

United States Court of Appeals For the First Circuit

Nos. 19-1582
19-1625

UNITED STATES,

Appellant,

v.

NIA MOORE-BUSH, a/k/a Nia Dinzey,

Defendant, Appellee.

Nos. 19-1583
19-1626

UNITED STATES,

Appellant,

v.

DAPHNE MOORE,

Defendant, Appellee.

APPEALS FROM THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

[Hon. William G. Young, U.S. District Judge]

Before

Barron, Chief Judge,

Lynch, Howard, Thompson, Kayatta, and Gelpí, Circuit Judges.

Randall E. Kromm, Assistant United States Attorney, with whom

Andrew E. Lelling, United States Attorney, was on brief, for appellant.

Judith H. Mizner, Assistant Federal Public Defender, for appellee Nia Moore-Bush, a/k/a Nia Dinzey.

Linda J. Thompson, with whom John M. Thompson and Thompson & Thompson, P.C. were on brief, for appellee Daphne Moore.

Matthew R. Segal, with whom Jessie J. Rossman, Nathan Freed Wessler, Brett Max Kaufman, Andrew Crocker, Samir Jain, Gregory T. Nojeim, and Mana Azarmi were on brief, for amici curiae American Civil Liberties Union, American Civil Liberties Union of Massachusetts, Center for Democracy & Technology, and Electronic Frontier Foundation in support of defendant-appellees.

Bruce D. Brown, with whom Katie Townsend, Gabriel Rottman, and Mailyn Fidler were on brief, for amici curiae Reporters Committee for Freedom of the Press and Eight Media Organizations in support of defendant-appellees.

Opinion En Banc

June 9, 2022
AMENDED OPINION*

* The full version of this opinion was filed on May 27, 2022, and remains on file, under seal, in the Clerk's Office.

Per curiam. The district court order granting Daphne Moore and Nia Moore-Bush's motions to suppress is unanimously reversed by the en banc court. We remand with instructions to deny the motions to suppress.

- Concurring Opinions Follow -

BARRON, Chief Judge, THOMPSON and KAYATTA, Circuit Judges, concurring. The Fourth Amendment to the U.S. Constitution "seeks to secure 'the privacies of life' against 'arbitrary power,'" Carpenter v. United States, 138 S. Ct. 2206, 2214 (2018) (quoting Boyd v. United States, 116 U.S. 616, 630 (1886)), by "plac[ing] obstacles in the way of a too permeating police surveillance," id. (quoting United States v. Di Re, 332 U.S. 581, 595 (1948)). It is with that "Founding-era understanding[] in mind," id., that we must determine in these consolidated appeals whether the Fourth Amendment places any limits on the use by law enforcement of the kind of surveillance -- unimagined in 1789 -- that it engaged in here: the continuous and surreptitious recording, day and night for eight months, of all the activities in the front curtilage of a private residence visible to a remotely-controlled digital video camera affixed to a utility pole across the street from that residence.

The Fourth Amendment issue concerning the use of such surveillance arises here in connection with the criminal cases that the federal government brought in the United States District Court for the District of Massachusetts against Nia Moore-Bush and her mother, Daphne Moore, on federal drug- and gun-related charges. Each defendant moved in the District Court to suppress on Fourth Amendment grounds all evidence derived from the digital compendium created through the long-term use of the video pole-camera

surveillance of the front curtilage of the defendants' residence. The government opposed the motions on the ground that no Fourth Amendment "search" had been conducted. The District Court then granted the defendants' motions to suppress.

As we will explain, we conclude -- unlike our colleagues -- that the government did conduct a Fourth Amendment "search" when it accessed the digital video record that law enforcement had created over the course of the eight months in question, notwithstanding the government's contention that the record itself is merely a compendium of images of what had been exposed to public view. As we also will explain, however, we agree with our colleagues that the District Court's order granting the defendants' motions to suppress must be reversed.

We come to that latter conclusion because the relevant controlling precedent from our circuit that was in place at the time that the government drew upon the pole-camera surveillance was United States v. Bucci, 582 F.3d 108 (1st Cir. 2009). And, there, a panel of this court had held that the use by law enforcement of uncannily similar pole-camera surveillance did not constitute a search within the meaning of the Fourth Amendment and so raised no Fourth Amendment concerns. Id. at 116-17. Thus, while we conclude -- unlike our colleagues -- that subsequent developments in Fourth Amendment jurisprudence support the overruling of Bucci and the conclusion that the government

conducted a search here, we also conclude that, under the "good faith" exception to the Fourth Amendment's warrant requirement, see Davis v. United States, 564 U.S. 229, 238-41 (2011), the government was entitled to rely on Bucci in acting as it did, Bucci, 582 F.3d at 116. Cf. United States v. Campbell, 26 F.4th 860, 873, 887-88 (11th Cir. 2022) (en banc) (applying the good-faith exception even though it had not been raised by the parties in their initial briefings).

The result is that our court is unanimous in holding that the District Court's order granting the motions to suppress must be reversed. Our court's rationale for that holding, however, is most decidedly not.

The three of us who join this separate opinion would reverse the District Court's order granting the defendants' motions to suppress based solely on the "good faith" exception to the Fourth Amendment's warrant requirement. We reject, however, our colleagues' view that the accessing by law enforcement in a criminal case of the record created by the kind of suspicionless, long-term digital video surveillance at issue here does not constitute a Fourth Amendment search.

Mindful of the brave new world that the routine use of such all-encompassing, long-term video surveillance of the front curtilage of a home could bring about, we are convinced that the government does conduct a search within the meaning of the Fourth

Amendment when it accesses the record that it creates through surveillance of that kind and thus that law enforcement, in doing so, must comply with that Amendment's limitations. For, in accord with post-Bucci precedents from the Supreme Court of the United States that recognize the effect that the pace of technological change can have on long assumed expectations of privacy, we are convinced that no other conclusion would be faithful to the balance that the Fourth Amendment strikes between the right to be "secure" in one's home and the need for public order.¹

I.

A.

The following facts -- including the characteristics of the pole camera and the recording that it produced -- are undisputed on appeal. The federal Bureau of Alcohol, Tobacco, Firearms and Explosives ("ATF") began investigating Moore-Bush in January 2017, for the unlicensed sale of firearms.² ATF began to

¹ Although we conclude that the motions to suppress must be denied pursuant to the good-faith exception to the warrant requirement, we conclude that it would not be appropriate to rely solely on that ground to resolve this case. The question of Bucci's status in this circuit going forward is an important one. Cf. Pearson v. Callahan, 555 U.S. 223, 236 (2009) (allowing "courts of appeals . . . to exercise their sound discretion in deciding which of the two prongs of the qualified immunity analysis should be addressed first," including whether the constitutionality of the officer's conduct should be analyzed first).

² Our colleagues discuss in some detail the circumstances that caused law enforcement to begin to investigate Moore-Bush. Those details are not pertinent to this analysis, however, because the

have concerns during the investigation that Moore-Bush was trafficking in narcotics.

About a month into the ATF investigation, Moore-Bush moved in with her mother, Moore, who lived at 120 Hadley Street in Springfield, Massachusetts. ATF agents claimed that they came to suspect that Moore-Bush -- though not, at that point, her mother -- was using the Hadley Street residence as the site for illegal firearms and narcotics transactions.

The location of the home made it difficult for law enforcement to undertake the physical surveillance of it. So, on or around May 17, 2017, ATF agents, without seeking a warrant, surreptitiously installed a digital video camera near the top of a utility pole across the public street from the residence.

The District Court found -- based on the defendants' undisputed contentions -- that the digital, video pole camera was "hid[den] . . . out of sight of its targets." It further found that law enforcement used the camera to "surreptitiously surveil[]" the Hadley Street residence.

government does not assert that its use of the pole camera to create the compendium at issue was supported by any quantum of suspicion. We thus must assess the constitutionality of the government's use of this surveillance on the understanding that it had no reasonable basis to suspect wrongdoing by the defendants at the relevant time.

ATF agents were able to view a live-stream of what the camera recorded through a password-protected website. The agents also could, remotely, pan, tilt, and zoom³ the camera to better focus on individuals or objects of interest.

When not zoomed, the camera had within its view roughly half of the front structure of the 120 Hadley Street residence, including its side entrance and a gardening plot near that entrance, the whole of the home's private driveway, the front of the home's garage, much of the home's front lawn, and the vast majority of the walkway leading from the home's private driveway up to the home's front door (although not the front door itself).⁴ The camera also had within its view a portion of the public street

³ The camera's zoom feature enabled a significant level of magnification. Although the record does not disclose the camera's precise capability on that dimension, the government in filings below "analogized [that] feature to a law enforcement agent using binoculars." Images in the record reflect that, by zooming, the camera was able to accurately capture facial expressions, details on clothing, small objects in a person's hands (such as keys or a cigarette), and the license plate numbers of cars parked in the residence's private driveway.

⁴ The government represented to the District Court at the suppression hearing on May 13, 2019, that the pole camera did not have "a full clear view of the entire exterior of the home" as there was "one tree that partially obfusate[d] the view of the pole camera." The government then explained in a subsequent filing that, at least during the winter, "there was no obstruction -- the leaves had fallen and the view was clear." In this respect, we note that the pole camera was in place surveilling the home from May 2017 until January 2018.

that ran parallel to the front of the house and perpendicular to the private driveway.

Because of the positioning of the camera, it was not able to peer into the home's interior. However, images in the record taken from the footage captured by the camera indicate that the camera could discern the presence of a person looking out the front windows of the house and see inside the front of the garage when its door was up.

The camera recorded in color, but it did not record audio. The camera's footage was digitally stored and could be retrieved and re-watched at any time.

The camera could and did operate at night, but the resulting footage was lower in quality. For example, when the camera recorded in the dark, it became more difficult -- although not impossible -- for the camera accurately to depict license plate numbers.

The camera recorded the Hadley Street residence for approximately eight months without interruption. It captured numerous comings, goings, and occurrences in the front curtilage of the residence -- from the mundane (such as persons going to and from the residence, parking, smoking cigarettes, or taking out the trash) to the potentially incriminating. The resulting record included all these movements and interactions. The government does not represent that law enforcement officers were continuously

watching the livestream of the video while the camera was recording.

B.

A federal grand jury indicted Moore-Bush on January 11, 2018, for conspiracy to distribute and possess with intent to distribute heroin and cocaine base in violation of 21 U.S.C. §§ 841(a)(1), 846. Moore-Bush was also subject to a drug forfeiture allegation under 21 U.S.C. § 853. Four other defendants (but not Moore) were named in that indictment.

Moore-Bush was arrested the following day. The pole camera was removed soon after Moore-Bush's arrest, which occurred about eight months after the camera began recording.

Nearly a year after Moore-Bush's arrest, on December 20, 2018, a grand jury returned a superseding indictment that charged Moore-Bush and, for the first time, her mother, Moore. The superseding indictment charged Moore-Bush with, among other crimes, conspiracy to distribute and possess with intent to distribute heroin, cocaine, and cocaine base in violation of 21 U.S.C. §§ 841(a)(1), 846 (Count One); distribution and/or possession with intent to distribute various narcotics in violation of 21 U.S.C. § 841(a)(1) and 18 U.S.C. § 2 (Counts Two through Six); conspiracy to deal firearms without a license in violation of 18 U.S.C. § 371 (Count Twenty); and dealing firearms without a license in violation of 18 U.S.C. § 922(a)(1)(A) (Counts

Twenty-One and Twenty-Two).⁵ The superseding indictment also charged Moore with, among other crimes, conspiracy to distribute and possess with intent to distribute heroin, cocaine, and cocaine base in violation of 21 U.S.C. §§ 841(a)(1), 846 (Count One); and distribution and possession with intent to distribute heroin, cocaine, and cocaine base in violation of 21 U.S.C. § 841(a)(1) (Count Three).⁶

On April 22, 2019, Moore moved to suppress the record created by the pole camera and all "fruits" of it. Moore-Bush filed a similar suppression motion on May 2, 2019. Each motion argued that law enforcement had engaged in a warrantless search within the meaning of the Fourth Amendment that was unreasonable based on "the prolonged, covert use of a hidden pole camera to . . . record the activities associated with" the Hadley Street residence for a period of eight months.

⁵ Moore-Bush was also charged with conspiracy to launder money in violation of 18 U.S.C. § 1956(h) (Counts Seven and Eight); money laundering in violation of 18 U.S.C. §§ 2, 1956(a)(1) (Counts Eleven and Fourteen through Nineteen); and aiding and abetting the possession of a firearm by a felon, in violation of 18 U.S.C. §§ 2, 922(g)(1) (Count Twenty-Three). She faced a drug forfeiture charge as well.

⁶ Moore was also charged with money laundering and money laundering conspiracy in violation of 18 U.S.C. § 1956(a)(1), (h) (Counts Eight and Fourteen through Nineteen); and making false statements to federal agents in violation of 18 U.S.C. § 1001 (Count Twenty-Four). She also faced a drug forfeiture charge.

The government did not contend that this surveillance was supported by either probable cause or reasonable suspicion to believe that a crime had been committed, let alone that it was authorized by a warrant. Rather, the government contended that the defendants' suppression motions must be rejected because, under this circuit's decision in Bucci, which applied Katz v. United States, 389 U.S. 345 (1967), the "images captured by the pole camera [did not] violate[] the [d]efendant[s'] objectively reasonable expectation of privacy in the view of" the curtilage of their home and so no Fourth Amendment search had occurred. The government thus contended that it could use, in the defendants' criminal cases, any digital video footage or still images captured by the pole camera over the eight-month span in which it was in operation, including any images that the camera had captured "from November 2017 through January 2018."

In Bucci, a panel of this court addressed a motion to suppress that concerned evidence produced by a government-installed digital video pole camera that had been pointed for eight months at the front of the defendant's home as part of a criminal investigation. 582 F.3d at 116. Bucci in a brief paragraph of analysis rejected the defendant's motion to suppress. It held that the surveillance conducted via the pole camera did not interfere with any subjective expectation of privacy on the part of the defendant because the defendant had taken no measures to

hide the activities that occurred in his home's curtilage from public view. Id. at 116. Bucci also observed that the surveillance did not interfere with any objectively reasonable expectation of privacy on the part of the defendant, because the images captured by the camera were solely of conduct that had occurred in public view. Id. at 117.

Notwithstanding Bucci, the District Court on June 3, 2019, granted both defendants' motions to suppress the digital record created by the pole camera and any of the record's fruits.⁷ The District Court concluded in so ruling that Bucci was no longer binding precedent because it conflicted with a subsequent Supreme Court precedent, Carpenter v. United States, 138 S. Ct. 2206 (2018). See United States v. Moore-Bush, 381 F. Supp. 3d 139, 144-45 (D. Mass. 2019).

Carpenter followed United States v. Jones, 565 U.S. 400 (2012), which was itself decided three years after Bucci. The Supreme Court determined in Jones that the "installation of a GPS tracking device on a target's vehicle" to "monitor the vehicle's movements" for twenty-eight days "constitut[ed] a search . . . within the meaning of the Fourth Amendment." Jones, 565 U.S. at 404-05. The majority opinion in Jones based that conclusion on the common-law trespassory test for determining whether a Fourth

⁷ The order was amended the following day in ways that are not relevant to the issues before us.

Amendment search had occurred because the GPS-tracking device had been affixed by law enforcement to the target's vehicle without the vehicle owner's knowledge or permission. Id. at 405-06, 409, 411. Five Justices across two concurrences, however, also found in that case that a Fourth Amendment search had occurred under the "reasonable expectation of privacy" test from Katz because "longer term GPS monitoring . . . impinges on expectations of privacy" that one reasonably has in the entirety of one's movements -- even when made in public -- over a substantial period. Id. at 430 (Alito, J., concurring in the judgment joined by three Justices); see also id. at 415 (Sotomayor, J., concurring).

Carpenter presented the Court with a somewhat similar question to the one presented in Jones, as it, too, raised a question about whether the use of warrantless, long-term electronic surveillance comported with the Fourth Amendment. Specifically, the issue in Carpenter concerned whether the government had conducted a search within the meaning of the Fourth Amendment when it "accessed" -- without a warrant -- seven days' worth of historical cell-site location information ("CSLI") from a wireless carrier by requesting that the wireless carrier provide that information. See Carpenter, 138 S. Ct. at 2212, 2217 n.3, 2219.

The Court concluded in Carpenter that, under Katz, the government had conducted a search by "access[ing]" through the

request to the wireless carrier that amount of CSLI both because "an individual maintains a legitimate expectation of privacy in the record of his physical movements as captured through CSLI" -- even if those movements take place in public -- and because the "access[ing]" of that amount of the defendant's historical CSLI from the wireless carrier "contravene[d] that expectation." Id. at 2217, 2219. The Court reached that conclusion even though the government had received from the wireless carrier only two days' worth of the total of the seven days' worth of the historical CSLI that the government had requested from the wireless carrier. See id. at 2212.

The District Court "read[] Carpenter . . . to cabin -- if not repudiate -- th[e] principle" that Bucci's reasoning had rested on: that, as a categorical matter, "[a]n individual does not have an expectation of privacy in items or places he exposes to the public." Moore-Bush, 381 F. Supp. 3d at 144 (third alteration in original) (quoting Bucci, 582 F.3d at 116-17). Having concluded that, after Carpenter, Bucci was not binding on that point, the District Court then held that a Fourth Amendment search had occurred here. Id. at 148-49.

The District Court explained that the defendants had "exhibited an actual, subjective expectation of privacy that society recognizes as objectively reasonable" in the "aggregate" of what was visible to the pole camera over the eight months that

the camera was recording. Moore-Bush, 381 F. Supp. 3d at 143. The District Court also analogized the digital record accessed by the government here to the twenty-eight days' worth of GPS data that the government in Jones had obtained from the GPS tracker that the government had installed on the defendant's vehicle in that case and the seven days' worth of the historical CSLI that the government had accessed from the wireless carrier in Carpenter. Id. Moreover, as the government did not argue that it had complied with the Fourth Amendment insofar as a search within the meaning of that Amendment had occurred, the District Court granted the defendants' motions to suppress the digital record that had been created from the pole-camera surveillance and any evidence derived from it. Id. at 149-50.

The government filed a motion for reconsideration on June 5, 2019. The government argued in that motion for the first time that even if a search had occurred the good-faith exception recognized in Davis "applies here and precludes suppression of the government's pole camera evidence" due to Bucci having been on the books at the relevant time. The District Court denied the motion.

The government, relying on 18 U.S.C. § 3731, timely appealed the District Court's order that granted the defendants' motions to suppress, as well as the District Court's order that denied the motion for reconsideration. The government's appeals

of those orders were consolidated for purposes of briefing and argument.

A panel of this court reversed the order of the District Court that granted the defendants' motions to suppress. The panel concluded that the District Court transgressed both Bucci -- which the panel concluded remained binding on the "search" point in this circuit even after Jones and Carpenter -- and Carpenter, given the limitations on that ruling that the panel determined that the Supreme Court had placed on it. United States v. Moore-Bush, 963 F.3d 29, 31 (1st Cir. 2020), reh'g en banc granted, vacated, 982 F.3d 50 (1st Cir. 2020).

The opinion concurring in the result agreed that Bucci was binding on the panel and the District Court under the law-of-the-circuit doctrine. See id. at 48-49 (Barron, J., concurring in the result). The opinion concurring in the result expressed doubt, however, as to whether Bucci had correctly applied the Supreme Court's Fourth Amendment precedents tracing back to Katz, especially given the recent guidance that Carpenter had provided. See id. at 53-56. The concurring opinion thus concluded that "the proper course for our Court is to use this case to give Bucci fresh consideration en banc, so that we may determine for ourselves whether the result that it requires [the panel to reach] is one the Supreme Court's decisions . . . prohibit." Id. at 58.

