," long-term pole camera surveillance of a home does not impinge on reasonable expectations of privacy. Gov't Suppl. Br. 24 & n.16. But the government's own cases prove the point that such stakeouts are "difficult and costly and therefore rarely undertaken." *Jones*, 565 U.S. at 429 (Alito, J., concurring in judgment). In one cited case, the investigating officer testified that in-person surveillance from a parked car "was not a permanent fixture," occurring only for "a day or two" at a time because "if we set ourselves in locations frequently in the same location trying to watch the same person, it doesn't work so good for our investigation." Tr. of Feb. 28, 2018 Hearing at 9, 11, *United States v. May-Shaw*, No. 1:17-CR-00057-PLM (W.D. Mich.) (ECF No. 109). In another case, far from the surveillance being surreptitious, the suspect was "made aware that the police were watching him." *Marra v. Cook*, No. 3:18-CV-389 (SRU), 2019 WL 4246927, at *2

[4] Based on one oft-cited analysis estimating the cost of various surveillance techniques, *see* Kevin Bankston & Ashkan Soltani, *Tiny Constables & the Cost of Surveillance: Making Cents Out of* United States v. Jones, 123 Yale L.J. Online 335, 342–43 (2014), amici estimate that it would cost the Bureau of Alcohol, Tobacco & Firearms more than $200,000 to monitor a home consistently for eight months based on the government pay scale and locality pay. By contrast, a standard pole camera costs a small fraction of that amount. *See, e.g.*, General Services Administration, *Authorized Federal Supply Schedule Price List, Valorence LLC*, https://perma.cc/3BLK-7283 (last accessed Feb. 11, 2021) (listing pole camera models for approximately $8,000 to $9,000).

(D. Conn. Sept. 6, 2019). And in a third case, where police did mount weeks-long twenty-four-hour surveillance of a home, it required "some 24 to 30 officers, working in eight hour shifts," some having to secrete themselves "at or near [a] swamp area" to avoid detection. *United States v. Lace*, 502 F. Supp. 1021, 1027–28 (D. Vt. 1980). That an occasional "investigation of unusual importance could have justified such an expenditure of law enforcement resources" does not mean that people reasonably expect to be subject to continuous long-term surveillance at their homes; quite the opposite. *Jones*, 565 U.S. at 429 (Alito, J., concurring in judgment).

Nor is it helpful to the government that analog surveillance camera technology dates back several decades. Gov't Suppl. Br. 4–5. For one, the government's historical examples involve cameras trained on public streets and sidewalks in downtown commercial areas, not surveillance of people's private activities at their homes. More fundamentally, the government misapprehends the Supreme Court's Fourth Amendment rule. The touchstone is whether a particular technology destroys "that degree of privacy against government that existed when the Fourth Amendment was adopted," in light of the practical impediments to pervasive surveillance that people relied on prior to the advent of the technology in question. *Carpenter*, 138 S. Ct. at 2214. Thus, in *Carpenter* it did not matter that cell phones—and cell phone location

records—had been in use for more than three decades.[5] Rather, because people never would have expected police to be able to amass a perfect historical record of a person's activities prior to the cell phone age, the Fourth Amendment's protections attached. Likewise, here, people's expectation at the time of the framing of the Fourth Amendment and long after has been that police lacked the resources, fortitude, and stealth to watch our homes 24-hours a day for months on end, unceasingly and without detection. *Cf. Jones*, 565 U.S. at 420 n.3 (Alito, J., concurring in judgment) (wryly explaining that prior to GPS tracking technology, pervasive surveillance of a vehicle's movements would have required "a very tiny constable, . . . not to mention a constable with incredible fortitude and patience").