The defendants filed petitions for rehearing en banc, which were granted, and the panel's ruling reversing the District Court's order granting the defendants' suppression motions was vacated. United States v. Moore-Bush, 982 F.3d 50 (1st Cir. 2020). We consider in what follows both the District Court's order granting the defendants' motions to suppress, reviewing "findings of fact for clear error and the application of the law to those facts de novo," United States v. Crespo-Ríos, 645 F.3d 37, 41 (1st Cir. 2011) (quoting United States v. Siciliano, 578 F.3d 61, 67 (1st Cir. 2009)); see also United States v. Orth, 873 F.3d 349, 353 (1st Cir. 2017), and the District Court's order denying the government's motion to reconsider, reviewing for an abuse of discretion, see United States v. Siciliano, 578 F.3d 61, 72 (1st Cir. 2009).

II.

The Fourth Amendment provides for "[t]he right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures." U.S. Const. amend. IV. That Amendment further provides that a search is "presumptively unreasonable" in the absence of a warrant supported by probable cause. See United States v. Karo, 468 U.S. 705, 715 (1984).

The Supreme Court has, as we have indicated, set forth two tests to assess whether government conduct constitutes a

"search" within the meaning of the Fourth Amendment. The parties agree that the first test -- "the common-law trespassory test," Jones, 565 U.S. at 409 -- is not relevant here because it applies only when the government "obtains information by physically intruding on a constitutionally protected area." Id. at 405, 406 n.3. Our focus, therefore, is on the second test, which is derived from Katz. Under that test, as explicated in Carpenter, "[w]hen an individual 'seeks' to preserve something as 'private,' and his expectation of privacy is 'one' that society is prepared to recognize as 'reasonable,'" a government action that "contravenes that expectation" "generally qualifies as a search." Carpenter, 138 S. Ct. at 2213, 2217 (quoting Smith v. Maryland, 442 U.S. 735, 740 (1979)).

Thus, we first must determine whether Moore-Bush and Moore each manifested an expectation of privacy in what each seeks to preserve as private -- namely, "the totality of [their] movements and activities and associations with family members and visitors in the front [curtilage] of" their home that was visible to the pole camera during the eight-month-long period that it recorded. As we will explain, we conclude that the District Court

supportably found that the defendants did manifest such an expectation of privacy.⁸

Having so concluded, we next must determine whether such an expectation is one that society is prepared to accept as reasonable. As we will explain, we conclude that the District Court correctly held that it is.

Because we conclude that the defendants have shown what they must with respect to the "expectation of privacy" portion of the Katz inquiry, we then must address whether the government's "accessing" of the record at issue -- to use Carpenter's terminology -- "contravened" that expectation. As we will explain, we conclude that the accessing of that record did.

We emphasize that the government advances no argument to the en banc court -- nor, for that matter, did it advance any argument below -- that, even though it had not obtained a warrant that authorized its use of this surveillance, its use of such surveillance still comported with the Fourth Amendment because

⁸ We note neither party disputes that the quantum of information at issue in this case is inclusive of not only each defendant's own visible activity in the defendants' front curtilage but also of what is effectively a live-action log of all visitors to their home during the eight-month period in which the pole camera operated. We note, too, that the government does not dispute that if the defendants are fairly deemed to have a subjective expectation of privacy in such information that society is prepared to accept as reasonable, then it is an expectation of privacy that the Fourth Amendment -- given its protection of "houses" -- protects, insofar as that expectation is contravened by the government.

some quantum of suspicion supported the surveillance and an exception to the warrant requirement applied. Rather, the government relies solely on the contention that its use of the pole camera -- and, implicitly, the accessing of the record created by it -- was not a "search" because the camera captured only what was already exposed to public view, such that the government did not need any level of suspicion whatsoever, let alone a warrant, to undertake such surveillance and access the record created by it. Thus, because we conclude that a search did occur, we conclude -- unlike our colleagues -- that the Fourth Amendment was violated.⁹

Nevertheless, as we will explain in the concluding part of this opinion, we still conclude that the District Court's order granting the defendants' suppression motions must be reversed. And, that is because we conclude that the good-faith exception to the warrant requirement that is set forth in Davis requires that result, given that Bucci was the law of this circuit at the relevant time.

⁹ We note that although our colleagues contend that either probable cause or reasonable suspicion supported the use of the pole-camera surveillance at issue, Concur. Op. at 105, they do not explain why the presence of reasonable suspicion or probable cause would on its own render the use of pole-camera surveillance of the kind that was used here constitutional, given that the Fourth Amendment ordinarily requires there to be both probable cause and a warrant before law enforcement can conduct a search constitutionally.

III.

We start with the "expectation of privacy" portion of the Katz inquiry. That portion requires us to determine -- at least arguably -- two distinct things: whether Moore-Bush and Moore can show that they "exhibited an actual, subjective, expectation of privacy" in the aggregate of what the pole camera captured, and whether they can show that "society is prepared to recognize [that subjective expectation] as objectively reasonable." United States v. Rheault, 561 F.3d 55, 59 (1st Cir. 2009) (citing Smith, 442 U.S. at 740). We address each component of this portion of the Katz inquiry in turn.

A.

The District Court found with respect to the subjective expectation of privacy portion of the Katz inquiry that Moore-Bush and Moore did show that they had "manifested a subjective expectation of privacy through the relevant actions that they took." Moore-Bush, 381 F. Supp. 3d at 143. The District Court explained that it inferred "from [Moore-Bush and Moore's] choice of neighborhood and home within it that they 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 that a digital and easily searchable video record of eight months of those movements would be compiled. Id. at 144.

The government does not challenge the District Court's findings regarding the characteristics of the defendants' neighborhood and home, see id. at 143. The government also does not contend that the record suggests that the occupants of 120 Hadley Street invited, in any affirmative way, long-term surveillance of the home by a digital video camera. The government does not even suggest that the defendants were aware that video cameras of any kind were trained on the Hadley Street property for any period of time and yet took no steps to shield the curtilage of the residence from that form of surveillance. Cf. Shafer v. City of Boulder, 896 F. Supp. 2d 915, 930 (D. Nev. 2012).

The government focuses solely on what the defendants failed to do despite their lack of awareness that any digital surveillance was being conducted: "erect[] fences or plant[] hedges to obscure the view from the street." The government relies heavily in doing so on Bucci, which observed that the defendant in that case had "failed to establish . . . a subjective . . . expectation of privacy in the front of his home" because there were "no fences, gates or shrubbery located [out] front . . . that obstruct[ed] the view of the driveway or the garage from the street." Bucci, 582 F.3d at 116-17.

Bucci did not grapple, however, with the contention that is front and center here -- that the claimed expectation of privacy is only in the totality of what transpired within the area of the

property at issue over the months in question and not in any discrete occurrences that, one by one, happened to take place there during that time. Instead, Bucci appeared to treat the defendant's claimed expectation of privacy in that case as if it were no different from a defendant's claimed expectation of privacy in a discrete activity that occurs in the curtilage of a residence and may be seen from the street by any passerby at the moment of its occurrence. See id.

The government is right that Bucci relied in this part of its analysis on the Supreme Court's decision in California v. Ciraolo. See Bucci, 582 F.3d at 117-18. So, we must consider whether that precedent itself compels us to credit the government's contention regarding the subjective expectation of privacy portion of the Katz inquiry even though Bucci does not. But, Ciraolo, too, is distinguishable from this case.

In Ciraolo, the Supreme Court did point to the fact that the defendant there had erected a fence in finding that he had established that he had a subjective expectation in keeping private what he sought to hide from view -- his backyard agriculture activity, or, more pointedly, his marijuana plants. Ciraolo, 476 U.S. at 211. The Court did so, moreover, even though such "normal precautions" against "casual, accidental observation" would have provided little protection to the defendant from the type of surveillance that the government used there: photography from a

low-flying plane. Id. at 211-12 (quoting Rawlings v. Kentucky, 448 U.S. 98, 105 (1980)).

Ciraolo thus does suggest, by negative implication, that because a casual observer could have noticed an unobstructed plot of marijuana plants by just walking by the defendant's home, a defendant's failure to erect a fence or hedges to protect such a plot from being casually observed in that manner would signal a willingness on the part of that defendant to permit any passerby to observe it. And, that is so, Ciraolo indicates, even if a mere passerby happened to have a vantage point -- whether from a utility truck or a double-decker bus, id. at 211 -- that was high enough to permit a view of the plot that no fence or hedges would be high enough to block.

We have not yet encountered, however, the "casual, accidental observ[er]," id. at 212 -- whether viewing from on the ground or on high -- who could take in all that occurs in a home's curtilage over the course of eight months and recall it perfectly and at a moment's notice. Thus, we see little sense in inferring that the defendants here lacked, as a subjective matter, their claimed expectation of privacy simply because they failed to take measures that would at most protect against casual observation of the curtilage of their residence when casual observation of the curtilage -- from whatever vantage -- would in no way undermine that claimed expectation, given that the expectation inheres in

the aggregate of activity in question.¹⁰ The government thus errs in arguing that Ciraolo shows that the failure of the defendants in this case to put up a fence or similar barrier around the front of the Hadley Street home necessarily precludes them from establishing that they had the subjective expectation of privacy that they claim.

We do note, moreover, that it is possible that the inquiry into a defendant's subjective expectation of privacy in the whole of what transpires over a very long time in the front of one's home, when each discrete activity in that totality is itself exposed to public view, is a corollary of whether that claimed expectation of privacy in the aggregate of what transpires there

¹⁰ Our colleagues contend that even if no "casual" observer witnesses and records the whole of what occurs in the curtilage of a home, a nosy neighbor might. Concur. Op. at 118, 122. Our colleagues go on to contend, for that reason, that the failure of Moore-Bush and Moore to take precautions to avoid being seen by neighbors suggests that they lacked a subjective expectation of privacy with respect to the aggregate of those movements. Concur. Op. at 112-13.

Perhaps a nosy neighbor could become familiar with some of the daily rituals of those who live nearby. And, perhaps -- if particularly dedicated -- that neighbor could even log those observations as our colleagues suggest. But, it dramatically undersells the hypothesized neighbor's distinctive character to describe that neighbor as merely "nosy," given the unrelenting and all-encompassing kind of surveillance that is at issue. Thus, we do not see how the awareness of neighbors -- including even of those neighbors one might wish would move to a different block -- suffices to undermine the District Court's finding that these defendants manifested their subjective expectation of privacy in what they claim to wish to keep from public view.

is objectively reasonable. We can see how the objective reasonableness of an expectation that such activities are not being catalogued in a manner that would make the compendium of them accessible to an observer upon command might bear on whether a defendant's failure to protect against a casual observer's viewing each activity one by one supports an inference that the defendant is in fact, as a subjective matter, willing to permit such an easily searchable catalogue of the activities in the aggregate to be compiled. Cf. Hudson v. Palmer, 468 U.S. 517, 525 n.7 (1984) (characterizing the Katz test as primarily being about the objective inquiry and stating that "[t]he Court[] [has] refus[ed] to adopt a test of 'subjective expectation'" because "constitutional rights are generally not defined by the subjective intent of those asserting the rights" (quoting Smith, 442 U.S. at 740-41 n.5)); Smith, 442 U.S. at 741 n.5 (explaining that "[s]ituations can be imagined, of course," such as those in which "an individual's subjective expectations ha[ve] been 'conditioned' by influences alien to well-recognized Fourth Amendment freedoms," "in which Katz['s] two-pronged inquiry would provide an inadequate index of Fourth Amendment protection" and that in those "circumstances[,] . . . subjective expectations obviously could play no meaningful role in ascertaining what the scope of Fourth Amendment protection was" and instead when "determining whether a 'legitimate expectation of privacy' existed in such cases, a

normative inquiry would be proper"). We can especially see the sense in so concluding to the extent that combining the subjective and objective components of the "expectation of privacy" inquiry would help to avoid the Fourth Amendment being held to mean one thing for those living in a quiet neighborhood of single-family homes and another for those living in a neighborhood of apartments or attached houses.

To that same point, there is no Supreme Court precedent of which we are aware that clearly indicates that the subjective and objective inquiries in this context are properly understood to be wholly distinct. The only cases from the Court to address an even arguably analogous claimed expectation of privacy are Jones and Carpenter. And, neither case addresses the subjective expectation of privacy component of the Katz inquiry, as Jones did not rely on the Katz test, Jones, 565 U.S. at 407-08, and Carpenter addressed only the objective component of the "expectation of privacy" portion of the Katz inquiry, Carpenter, 138 S. Ct. at 2217-19.

But, insofar as an independent inquiry into the subjective expectation of privacy is required, we conclude, for reasons that we have explained, the District Court did not err in finding that the defendants here have made the requisite showing. And, we emphasize, this conclusion accords with Carpenter, even if it is not, strictly speaking, compelled by it.

True, Carpenter did not address the subjective expectation of privacy component of the Katz inquiry. But, we decline to conclude that, after Carpenter, a court could find in a case involving the same facts as were involved there that no search had occurred simply based on the defendant's failure to have taken countermeasures that at most would have protected his public movements from being subjected to casual observation.¹¹ Nor, we note, does the government suggest that Carpenter may be read to permit such an outcome.

B.

We move on, then, to the defendants' contention that their subjective expectation of privacy in what they seek to shield from the view of others is also an "expectation . . . that society is prepared to accept as reasonable." Carpenter, 138 S. Ct. at 2213 (quoting Smith, 442 U.S. at 740). Our focus in undertaking this portion of the Katz inquiry, we emphasize, is not on whether these defendants have a reasonable expectation of privacy in each discrete activity -- considered on its own and at the time that it occurred -- that was visible to the pole camera over the course of

¹¹ We thus disagree with our colleagues that the defendants here were required to build a fence or otherwise "take . . . steps to prevent observation" of "many" but "not all" of the activities in the front curtilage of their home. To require as much of the defendants here would be analogous to requiring the defendant in Carpenter to have manifested a subjective expectation of privacy by traveling around town in a disguise, and we do not understand Carpenter to permit that requirement to be imposed.

the many months that it was up and running. The expectation of privacy that Moore-Bush and Moore each claims inheres solely in what they characterize as "the totality of [their] movements and activities and associations with family members and visitors in the front [curtilage] of [their] home" that was recorded by the pole camera. In other words, they assert an expectation of privacy in the whole of the activities in that locale -- taken as a whole -- that were visible to the pole camera during the lengthy period of time in question, just as the expectation of privacy that the defendant in Carpenter -- and the defendant in Jones, for that matter -- claimed was in an aggregate of the movements taken in public over a relatively long period of time and not in each of those movements individually at the moment of its occurrence.

Moreover, Moore-Bush and Moore acknowledge, as they must -- and as both Bucci and our colleagues emphasize -- that the Court has made clear that, in general, "[w]hat a person knowingly exposes to the public . . . is not a subject of Fourth Amendment protection." Katz, 389 U.S. at 351. They rightly point out, however, that Katz itself noted -- in a passage from that case that neither Bucci nor our colleagues invoke -- that "what [a person] seeks to preserve as private, even in an area accessible to the public, may be constitutionally protected." Id. The defendants also rightly emphasize that Carpenter invoked just that passage in Katz both to explain that "[a] person does not surrender

all Fourth Amendment protection by venturing into the public sphere," Carpenter, 138 S. Ct. at 2217, and to support the conclusion that "individuals have a reasonable expectation of privacy in the whole of their physical movements," even if those movements take place in public view, id.

Thus, a critical question here -- though an affirmative answer to it is not itself dispositive of whether a search occurred -- concerns whether Carpenter's reasons for concluding that the claimed expectation of privacy in the whole of the movements that was at issue in that case was objectively reasonable justify our reaching the same conclusion with respect to the similar, but still distinct, claimed expectation of privacy that we confront in this case. As we will next explain, we conclude that those reasons do.

1.

Carpenter acknowledged that a person generally "has no reasonable expectation of privacy in his movements from one place to another" because such movements are "voluntarily conveyed to anyone who want[s] to look." Id. at 2215 (quoting United States v. Knotts, 460 U.S. 276, 281 (1983)). But, the Court then explained, this general point does not dictate whether society is prepared to accept as reasonable a claimed expectation of privacy in the whole of "every single movement of an individual[] . . . for a very long period." Id. at 2217 (quoting Jones, 565 U.S. at 430 (Alito, J., concurring in the judgment)). In fact, Carpenter

explained, based on the concurring opinions in Jones, "[a] majority of this Court has already recognized that individuals have a reasonable expectation in the whole of their public movements." Id. (citing Jones, 565 U.S. at 430 (Alito, J., concurring in the judgment joined by three Justices) and Jones, 565 U.S. at 415 (Sotomayor, J., concurring)).

Carpenter elaborated that its recognition of the reasonableness of this expectation of privacy reflected the limited state of surveillance technology for most of our history. "Prior to the digital age," the Court observed, "law enforcement might have pursued a suspect for a brief stretch, but doing so 'for any extended period of time was difficult and costly and therefore rarely undertaken.'" Id. (emphasis added) (quoting Jones, 565 U.S. at 429 (Alito, J., concurring in the judgment)). Carpenter noted in this regard that it was almost inconceivable until relatively recently that the government would, other than at most rarely, have the resources to "tail[] [a suspect] every moment of every day for five years," which was a reference to the amount of time that the wireless carrier for the defendant in Carpenter stored the CSLI that it collected from its customers. Id. at 2218.

Thus, Carpenter concluded, expressly drawing on the similar reasoning of the concurring Justices in Jones, "society's expectation has been that law enforcement agents and others would not -- and, indeed, in the main, simply could not -- secretly

monitor and catalogue every single movement of an individual's car for a very long period." Id. at 2217 (quoting Jones, 565 U.S. at 430 (Alito, J., concurring in the judgment)). That being so, the Court concluded in Carpenter, it was reasonable for a person to expect that no such tracking was occurring as he moved about in public over a lengthy period and thus to expect that those public movements were, taken as a whole, private in consequence of the practical anonymity with respect to the whole of them that follows from the reality that virtually no one has a feasible means of piercing it. Id.

2.

In arguing that neither Carpenter nor Jones supports the defendants here with respect to this portion of the Katz inquiry, the government contends that neither of those two precedents is analogous to this case because each addresses a claimed expectation of privacy in the whole of a person's physical movements over a long stretch of time while that person is moving about from one place to another. See id. at 2214; Jones, 565 U.S. at 402. By contrast, the government emphasizes, as do our colleagues, Concur. Op. at 114, that the claimed expectation of privacy here is only in what occurred over a lengthy stretch of time at a single locale -- the defendants' Hadley Street home. The government contends that while society may be prepared to accept as reasonable one's expectation of privacy in the whole of one's public movements from

place to place over a substantial stretch of time, society is not prepared to accept as reasonable one's expectation of privacy in the whole of what one exposes to public view during such a period in a single place. We cannot agree -- at least given the place that we are talking about here.

a.

The government attempts to support its contention about what society is prepared to accept as reasonable in part by pointing to documented instances in which teams of law enforcement officers have diligently watched a single place of interest for a period of time that has ranged from three weeks¹² to three months.¹³ That recent history fails to show, though, that one reasonably would expect such lengthy stakeouts of the home to be undertaken more than "rarely." Carpenter, 138 S. Ct. at 2217 (quoting Jones, 565 U.S. at 429 (Alito, J., concurring in the judgment)). And, under Carpenter, evidence of such infrequent surveillance does nothing to undermine the reasonableness of a claimed expectation of privacy in the whole of what transpires in a publicly visible manner over a sustained expanse of time in a single place, at least insofar as what does transpire there over that expanse of time

¹² See, e.g., United States v. Gramlich, 551 F.2d 1359, 1362 (5th Cir. 1977) (surveilling the property for three weeks).

¹³ See, e.g., United States v. Jimenez, 5 F.3d 1494, No. 92-1997, 1993 WL 391395, at *1 (5th Cir. Sept. 21, 1993) (unpublished table decision) (surveilling the property for three months).

reveals the "privacies of life" when considered in the aggregate. Id. (quoting Riley v. California, 573 U.S. 373, 403 (2014)).

Consistent with this understanding, Carpenter concluded that one reasonably leaves one's home without expecting a perfect form of surveillance to be conducted over a long period of time, even though "tailing" for non-trivial periods of time has always been possible. See id. at 2218; see also Jones, 565 U.S. at 416 (Sotomayor, J., concurring) (explaining that the Court should "not regard as dispositive the fact that the government might obtain the fruits of GPS monitoring through lawful conventional surveillances techniques"). That is so, Carpenter explained, because the time, labor, and expense of carrying out such surveillance in a pre-digital age rendered it at most a rare practice, such that one could not reasonably be expected by our society (given that it is a free one) to govern one's actions in traveling about town as if a tail were always already underway. 138 S. Ct. at 2217; cf. United States v. Tuggle, 4 F.4th 505, 526 (7th Cir. 2021), cert. denied, 142 S. Ct. 1107 (2022) ("We . . . close the door on the notion that surveillance accomplished through technological means is constitutional simply because the government could theoretically accomplish the same surveillance -- no matter how laborious -- through some nontechnological means.").

True, no tailing need be conducted here to capture what these defendants seek to keep private; a single-point stakeout would suffice. But, the government provides us with no reason to conclude that "[p]rior to the digital age," Carpenter, 138 S. Ct. at 2215, it would have been appreciably less difficult to conduct a stakeout that could effectively and perfectly capture all that visibly occurs in front of a person's home over the course of months -- and in a manner that makes all of the information collected readily retrievable at a moment's notice -- than it would have been to conduct roving surveillance of perfect precision of all of one's movements outside the home over the course of a week (using Carpenter's own measure) or a month (using the measure of the majority of the Justices in Jones).¹⁴ Indeed, we must take account of not merely the practical limits of manpower and expense that -- in the pre-digital era -- would have made such lengthy, 24/7 surveillance of anyone in any place a most rare occurrence. See Tuggle, 4 F.4th at 526 ("To assume that the government would, or even could, allocate thousands of hours of labor and thousands of dollars to station agents atop three telephone poles to constantly monitor [the defendant]'s home for eighteen months defies the reasonable limits of human nature and finite

¹⁴ We recognize that Carpenter did also refer to the fact that wireless carriers retain CSLI for five years. But, we do not see any material difference for purposes of the inquiry that Katz requires between that period and the eight-month period before us.

resources."). We also must take account of the practical limits in that earlier era of conducting such an enduring, undetected watch of a home.

Accordingly, we conclude that the same real-world constraints that contributed to the sense of privacy that the Court has recognized one reasonably had for most of our nation's history in the totality of the picture -- though not in each brushstroke -- painted by the whole of one's movements while traveling in public also contributed to that same sense in the full portrait of all that visibly occurs for many months in the curtilage of one's own home. Cf. Jones, 565 U.S. at 415-16 (Sotomayor, J., concurring) ("[B]ecause GPS monitoring is cheap in comparison to conventional surveillance techniques, . . . it evades the ordinary checks that constrain abusive law enforcement practices: 'limited police resources and community hostility.'" (quoting Illinois v. Lidster, 540 U.S. 419, 426 (2004))); id. at 429 (Alito, J., concurring in the judgment) ("Devices like the [GPS device] . . . make long-term monitoring relatively easy and cheap."). This understanding, we further note, comports with the protection afforded by the common law in response to developments in surveillance technology through the tort of intrusion upon seclusion. See, e.g., Nader v. Gen. Motors Corp., 255 N.E.2d 765, 771 (N.Y. 1970) (explaining that the mere fact that something occurs in public does not necessarily indicate a willingness to

reveal that action to others and distinguishing between what could be seen by a "casual observer" and what could be seen by a person conducting "overzealous" surveillance); cf. Restatement (Second) of Torts § 652B (1977) (explaining that the tort of intrusion upon seclusion protects against intrusion "upon the solitude or seclusion of another or his private affairs or concerns"); Samuel D. Warren & Louis D. Brandeis, The Right to Privacy, 4 Harv. L. Rev. 193, 195, 206 (1890) (arguing that "existing law affords a principle which may be invoked to protect the privacy of the individual from invasion by" then-"[r]ecent innovations" such as a "modern device for recording or reproducing scenes or sounds").

b.

The government also suggests that Carpenter and Jones, with respect to this portion of the Katz inquiry, may be distinguished from this case on the ground that the depth of information revealed by one's movements in a single place over a long period pales in comparison to the depth of information revealed over such an expansive period by "a person's movements from one location to another." But, although what the defendants seek to keep private may have occurred in only one place, it did not occur in just any place.

As Moore-Bush and Moore point out, "[a]t the very core' of the Fourth Amendment 'stands the right of man to retreat into his own home and there be free from governmental intrusion.'"

Kyllo v. United States, 533 U.S. 27, 31 (2001) (quoting Silverman v. United States, 365 U.S. 505, 511 (1961)). The curtilage is "intimately linked to the home, both physically and psychologically," which matters precisely because the home is "where privacy expectations are most heightened." Ciraolo, 476 U.S. at 213. The importance of the home to the Fourth Amendment is reflected in the text of the Amendment itself, which guarantees the "right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures," U.S. Const. amend. IV (emphasis added), and the curtilage of a residence has long been understood to "harbor[] the 'intimate activity associated with the sanctity of a man's home and the privacies of life,'" United States v. Dunn, 480 U.S. 294, 300 (1987) (quoting Oliver v. United States, 466 U.S. 170, 180 (1984)).¹⁵

¹⁵ Our colleagues suggest that the home only carries special importance under the Fourth Amendment when courts apply the common-law trespass test to determine if a search occurred. Concur. Op. at 120-21. But, in Kyllo v. United States, 533 U.S. 27 (2001), the Court held -- relying on the Katz test -- that the use of a device that drew upon heat radiating from a home constituted a search, even though no physical trespass occurred, in part because of what the use of the device revealed about what was occurring inside the home and because "the interior of homes . . . [is] the prototypical . . . area of protected privacy . . . with roots deep in the common law," id. at 34. In so concluding, the Court did the very thing our colleagues accuse us of doing -- "hybridiz[ing] two threads of Fourth Amendment doctrine," the Katz reasonable expectation of privacy test and the common-law trespass test. Concur. Op. at 120-21. We thus see no reason why we may not take

Not surprisingly, then, the government concedes that the whole of what was visible to the pole camera here, precisely because of where the camera was pointed, reveals "information about a person's life, including, potentially, 'familial, political, professional, religious, and sexual associations.'" See Carpenter, 138 S. Ct. at 2217. And, while it is true that one has no reasonable expectation of privacy in the discrete moments of intimacy that may occur in the front of one's home -- from a parting kiss to a teary reunion to those moments most likely to cause shame -- because of what a passerby may see through casual observation, it does not follow that the same is true with respect to an aggregation of those moments over many months.

No casual observer who is merely passing by can observe (let alone instantly recall and present for others to observe) the aggregate of the months of moments between relatives, spouses, partners, and friends that uniquely occur in front of one's home. Thus, we do not see why the rarity (at least in the pre-digital world) of sustained surveillance and the "frailties of recollection," id. at 2218, cannot combine to give one a reasonable sense of security that such intimate moments -- as a whole -- will be lost to time in the same way that Carpenter recognized one can

account of the special status that the home has under the Fourth Amendment in determining whether the defendants here had a reasonable expectation of privacy in the whole of the activities that occurred in the curtilage of their home.

have that one's less intimate movements from place to place beyond the home will be, see id. at 2217 ("[S]ociety's expectation [is] that law enforcement agents and others would not . . . secretly monitor and catalogue every single movement of an individual's car for a very long period." (quoting Jones, 565 U.S. 430 (Alito, J., concurring in the judgment))). That being so, it follows that the sum total of all visible activities that take place in a location that by its nature is "associated with the sanctity of a man's home and the privacies of life," Ciraolo, 476 U.S. at 212 (quoting Oliver, 466 U.S. at 180), can be even more revealing than the sum total of one's movements while out and about, given the nature of what transpires in front of the home.

Moreover, the exposure of the aggregate of all visible activities occurring over a substantial period in front of one's home may disclose -- by revealing patterns of movements and visits over time -- what the exposure of each discrete activity in and of itself cannot. See Commonwealth v. Mora, 150 N.E.3d 297, 311 (Mass. 2020) ("Prolonged and targeted video surveillance of a home . . . reveals how a person looks and behaves, with whom the residents of the home meet, and how they interact with others."). True, a nosy neighbor, as our colleagues emphasize, *Concur. Op.* at 116-18, 122, could also observe the patterns of the goings-on in front of a nearby home over a prolonged period. But, again it is worth emphasizing, as we did in our discussion of the defendants'

subjective expectation of privacy, that it is the rarest of nosy neighbors -- if any there be -- who would be able to observe all the visible activity in the curtilage of the home across the street, including the license plate of every car that stopped by, the face of every visitor, and any other activity that occurred at all times of the day for a period of eight months. After all, the claimed expectation of privacy here is not in a discrete activity or even discrete pattern of activities -- it is in the whole of the movements, visible to the pole camera, that occur in the curtilage of a home.¹⁶

¹⁶ Our colleagues suggest that the nosy neighbor could augment his observational abilities by recording the goings on with a video camera. Concur. Op. at 122. But, courts have long found such video recording of neighbors to be patently unreasonable -- so much so that such activity can be tortious. See, e.g., Wolfson v. Lewis, 924 F. Supp. 1413 (E.D. Pa. 1996) (explaining that the nonstop "videotaping and recording" of the plaintiffs' home made them "prisoners" in their own home and amounted to "hounding" that constituted an "invasion of privacy" sufficient to support finding that the filming was a tort); Gianoli v. Pfleiderer, 563 N.W.2d 562, 568 (Wis. App. 1997) (finding that near constant surveillance of the plaintiffs' residence constituted "extreme and outrageous conduct" giving rise to the tort of intrusion upon seclusion); Jones v. Hirschberger, No. B135112, 2002 WL 853858 (Cal App. May 6, 2002) (finding that a trier of fact could conclude that neighbors' videotaping of the plaintiffs' backyard was tortious); Mangelluzzi v. Morley, 40 N.E.3d 588 (Ohio Ct. App. 2015) (same); see also Polay v. McMahon, 10 N.E.3d 1122, 1127 (Mass. 2014) ("[E]ven where an individual's conduct is observable by the public, the individual still may possess a reasonable expectation of privacy against the use of electronic surveillance that monitors and records such conduct for a continuous and extended duration.").

To the extent that our colleagues suggest that a person cannot have an objective expectation of privacy in the whole of the activities that occur in the front curtilage of the person's home

Thus, for this reason, too, the claimed expectation of privacy here is not fairly characterized as inhering in a mere "sliver" of a person's publicly visible life, Tuggle, 4 F.4th at 524, any more than the sum total of one's movements beyond the home may be deemed to be. Indeed, it is not evident that our public movements from place to place could reveal that the place where we live is the site where a disfavored political group is holding weekly meetings or where a cleric is holding a worship service. But, that type of information is at risk of being disclosed when the "aggregate" of our publicly visible activity consists of all that transpires over months in the front curtilage of our home.

3.

The government does nonetheless insist that pre-Carpenter rulings -- none of which Carpenter purported to overrule, see Carpenter, 138 S. Ct. at 2220 ("Our decision today is a narrow one. We do not express a view on matters not before us.") -- require the conclusion that there is no reasonable expectation of

because "many of those movements, even if not all, can and will be observed by the same people," Concur. Op. at 119, we do not see how that assertion can be squared with Carpenter itself. A person's movements in public may be observed by others, and the same person may even observe many of them. But, the fact that others may have a window into some -- but not all -- of a person's movements in public does not, as Carpenter explained, render a person's expectation of privacy in the whole of their movements in public objectively unreasonable.

privacy in what the defendants claim. Once again, we are not persuaded.

The government points here, for example, to Ciraolo, in which the Court rejected the defendant's argument that "because his yard was in the curtilage of his home, no government aerial observation [was] permissible under the Fourth Amendment." 476 U.S. at 212. But, Ciraolo did not dispute that the "home is, for most purposes, a place where he expects privacy." Id. at 215 (quoting Katz, 389 U.S. at 361 (Harlan, J., concurring)). Rather, it explained that the owner of the curtilage was reasonably on notice of the possible exposure to the "casual, accidental observ[er]" of what was sought to be kept private there -- especially "[i]n an age where private and commercial flight in public airways is routine." Id. at 212, 215; see also id. at 213 ("The Fourth Amendment protection of the home has never been extended to require law enforcement officers to shield their eyes when passing by a home on public thoroughfares." (emphasis added)). Ciraolo thus did not in any way suggest that the owner was similarly on notice of the possible exposure of all that was visible in the curtilage of the home over a substantial period -- recorded in a perfect visual compendium that is both endlessly re-playable and easily sifted through for the telling detail.

The same is true of Florida v. Riley, 488 U.S. 445 (1989), which concerned an officer who "circled twice over

respondent's property in a helicopter" and used his "naked eye" to look through a greenhouse to discover illicit substances. Id. at 448 (plurality opinion). There, in determining that no Fourth Amendment search occurred, the Court observed merely that "[a]s a general proposition, the police may see what may be seen 'from a public vantage point where [they have] a right to be.'" Id. at 449 (emphasis added and second alteration in original) (quoting Ciraolo, 476 U.S. at 213); see also id. at 451 ("Any member of the public could legally have been flying over [the defendant]'s property in a helicopter . . . and could have observed [his] greenhouse."). Thus, again, the Court did not suggest that the same conclusion would follow if the question concerned one's expectation of privacy in all that visibly occurred in one's front curtilage over a long period of time.

The government also points us to the Court's pre-Jones precedent, United States v. Knotts, 460 U.S. 276 (1983), which concerned the use of an electronic beeper to monitor the movement of a car on a public roadway. The Court unanimously held in that case that the electronic "monitoring of [a] beeper" to track a vehicle as it traveled from a store in Minnesota to a cabin in Wisconsin "was [not] a 'search' . . . within the contemplation of the Fourth Amendment," id. at 279, 285, because "[a] person traveling in an automobile on public thoroughfares has no reasonable expectation of privacy in his movements from one place

to another," id. at 281. But, Knotts expressly cautioned that the Court was not "determin[ing] whether" technological advances that enabled longer-term tracking of those movements would similarly be permissible: If "twenty-four hour surveillance of any citizen of this country will be possible, without judicial knowledge or supervision," "there will be time enough then to determine whether different constitutional principles may be applicable." Id. at 283-84. So, Knotts, too, fails to support the government's contention.

Finally, the government points to Kyllo. There, the Court explained that, since the advent of the Katz test, it had yet to call into question the "lawfulness of warrantless visual surveillance of a home," Kyllo, 533 U.S. at 32, noted that traditionally "our Fourth Amendment jurisprudence was tied to common-law trespass," id. at 31, and pointed out that, under that trespass-based test, "[v]isual surveillance was unquestionably lawful because 'the eye cannot by the laws of England be guilty of a trespass,'" id. at 31-32 (quoting Boyd, 116 U.S. at 628)). But, while the government argues that Kyllo reflects a determination that all "warrantless visual surveillance of a home" is lawful, id. at 32, the Court in the passages quoted above was explaining only that it had yet to confront a form of "visual surveillance" that was a search under the Fourth Amendment, id. at 32, while

appearing to contemplate that there may be a need for future "refine[ments]" to the Katz test down the road, id. at 34.

Nor did Kyllo have reason to address long-term electronic visual surveillance of a home's curtilage. Its focus was on the capacity of technology to enhance visual surveillance in the short term: a policeman in that case had used a thermal-imaging device for "a few minutes" from outside the home to determine the heat levels within the defendant's home. Id. at 30. In fact, when discussing the lack of judicial questioning of the constitutional propriety of "warrantless visual surveillance of a home," id. at 32, Kyllo referred only to Ciraolo, which, as we have seen, involved only short-term police surveillance of a home (which there was unenhanced by digital technology), and Dow Chemical Co. v. United States, 476 U.S. 227 (1986), which also concerned only short-term observation of a "commercial property," id. at 237; see also id. at 237-38, 238 n.5 (holding that no search occurred when government regulators engaged in one days' worth of aerial surveillance "of a 2,000-acre outdoor manufacturing facility" using camera technology by which "human vision [wa]s enhanced somewhat" although not to the point that "any identifiable human faces or secret documents [were] captured in such a fashion as to implicate more serious privacy concerns").

Moreover, the subject of the surveillance in Kyllo -- "heat radiating from the external surface of the house," 533 U.S.

at 35 -- was itself exposed to public "view" in a sense. Indeed, that was how a thermal imaging device operating outside the home could enable such heat to be "seen." But, that fact did not preclude the Court from concluding in Kyllo that a resident of a heat-emitting home has a reasonable expectation of privacy in the record of the thermal radiation -- at least when the source of the heat is a home. See id. at 34. Kyllo's holding thus in some respects lends support to -- though we do not suggest that it requires -- the conclusion that a person can have a reasonable expectation of privacy in what visibly occurs in the curtilage of his home even though it is exposed to the public.

In sum, none of the pre-Carpenter decisions of the Court that the government relies on rejected claims to privacy in the aggregate of the activities that occur in front of one's home over a long period of time. Nor did any of those precedents purport to suggest that one reasonably expects to be subjected to the kind of intensive, long-term surveillance that could expose to a member of the observing public the whole of what visibly transpires in the front of one's home over many months in any practically likely scenario.¹⁷ Accordingly, we reject the government's contention

¹⁷ The remaining Supreme Court cases cited by the government to support its contention that "law enforcement may observe what a person exposes to public view" are similarly inapposite. These cases all involve discrete incidents in which a person revealed information to the public rather than the compendium of activity

that the Supreme Court's pre-Carpenter caselaw requires us to find that the defendants here assert no objectively reasonable expectation of privacy.

In so doing, we part ways with our colleagues who, persuaded by the government's canvassing of the pre-Carpenter caselaw, would conclude that there is no reasonable expectation of privacy in what the defendants here seek to shield simply because each discrete activity that took place in the front curtilage of the Hadley Street home was exposed to public view. It is worth emphasizing, though, before moving to the next part of the analysis, how sweeping a conclusion that appears to be.

By seeming to hold that a person can have no reasonable expectation of privacy in the whole of the activities in the front curtilage of a home simply because each activity is exposed to public view, our colleagues appear to be willing to close the door to a Fourth Amendment claim that could stem from the government accessing a database containing continuous video footage of every home in a neighborhood, or for that matter, in the United States as a whole. In light of the Supreme Court's warning that "as '[s]ubtler and more far-reaching means of invading privacy have become available to the [g]overnment,'" courts are "obligated

at issue here. See, e.g., California v. Greenwood, 486 U.S. 35, 37, 41 (1988); New York v. Class, 475 U.S. 106, 107, 114 (1986); United States v. Dionisio, 410 U.S. 1, 3, 14 (1973); United States v. Mara, 410 U.S. 19, 21 (1973).

. . . to ensure that the 'progress of science' does not erode Fourth Amendment protections," Carpenter, 138 U.S. at 2220 (quoting Olmstead v. United States, 277 U.S. 438, 473-74 (1928) (Brandeis, J., dissenting)), we are not as willing as our colleagues to preclude categorically such Fourth Amendment claims.