As compared to traditional police capabilities, the ability to set up an unattended camera and "travel back in time" months later to review thousands of hours of historical footage "[w]ith just the click of a button" fundamentally alters the nature of the intrusion. *Carpenter*, 138 S. Ct. at 2218. And where, as here, a house is located in what the police describe as "a quiet residential street where physical surveillance [is] difficult to conduct without detection," Gov't App. 64, pole camera surveillance provides the unique ability to capture undisturbed patterns of behavior. *See United States v. Vargas*, No. CR-13-6025-EFS, 2014 U.S. Dist. LEXIS 184672, at

[5] *When Phones Went Mobile: Revisiting NPR's 1983 Story On 'Cellular'*, NPR (Sept. 27, 2016), https://perma.cc/7GWG-K226.

*26 (E.D. Wash. Dec. 15, 2014) ("[I]t may have been possible for law enforcement agents to take turns personally observing [defendant's] activities in his front yard for a thirty-day period but the success of such hypothetical constables going unnoticed by [the defendant] for thirty days is highly unlikely."). The "continuous, twenty-four hour nature of the surveillance is an enhancement of what reasonably might be expected from the police," *Mora*, 150 N.E.3d at 312 (cleaned up).

The government argues that these features are immaterial under the Fourth Amendment, relying heavily on the 2009 pole camera case *United States v. Bucci*, 582 F.3d 108 (1st Cir. 2009). Gov't Br. 15–24. But *Bucci*'s determination that the pole camera surveillance did not trigger the warrant requirement rested on its conclusion that the "legal principle" that "[a]n individual does not have an expectation of privacy in items or places he exposes to the public" was "dispositive." 582 F.3d at 117. Of course, under *Carpenter* and *Jones*, a rule stating that individuals extinguish their privacy in whatever they expose to the public is no longer dispositive; in fact, such a rule is now untenable.

Attempting to distinguish *Carpenter*, the government contends that, unlike CSLI collected by third parties, pole cameras "do not create a tracking capacity that 'runs against everyone,'" and do not permit the "retrospective surveillance of something as to which no suspicion existed when the surveillance took place." Gov't Br. 22 (quoting *Carpenter*, 138 S. Ct. at 2218). But, of course, the government seeks a ruling

that would run against every single person in this Circuit, allowing it to warrantlessly place pole cameras in front of the homes of criminal suspects, or Black Lives Matter protesters, or politicians, or judges. That is why, when the government deploys surveillance technologies against even just one person, it acutely implicates the Fourth Amendment. *See Jones*, 565 U.S. at 430 (Alito, J., concurring in judgment) (targeted GPS tracking for a prolonged period is a search); *Kyllo*, 533 U.S. at 40 (targeted surveillance of a suspect's home with thermal imaging equipment requires a warrant); *Katz*, 389 U.S. at 358–59 (targeted electronic eavesdropping on a suspect's conversations in a phone booth requires a warrant).

While the rule the government seeks would undermine the rights of everyone in this Circuit, the rule it seeks to avoid is a familiar one for police. Police in Massachusetts have been required to obtain pole camera warrants since August 2020, and police in South Dakota have done so since 2017. *Mora*, 150 N.E.3d 297; *Jones*, 903 N.W.2d 101. Federal authorities likewise already obtain pole camera warrants in some jurisdictions. *E.g.*, Search & Seizure Warrant, *In re Search of Real Prop. at 221 Burns St., Alcoa, Tenn., 33701, Through the Use of and Recording by a Video Camera Installed on a Pub. Tel. Pole*, No. 3:16-MJ-1050 (E.D. Tenn. May 25, 2016); *In re Seizure Warrant Pole Camera re Shelley Johnson*, No. 5:19-mj-68-MJF (N.D. Fla. Sept. 10, 2019). There is no sound reason why federal agents operating in this Circuit cannot regularly do so as well.

Finally, although the government argues that the Supreme Court's decision in *California v. Ciraolo* survived its decision in *Carpenter*, Gov't Br. 26–27; Gov't Suppl. Br. 17, in fact *Ciraolo* is entirely consistent with the suppression order here. On its face, *Ciraolo* held that a warrant was not required when police observed details about a home "discernable to the naked eye" while "passing by" during a one-time flyover in "public[ly] navigable airspace." 476 U.S. 207, 213–14 (1986). In so doing, it brushed aside the dissent's concerns that its decision ignored "Justice Harlan's observations [in *Katz*] about future electronic developments" by explaining that those concerns "were plainly not aimed at simple visual observations from a public place." *Id.* at 214.