IV.

Our conclusions to this point do not, however, suffice to support the conclusion that the surveillance at issue constituted a search. We still must address whether the government "contravene[d]" the objectively reasonable expectation of privacy that the defendants possessed, such that the government engaged in a search by accessing a record of that surveillance. Carpenter, 138 S. Ct. at 2217. The portion of the Katz inquiry that concerns what contravenes a reasonable expectation of privacy is a necessary one for us to undertake because "[t]he obtaining of information is not alone a search unless it is achieved by . . . a trespass or invasion of privacy." Jones, 565 U.S. at 408 n.5 (emphasis added).

In opposing the defendants' motions to suppress in the District Court, the government did not distinguish between the portions of the Katz inquiry that concern the expectation of privacy and the portions that concern contravention. It was only in the motion to reconsider that the government filed after the District Court's ruling finding that a search had occurred that the government developed an argument that focused on the means of

the surveillance rather than the public exposure of what was subject to that surveillance. The government contended in that motion that "[t]here was no unique or new technology used in the investigation that implicated the concerns of Carpenter," (capitalization altered), because the surveillance at issue merely involved the use of a digital camera. Then, both in its briefing to the panel on appeal and in its briefing to our full court in connection with the rehearing en banc, the government augmented that contention by emphasizing other attributes of the means of surveillance to support the contention that the defendants could not satisfy the contravention portion of the Katz test.

In addressing the assertions about contravention that the government now makes, we must keep in mind a point related to the one that we made in connection with our discussion of the antecedent portions of the Katz test -- that the means of surveillance that the government used here did not permit merely the observation from afar of the curtilage of the Hadley Street residence. Nor did those means involve merely the use of a digital camera such that they permitted what transpired there simply to be recorded digitally. Rather, those means involved the long term, remote use of a digital video camera affixed to a utility pole and thus permitted the government to acquire an instantly searchable, perfectly accurate, and thus irrefutable digital compendium of the whole of what visibly occurred over a period of the government's

choosing (and thus seemingly without limit as to duration) that ended up lasting eight months. Moreover, those means enabled the government to access that record for a criminal investigatory purpose in a manner that was not only cheap and remarkably efficient but also impossible for the target of the surveillance to evade through precautions that one may be expected to take in response to the possibility of "casual, accidental observation," Ciraolo, 476 U.S. at 212.

Notably, the government makes no contention otherwise in arguing that, even still, this means of surveillance did not contravene the defendants' claimed expectation of privacy in the aggregate of what transpired in the curtilage of the Hadley Street residence that was visible to the camera over the course of many months or, at least, did not do so in any way that would render this means of surveillance a search. And, we note, the government presses for us to credit this means-of-surveillance-based ground for ruling that no search occurred even if we were to accept what the government vigorously disputes: that the defendants' claimed expectation of privacy in that aggregate is one that society is prepared to accept as reasonable. We decline to do so.

A.

To get our bearings, it helps to start our analysis of the "contravention" portion of the inquiry by reviewing what Carpenter had to say about why "the [g]overnment's acquisition of

the cell-site records" contravened the defendant's reasonable expectation in the whole of his movements in that case and therefore constituted a search. Carpenter, 138 S. Ct. at 2223. Carpenter, after all, is the only case in which the Court has addressed the contravention portion of the Katz inquiry in connection with a contention that the long-term, electronic surveillance of an individual's publicly visible movements is not a search. It is thus a singularly instructive guide to us here, despite the distinct factual context in which the issue arose there.

It is also worth noting in this regard that the Court, in considering whether the surveillance at issue in Carpenter "contravened" the defendant's reasonable expectation of privacy, conducted that inquiry at the point at which the government "accessed" the CSLI. Carpenter, 138 S. Ct. at 2219. Thus, the Court did not consider whether or how the government ultimately utilized the seven days' worth of CSLI that it "accessed." Id. at 2217 n.3.

Carpenter recognized that it was confronting a "new phenomenon" brought on by the advent of once unimagined surveillance technology. Id. at 2216. It recognized, too, that it needed to "tread carefully . . . to ensure that [it] d[id] not 'embarrass the future.'" Id. at 2220 (quoting Nw. Airlines, Inc. v. Minnesota, 322 U.S. 292, 300 (1944)). But, it also noted

that, as we have already mentioned, it was "obligated -- as '[s]ubtler and more far-reaching means of invading privacy have become available to the [g]overnment' -- to ensure that the 'progress of science' does not erode Fourth Amendment protections." Id. at 2223 (first alteration in original) (quoting Olmstead, 277 U.S. at 473-74 (Brandeis, J., dissenting)).

Applying those principles, Carpenter concluded that "the progress of science has afforded law enforcement a powerful new tool to carry out its important responsibilities [but which also] risk[s] [g]overnment encroachment of the sort the Framers, 'after consulting the lessons of history,' drafted the Fourth Amendment to prevent." Id. (quoting Di Re, 332 U.S. at 595). And, in coming to that conclusion, we note, the Court carefully examined the precise new surveillance tool before it in combination with the way in which that tool was employed in the case at hand, "tak[ing] account of more sophisticated" versions of that tool "already in use or in development." Id. at 2218 (quoting Kyllo, 533 U.S. at 36). Moreover, the Court pointed to various aspects of that tool's features that, at least in combination, demonstrated that the tool posed a concerning risk to the constitutional balance, at least when used to acquire the quantum of information covering the expanse of time that was there at issue.

Carpenter emphasized, in this connection, "the deeply revealing nature of CSLI." Id. at 2223. Here, the Court drew

upon its own explanation of why the movements tracked by the CSLI that the government accessed from the defendant's wireless carrier over the period in question revealed in the aggregate the "privacies of life." Id. at 2217 (quoting Riley, 573 U.S. at 403). The Court pointed out in this regard that the CSLI that the government accessed provided an "intimate window into a person's life," id. at 2217, due to the "depth, breadth, and comprehensive reach" of such CSLI, id. at 2223. As the Court explained, "[m]apping a cell phone's location over the course of [several months] provides [the government with] an all-encompassing record of the holder's whereabouts" that is akin to "achiev[ing] near perfect surveillance, as if [the government] had attached an ankle monitor to the phone's user." Id. at 2217-18 (quoting Jones, 565 U.S. at 415 (Sotomayor, J., concurring)).

Notably, the Court also drew support for this aspect of its analysis from the reasoning of the five concurring Justices in Jones, as they had emphasized the comprehensive nature of the information that the GPS device at issue there had permitted the government to acquire in finding that the government's decision to use that device to collect twenty-eight days' worth of GPS data regarding the defendant "impinge[d] on" the defendant's reasonable expectation of privacy. id. (quoting Jones, 565 U.S. at 430 (Alito, J., concurring in the judgment)); see also Jones, 565 U.S. at 415 (Sotomayor, J., concurring) ("GPS monitoring generates a

precise, comprehensive record of a person's public movements that reflects a wealth of detail about [a person's] . . . associations. . . . The government can store such records and efficiently mine them for information years into the future."); Jones, 565 U.S. at 428-29 (Alito, J., concurring in the judgment joined by three Justices) (describing various new technologies that engage in "constant monitoring" and are thus able to track a person's "daily movements"). Indeed, the Court in Carpenter pointed out that the tracking effectuated by the collection of the CSLI "partakes of many of the qualities of the GPS monitoring we considered in Jones," as the Court explained that "cell phone location information," too, is "detailed" and "encyclopedic." Carpenter, 138 S. Ct. at 2216.

Carpenter emphasized, as well, the relative ease with which this new surveillance tool afforded the government access to an intimate and comprehensive window into a target's life. By requesting CSLI from a wireless carrier, the Court explained, "the [g]overnment can access [a] deep repository of historical location information at practically no expense." Id. at 2218. The Court further noted that the "repository" of CSLI, once accessed by the government from a wireless carrier, is not "limited by . . . the frailties of recollection" and that, as a result, it "gives police access to a category of information otherwise unknowable." Id. In addition, the Court noted that CSLI is "effortlessly compiled."

Id. at 2216. And, in doing so, the Court once again mirrored the language from the Jones concurrences. Id. at 2218.

Finally, in determining that the government's accessing of the seven days' worth of CSLI from the defendant's wireless carrier contravened the defendant's reasonable expectation of privacy and so constituted a search, Carpenter emphasized a feature of that CSLI that arguably differentiated it from the GPS-tracker information that the government had acquired through its own real-time tracking of the defendant's movements in Jones: the information had a "retrospective quality." Id. The Court pointed out that "because location information is continually logged for all of the 400 million devices in the United States -- not just those belonging to persons who might happen to come under investigation -- this newfound tracking capacity runs against everyone." Id. Thus, the Court noted, "[w]hoever the suspect turns out to be, he has effectively been tailed every moment of every day for five years" with no reasonable ability to take countermeasures to avoid that surveillance as a "cell phone [is] 'almost a feature of human anatomy.'" Id. at 2218, 2219 (quoting Riley, 573 U.S. at 386). In other words, this surveillance technology was especially threatening to the reasonable expectation of privacy in the whole of one's movements in public because of "the inescapable and automatic nature of its collection." Id. at 2217.

Consistent with the Court's stated concern about ensuring that new technological enhancements to law enforcement's surveillance capacity do not "erode" the basic protection that the Fourth Amendment guarantees, the Court also made a point of comparing these features of this means of pursuing a criminal investigation with less souped-up ones. Id. at 2223. In this regard, the Court, again mirroring the language of the five concurring Justices in Jones, explained that the accessing of historical CSLI by the government is "remarkably easy, cheap, and efficient compared to traditional investigative tools" because the government by doing so acquires a capacity to easily mine "the exhaustive chronicle of location information" that is not comparable to the capacity it has when relying on "traditional, investigative tools." Id. at 2217-18 ("[L]ike GPS monitoring, cell phone tracking is remarkably easy, cheap, and efficient compared to traditional investigative tools."); see also Jones, 565 U.S. at 415-16 (Sotomayor, J., concurring) ("[B]ecause GPS monitoring is cheap in comparison to conventional surveillance techniques, . . . it evades the ordinary checks that constrain abusive law enforcement practices."); Jones, 565 U.S. at 429 (Alito, J., concurring in the judgment) ("Devices like the [GPS device] . . . make long-term monitoring relatively easy and cheap.").

The Court was careful, moreover, to caveat that the concerns presented by unconventional, aggregative electronic surveillance -- like the accessing of the historical CSLI at issue in Carpenter -- did not apply to "conventional surveillance techniques and tools, such as security cameras." Id. at 2220. And, the Court similarly explained that it was withholding judgment about how "business records," other than CSLI, "that might incidentally reveal location information" fit into the conventional-discrete/unconventional-aggregative dichotomy that it described. Id.¹⁸

B.

There is no doubt, as our colleagues point out, that the factual context presented here differs in certain respects from the one that the Court confronted in Carpenter and that it does so in ways that have some bearing on the contravention portion of the Katz inquiry. Most notably, the Court had to address there whether the so-called third-party doctrine provided a reason to conclude that the government's accessing of the seven days' worth of the defendant's historical CSLI did not contravene the expectation of privacy that the Court had recognized that the defendant had in

¹⁸ It is possible that it is not useful to disentangle the "contravention" and the "objective" portions of the "expectation of privacy" component of the Katz inquiry from one another. But, we read Carpenter to suggest that it is useful to consider the contravention portion of the inquiry separately, and so do so. As far as we can tell, nothing of substance turns on that choice here.

what that tranche of CSLI contained. See id. at 2216-17. After all, in Carpenter, the government had accessed information that it had not created through its own surveillance; it had accessed information that it had requested from a third-party to which that collection of information had already been disclosed. Thus, the disclosure to that third-party could be thought to have destroyed whatever privacy expectation the defendant might otherwise have possessed. Id. The Court thus identified the various features of the surveillance canvassed above at least in part to justify not extending the third-party doctrine to the case at hand, despite the fact that the doctrine had been held to apply to, for example, bank records, which are themselves quite revealing, see United States v. Miller, 425 U.S. 435, 443 (1976).

We, of course, have no such issue regarding the third-party doctrine to address. The government here accessed a digital compendium that it created on its own and that was not disclosed in advance to any other party. In that respect, the case for concluding that the government contravened the defendants' reasonable expectation of privacy is seemingly more straightforward than it was for concluding similarly with the respect to the reasonable expectation of privacy of the defendant in Carpenter itself.

At the same time, Carpenter, by its own terms, is not limited to situations in which the third-party doctrine is in play,

despite what our colleagues suggest. Carpenter, 138 S. Ct. at 2217. Concur. Op. at 113-14. Indeed, in the paragraph of Carpenter that describes how the decision is a "limited one," the Court expressly does not limit its decision to only those situations in which the third-party doctrine is implicated. Id. at 2220; see also id. at 2217 ("Whether the [g]overnment employs its own surveillance technology as in Jones or leverages the technology of a wireless carrier, we hold that . . . [t]he location information obtained from Carpenter's wireless carriers was the product of a search.").

It follows, then, that Carpenter's analysis of the contravention issue also bears on whether a means of electronic surveillance utilized by the government itself is a means that "contravenes" a reasonable expectation of privacy. The question for us here, therefore, is how Carpenter's analysis of the contravention question bears on our analysis of that question, even though the third-party doctrine is not at issue.

In addressing that question, we must be cautious about responding to this means of surveillance in a manner that would "embarrass the future," id. at 2220 (quoting Nw. Airlines, 322 U.S. at 300), by needlessly stripping government of a potentially useful surveillance tool insofar as that tool -- even if newfangled -- does not threaten to erode the vital protections that the Fourth Amendment provides any more than longstanding but somewhat-updated

versions of more pedestrian, surveillance techniques would. At the same time, though, we must not lose sight of the fact that the Fourth Amendment was drafted with the "central aim of . . . 'plac[ing] obstacles in the way of a too permeating police surveillance,'" id. at 2214 (quoting Di Re, 332 U.S. at 595), and that courts must "assure [] preservation of that degree of privacy against government that existed when the Fourth Amendment was adopted" in assessing evolving technologies that threaten that degree of privacy, id. (alteration in original) (quoting Kyllo, 533 U.S. at 34).

Moreover, we must attend to the fact that Carpenter, as we have pointed out, explained that it was a "narrow ruling" that did not apply to "conventional surveillance techniques." Id. at 2220. And, we must also take account of the fact that Carpenter's caveat on that score accords with Carpenter's observation that government conduct that "contravenes" a reasonable expectation of privacy "generally" -- and thus not necessarily always -- constitutes a search. Id. at 2213 (emphasis added).

With those considerations in mind, we conclude, as we will next explain, that many of the same reasons that Carpenter relied on to find that the government had contravened the reasonable expectation of privacy at issue there -- and so conducted a search -- equally support the conclusion that the government did the same in this case. For, while the databases

that the government accessed in the two cases are not identical, the differences between them are not of a kind that warrants an outcome here opposite to Carpenter's with respect to the contravention issue.

1.

For starters, there is little doubt that the record generated over the months-long expanse of time by the digital pole camera in this case is "deeply revealing" of the "privacies of life." Carpenter, 138 S. Ct. at 2217, 2223 (quoting Riley, 573 U.S. at 403). Like the seven days' worth of the historical CSLI accessed by the government in Carpenter, the digital videologue that was created here provides an "intimate window into [the defendants'] li[ves]." Id. at 2217.

That is so, in part, due to the "depth, breadth, and comprehensive" reach of the pole camera's gaze, id. at 2223, trained as it was on the front curtilage of the Hadley Street property over eight months and capable as it was of retaining in full -- and in readily searchable form -- all that it espied for as long as it looked. Indeed, while the camera at issue here records live images, the CSLI at issue in Carpenter merely reveals a dot on a map for a single person.

That is also so, because, as we explained in connection with the reasonable expectation of privacy portion of the inquiry, the focus of the pole camera's recording -- the front curtilage of

the defendants' residence -- implicates the home, which is "[a]t the very core of the Fourth Amendment." Kyllo, 533 U.S. at 31 (internal quotation marks omitted). Every person has the right to "retreat into [and enjoy] his own home and there be free from unreasonable governmental intrusion." Jardines, 569 U.S. at 6 (quoting Silverman, 365 U.S. at 511). And, for good reason, as our home (curtilage included) is often the center of our lives: it is where we always return to, where our friends, family, and associates visit, where we receive packages and mail, and where we spend a good deal of time. Observing the movements in front of a home for months, therefore, can reveal quite a lot about a person -- at the very least "familial, political, professional, religious, and sexual associations," Carpenter, 138 S. Ct. at 2217 (quoting Jones, 565 U.S. at 415 (Sotomayor, J., concurring)) -- and perhaps to a greater extent than even a substantial swath of one's historical CSLI.

There is similarly little doubt that, like the type of surveillance at issue in Carpenter, the type of surveillance at issue here is "easy, cheap, and efficient" relative to its pre-digital substitute. Id. at 2217-18. The government can initiate the surveillance -- and then carry it through to completion -- for a pittance relative to what a traditional stakeout would cost in

terms of time and expense, to say nothing of the reduction in the risk of detection that this means of surveillance makes possible.¹⁹

The digital pole camera recording here, given the substantial expanse of time that the digital record encompasses, is also an unusually efficient tool of surveillance in another

¹⁹ Our colleagues suggest that the long-term use of a pole camera is not "easy, cheap, and efficient" because such surveillance is "not cost-free." Concur. Op. at 113. True, the use of a pole camera comes with a cost (as does the use of a GPS tracker and the receipt and review of CSLI). But, there is no basis on this record for concluding that the cost is a great one, as our colleagues themselves also point out by emphasizing how inexpensive cameras are for the everyday consumer.

Our colleagues do suggest that while it may be inexpensive to use a single pole camera to create a searchable record, replicating that surveillance by "[p]lacing and maintaining . . . millions of pole cameras" to compile a database of "years of video" is not. Concur. Op. at 113 n.39. But, our colleagues do not explain why the ease with which the government can replicate the surveillance is the relevant comparator for purposes of determining whether a surveillance technique is cheap. Indeed, Carpenter's reliance on the Jones concurrences in explaining why CSLI is "easy, cheap, and efficient" relative to past, conventional technologies suggests the opposite. Carpenter, 138 S. Ct. at 2217-18. As we have described, in Jones, the concurrences were concerned with the resource constraints that make tailing a single individual for a long period impractical -- at no point did the concurrences in Jones consider whether it would be "easy, cheap, and efficient" to use a GPS tracker tail every person in the United States for every hour of every day. See Jones, 565 U.S. at 415-16 (Sotomayor, J., concurring); id. at 429 (Alito, J., concurring in the judgment).

In any event, the relevant question after Carpenter is not whether a technology is cost-free. It is whether the efficiencies afforded by the surveillance tool give rise to the substantial risk that what had been at best a most rare prospect of surveillance will become more routine and thereby upend the balance between security in the private realm and order that the Fourth Amendment strikes. We see no reason to doubt that the efficiencies of this tool are of that sort.

way: it is easily searchable -- especially when, considering the "more sophisticated [versions of this technology] that are already in use or in development," id. at 2218-19 (quoting Kyllo, 533 U.S. at 36), the ability to utilize facial recognition and other forms of visual search technologies is factored into the searchability of this record. See also Riley, 573 U.S. at 381, 385 (considering the appropriateness of extending the search-incident-to-arrest doctrine to "modern cell phones" with "smart" features even though the phone at issue in one of the two cases on appeal was a "flip phone" with none of those "smart" features). The ease with which a voluminous digital record may be mined to yield otherwise hidden information, when combined with the capacity for that record to be stored (given cloud-based computing), makes it distinct from its analog analogues. One need only imagine the officer tasked with reviewing month three of a collection of eight months of VHS tapes -- assuming that she could retrieve them in a timely fashion from the warehouse -- to see how distinct the digital repository before us is.

Finally, the accessing by the government of the pole camera-generated, digital video record here is also similar to the accessing by the government of the CSLI in Carpenter in the third way that Carpenter identified as salient to the contravention inquiry: the means of evading the creation of the record are not feasible. As the Court recognized in Carpenter, CSLI is generated

"several times a minute" "[e]ach time the phone connects to a cells site" -- "even if the owner is not using one of the phone's features." Carpenter, 138 S. Ct. at 2211. The only way to avoid generating CSLI is to not use a cell phone, which the Court recognized was simply not a feasible precaution for a person functioning in today's society. Id. at 2218.

Evading the pole-camera surveillance here -- contrary to our colleagues' suggestion -- demands no less unreasonable efforts to thwart it. Nor is a homeowner likely to be placed on notice that the government is surveilling the property via pole camera, because, by definition, such surveillance is clandestine. In fact, a homeowner need not be on notice of even his own illegal activity to be subjected to this type of watch. By the government's own theory, no level of suspicion is needed to utilize a pole camera.

To be sure, a well-constructed fence or craftily planted hedgerows may enable the homeowner to block the gaze of a hidden camera placed at street level, to the extent financial and regulatory constraints make either countermeasure realistic. But, the saying, "show me a wall and I'll show you a ladder" comes to mind. We must assume that the government would choose to place the camera at a height sufficient to surmount whatever vertical barrier would obstruct its view. Thus, the only countermeasures certain to work -- never leaving the house or enclosing the curtilage to make it effectively part of the inside of the house

-- are at least as unreasonable to expect a person to take as leaving home without a cell phone.

That said, the comparison to the government's accessing of the CSLI in Carpenter is not a perfect one. CSLI is created by wireless carriers as part of the provision of cell-phone service. As a result, any law-enforcement accessing of historical CSLI from a wireless carrier has a "retrospective quality." For this reason, in accessing the CSLI at issue in Carpenter, the Court emphasized, the government was able to overcome the "dearth of records and the frailties of recollection" and was limited instead only by "the retention policies of the wireless carriers." Id.

The accessing of that trove of historical data was in that respect more concerning than even the government's use of CSLI to track a person's movements in real time. Id. at 2220. The accessing of the historical CSLI gave the government, instantly, information that the government did not even know that it needed and so would never have collected on its own.

By contrast, because the government set up the pole camera in this case, it follows, as our colleagues emphasize, that the government must have had some reason to have done so. Concur. Op. at 113-14. In that sense, the accessing of the record of the "privacies of life," id. at 2214 (quoting Boyd, 116 U.S. at 630), follows a decision by the government to make the record in real time in a way that the accessing of the historical CSLI from the

wireless carrier in Carpenter did not. See also Tuggle, 4 F.4th at 525 ("The government had to decide ex ante to collect the video footage by installing the cameras.").

But, we do not understand Carpenter to suggest that the creation of a searchable digital record that perfectly accounts for the whole of the movements of a person over a long period of time contravenes a reasonable expectation of privacy -- and thereby effects a search -- only when that record was created before the government wished to have it. Cf. Carpenter, 138 S. Ct. at 2217 ("Whether the [g]overnment employs its own surveillance technology . . . or leverages the technology of a wireless carrier, we hold that an individual maintains a legitimate expectation of privacy in the record of his physical movements."). Indeed, it is hard to understand why it would be less destructive of the "degree of privacy" that existed at the time of the Founding, id. at 2214, to have the government directly engage in scooping up visual information about all that occurs in front of a residence over a long period of time than to have the government selectively request that information from a private actor who had undertaken its own collection effort to amass a wealth of data, id. at 2218.

We recognize that democratic pressures may, of their own force, constrain the widespread use of this means of surveillance. But, the risk that this form of surveillance, given how cheap, easy, and efficient it is, would upset the Framers' balance if

permitted to be deployed unrestrained by the Fourth Amendment is clear enough. There appears to be little in the nature of the technology itself that would stop the government from choosing to replicate the form of surveillance at issue here widely. Nor does the government give us reason to have confidence that limits either practical or legal are sure to restrain its use. Indeed, it asserts that it need not have even a modicum of suspicion to engage in the surveillance at issue here.²⁰

The concern, then, is real that, in time, this form of surveillance could become a means by which the "society" to which we look for guidance in determining what "expectations of privacy" are worthy of constitutional concern would become a society that would no longer afford privacy the kind of protection that the Fourth Amendment has long been understood to provide it. See Tuggle, 4 F.4th at 527-28 (explaining that "if current technologies are any indication, . . . technological growth will predictably have an inverse and inimical relationship with individual privacy from government intrusion, presenting serious concerns for Fourth

²⁰ Our colleagues propose a constraint of their own: They suggest that "creat[ing] anything approaching cellular service providers' databases" for pole-camera footage "would entail such an enormous expenditure of scarce resources as to ensure that would never happen." Concur. Op. at 113 n.39. But, we are hesitant to so casually dismiss as impossible the notion that the government may not be surgical in the use of pole-camera surveillance in the future, as the government has collected and analyzed immense amounts of information in the recent past, see, e.g., Am. C.L. Union v. Clapper, 785 F.3d 787, 796-97 (2d Cir. 2015).

Amendment protections" because "once society sparks the promethean fire -- shifting its expectations in response to technological development -- the government receives license . . . to act with greater constitutional impunity"). For, while pole cameras are not currently in use today by law enforcement to monitor the front of every home, or even every home in a neighborhood, see, e.g., Paul Mozur & Aaron Krolik, A Surveillance Net Blankets China's Cities, Giving Police Vast Powers, N.Y. Times (Dec. 17, 2019), <https://www.nytimes.com/2019/12/17/technology/china-surveillance.html>, Carpenter emphasized that courts are "obligated -- as '[s]ubtler and more far-reaching means of invading privacy have become available to the [g]overnment' -- to ensure that the 'progress of science' does not erode Fourth Amendment protections," Carpenter, 138 S. Ct. at 2223 (first alteration in original) (quoting Olmstead, 277 U.S. at 473-74 (Brandeis, J., dissenting)).

Moreover, even though the government created the digital record at issue in this case, the accessing of it by the government still shares many of the features that Carpenter pointed to in expressing concern about the "retrospective quality" of the government's accessing of historical CSLI. Id. at 2218. The government claims that it can set up an unmanned digital video pole camera for law enforcement purposes without a warrant or even any constitutionally required showing of a predicate in front of

any -- and by extension all -- homes and let the camera continuously record for eight months. And, Carpenter indicates that the point at which we consider whether the pole-camera surveillance "contravened" a reasonable expectation of privacy is the point at which the government "accesses" -- rather than produces -- the record. Id. at 2219. Therefore, the resulting pole-camera-generated record, if of sufficient duration, is like historical CSLI in that it also can give the government the ability both to "travel back in time" with little expense to witness with perfect precision activities that turn out to be of any focused interest to law enforcement only upon reflection and to do so "effortlessly" in a way that precursor methods of home surveillance practically could not. Id. at 2216, 2218.

C.

Notwithstanding these similarities between the surveillance means used in this case and the means at issue in Carpenter, the government contends that Carpenter's statement that it was not "call[ing] into question conventional surveillance techniques and tools, such as security cameras" precludes us from extending its reasoning to find the kind of contravention of a reasonable expectation of privacy that would show a search to have occurred here. Id. at 2220. But, we are not persuaded by this contention either.

1.

The government contends that the use of the pole camera constituted a "conventional surveillance technique[]" and that Carpenter was careful to exclude all such techniques from the ambit of its decision. Id. The government explains that "cameras with comparable capabilities [have been] employed by law enforcement" since around 1970. As a result, the government argues, a pole camera is merely a specific manifestation of a familiar policing tactic and so is not akin to the CSLI at issue in Carpenter.

We first must note that a video camera from 1970 -- or even 1987 as our colleagues suggest -- is by no means equivalent to the digital pole camera utilized here and the searchable, electronic record that it produced.²¹ But, even to the extent that the government's argument rests on relatively contemporary versions of the pole camera -- like the digital video pole camera utilized in Bucci, for example, 582 F.3d at 116 -- we are not convinced. We do not read Carpenter to state that any technology utilized in the decade before that decision is automatically a "conventional surveillance technique." Such a conclusion would

²¹ To highlight one significant difference, the cameras then could not have streamed the video footage to a website; a law enforcement officer would have had to physically change the tapes. For another, the footage produced was not "searchable": an officer would have to view personally the footage to glean anything from it -- a significant undertaking that would diminish the usefulness of the surveillance and make it much more akin to a stakeout.

conflict with the reality of the technology in Carpenter itself: cell-phone towers, after all, had been erected decades before Carpenter itself was decided, see, e.g., Jon Van, Chicago goes cellular, Chi. Trib. (June 3, 2008), <http://www.chicagotribune.com/nation-world/chi-chicagodays-cellular-story-story.html>, and the location records from those towers were utilized by law enforcement as early as 2001, see United States v. Forest, 355 F.3d 942, 947 (6th Cir. 2004), vacated sub nom. Garner v. United States, 543 U.S. 1100 (2005). (Bucci, a careful reader may recall, was decided nearly a decade later.)²²

In addition, the government points to nothing that indicates that it is a relatively common occurrence to have all the activities in front of one's residence surveilled and permanently recorded by digital video cameras.²³ In fact, the

²² To that same point, we disagree with our colleagues that the Court aimed to include any form of surveillance of which it was aware, assuming that the Court was aware of the warrantless use of pole cameras to conduct long-term 24/7 surveillance of homes, within its reference to "conventional surveillance techniques and tools," Carpenter, 138 S. Ct. at 2220. Concur. Op. at 107-08.

²³ Many of the decisions that the government and our colleagues cite that involve the use of a video pole camera, nearly all of which were decided in the last decade, do not mention whether the pole camera in question was surveilling a residence or, if so, for how long. See, e.g., United States v. Pardo, No. 2:18-CR-00063-GZS, 2019 WL 4723751, at *1 (D. Me. Sept. 26, 2019) ("On February 23, 2018, by way of a pole camera, agents observed a gray Toyota Tundra with a Massachusetts license plate arrive at one of Bellmore's places of business in Lewiston."). And, the few cases that are analogous hardly establish that the use of a pole camera

government acknowledges -- as it must -- that "there appears to be little published information concerning the prevalence of case-specific pole cameras like the one here."

We also are not persuaded by the government's various examples regarding the deployment of video camera technology in other contexts. Notably, none references government-installed hidden video cameras recording homes on residential streets and permanently storing the ensuing video footage, let alone for the purpose of carrying out a targeted criminal investigation rather than incidentally for some other purpose.²⁴

to monitor all of the activities visible in the front curtilage of a home for a prolonged period was a routine or "conventional" technique. See United States v. Bregu, 948 F.3d 408, 411 (1st Cir. 2020) (describing seven months of pole-camera surveillance of a residence); United States v. Moore, 281 F.3d 1279, 2001 WL 1692476, at *1 (5th Cir. Nov. 27, 2001) (unpublished table decision) (describing one year of pole-camera surveillance in front of a home); United States v. Carraway, 108 F.3d 745, 748 (7th Cir. 1997) (using a pole camera to surveil for 45 days a trailer that the defendant resided in). Moreover, the many civil cases that find the long-term recording of a neighbor's activities in the curtilage of the neighbor's home tortious only seem to reinforce the conclusion that long-term video surveillance of the front curtilage of a home is not a typical occurrence. See, e.g., Wolfson, 924 F. Supp. at 1413; Gianoli, 563 N.W.2d at 568; Jones, No. B135112, 2002 WL 853858; Mangelluzzi, 40 N.E.3d at 588.

²⁴ For example, to support its contention that this "traditional type of surveillance camera . . . has been in use for nearly five decades," (capitalization altered), the government identifies news articles that indicate that government-operated cameras were "installed in the center of Olean, New York, as a demonstration project" to guard "the main street" there in 1968, and "three fixed cameras . . . [were] placed in Times Square" in 1973. No reference is made to cameras that surreptitiously collect

Finally, the government asserts that "camera systems also are employed in residential areas, parking lots, and on public transportation systems." But, it cites to a single source that, in discussing the surveillance of "residential areas," appears to be discussing private, prominent surveillance cameras employed by either private property owners to keep watch over their own property in order to deter crime or neighborhood groups that use "CCTV schemes [to] cover all public areas, such as streets," for the same purpose.²⁵ Again, no mention is made of the use, let

months of footage of the curtilage of homes for criminal investigatory purposes.

Similarly, to support the contention that there are numerous "public surveillance cameras serving law enforcement purposes . . . in municipalities around the United States," the government points us to "the approximately 2,000 cameras operated by the Chicago Police department," which the government notes are "highly visible and typically accompanied by both signage and blue flashing lights." But, the government does not undertake to explain whether (or, if so, to what extent) the Chicago cameras - - or those in any other jurisdiction -- are used surreptitiously to surveil private residences and the curtilage of them. In fact, the report cited by the government in this discussion describes Chicago's cameras as a "public surveillance system" that utilizes "highly visible" cameras that provide "real-time footage from [areas] located throughout the city," including in "the Humboldt Park neighborhood" and "the West Garfield Park neighborhood." Nancy G. La Vigne et al., Urban Institute Justice Policy Ctr., Evaluating the Use of Public Surveillance Cameras for Crime Control and Prevention, at ix (2011).

²⁵ See Eric L. Piza et al., CCTV Surveillance for Crime Prevention: A 40-Year Systemic Review with Meta-Analysis, 18 Criminology & Pub. Pol'y 135 (2019) (discussing study's conclusion that "CCTV schemes in residential areas were associated with significant crime reductions" but also explaining that "flashing

alone widespread use, of surveillance camera technology to surreptitiously surveil the front curtilage of the homes of others over a long period for a criminal investigatory purpose.

We thus are unpersuaded by the government's argument that Carpenter's analysis does not apply to the pole-camera recording here because it is a form of conventional surveillance. Even if a given piece of technological equipment is familiar, what matters for purposes of the contravention inquiry is the context of its deployment. Compare Katz, 389 U.S. 347, 353 (finding that a person has a reasonable expectation that their conversation will not be recorded when they use a phone booth), with United States v. White, 401 U.S. 745, 751-53 (1971) (concluding that a person does not have a reasonable expectation of privacy that their conversation will not be recorded by the person to whom they are speaking even when the recording device is hidden). Compare also Jardines, 569 U.S. 1, 11-12 (holding that a dog sniff for drugs in the front curtilage of the home is a search), with United States v. Place, 462 U.S. 696, 707 (1983) (concluding that a drug sniff in an airport was not a search). For, "[a]s technology has enhanced the government's capacity to encroach upon areas normally guarded from inquisitive eyes," we must apply the Fourth Amendment to those technologies to "assure [] preservation of that degree of privacy

lights on top of CCTV cameras" or "signage w[ere] . . . frequently deployed" to make the presence of such cameras apparent).

against government that existed when [that] Amendment was adopted." Carpenter, 138 S. Ct. at 2214 (second alteration in the original) (quoting Kyllo, 533 U.S. at 34).

Thus, accepting that the age-old, manned stakeout -- even if enhanced by the latest in digital cameras -- qualifies as a conventional surveillance technique, see Knotts, 460 U.S. at 283-85, we cannot agree that the months-long, digital-pole-camera variant does as well. The word "conventional" simply does not readily call to mind as unusual a technique as that. We thus disagree with our colleagues that our reasoning would somehow deprive the government of the use of an ordinary law enforcement tool.²⁶

2.

The government also argues that even if the pole-camera surveillance at issue here was not necessarily "conventional surveillance," a pole camera is a species of "security camera[]." The government then argues that, for that reason alone, the use of the pole-camera surveillance at issue here is necessarily a "conventional surveillance technique[]" by Carpenter's lights. Carpenter, 138 S. Ct. at 2220. We, however, agree with the

²⁶ And, we note, to the extent that our opinion would limit law enforcement use of the surveillance at issue here, it would only deprive the government of the ability to utilize that surveillance technique without the protections that the Fourth Amendment provides.

defendants that the pole camera trained by law enforcement on their home for eight months, generating a searchable digital video database of the activities visible to that camera, is not like the "security cameras" left unquestioned in Carpenter.

In describing "security cameras" as a "conventional surveillance technique[]" akin to "other business records that might incidentally reveal location information," id. at 2220, the Court is most naturally understood to have been referring to the familiar "tactic[]" under which police have sought footage from third parties that had been collected by their security cameras in the area of a crime. Carpenter made its one reference to "security cameras" in the very same sentence that clarifies that the Court "do[es] not disturb" the caselaw that addresses a person's expectation of privacy in information voluntarily handed over to third parties, id. (citing Miller, 425 U.S. 435, and Smith, 442 U.S. 735), and just prior to a sentence that clarifies that the Court is not addressing "other business records," id. (emphasis added). In this way, the Court intimated that the "security cameras" were private security cameras guarding private property.²⁷

²⁷ We also note that the Carpenter petitioner emphasized that, although the police have long "sought security camera footage" as an investigatory "tactic[]" employed "prior to the widespread proliferation of cell phones," that "tactic[]" cannot be compared to police seeking long-term CSLI -- as this "security camera" "tactic[]" enabled "law enforcement agents [to] retrieve[] at best only fragmentary historical location records." Br. for Pet'r at

We note, too, that the government's briefing to us highlights the fact that conventional security cameras are typically placed so that they are overt -- not hidden or hard-to-spot, as the camera here was.²⁸ By contrast, cameras utilized for criminal investigatory (rather than "security") purposes are -- by definition -- covertly placed; otherwise, as our colleagues emphasize, Concur. Op. at 110 n.37, that investigatory tactic would hardly be effective.

Finally, the Carpenter opinion's passage referencing "security cameras" is immediately followed by a sentence that

11, 18, Carpenter, 138 S. Ct. 2206 (No. 16-402) (emphasis added); see also Amicus Curiae Br. for Natl' Dist. Att'ys Ass'n at 26 & n.17, Carpenter, 138 S. Ct. 2206 (No. 16-402) (explaining that "police frequently contact multiple third parties with surveillance capabilities to piece together an individual's movements," and that under "the third-party doctrine . . . a defendant would ordinarily have no standing to preclude a third party from releasing" footage by which an "individual's location [is] captured on a third party's private security camera, or even network of cameras").

²⁸ By highlighting this difference, we do not mean to suggest that a search cannot occur if the pole camera conducting the surveillance is clearly and obviously placed. After all, the government may not circumvent the Fourth Amendment by merely running ads letting the population know that it is collecting CSLI for criminal investigations. See Smith, 442 U.S. at 741 n.5 ("Situations can be imagined, of course, in which Katz's two-pronged inquiry would provide an inadequate index of Fourth Amendment protection. For example, if the Government were suddenly to announce on nationwide television that all homes henceforth would be subject to warrantless entry."). But, we do not rule out the possibility that, in some circumstances, the obviousness of the surveillance could play a role in assessing whether the defendant had a subjective expectation of privacy.

explains that the decision is also not disturbing the authority of law enforcement to access "other business records that might incidentally reveal location information." Carpenter, 138 S. Ct. at 2220 (emphasis added). This reference, too, suggests that even if the pole camera in question here could, in some scenarios, be viewed as a "security camera" or a "business record," the camera, as here used, is not of that kind. This camera was specifically placed so as to "reveal location information" pertaining to specific individuals for law enforcement's investigative purposes -- namely the movements of the defendants in the front curtilage of the Hadley Street home. There is nothing "incidental" about the "location information" regarding the home on which the camera was trained that the camera revealed. Id. at 2220.