As a result, well before *Carpenter* courts already appreciated that *Ciraolo* simply authorized one-time, naked-eye surveillance, and does not apply to long-term, technologically enhanced surveillance of the home. *Kyllo*, 533 U.S. at 33.[6] "[I]t does not follow that *Ciraolo* authorizes any type of surveillance whatever just because one type of minimally-intrusive aerial surveillance is possible." *Cuevas-Sanchez*, 821 F.2d at 251. Indeed, even when courts have upheld aerial surveillance under the reasoning of

[6] *See, e.g.*, *United States v. Cuevas-Sanchez*, 821 F.2d 248, 251 (5th Cir. 1987) (distinguishing *Ciraolo* to hold that thirty-day pole camera surveillance of a backyard is a Fourth Amendment search); *United States v. Anderson-Bagshaw*, 509 F. App'x 396, 405 (6th Cir. 2012) (in dicta, "confess[ing] some misgivings about a rule that would allow the government to conduct long-term video surveillance of a person's backyard without a warrant" because, in part, "*Ciraolo* involved a brief flyover, not an extended period of constant and covert surveillance").

Ciraolo, they have done so while emphasizing the limited nature of that decision.[7] Nor does the pervasive surveillance of a home by a camera that remotely pans, tilts, and zooms—and that indefinitely stores digitized, searchable footage—fall within the Supreme Court's allowance for devices, like flashlights and field glasses, that merely "augment[] the sensory faculties" of police. Gov't Suppl. Br. 10. The chief danger of warrantless pole camera surveillance is not that it allows police to see more clearly what people already expect them to observe, but that it grants a fundamentally new power to watch, undetected, every single activity of a person at their home over a long period, and to recall a perfect record of that activity long into the future.

B. Law enforcement in Massachusetts already use technologies that could enhance the surveillance capabilities of pole cameras even beyond what occurred in this case.

In assessing whether the government's use or exploitation of a certain technology threatens to "shrink the realm of guaranteed privacy," *Kyllo*, 533 U.S. at 34, a court must consider not only the specific technology at issue but also "must take account of more sophisticated systems that are already in use or in development." *Carpenter*, 138 S. Ct. at 2218 (quoting *Kyllo*, 533 U.S. at 36). And for good reason.

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[7] *See Florida v. Riley*, 488 U.S. 445, 448–49 (1989) (explaining that *Ciraolo* "control[led]" where a law enforcement officer made observations from a helicopter "[w]ith his naked eye"); *United States v. Broadhurst*, 805 F.2d 849, 854, 856 (9th Cir. 1986) (explaining that *Ciraolo* was limited to "unenhanced visual observations" and that its result "can hardly be said to approve of intrusive technological surveillance where the police could see no more than a casual observer").

Turning a blind eye to these developments "would leave the homeowner at the mercy of advancing technology." *Kyllo*, 533 U.S. at 35. This Court's Fourth Amendment analysis therefore must take into account the evolving capabilities of camera technology, and the fact that police in the Commonwealth are already using technologies in other contexts that, if applied to pole cameras, could allow officers to zoom, search, and use the footage in increasingly invasive ways.

1. *Camera and video analytics technology provides law enforcement with increasingly powerful surveillance capabilities.*

There are at least three ways in which available technology can enhance pole camera surveillance even further than its use in this case. First, cameras can now hone in on small details with startling accuracy. For example, one company has released a camera small enough to be affixed to a drone that identifies faces from 1,000 feet and reads serial numbers on objects from 100 feet.[8]

Second, video analytic software enables the rapid and targeted "search of volumes of video that would otherwise be impossible."[9] Video management software enables hours of footage to be reviewed in minutes by employing features like motion

[8] Jason Koebler, *This Drone Zoom Lens Can Identify Your Face from 1000 Feet Away,* VICE (Feb. 25, 2015), https://perma.cc/GVM7-L5B2.