In that sense, the pole camera here appears in stark contrast to other types of cameras commonly operated by both private individuals and the government in which the camera fulfills a purpose distinct from tracking a person's movements at a particular residence and may only record where a particular individual is on a certain occasion as an incident of the camera's more general security-related function.²⁹ Thus, we reject the

²⁹ It is for this reason that we disagree with our colleagues that our conclusion as to what constitutes a "security camera[]" under Carpenter "would subject the less affluent who live on public streets . . . to lesser law enforcement than those in wealthy neighborhoods." Concur. Op. at 110-11. Video cameras, assuming

government's suggestion that Carpenter establishes -- by virtue of its cursory reference to "security cameras" -- that the accessing by the government of the record of the whole of the activities occurring in the curtilage of a home for eight months that the hidden pole camera here generated does not contravene a reasonable expectation of privacy in a manner that effects a Fourth Amendment search.

D.

Shifting focus, the government suggests that even if everything that we have said in applying Carpenter to this case so far is correct, Carpenter is not the Supreme Court precedent that should control our analysis of the contravention portion of the Katz inquiry. The government contends that Carpenter concerned technology that tracks one's movements in public, while here we are faced with technology that allows for the ability to view one's home. Thus, the government contends, Kyllo, which concerned the use of advanced heat sensory technology to surveil a private

that they are government operated, could have a purpose "incidental[]" to "reval[ing] location information," Carpenter, 138 S. Ct. at 2220, such as public safety, that is unrelated to the monitoring of a particular home for criminal investigatory purposes. And, that is true of any neighborhood in which such cameras are so used. Moreover, to the extent our colleagues' concern about excluding this type of surveillance from that conducted by "security cameras" -- as Carpenter understood that category -- stems from a worry that bias may infect the targets of such surveillance, the concern is hard to understand. It would seem to us that more rather than less constitutional protection would be -- well -- warranted if that were the concern.

residence, is the most relevant Supreme Court precedent for present purposes. See Kyllo, 544 U.S. at 40.

The government argues in this regard that Kyllo created a bright line rule that only technologies that "explore details that would previously have been unknowable without a physical intrusion" into a suspect's home raise Fourth Amendment concerns. Because the pole camera captured only what was exposed to public view and involved no such "physical intrusion," the government suggests, we must find that the government here did not contravene a reasonable expectation of privacy. But, Kyllo's holding that "surveillance is a 'search'" if "the [g]overnment uses a device that is not in general public use[] to explore details of the home that would previously have been unknowable without physical intrusion" states a sufficient rather than a necessary condition for determining that a search has occurred.³⁰ Id.

³⁰ Furthermore, the "bright line" the government points to was drawn by the Court to respond to the suggestion by the dissent in that case that technologically-revealed details about a home can be subject to Fourth Amendment protection only if the "homeowner would even care if anybody noticed." Id. at 50 (Stevens, J., dissenting). In rejecting that suggestion by the dissent, the Kyllo majority observed that "the Fourth Amendment draws 'a firm line at the entrance to the house'" that is "not only firm but also bright." Id. at 40 (quoting Payton v. United States, 445 U.S. 573, 590 (1980)). Kyllo's observations in this regard were thus a way of explaining why "[l]imiting the prohibition . . . to [technology that reveals] 'intimate details' would . . . be wrong in principle," id. at 38, for the Fourth Amendment protects what occurs inside the home irrespective of how sensitive that activity is. Kyllo thus cannot fairly be read to sanction the government's

Moreover, Kyllo, after framing the question presented there as "how much technological enhancement of ordinary perception . . . is too much," Kyllo, 533 U.S. at 33, found that the use of an infrared camera to see wavelengths, radiating from the exterior of the target's home, that no human eye could see increased human perception to such a degree that the use by law enforcement of the infrared camera did not merely augment an officer's ordinary observational abilities. Likewise, here, the pole camera created a searchable, digital record of moving images of all that transpired in front of the defendants' residence for eight months that is not only infallible but also shareable with others. We thus reject our colleagues' conclusion that the government's use of the pole camera here merely "augment[ed] their investigation," Concur. Op. at 122.

Finally, Kyllo emphasized that it was "reject[ing] a mechanical interpretation of the Fourth Amendment" that would sanction all technological observation of information gleaned from a home's exterior, no matter how revealing those observations may be. See id. at 35 (explaining that the exterior/interior approach would "leave the homeowner at the mercy of advancing technology"). Indeed, Kyllo, like Carpenter, is premised on the understanding that, in assessing Fourth Amendment questions with respect to

use of any and all surveillance technology to explore details about the curtilage.

evolving technologies, it is important to "take account of" not just the technology at issue but also "more sophisticated systems that are already in use or in development." Carpenter, 138 S. Ct. at 2218 (quoting Kyllo, 533 U.S. at 36).

Thus, in determining whether the government's accessing of the pole-camera record at issue here constitutes a search, we -- like the Court in Carpenter, Kyllo, and Riley -- must keep in mind the potential of the surveillance technology before us, given the advent of smaller and cheaper cameras with expansive memories and the emergence of facial recognition technology. See Riley, 573 U.S. at 393 (noting that "[t]he term 'cell phone' is itself misleading" because modern cell phones "are in fact minicomputers that also happen to have the capacity to be used as a telephone" and thus "in both a quantitative and a qualitative sense from other objects that might be kept on an arrestee's person"). It follows that Kyllo provides no basis for ignoring Carpenter in assessing the contravention issue here.

E.

For these reasons, we conclude that the contravention portion of the Katz test is met in this case just as the other portions of that test are met as well. We thus conclude that the government's accessing of the record that the government itself generated by the pole camera in this case of the whole of what visibly occurred in the front of the Hadley Street residence during

the eight months in question constituted a "search" within the meaning of the Fourth Amendment.³¹

That said, beyond answering the question before us, we do not purport to decide what (if anything) the Fourth Amendment might require when the government deploys digital technology in other circumstances, just as Carpenter did not.³² And, that is so even as to duration -- a criterion that Carpenter itself did not purport to define with precision, see 138 S. Ct. at 2217 n.3 -- given that the record here encompasses a period more than eight times as long as the nearly month-long period of GPS tracking thought long enough to ground the reasonable expectation of privacy recognized in the Jones concurrences and on which Carpenter itself expressly relied. See id. at 2217 (citing Jones, 565 U.S. at 415

³¹ Our colleagues suggest that we are "violat[ing] principles of stare decisis" by concluding as we do. But, given that we are hearing this case en banc for the express purpose of reconsidering our Court's prior decision in Bucci, we do not see how that is so. Most crucially, for the reasons we have explained, the Supreme Court's decision in Carpenter, relying on Jones, provides new support for concluding that the earlier reasoning in Bucci is no longer correct. Moreover, to the extent that our colleagues are concerned that the government has a reliance interest that would be infringed if we were to overrule Bucci, we do not see how that is the case, as we conclude that the good-faith exception to the warrant requirement would enable the government to utilize evidence that it acquired in reliance on Bucci prior to this decision.

³² We emphasize that the government does not argue in challenging the District Court's granting of the motions to suppress before us that those motions concern only the fruits of pole-camera surveillance that occurred -- and were observed in real time -- in the early stages of the recording, such that the compendium itself provided no assistance.

(Sotomayor, J., concurring) and Jones, 565 U.S. at 430 (Alito, J., concurring in the judgment)).

v.

We recognize that, as the government emphasizes, other courts that have considered the use of pole-camera surveillance -- even over a long duration -- have found no search to have occurred. But, we do not find in that body of precedent a reason to conclude other than as we do.

Many of these cases were decided before Carpenter. See, e.g., United States v. Houston, 813 F.3d 282, 289 (6th Cir. 2016); United States v. Jackson, 213 F.3d 1269, 1280-81 (10th Cir. 2000), vacated on other grounds, 538 U.S. 1033 (2000). But see, e.g., United States v. Cuevas-Sanchez, 821 F.2d 248, 251 (5th Cir. 1987); United States v. Vargas, No. CR-13-6025, 2014 U.S. Dist. LEXIS 184672, at *28-30 (E.D. Wash. Dec. 15, 2014). Indeed, since Carpenter, only a few circuit courts have been squarely faced with the issue.

Notably, some of these post-Carpenter rulings, in finding no search to have occurred, have not engaged in a fulsome way with the Supreme Court's reasoning in Carpenter. They have merely applied prior in-circuit precedent. See United States v. May-Shaw, 955 F.3d 563, 567 (6th Cir. 2020) (explaining that "[a]lthough this argument may be compelling in theory, . . . it [was] foreclosed by th[e] [Sixth Circuit]'s case law").

In addition, the highest courts of two states have understood Carpenter to have altered the landscape. See People v. Tafoya, 494 P.3d 613, 623 (Colo. 2021); Mora, 150 N.E.3d at 311. In fact, one of them squarely holds that such pole-camera surveillance constitutes a search under the Fourth Amendment. See Tafoya, 494 P.3d at 623 (holding that the use of a pole camera to surveil the backyard of the defendant every day for three months presented the same concerns that the government's use of CSLI presented in Carpenter and thus "involved a degree of intrusion that a reasonable person would not have anticipated" such that the camera's three-month recording activity constituted a search (quoting Jones, 565 U.S. at 430 (Alito, J., concurring in the judgment))).

An exception is the Seventh Circuit's decision in United States v. Tuggle, 4 F.4th 505 (7th Cir. 2021), cert. denied, 142 S. Ct. 1107 (2022). It squarely grappled with whether Carpenter and other Supreme Court precedents require a court to conclude that the government conducts a search if it uses a pole camera to surveil a defendant's home for a period of many months, and it holds that they do not. Id. at 517.

Tuggle relied in part on its skepticism towards what it describes as "mosaic theory" -- namely, the notion that the aggregate of discrete activities each of which is visible to the public can be the predicate for a reasonable expectation of

privacy, even though the discrete activities on their own could not, because the whole is sometimes greater than the sum of its parts. Id. at 517, 520. Tuggle acknowledged that mosaic theory has "garner[ed] passing endorsement from some -- if not most -- of the Justices in the various opinions in Jones, Riley, and Carpenter." Id. at 519. It expressed the specific concern, however, that a recognition of a reasonable expectation of privacy in such an aggregate of otherwise publicly exposed activities would present "an obvious line-drawing problem: How much pole[-]camera surveillance is too much?" Id. at 526.

We do not find this concern to loom as large. By concluding that the duration of the digital surveillance at issue here bears on whether it constitutes a search, we do not inject a type of line-drawing problem into Fourth Amendment jurisprudence that, as a matter of kind, is unknown. See, e.g., United States v. Sharpe, 470 U.S. 675, 685 (1985) (explaining that while an investigative Terry stop only requires reasonable suspicion, said stop could become a full-blown seizure requiring probable cause over time, but noting that there is "no rigid time limitation" that "distinguish[es] an investigative stop from a de facto arrest"); Knotts, 460 U.S. at 283-85 (finding no Fourth Amendment issue with the government's use of a device to track a car for a single car trip but noting that there could be a constitutional issue if such surveillance continued for upwards of a day). Nor

is it a type of line-drawing in which it is improper for courts to engage. See, e.g., Maryland v. Shatzer, 559 U.S. 98, 110 (2010) (holding that an individual can be subject to interrogation after invoking the right to counsel if there is a break in custody of fourteen days or longer); Zadvydas v. Davis, 533 U.S. 678, 701, (2001) (permitting the government to detain a removable individual for up to six months before the government, upon a showing by that individual that there is "good reason to believe that there is no significant likelihood of removal in the reasonably foreseeable future," must present its own evidence to rebut that showing); County of Riverside v. McLaughlin, 500 U.S. 44, 56 (1991) (establishing that an individual arrested without a warrant must be brought before a magistrate judge to establish probable cause within 48 hours from the time of the arrest). More fundamentally, by relying expressly on the concurring opinions in Jones -- a case involving lengthy electronic tracking -- to conclude that there is a "reasonable expectation of privacy in the whole of [one's] movements" in public, Carpenter was necessarily rejecting the notion that temporal line-drawing in that clearly related context is not possible. Carpenter, 138 S. Ct. at 2217.

The Seventh Circuit could be read to be making a related point that also merits consideration. It concerns the role of lower courts in taking account of Carpenter.

Tuggle suggested that the Supreme Court has not yet bound us either to apply mosaic theory or to find the accessing of any digital video surveillance of activity that is exposed to public view beyond that addressed in Carpenter itself to constitute a Fourth Amendment search. Tuggle then indicated that, for that reason alone, it made sense for a lower court not to so find. Tuggle, 4 F.4th at 519-20.

As we have just noted, the Court in Carpenter did appear to embrace the long-term/short-term distinction in finding a reasonable expectation of privacy in the whole of the defendant's movements in public because the Court there in so holding relied on the views of the concurring Justices in Jones. See Carpenter, 138 S. Ct. at 2217 (citing Jones, 565 U.S. at 415 (Sotomayor, J., concurring) and Jones, 565 U.S. at 430 (Alito, J., concurring in the judgement)). But, we acknowledge that the Court's conclusion that the government's accessing of CSLI in Carpenter contravened the defendant's reasonable expectation of privacy -- and was not a conventional surveillance technique -- arguably did not depend solely on an embrace of the mosaic theory at that stage of the analysis. The Court also relied in that portion of its analysis on the "retrospective quality" of the CSLI -- namely, the CSLI had been generated before the government accessed it. Id. at 2218.

Even still, the Court in Carpenter did embrace something akin to the mosaic theory in finding the government's accessing of

the CSLI contravened the reasonable expectation of privacy of the defendant in that case and so constituted a search. Notably, the Court in Carpenter did not suggest that it was holding that the government's accessing of any information from a pre-existing store of CSLI in and of itself would contravene a reasonable expectation of privacy. It held only that accessing seven days' worth of such CSLI did -- in part because the Court concluded that such a seven-day-long record of historical CSLI was sufficiently "comprehensive" to contravene a reasonable expectation of privacy. Id. at 2217 n.3, 2223.

In any event, we see no reason why lower courts must -- uniquely in this specific context of constitutional interpretation -- await controlling word from the Supreme Court before finding the Constitution to be protective. In fact, our circuit has some experience with a like question that suggests that it would be a mistake for us to take that view.

A little less than ten years ago, we were presented with the question of whether we should allow the search-incident-to-arrest exception to the warrant requirement to enable an officer to search a cell phone possessed by the defendant at the time of arrest. See United States v. Wurie, 728 F.3d 1 (1st Cir. 2013). Supreme Court precedent at the time did not on its own compel us to find a search; it had not addressed a case involving acquisition of a personal device so chock-full of a person's privacies as the

cell phone. But, given the new technological realities involved, we declined to allow the exception to include a search of a cell phone, as we concluded that any other approach would "create 'a serious and recurring threat to the privacy of countless individuals.'" Id. at 14 (quoting Arizona v. Gant, 556 U.S. 332, 345 (2009)). A year later, our approach was endorsed by the Supreme Court, which emphasized the concerns that applying the traditional warrant exception to cell phones would pose given the immense amount of uniquely revealing information cell phones contain. See Riley, 573 U.S. at 393-97.

Here, we emphasize, the Court has already invoked the principles that we rely on to find that the use of digital surveillance is a search under the Fourth Amendment. Our application of those principles to find that a search occurred here, moreover, transgresses no existing precedent of the Court. We instead rely on the Court's precedents to reach a conclusion that accords with an animating purpose of the Fourth Amendment, which is "to place obstacles in the way of a too permeating police surveillance." Carpenter, 138 S. Ct. at 2215 (quoting Di Re, 332 U.S. at 595).

Nor can we ignore the reality that sheer fear "that the government may be watching chills associational and expressive freedoms." Jones, 565 U.S. at 416 (Sotomayor, J., concurring). From that perspective, our concern in deciding whether a search

occurred is not only with the use of evidence in this one case. It is also with the expectations of privacy that understandings of the Fourth Amendment's reach -- as articulated by courts, including lower ones -- themselves shape.

VI.

The government contends that even if the creation of a searchable digital compendium of the activities in the front curtilage of a home via the use of a digital video pole camera effectuated an unreasonable search in violation of the Fourth Amendment, the exclusionary sanction should not apply in this case pursuant to the rationale set forth in Davis v. United States, 564 U.S. 229 (2011). We agree.

In Davis, the Supreme Court held "that searches conducted in objectively reasonable reliance on binding appellate precedent are not subject to the exclusionary rule." Id. at 232. There, the police officers in question had acted in reasonable reliance on an Eleventh Circuit precedent. See id. at 235 (citing United States v. Gonzalez, 71 F.3d 819 (11th Cir. 1996)). But, that precedent was overturned "while Davis's appeal was pending [in the Eleventh Circuit]." Id. at 236 (citing Gant, 556 U.S. 332). The Eleventh Circuit then applied that new precedent to find that a search occurred, thereby determining -- for the first time on appeal -- that the exclusionary sanction should not apply. See id. (describing opinion below). The Supreme Court granted

certiorari to determine "whether to apply [the exclusionary] sanction when the police conduct a search in compliance with binding precedent that is later overruled," id. at 232, and answered that question in the negative, id.; cf. United States v. Campbell, 26 F.4th 860, 873, 887-88 (11th Cir. 2022) (en banc) (explaining that issues forfeited by a party can be resurrected by a court of appeals and applying the good-faith exception even though it had not been raised by the parties in their initial briefing).

Similarly here, we conclude that the government's use of a pole camera to create a searchable digital record of the whole of the activities that occurred in the front curtilage of a home constituted a "search" and that this search was "conducted in objectively reasonable reliance on binding appellate precedent," Davis, 564 U.S. at 232, namely, Bucci. Accordingly, as in Davis, there is no basis for applying the exclusionary sanction here.³³

³³ Moore-Bush and Moore do point out that the government raised its "good faith" argument only in the briefing to us and in its motion for reconsideration before the District Court. But, under the circumstances here, we do not consider the "good faith" issue to have been waived. As noted, Bucci was law of the circuit at the time of the District Court's decision. Thus, the circumstances here are not materially different than those in Davis, where the government similarly raised no "good-faith reliance" argument in the District Court when as of that time the relevant appellate precedent had not been overruled.

VII.

For the reasons that we have given, we conclude that the government conducted a warrantless "search" in violation of the Fourth Amendment when the government "accessed" the compendium of all the activities that occurred over a period of eight months in the front curtilage of the Moore-Bush and Moore home that the government created surreptitiously through its use of a digital video camera affixed to a utility pole. But, because the government relied in good faith on our Court's prior decision in Bucci, in which we permitted the accessing of the record of such warrantless surveillance, we also conclude that the District Court erred in not granting the defendants' motions to suppress.

Our colleagues view the case differently. They would permit the government to conduct such long-term, warrantless pole-camera surveillance of a home without a warrant, let alone probable cause or even reasonable suspicion. They would do so, moreover, even when that surveillance creates a searchable, digital record of all the activities that occur in front of that home for that prolonged period, such that the government then can mine that record for information at any point in the future. And, finally, they would do so even though, for the reasons that we have explained, the government is able to undertake such surveillance and access the resulting record with relative ease, given how

"easy, cheap, and efficient" the technology at issue is, Carpenter, 138 S. Ct. at 2218.

Our colleagues in doing so brush past the obvious concerns that such a decision here would generate. They do so by explaining that law enforcement will use pole cameras sparingly and that when law enforcement does use the technology it will have good "reason to believe that the camera will provide information to assist investigators." Concur. Op. at 113.

But, in determining whether a "search" occurred for Fourth Amendment purposes, our focus is not on the number of people subject to the surveillance in the specific case before us. Law enforcement officers are no less engaged in a search when they barge into a single individual's home without a warrant than when they make a habit of barging into homes that way.

Nor in making such a determination may we assume that, going forward, the government will conduct the surveillance differently in future cases. The Court in Terry v. Ohio, 392 U.S. 1 (1968), did not excuse the government from having articulable suspicion to make a stop because it assumed, in the future, such stops would be made with it, id. at 30.

New surveillance technologies do present especially difficult questions for courts -- and not only when it comes to the Fourth Amendment. Our knowledge is limited. It is also unlikely to be fully up to date.

But, as the Supreme Court explained in Carpenter, courts are still "obligated -- as '[s]ubtler and more far-reaching means of invading privacy have become available to the [g]overnment' -- to ensure that the 'progress of science' does not erode Fourth Amendment protections," Carpenter, 138 S. Ct. at 2223 (quoting Olmstead, 277 U.S. at 473-74 (Brandeis, J., dissenting)), as measured against the "degree of privacy against government that existed when the Fourth Amendment was adopted," id. at 2214 (quoting Kyllo, 533 U.S. at 34). The advance of technology has made the surveillance at issue here -- the creation of a searchable, digital videologue of all the activities in the front curtilage of a home for many months -- possible to an extent that has been unimaginable for most of our history. The result is that the government is newly able to conduct aggregative surveillance that undermines long held expectations of privacy. For that reason, while our colleagues conclude that the Fourth Amendment places no limits on the use of such surveillance by the government, we conclude that the Fourth Amendment does because its very point is to secure the "privacies of life," id. at 2214 (quoting Boyd, 116 U.S. at 630), by placing "obstacles in the way of [that] too permeating police surveillance," id. (quoting Di Re, 332 U.S. at 595).

LYNCH, HOWARD, and GELPÍ, Circuit Judges, concurring.

Law enforcement installed without a warrant, as the law permits, a camera on a utility pole on a public street to further an investigation into illegal drug and firearms dealing from a house. The camera provided a view of certain portions of the exterior of the front of the house, though not the front door, and the driveway and garage door. All of these views were totally exposed to public observation. The camera produced evidence of criminal activity by the residents of this house from this outside view in a residential neighborhood.

The actions of the law enforcement officers did not, contrary to Chief Judge Barron's concurrence (which we refer to as the "concurrence" or the "concurring opinion"), violate the Fourth Amendment. The concurrence, purporting to rely on Carpenter v. United States, 138 S. Ct. 2206 (2018), wrongly applies that precedent. Carpenter forbids and does not support the concurrence's contention that the use of the video taken from the pole camera by the prosecution violated the Fourth Amendment. The concurring opinion contradicts a fundamental Fourth Amendment doctrine enshrined in the Constitution from the founding, as recognized by Justice Scalia in Kyllo v. United States, 533 U.S. 27, 31-32 (2001). This concurring opinion would, were it a majority opinion, have unfortunate practical ramifications.

I.

We set forth the relevant facts. The record shows that law enforcement had ample reason to install the pole camera when it did so on or about May 17, 2017. It shows that the pole camera was a well-elaborated and targeted use of limited government resources, and that the duration of the pole camera's use was dictated by the needs of the investigation.

The investigation into Moore-Bush and Moore began in January 2017 when a cooperating witness ("CW") tipped off the Bureau of Alcohol, Tobacco, Firearms, and Explosives ("ATF") that Nia Moore-Bush was trying to sell "dirty" firearms illegally, and that Moore-Bush and her then-boyfriend (now-husband) Dinelson Dinzey were trafficking heroin. The CW also stated that Dinzey might be trafficking in cocaine. On January 23, 2017, the CW met with Moore-Bush to examine two firearms.

Around February 2017, Moore-Bush and Dinzey began residing at 120 Hadley Street in Springfield, Massachusetts, where defendant Daphne Moore, Moore-Bush's mother, resided.³⁴ ATF agents had reason to believe that Moore-Bush and Dinzey were conducting illegal arms and drug sales from the Hadley Street house.

³⁴ The ATF concluded Moore-Bush's primary residence had changed to 120 Hadley Street based on information from the CW, her eviction for nonpayment at her prior apartment, Massachusetts RMV records (both Moore-Bush and Dinzey's drivers' licenses listed the Hadley Street house as their address), bank records, surveillance, and Verizon Wireless records.

The CW, wearing a recording device, met with Moore-Bush at the house at 120 Hadley Street on May 4, 2017 as instructed by Moore-Bush, and looked at the firearms in the garage in preparation for purchasing them. During the meeting, Moore-Bush made statements relating to her drug dealing, which the agents listening to the recording device heard. The CW, again wearing a recording device, returned to the house the next day, May 5, and purchased four firearms from Dinzey, who was on the phone with Moore-Bush during the transaction.

A few days later, on May 8, 2017, Moore-Bush and Dinzey were driving on Route 91 North near the Vermont border when state police stopped them for a traffic violation. During the stop, the state police recovered 921 bags of heroin.

Law enforcement reviewed the suspects' criminal histories as part of the investigation. Moore-Bush's criminal history revealed that she had been arraigned on charges of improper storage of a firearm, trafficking of narcotics, assault and battery, larceny of a motor vehicle, uttering, larceny by check, and forgery in Massachusetts state courts. Some of the narcotics charges resulted from a traffic stop on November 4, 2014 where Massachusetts State Police recovered 10 packs of heroin (1,000 single-dose bags) from the spare tire compartment of the vehicle. All charges against her were ultimately dismissed.

Dinzey's criminal history revealed convictions for conspiracy to possess heroin with intent to distribute, possession with intent to distribute heroin, possession with intent to distribute cocaine, distribution of cocaine, assault and battery on a police officer, and others.

Further, the ATF accessed phone calls between Moore-Bush and Edgar Johnson, which were recorded while Johnson was in jail. In one such phone call, on December 2, 2016, Johnson was recorded advising Moore-Bush on the details of running a drug trafficking business.

About a week after the traffic stop and two weeks after the CW purchased firearms at 120 Hadley Street, on or around May 17, 2017, the agents installed the pole camera³⁵ on the utility pole outside of the Hadley Street house. The camera showed the right side of the house, including the attached garage, a side door, and the driveway. The front door was not in the camera's view. A tree partially obstructed the camera's view when it had leaves, a substantial portion of the time the camera was in place. The pole camera video was streamed to a password-protected website which ATF agents could view in real time. When they watched the

³⁵ The concurrence asserts that the pole camera was installed "surreptitiously," Concur. Op. at 8, but has not identified any evidence in the record to support this assertion.

video stream live, they could zoom, tilt, and pan the camera. At night, the video had a lower resolution and showed less detail.

The pole camera remained in place until shortly after the indictment issued against the defendants on January 11, 2018. Law enforcement used the record created by the pole camera to obtain stills and images of cars and individuals coming to and departing from the Hadley Street house. The camera's zoom function permitted the government on some occasions to read license plates and see individuals' faces. Throughout the period that it was in place, the pole camera provided further evidence of the defendants' criminality. For example, on July 17, 2017, the pole camera captured footage in the driveway of two male subjects, one of whom appeared to be Dinzey, placing a white bag in the engine compartment of a car rented by Moore-Bush, a known tactic of narcotics dealers to conceal contraband.

The government used information learned from the pole camera in its applications for Title III wiretaps and other warrants relating to the investigation. This includes its application for a warrant to search Dinzey's Facebook account granted August 4, 2017; its application for a wiretap granted November 9, 2017; its application for a wiretap granted November 27, 2017; its application for a wiretap granted December 14, 2017; and its application for a search warrant of the 120 Hadley Street house granted January 12, 2018.

The concurrence emphasizes that the government did not argue that it had probable cause to take the actions it did regarding the pole camera. Concur. Op. at 7 n.2. The government had no need to so argue because binding circuit and Supreme Court precedent authorized the warrantless use of a pole camera for the duration of the time that the government was actively conducting its investigation. There has been no waiver by the government. The concurrence disregards that both reasonable suspicion, and likely probable cause, supported the installation of the pole camera, and reasonable suspicion and probable cause supported the duration of its use. Had the Supreme Court held that continued pole camera recording of what was in public view was a search (in actuality, the operative Supreme Court case law was that it was not a search) then law enforcement would have met the probable cause requirement to obtain a warrant.

II.

The Supreme Court's decision in Carpenter does not support the concurrence's reasoning; to the contrary, Carpenter forbids it. See 138 S. Ct. at 2220. Carpenter did not upend the longstanding fundamental proposition of Fourth Amendment law, that "[w]hat a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection." Katz v. United States, 389 U.S. 347, 351 (1967). Carpenter was explicitly narrow and did not alter case law surrounding

conventional technologies like pole cameras. It left undisturbed the case law concerning use of pole cameras to capture what is in public view. Further, differences between the cell site location information ("CSLI") at issue in Carpenter and the pole camera video in this case render an expectation of privacy in the aggregate of a person's movements in the curtilage of their residential neighborhood home unreasonable.

In order to demonstrate a legitimate expectation of privacy, the defendants must show (1) that they had an actual, subjective expectation of privacy and (2) that this subjective expectation of privacy is one society is prepared to recognize as objectively reasonable. See United States v. Rheault, 561 F.3d 55, 59 (1st Cir. 2009) (citing Smith v. Maryland, 442 U.S. 735, 740 (1979)). These defendants fail on both prongs.

A.

The concurring opinion contradicts Carpenter in a number of ways. The Carpenter Court was explicit that "[o]ur decision today is a narrow one." 138 S. Ct. at 2220. It went on to explain that it expressed no view on technologies other than the CSLI at issue in the case, and it did not "call into question conventional surveillance techniques and tools, such as security cameras." Id. Pole cameras are certainly a conventional surveillance tool. Moreover, Carpenter did not overrule the precedents the First Circuit relied on when it upheld the use of pole camera

surveillance in United States v. Bucci, 582 F.3d 108 (1st Cir. 2009). And Carpenter's specific reference to "security cameras" as a technology whose use the decision did not disturb should clearly encompass the case at hand.

Pole cameras are plainly a conventional surveillance tool. The concurrence's portrayal of video surveillance as a novel technique comparable to obtaining location tracking data from cell service providers misconstrues reality. Pole cameras have been described in circuit opinions since at least 1987, see, e.g., United States v. Cuevas-Sanchez, 821 F.2d 248, 250-51 (5th Cir. 1987), and in this circuit as early as 2003, see United States v. Montegio, 274 F. Supp. 2d 190, 201 (D.R.I. 2003). In cases stretching back decades, several circuits, including this one, had upheld the constitutionality of pole cameras prior to Carpenter. See Bucci, 582 F.3d at 116-17; United States v. Houston, 813 F.3d 282, 287-88 (6th Cir. 2016); United States v. Jackson, 213 F.3d 1269, 1280-81 (10th Cir.), vacated on other grounds, 531 U.S. 1033, 1033 (2000).

Pole cameras are routinely used by law enforcement across the United States in order to conduct investigations and have been for many years.³⁶ Pole cameras often, as in this case,

³⁶ See, e.g., United States v. Bregu, 948 F.3d 408, 411 (1st Cir. 2020) (noting use of pole camera outside suspect's residence to gather evidence); United States v. Christie, 825 F.3d

produce evidence which provides a basis for warrant and wiretap applications. The Carpenter Court would certainly have been aware of their use. The concurrence's reasoning that CSLI was used by law enforcement prior to Carpenter, so other technologies extant prior to Carpenter are implicated by its reasoning, renders

1048, 1067 (9th Cir. 2016) ("Before applying for the wiretaps, the government also installed a pole camera outside the Ministry's front entrance"); United States v. Gaskins, 690 F.3d 569, 574 (D.C. Cir. 2012) (noting use of pole camera in narcotics conspiracy investigation); United States v. Foy, 641 F.3d 455, 461 (10th Cir. 2011) (noting use of pole camera in conspiracy investigation); United States v. Marquez, 605 F.3d 604, 607 (8th Cir. 2010) (noting use of pole cameras in drug trafficking investigation); United States v. Zepeda-Lopez, 478 F.3d 1213, 1217, 1220 (10th Cir. 2007) (noting use of pole camera in drug investigation); United States v. Price, 418 F.3d 771, 781-82 (7th Cir. 2005) (noting use of pole camera in conspiracy investigation); United States v. Gonzalez, Inc., 412 F.3d 1102, 1106 (9th Cir. 2005), amended on denial of reh'g, United States v. Gonzalez, Inc., 437 F.3d 854 (Mem) (9th Cir. 2006) (noting use of pole cameras in smuggling investigation); United States v. Moore, 281 F.3d 1279, 2001 WL 1692476, at *1 (5th Cir. Nov. 27, 2001) (unpublished) (noting use of pole camera in drug dealing investigation); United States v. Carraway, 108 F.3d 745, 749 (7th Cir. 1997) (noting use of pole camera in investigation); United States v. Asghedom, 992 F. Supp. 2d 1167, 1168 n.2 (N.D. Ala. 2014) (noting use of pole camera in drug investigation); United States v. Brooks, 911 F. Supp. 2d 836, 837-39 (D. Ariz. 2012) (describing use of pole camera in drug trafficking investigation); United States v. Lisbon, 835 F. Supp. 2d 1329, 1348 (N.D. Ga. 2011) (noting use of pole camera in investigation); United States v. Tranquillo, 606 F. Supp. 2d 370, 375 (S.D.N.Y. 2009) (noting use of pole camera in corruption investigation); United States v. Gonzalez De Arias, 510 F. Supp. 2d 969, 971 (M.D. Fla. 2007) (noting use of pole camera in drug investigation); United States v. Le, 377 F. Supp. 2d 245, 259 (D. Me. 2005) (noting use of pole camera in drug distribution conspiracy investigation); Montegio, 274 F. Supp. 2d at 201 (noting use of pole cameras in drug trafficking investigation).

meaningless the Court's explicit exemption of conventional techniques and tools of surveillance.

The concurrence would overrule circuit precedent in Bucci, but Bucci is based on solid Supreme Court precedents which are not undermined by Carpenter. See 138 S. Ct. at 2220. In Bucci, a case with facts indistinguishable from the present case, the First Circuit found that warrantless surveillance of the curtilage of a home for eight months by a pole camera was not a search under the Fourth Amendment. 582 F.3d at 116-17. In finding that the defendant in that case had no objectively reasonable expectation of privacy in the actions captured by the pole camera, the court relied on a core principle of Fourth Amendment law elucidated in Katz, that "[w]hat a person knowingly exposes to the public . . . is not a subject of Fourth Amendment protection." Bucci, 582 F.3d at 117 (quoting Katz, 389 U.S. at 351); see also California v. Ciraolo, 476 U.S. 207, 213 (1986) ("The Fourth Amendment protection of the home has never been extended to require law enforcement officers to shield their eyes when passing by a home on public thoroughfares."). The Bucci court also relied on Kyllo v. United States, where Justice Scalia reiterated this principle, explaining its origins in the common law of England. 533 U.S. 27, 31-32 (2001). Carpenter did not disturb any of these cases and did not disturb the fundamental principle that observing what is knowingly exposed to public view is not a search. Katz's

rule reflects the common and commonsense understanding of privacy as "the state of being alone and not watched or interrupted by other people." See Privacy, Oxford Learners Dictionaries, <https://www.oxfordlearnersdictionaries.com/us/definition/english/privacy> (last visited May 26, 2022). It also provides a workable standard for courts and law enforcement that protects privacy.

Carpenter's reference to "security cameras" as an example of a traditional surveillance tool whose use it would not disturb clearly encompasses the pole camera footage at issue here. 138 S. Ct. at 2220. The concurrence parses this language in order to argue that the Court was referring to "private security cameras guarding private property" rather than covertly placed pole cameras. Concur. Op. at 80. The Supreme Court in Carpenter said no such thing. Further, the concurrence's purported distinction is itself erroneous.³⁷ The concurrence draws a distinction which

³⁷ The concurrence argues that the opinion's reference to security cameras is irrelevant to pole cameras in part because "conventional security cameras are typically placed so that they are overt -- not hidden or hard-to-spot, as the camera here was." Concur. Op. at 81. The argument is factually and legally unsubstantiated. The camera here was on a publicly visible utility pole on a public street. It was not hidden. The record reveals nothing about whether the majority of private security cameras are hidden or not. That simply was not an issue in the district court and the parties have been deprived of an opportunity to create any record, if the issue were relevant at all. The logic of the concurrence's reasoning is that police can contravene an individual's reasonable expectation of privacy merely by making the camera less visible. The Constitution does not require law enforcement to announce themselves with a brass band every time

would subject the less affluent who live on public streets, who perhaps cannot afford "private security cameras" to deter or detect crime, to lesser law enforcement than those in wealthy neighborhoods who can and do.

B.

The concurrence waves away the fact that Carpenter concerned only CSLI, explaining that its reasoning is nevertheless applicable to the case at hand. Concur. Op. at 63-64. In so doing, the concurrence ignores features of CSLI as business records that were crucial to the Court's reasoning. In Carpenter, the Court rejected the government's assertion that CSLI was not subject to a reasonable expectation of privacy.³⁸ The Carpenter Court found that though cellphone users ostensibly voluntarily share their location information with providers, people retain their expectation of privacy in the whole of their movements. 138 S. Ct. at 2217. The Court reasoned that people cannot really be said to share their location with cellphone companies, because CSLI is generated automatically and incidentally when one carries a phone,

they undertake an investigation. If a person does not have a reasonable expectation of privacy in her actions, it does not matter if the police use a covert means of surveillance to capture such actions. The Fourth Amendment does not guarantee that suspects have fair notice that an investigation is ongoing.

³⁸ The theory underlying the government's argument was that a person generally does not have an expectation of privacy in information voluntarily turned over to third parties. See Smith v. Maryland, 442 U.S. 735, 743-44 (1979).

and carrying a phone is essentially a requirement for participation in modern life. Id. at 2220. The Court reasoned that the use of CSLI allows creation of a comprehensive map of a person's movements with "just the click of a button." Id. at 2217-18. The Court also relied on the data's "retrospective quality," limited only by companies' data storage policies, recognizing that owning and carrying a cellphone makes it as if every cellphone user has been perfectly tailed for years, and that police could simply tap into this repository of detailed information at will. Id. at 2218.

The information captured by the pole camera in this case is distinct from the CSLI data at issue in Carpenter. The Court in Carpenter reasoned that because most people must carry cellphones everywhere they go, and because cellphones share the user's location with the service provider automatically without any affirmative action on the user's part, it does not make sense to say that cellphone users have consented to sharing a comprehensive record of their movements with cellphone companies. Id. at 2220.

By contrast, any purported expectation of privacy in observations of a house unshielded from view on a public street is not in the least like the expectation of privacy in CSLI data by cellphone users. People can take measures, as defendants here did not, to avoid being seen by neighbors or by passersby. Absent such steps, these defendants certainly knew that when they stepped

outside of their house, their activities were exposed to public view. Unlike the automatic sharing of location data by cellphones carried everywhere as a matter of course, people are actively aware when they have entered the public view upon leaving their houses.

Eight months of pole camera surveillance cannot be generated with the push of a button. In arguing that pole camera data is similar to CSLI because it is cheap and easy to produce, the concurrence is mistaken.³⁹ Concur. Op. at 65-66. Pole cameras are not cost-free, and the expenditure is justified only if law enforcement has reason to believe that the camera will provide information to assist investigators. If the camera provides such information, as was true here, the camera remains so long as it is useful. If the camera does not provide such information, it is removed.

Carpenter's concern about the ease of creation of records of people's movements is linked to what it called the

³⁹ In Carpenter, the Court confronted law enforcement gaining warrantless access to a privately created, maintained, and funded database of the comprehensive movements of millions of Americans for the preceding five years that cellular service providers typically maintained. 138 S. Ct. at 2218. The Court reasoned that, given such access, the state's ability to access round-the-clock surveillance would not be resource-limited in the way that investigations are normally resource-limited. Id. Placing and maintaining the millions of pole cameras, not to mention storing the years of video, that it would take to create anything approaching cellular service providers' databases would entail such an enormous expenditure of scarce resources as to ensure that would never happen.