[9] BriefCam, *Video Analytics Solutions for Post-Event Investigations*, https://perma.cc/9T3K-K3TN (last visited Feb. 10, 2021); *see also* Jay Stanley, *The Dawn of Robot Surveillance: AI, Video Analytics, and Privacy*, American Civil Liberties Union (June 2019), https://perma.cc/P3N8-TUKZ.

detection,[10] while "video analytics" programs use artificial intelligence (AI) to enable the cameras systems themselves to classify objects and compile information into a database that law enforcement officials can subsequently search using key terms.[11]

And third, police officers can use face surveillance technology to identify individuals through their images.[12] Law enforcement agencies are increasingly purchasing such technologies to instantaneously identify people, and even to track their movements and activities on a citywide basis.[13] In Detroit, for example, police have purchased a face recognition system able to interface with live video streams throughout the city.[14]

2. *Law enforcement in Massachusetts is already using these advanced surveillance technologies.*

Massachusetts law enforcement agencies are already deploying these technologies, and could easily incorporate them into pole camera surveillance systems.

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[10] *See, e.g.*, i2c Technologies, *Deployable Surveillance Cameras for Police*, https://perma.cc/865B-R6UT (last visited Feb. 10, 2021).

[11] *E.g.*, BriefCam, *What Is Video Analytics*, https://perma.cc/8CJM-2HVW (last visited Feb. 10, 2021).

[12] Electronic Frontier Foundation, *Street Level Surveillance: Face Recognition* (Oct. 24, 2017), https://perma.cc/BUD7-55VB.

[13] *See* Clare Garvie & Laura M. Moy, *America Under Watch: Face Surveillance in the United States* (May 16, 2019), https://www.americaunderwatch.com/.

[14] *Id.*

Nearly ten years ago, Logan Airport installed a camera that can see any object a centimeter-and-a-half wide from 150 meters.[15] According to the Massport Director of Corporate Security, "the next version is going to be twice as powerful."[16] Deployed on a pole camera, a lens with these capabilities could enable officers to read anything coming into or out of a surveilled house. Student loan statements, immigration papers, or texts from a spouse or child[17] could all be reviewed in real-time or retained and searched months later.

With respect to video analytics, the Springfield Police Department began using BriefCam software two years ago.[18] BriefCam allows officers to quickly review hours of video by simultaneously displaying events that occurred at different times.[19] The software also classifies the properties of images, allowing officers to use keywords to search images in 27 categories including gender, age, and "appearance similarity."[20]

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[15] Brian R. Ballou, *At Logan, New Device Keeps Eye on Everything*, Boston Globe (May 3, 2010), https://perma.cc/YYP3-ENMD.

[16] *Id.*

[17] At least one casino has used cameras to zoom in and read text messages of a phone. *See* Lori Culbert, *Judge Raps Police for Using Casino Cameras to Read Suspect's Texts*, Vancouver Sun (Nov. 11, 2014), https://perma.cc/T3EE-ZC7T.

[18] George Graham, *Springfield Police to Dramatically Expand Video Surveillance Capabilities,* MassLive (Jan. 30, 2019), https://perma.cc/EDY5-YXBH.

[19] BriefCam, *Technology That Allows You to Review Video Fast,* https://perma.cc/75WW-CMZ7 (last visited Feb. 10, 2021).

[20] BriefCam, *Intelligent Video Analytics Solutions,* https://perma.cc/9MDZ-MBRU (last visited Feb. 10, 2021); BriefCam, *Search & Review Hours of Video in Minutes: Solutions to*

Officers can also upload photos to set up real-time face-recognition alerts.[21] Springfield began using Briefcam "to quickly review footage from traffic cameras," but the department plans to expand use of the technology: "The bigger the footprint, the better we are going to get."[22]

Finally, law enforcement in Massachusetts already utilize face surveillance technology. In recent years, law enforcement agencies have made hundreds of queries asking the Massachusetts Registry of Motor Vehicles (RMV) to compare images against the RMV's database in order to identify individuals.[23] Recent legislation regulates this practice but falls far short of requiring a judicial warrant to query the RMV image database.[24] Applying this technology to still images taken from a pole camera, police could try to identify everyone entering or exiting a home.