"retrospective quality" of CSLI data, a concern which is not implicated in this case. Id. at 2218. In Carpenter, the Court recognized that the vast majority of people carry cellphones everywhere that they go, and their cell service providers typically stored five years of CSLI for each cellphone user. Allowing law enforcement to access such data allows them to "travel back in time to retrace a person's whereabouts." Id. Here, the police suspected Moore-Bush of illegal firearm and narcotics dealings and placed a pole camera in front of her residence in order to investigate their suspicions. All data collection was prospective, and it targeted these particular suspects. The police did not tap into a vast repository of data collected by and at the expense of third parties. The concurrence disregards this distinction by erroneously concluding that the government, in placing a pole camera in front of a single residence for eight months, is engaging in surveillance on par with a cellphone company's storage of millions of users' comprehensive movements for five years. Concur. Op. at 70. This comparison does not hold ground. Placing a single camera on a public street outside of a single house does not create a vast database allowing police to tap into the complete movements of millions of people with the push of a button, which was the Court's concern in Carpenter.

C.

The concurrence attempts to justify its result by arguing that one has a reasonable expectation of privacy in the whole of their movements occurring in the curtilage of their home. Again, the concurrence's reasoning does not support this result. The defendants did not manifest a subjective expectation of privacy in their movements in the curtilage of their home. Nor would it have been objectively reasonable for them to expect privacy in such movements.

The concurrence declares that Supreme Court precedent does not prevent it from combining the subjective and objective inquiries, reasoning that so doing will avoid the problem of the Fourth Amendment meaning different things in different contexts. Concur. Op. at 29. This is not what the Supreme Court has held. See Vernonia Sch. Dist. 47J v. Acton, 515 U.S. 646, 654 (1995) ("The Fourth Amendment does not protect all subjective expectations of privacy, but only those that society recognizes as 'legitimate.' What expectations are legitimate varies, of course, with context[.]" (citation omitted)). To be protected by the Fourth Amendment, an expectation of privacy must be subjective, but that alone is not sufficient; it must also be objectively reasonable in the given context. It is important to preserve the distinction. Law enforcement cannot always know whether someone subjectively expects privacy, but they can more easily determine

whether an expectation of privacy is one that society is prepared to accept as reasonable. The concurrence is concerned about, for example, different Fourth Amendment rules for different types of housing. Katz already provides a clear line that can be applied uniformly across various contexts: there is no expectation of privacy in what is knowingly exposed to the public view. 389 U.S. at 351. The concurrence's approach undercuts privacy by eroding this bright line.

In Carpenter, the Supreme Court recognized that, even in the public sphere, a person could reasonably expect privacy in the "whole of their physical movements." 138 S. Ct. at 2217. The Court noted that before the "digital age," a suspect could be tailed for a brief time, but a person would reasonably not expect all of their movements in public to be tracked. Id. When a person leaves the house and enters the public realm, she knows that people will see her activities, but she does not expect that the passerby who sees her at the grocery store will also see her at the bank, the political rally, the religious meeting, or the doctor's office. This is particularly so if these trips are taken over a number of days.

In contrast, the pole camera only captured the defendants' and coconspirators' movements in one place in the public view and did not track their movements once they left the curtilage of 120 Hadley Street. There can be no expectation of

privacy in the aggregate of these movements because they occur in one place where a person expects to encounter and be seen by people again and again. The defendants living on a public street alongside neighbors faced the reality that neighbors would come to know the patterns of when they left in the morning and returned in the evening. They would also know when an unfamiliar car was parked outside, and when the defendants were likely not in residence because the yard was overgrown, and packages piled up on the front porch. These observations do not violate the defendants' reasonable expectations of privacy.

That details about a person's life might be deduced from an aggregation of activities observed in the curtilage of the home does not imply a reasonable expectation of privacy.⁴⁰ The concurrence argues that

⁴⁰ Both the district court and the concurring opinion rely heavily on the proposition that a pole camera may reveal "intimate" details and mundane details of a suspect's life. Concur. Op. at 64. In Carpenter, the Court stated that CSLI data "provides an intimate window into a person's life, revealing not only his particular movements, but through them his 'familial, political, professional, religious, and sexual associations.'" 138 S. Ct. at 2217 (quoting United States v. Jones, 565 U.S. 400, 415 (2012) (Sotomayor, J., concurring)). It is not difficult to see how the expectation of privacy in these kinds of details which are revealed in the curtilage of one's home must be different than the expectation of privacy in such details revealed by a record of someone's entire movements over a number of days. Any political, professional, religious, or sexual associations which are revealed in the curtilage of one's home are known to be exposed to public scrutiny. One does not put up a yard sign endorsing a political candidate or set out decorations on the porch for a religious

while it is true that one has no reasonable expectation of privacy in the discrete moments of intimacy that may occur in the front of one's home -- from a parting kiss to a teary reunion to those most likely to cause shame -- because of what a passerby may see through casual observation, it does not follow that the same is true with respect to an aggregation of those moments over many months.

Concur. Op. at 41. This does not ring true. A next-door neighbor could easily observe both the sad parting and the joyous reunion. And while doubtless people would prefer that their neighbors did not see the moments "most likely to cause shame," they cannot reasonably expect people living within sight and sound not to, for example, hear the screaming matches, see the front door slam, notice the absence of one partner's car for weeks, and draw the obvious inference.

That people who live on public streets will be observed over the months and years by the same people and others necessarily informs expectations of privacy and affects what actions they take in the curtilage of their home.⁴¹ In public, we are surrounded by

holiday with the expectation that such associations will remain private.

⁴¹ For example, a woman not ready to announce her pregnancy to the world might feel comfortable shopping at a baby store in public, but might carefully conceal the items she bought before carrying them from her trunk to her front door to evade neighbors' prying eyes. Someone struggling with alcohol addiction might readily purchase alcohol in person at liquor stores, but might take great pains to put spent bottles at the bottom of the recycling bin so that neighbors do not see them piled up week after week. And so on.

others, but the public is an ever-shifting group; not only will the people at the grocery store likely not be the same people at the bank, but the people at the grocery store on Monday will mostly not be the same people at the grocery store on Wednesday. The concurrence attempts to conflate the communal experience of living in a residential neighborhood where houses are situated close together and lawns are not fenced or walled in with the relatively anonymous experience of moving between various public spaces over a number of days.

We disagree with the concurrence's contention that it does not matter that a person living in a neighborhood would expect their neighbors (even the ones that mind their own business) to observe them moving around in the curtilage of their homes, to remember their various observations over time, and to draw inferences from these observations. Concur. Op. at 34-35. It is not determinative for the expectation of privacy analysis that such a "record" is in some respects less complete and less searchable than digital video. It is not objectively reasonable to expect privacy in the whole of your movements when you know many of those movements, even if not all, can and will be observed by the same people day in and day out. To live in such a neighborhood and take no steps to prevent observation cannot be understood as manifesting a subjective expectation of privacy.

The concurrence contends that two other characteristics of pole camera surveillance make it violate expectations of privacy. The concurrence asserts that the curtilage of the home is sacred in Fourth Amendment jurisprudence, Concur. Op. at 39-40, 64-65, and it asserts that a pole camera creates a perfect and comprehensive record of a person's movements in the curtilage, Concur. Op. at 41-43. Neither of these justifications holds up.

Admitting that the depth of information gleaned from surveilling the front of someone's home is less than that of round-the-clock surveillance of their movements, the concurrence reasons that a greater expectation of privacy in the home counterbalances this deficit. Not so. As explained above, the fact that this surveillance is occurring in the curtilage of the home in a residential neighborhood renders an expectation of privacy in the aggregate of one's movements less reasonable, not more. Moreover, Carpenter did not concern or rely at all on the curtilage purportedly being encompassed by the "sanctity" of the home.

The case the concurrence primarily relies on for this argument, Florida v. Jardines, 569 U.S. 1 (2013), is about physical intrusions into the curtilage of the home, not observation from a public vantage point.⁴² The concurrence's effort to hybridize two

⁴² The concurrence also misreads Kyllo. In that case, the Court found that the use of a thermal imaging device to detect details about the inside of a house was a search under the Fourth

threads of Fourth Amendment doctrine, the Carpenter aggregate expectation of privacy and the privacy of the home from trespass, is inadequate. Generally, a person has no expectation of privacy in what has been knowingly exposed to the public, whether it is "in his own home or office," in the curtilage of his home, or in the town square. Katz, 389 U.S. at 351.

The concurrence attempts to treat Carpenter's "whole of [a person's] physical movements," 138 S. Ct. at 2217, as applicable to a person's movements solely in the curtilage of their home. There is no contention that people spend even close to the majority of their time in the curtilage of their homes, so the contention that the whole of a person's movements and their movements in the

Amendment. 533 U.S. at 40. However, the Court's holding explicitly was tied to physical intrusion. Id. (holding that using a device "not in general public use, to explore details of the home that would previously have been unknowable without intrusion" constitutes a search). Moreover, the Court emphasized that it was maintaining a "firm line at the entrance to the house," id. (quoting Payton v. New York, 445 U.S. 573, 590 (1980)), so the concurrence's extrapolation from Kyllo's holding regarding information about the walled-off interior of the home to publicly visible movements outside the home fails. Concur. Op. at 40 n.15. The Kyllo Court explained that the search at issue did not present any of the difficulties of applying the Katz reasonable expectation of privacy test because "in the case of the search of the interior of homes . . . there is a ready criterion, with roots deep in the common law, of the minimal expectation of privacy that exists, and that is acknowledged to be reasonable." Id. at 34. It contrasted the interior of the house with places where expectations of privacy were less clear including "telephone booths, automobiles, or even the curtilage and uncovered portions of residences." Id.

curtilage are equivalent fails for that, as well as other, reasons. See United States v. Tuggle, 4 F.4th 505, 524 (7th Cir. 2021) ("[T]he stationary cameras placed around [the defendant]'s house captured an important sliver of [his] life, but they did not paint the type of exhaustive picture of his every movement that the Supreme Court has frowned upon."); see also United States v. Hay, No. 19-20044-JAR, 2022 WL 1421562, at *7 & n.62 (D. Kan. May 5, 2022) ("Far from revealing the 'whole of his physical movements,' the pole camera surveillance revealed just a small part of that much larger whole, even if an important one." (quoting Carpenter, 138 S. Ct. at 2219)).

Neither does the fact that a pole camera creates a record justify the concurrence's departure from precedent. The concurrence argues that "[n]o casual observer who is merely passing by can observe (let alone instantly recall and present for others to observe) the aggregate of the months of moments . . . that uniquely occur in front of one's home." Concur. Op. at 41. The concurrence invokes the casual passerby but ignores the neighbors, including, for example, the retiree who has lived across the street for years and monitors activity seen from her windows and may recall or even record her observations.

There is no Fourth Amendment problem with police augmenting their investigation with technologies commonly used,

including to create records.⁴³ See, e.g., Kyllo, 533 U.S. at 34. Video cameras have been routinely used by law enforcement and the public for decades. Moreover, the concurrence repeatedly insists that digital records are more perfect, an argument that is legally irrelevant and factually untrue. Even eight months of continuous footage is not a comprehensive record of movements in the curtilage of the home. The camera is limited to what can be viewed from the lens in its fixed position. In this case, the camera's view was sometimes obscured by foliage, and it only captured a partial view of the front of the house, which did not include the front door. In many cases a neighbor, or the concurrence's "casual observer

⁴³ The concurrence relies on Kyllo to argue that a video camera enhances law enforcement's perception beyond what the Fourth Amendment allows. Concur. Op. at 85. Our colleagues once again misread Kyllo. The Court there was focused on "sense-enhancing technology," noting that "the lawfulness of warrantless visual surveillance of a home has . . . been preserved." 533 U.S. at 32, 34. There is no argument in this case that the pole camera could see anything the human eye could not, unlike the thermal imaging device that the Court considered in Kyllo, which captured infrared radiation invisible to the human eye. Our concurring colleagues argue that because a camera creates a record that they contend is more easily searchable and more infallible than human memory, or notes taken by an officer on a stakeout, that it is an impermissible enhancement of human perception. This is unsupported, for human memory and recordkeeping ability are not senses; devices like tape recorders, cameras, and video cameras, which record only what the human senses can detect, are not the "sense-enhancing technolog[ies]" that were the Court's concern in Kyllo. Further, in Kyllo the court referred only to technologies "not in general public use," id. at 40, which video cameras indisputably are.

who is merely passing by," would have a more complete view of the entirety of the house's curtilage.

As a final note, the concurrence is understandably concerned about advances in technology and their implications for the future. Concur. Op. at 99. But the advances in video camera technology since our ruling in Bucci, or the Supreme Court's ruling in Carpenter, do not justify the concurrence's position. Law enforcement has long had the capacity to access pole camera video remotely, see Gonzalez De Arias, 510 F. Supp. 2d at 971, and to use pole cameras to conduct surveillance over time, see Gonzalez, Inc., 412 F.3d at 1106 (noting use of pole cameras to conduct "about 25,000 hours" of video surveillance). That those capacities are sharpening does not mean that the pole cameras of today represent a different technology than the pole cameras around the time of the Carpenter decision when the Supreme Court specifically exempted "conventional surveillance techniques and tools." 138 S. Ct. at 2220. The incremental improvements over the years from pole cameras to better pole cameras are nothing like the rapid transformation of cellphones to location-tracking devices which are "indispensable to participation in modern society" for people to carry around everywhere they go. Id.

III.

The concurrence's reasoning would have many negative consequences. It would radically alter the surveillance tools

available to police. It would needlessly complicate Fourth Amendment doctrine and would open accepted policing tools and techniques to challenge. It would place law enforcement at a disadvantage to the rest of the population. It is not hard to believe that if law enforcement is so hampered, neighbors would be encouraged to assume the burdens of policing to keep their own neighborhoods safe.

The investigation in this case was targeted and proportional to the police's needs. Here, police reasonably investigating a house that ultimately was determined to be a site of illegal drug and firearm transactions over a long period of time utilized a conventional tool of surveillance to gather evidence. Under the concurrence's rule, police would no longer be allowed to use their own judgment for how to investigate crimes occurring in the public view. This is in spite of the fact that this circuit has long recognized the difficulty of investigating drug conspiracies and has noted that "[b]ecause drug trafficking is inherently difficult to detect and presents formidable problems in pinning down the participants and defining their roles, investigative personnel must be accorded some latitude in choosing their approaches." United States v. Santana-Dones, 920 F.3d 70, 76 (1st Cir. 2019) (alteration in original) (quoting United States v. David, 940 F.2d 722, 728 (1st Cir. 1991)).

It is unfortunate that, under the concurrence's reasoning, law enforcement would be deprived of the use of an ordinary law enforcement tool -- pole camera video -- at a time when video cameras are becoming more common and more used. Indeed, there are now often demands that officers wear video cameras on their persons as they perform their duties. See M.D. Fan, Justice Visualized: Courts and the Body Camera Revolution, 50 U.C. Davis L. Rev. 897, 901 (2017) (noting that "a police body camera revolution is fast unfolding"). The cellphones that the Court in Carpenter called "almost a 'feature of human anatomy'" generally have video cameras built in. 138 S. Ct. at 2218 (quoting Riley v. California, 573 U.S. 373, 385 (2014)). People are frequently filmed in public, with or without their consent, and these videos can be posted online and viewed thousands of times. A basic model of one brand of doorbell security camera can be purchased for just \$51.99. Video Doorbell Wired, Ring, <https://ring.com/products/video-doorbell-wired> (last visited May 26, 2022). Millions of people have already equipped their front doors with cameras. See J. Herrman, Who's Watching Your Porch?, N.Y. Times (Jan. 19, 2020), <https://www.nytimes.com/2020/01/19/style/ring-video-doorbell-home-security.html>. The CSLI data at issue in Carpenter is not available to the average person; digital video cameras, both large and undetectably small, certainly are. It is counterproductive that, as more and more people are placing cameras

on their houses and businesses, and even filming unpleasant or violent interpersonal interactions on their cellphones, the concurrence would make pole cameras less available to law enforcement.

An appellate court must faithfully apply the law as set out by the Supreme Court. The concurrence violates that rule. The concurrence also assumes the policymaking role of elected officials. It is the role of legislatures, which are more flexible, adaptable, and responsive than courts, to regulate swiftly evolving technologies, as many already have. See, e.g., A. Jarmanning, Boston Bans Use of Facial Recognition Technology. It's the 2nd-Largest City To Do So, WBUR (June 24, 2020), <https://www.wbur.org/news/2020/06/23/boston-facial-recognition-ban>.

IV.

Bucci is scarcely over a decade old, and the concurrence would have this circuit come out the opposite way on indistinguishable facts, despite the fact that Carpenter certainly does not require this outcome. Stare decisis ("to stand by things decided") "requires us, absent special circumstances, to treat like cases alike." June Med. Servs. L.L.C. v. Russo, 140 S. Ct. 2103, 2134 (2020) (Roberts, C.J., concurring in the judgment). It is "an established rule to abide by former precedents, where the same points come again in litigation; as well to keep the scale of

justice even and steady, and not liable to waver with every new judge's opinion." Id. (quoting 1 W. Blackstone, Commentaries on the Laws of England 69 (1765)). This is to ensure that "decisions reflect the 'evenhanded' and 'consistent development of legal principles,' not just shifts in the [c]ourt's personnel." Collins v. Yellen, 141 S. Ct. 1761, 1801 (2021) (Kagan, J., concurring in part and concurring in the judgment) (quoting Payne v. Tennessee, 501 U.S. 808, 827 (1991)). It is true that the court sitting en banc may depart from principles of stare decisis. See Arcibo Cmty. Health Care, Inc. v. Comm. of P.R., 270 F.3d 17, 23 (1st Cir. 2001). But the concurrence's reasoning unnecessarily injects instability into our circuit's law. The concurrence is challenging and undermining the Supreme Court cases on which Bucci rested. Those cases, as described before, are sound. Only the Supreme Court can overrule those cases.

We are not the only federal court to confront whether Carpenter changed the constitutionality of pole cameras. The Sixth Circuit concluded that it did not. See United States v. May-Shaw, 955 F.3d 563, 567 (6th Cir. 2020) (holding that the argument that "long-term video surveillance of a home's curtilage is problematic under the Fourth Amendment" "is foreclosed by this circuit's case law, which has consistently held that this type of warrantless surveillance does not violate the Fourth Amendment"), cert. denied, 141 S. Ct. 2763 (2021); see also Hay, 2022 WL 1421562, at

*3, *7 (finding that "pole camera surveillance . . . does not present the same privacy concerns that animated the majority in Carpenter and the concurrences in Jones," and rejecting the argument that Carpenter overruled Tenth Circuit precedent permitting warrantless pole cameras). The Seventh Circuit considered as a matter of first impression whether Carpenter rendered the use of three pole cameras capturing a total of eighteen months of footage a search and found that it did not. See Tuggle, 4 F.4th at 511 ("[T]he government's use of a technology in public use, while occupying a place it was lawfully entitled to be, to observe plainly visible happenings, did not run afoul of the Fourth Amendment."). We should follow our sister circuits' lead. Carpenter plainly does not require the concurrence's reasoning and provides no basis for ignoring established principles of stare decisis.

It is clear in this case that the defendants did not have a subjective expectation of privacy, nor would it have been objectively reasonable for them to. If new constitutional durational limits are to be set on the use of long-used, widely-available technology that detects only what is plainly in the public view, it is for the Supreme Court to set those limits.

v.

We concur in the reversal of the district court's grant of the motions to suppress.