Help Investigators Accelerate Investigations, https://perma.cc/6ZJJ-2QLW (last visited Feb. 10, 2021).

[21] BriefCam, *Real-Time Alerting & Rapid Response*, https://perma.cc/PQQ7-MS2R (last visited Feb. 10, 2021).

[22] Graham, *supra* note 18.

[23] *See, e.g.*, Matt Rocheleau, *State Scans Mass. License Photos to Find Matches with Suspects*, Boston Globe (Dec. 20, 2016), https://www.bostonglobe.com/metro/2016/12/20/state-scans-mass-driver-license-photos-find-matches-with-suspects/xyVIxWkPL95hQbx4sUI2WM/story.html.

[24] 2020 Mass. Acts ch. 253, § 220.

III. Authorizing warrantless, prolonged pole camera surveillance of a home would disparately impact those with the fewest resources to protect themselves from surveillance.

Although reversing the district court's order would threaten everyone's privacy, it would especially harm poor people who cannot replace constitutional privacy protections with expensive properties and enhanced technology. The Supreme Court has long emphasized that "the most frail cottage in the kingdom is absolutely entitled to the same guarantees of privacy as the most majestic mansion." *United States v. Karo*, 468 U.S. 705, 731 (1984); *see also United States v. Ross*, 456 U.S. 798, 822 (1982) (same). To ensure this promise does not ring hollow across the increasing economic disparity gap, prolonged pole camera surveillance of a home must trigger the warrant requirement.

A. Economic disparity is growing in this country.

The gulf between those who have expendable resources and those who do not is growing. According to data from the U.S. Census Bureau, "the gap between the richest and the poorest U.S. households is now the largest it's been in the past 50 years."[25] In Massachusetts, the contrast is even more striking. In 2015, Massachusetts

[25] Bill Chappell, *U.S. Income Inequality Worsens, Widening to a New Gap*, NPR (Sept. 26, 2019), https://perma.cc/6XHD-4FR6.

had the sixth highest income inequality in America; the next year, Boston had the seventh highest income inequality among American cities.[26]

What's more, these numbers contain troubling racial disparities. White household income in Boston was approximately double that of any other racial group in 2016.[27] "[E]ven greater than [these] gaps in income," however, is the "large, persistent racial wealth gap."[28] The median family wealth of white families living in the metro Boston area in 2015 was $247,500; it was $3,020 for a Puerto Rican family, $8 for a Black family, and $0 for a Dominican family.[29] These numbers are similarly reflected across the country.[30]

B. Reversing the district court would transform economic disparities into disparate protections for fundamental Fourth Amendment rights.

The foundations of our Fourth Amendment jurisprudence indicate that these economic disparities should not translate into disparate protections for the home. William Pitt's oft-quoted 18th-century address urged the House of Commons:

> The poorest man may in his cottage bid defiance to all the forces of the Crown. It may be frail; its roof may shake; the wind may blow through it; the storm may enter; the rain may enter; but the King of England

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[26] Luc Schuster & Peter Ciurczak, Boston Indicators & Boston Foundation, *Boston's Booming . . . But for Whom?* 16, (Oct. 2018), https://perma.cc/5KZT-HECU.

[27] *Id.* at 21.

[28] *Id.* at 34.

[29] *Id.*

[30] *Id.; see also* Michaela Broyles, *A Conversation About the Racial Wealth Gap – And How to Address It*, Brookings Now (June 18, 2019), https://perma.cc/TD73-HRTT.

> cannot enter—all his force dares not cross the threshold of the ruined tenement!

Payton v. New York, 445 U.S. 573, 601 n.54 (1980); *see also Georgia v. Randolph*, 547 U.S. 103, 115 (2006) (same). Pitt's framework formed the basis for our constitutional protections against unreasonable searches of the home. *See, e.g.*, *Payton*, 445 U.S at 601 n.54 ("There can be no doubt that Pitt's address in the House of Commons in March 1763 echoed and re-echoed throughout the colonies."). As the Supreme Court recognized in *Randolph*, "we have . . . lived our whole national history with an understanding of th[is] ancient adage." 547 U.S. at 115 (cleaned up). Nearly 250 years after Pitt's address, the Court rejected the argument that the automobile exception allows warrantless entry into a carport unless it is fully enclosed because that "would grant constitutional rights to those persons with the financial means to afford residences with garages in which to store their vehicles but deprive those persons without such resources of" similar constitutional protections. *Collins*, 138 S. Ct. at 1675.

Upholding the warrantless surveillance here would upend this jurisprudence. As the Massachusetts high court has recognized, "requiring defendants to erect physical barriers around their residences before invoking the protections of the Fourth Amendment . . . would make those protections too dependent on the defendants' resources." *Mora*, 150 N.E. at 306. For example, wealthy people could purchase homes in gated communities, or on plots set back from the street, or in

neighborhoods with underground utility lines where it is more difficult for police to affix a camera. In other words, they could buy a protected space once the Constitution abandoned them.

Those without resources, however, will not be so lucky. Without the ability to afford such homes, those with less will be more and more subject to the warrantless surveillance of their most private moments at their homes. "Yet poor people are entitled to privacy, even if they can't afford all the gadgets of the wealthy for ensuring it." *United States v. Pineda-Moreno*, 617 F.3d 1120, 1123 (9th Cir. 2010) (Kozinski, J., dissenting from denial of rehearing en banc). Under our Constitution, privacy should not be cost-prohibitive for some while available to others.

CONCLUSION

For the foregoing reasons, this Court should affirm the district court.

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Respectfully submitted,

/s/ Nathan Freed Wessler

Nathan Freed Wessler (No. 1188344)
Brett Max Kaufman
American Civil Liberties Union Foundation
125 Broad Street, 18th Floor
New York, NY 10004
(212) 549-2500
nwessler@aclu.org
bkaufman@aclu.org

Matthew R. Segal (No.1151872)
Jessie J. Rossman (No.1161236)
American Civil Liberties Union
Foundation of Massachusetts, Inc.
211 Congress Street
Boston, MA 02110
(617) 482-3170
msegal@aclum.org
jrossman@aclum.org

Samir Jain (No. 97038)
Gregory T. Nojeim
Mana Azarmi
Center for Democracy & Technology
1401 K Street NW, Suite 200
Washington, D.C. 20005
(202) 637-9800
sjain@cdt.org
gnojeim@cdt.org
mazarmi@cdt.org

Andrew Crocker (No. 1177302)
Electronic Frontier Foundation
815 Eddy Street
San Francisco, CA 94109
(415) 436-9333
andrew@eff.org

Counsel for Amici

CERTIFICATE OF COMPLIANCE

I certify that this brief complies with the typeface and type style requirements of Fed. R. App. P. 32(a)(5) and (6) because it has been prepared in a proportionally spaced typeface using Garamond in 14-point type.

I further certify that this brief complies with the type-volume limitation of Fed. R. App. P. 29(a)(5) and Fed. R. App. P. 32(a)(7)(B) because it contains 6,497 words, excluding the parts of the brief exempted under Rule 32(f), according to the count of Microsoft Word.

Dated: February 11, 2021

/s/ Nathan Freed Wessler
Nathan Freed Wessler

CERTIFICATE OF SERVICE

I certify that on February 11, 2021, the foregoing Amici Curiae Brief was filed electronically through the Court's CM/ECF system. Notice of this filing will be sent by email to all parties by operation of the Court's electronic filing system.

Dated: February 11, 2021

/s/ Nathan Freed Wessler
Nathan Freed Wessler