

IN THE SUPREME COURT OF THE STATE OF NEW MEXICO

STATE OF NEW MEXICO

Plaintiff-Petitioner,

vs.

No. 34,548

SUPREME COURT OF NEW MEXICO
FILED

NORMAN DAVIS,

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Defendant-Respondent.



ON CERTIORARI TO THE NEW MEXICO COURT OF APPEALS

Original Appeal from the Eighth Judicial District Court, Taos County

The Honorable John M. Paternoster, District Judge

**AMICUS CURIAE BRIEF OF ELECTRONIC PRIVACY
INFORMATION CENTER IN SUPPORT OF DEFENDANT-
RESPONDENT**

Respectfully submitted,

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ARGUMENT

When law enforcement agents conduct warrantless aerial surveillance around an individual's home, they violate both the homeowner's property interests and an individual's reasonable expectation of privacy that they will not be subjected to observation and recording by the government. As the police move from an era of the helicopters to an age of unmanned aerial drones, outfitted with sophisticated surveillance technology, courts must give full weight to the state and federal constitutional provisions that safeguard citizens against unlawful searches.¹ Aerial surveillance conducted within the "superadjacent airspace" surrounding an individual's home constitutes a search under the Fourth Amendment of the U.S. Constitution and Article II, Section 10 of the New Mexico Constitution.

The need to draw clear Constitutional boundaries limiting police use of aerial surveillance directed toward private property is clear. Drone technology is evolving rapidly and the prospect of widespread warrantless deployment is real. Drones "represent an efficient and cost-effective alternative to helicopters and airplanes," but their use implicates significant

¹ All parties received timely notice of EPIC's intent to file this amicus brief on November 19, 2014. This brief was not authored, in whole or in part, by counsel for a party and EPIC received no monetary contribution for the preparation of this brief.

privacy interests. M. Ryan Calo, *The Drone as Privacy Catalyst*, 64 Stan. L. Rev. Online 29, 30 (Dec. 12, 2011). See also Jeffrey Rosen, *Symposium Keynote Address*, 65 Rutgers L. Rev. 965, 966 (2013) (“[A]s police departments increasingly begin to use drone technologies to track individual suspects 24/7, or to put areas of the country under permanent surveillance, this possibility of 24/7 tracking will become increasingly real.”). As the price of drones “continues to drop and their capabilities increase, they will become a very powerful surveillance tool.” Bruce Schneier, *Surveillance And the Internet of Things*, Schneier on Security (May 21, 2013).²

Drones will enable broader use of aerial surveillance by law enforcement, and as the expense and limitations of aerial surveillance from helicopters and aircrafts are eliminated, it will be necessary to establish privacy rights to protect against constant monitoring. Under the State’s theory, aerial surveillance would be unbounded: law enforcement agents could routinely observe and record activities over one’s home and property without any judicial oversight or limitation. Neither the Fourth Amendment nor Article II, Section 10 of the New Mexico Constitution would countenance this outcome.

² https://www.schneier.com/blog/archives/2013/05/the_eyes_and_ea.html.

I. Aerial Surveillance Technology Threatens Widely Shared Privacy and Property Interests

Much of the Supreme Court's analysis of aerial surveillance presumes that law enforcement will be visually inspecting property from manned aircraft operating within the "navigable airspace." *See, e.g., Florida v. Riley*, 488 U.S. 445 (1989); *California v. Ciraolo*, 476 U.S. 207 (1986); *Dow Chem. Co. v. United States*, 476 U.S. 227 (1986). The world is changing rapidly and the Court's prior Fourth Amendment framework is unlikely to provide useful guidance in the future.

Aerial surveillance by law enforcement is not a new phenomenon. However, the technology and economics of aerial surveillance have changed dramatically and will continue to change as technology advances. Small, unmanned drones are already inexpensive, the surveillance capabilities of drones are rapidly advancing, and cheap storage is readily available to maintain repositories of surveillance data. *See generally* EPIC, *DRONES: Eyes in the Sky*, Spotlight on Surveillance (2014).³ This combination of factors will make pervasive and indiscriminate surveillance feasible for even small police forces.⁴

³ Available at

<https://www.epic.org/privacy/surveillance/spotlight/1014/drones.html>.

⁴ EPIC has written extensively on the proliferation of drone surveillance. *See generally* *The Future of Drones in America: Law Enforcement and Privacy*

Aerial surveillance can now be conducted without the expense of purchasing a helicopter or hiring a pilot; police officers can operate small drones without any pilot's license. *See* Fed. Aviation Admin., *Unmanned Aircraft Systems: Public Operations (Governmental)* (Aug, 8, 2014) (describing the process for law enforcement agencies to obtain authorization to operate unmanned vehicles observable from the ground or a manned aircraft).⁵ All that is required for a law enforcement agency to use one of these devices is to apply for a Certificate of Authorization or Waiver (COA) from the Federal Aviation Administration. *Id.* The FAA lists law enforcement as a "common use" of unmanned aerial vehicles under their COA program. *Id.* Under the COA, an agency can operate within a "defined

Considerations: Hearing Before the S. Judiciary Comm., 113th Cong. (2013) (statement of Amie Stepanovich, EPIC Director of the Domestic Surveillance Project), *available at* <https://epic.org/privacy/testimony/EPIC-Drone-Testimony-3-13-Stepanovich.pdf>; Petition from EPIC et al. to David V. Aguilar, Deputy Commissioner, Bureau of Customs and Border Protection (Mar. 19, 2013) (Petitioning the Bureau of Customs and Border Protection to begin a public rulemaking on the agency's use of drones to assess compliance with federal privacy laws and to establish privacy safeguards.), *available at* https://epic.org/drones_petition/; Petition from EPIC et al. to Michael P. Huerta, Acting Administrator, Federal Aviation Administration (Feb. 24, 2012) (petitioning the FAA to conduct public rulemakings on the privacy and civil liberties impact on civil integration of drones and government use of drones in the National Airspace), *available at* <https://epic.org/privacy/drones/FAA-553e-Petition-03-08-12.pdf>; EPIC, *Domestic Unmanned Aerial Vehicles (UAVs) and Drones*, <https://epic.org/privacy/drones/>.

⁵ http://www.faa.gov/uas/public_operations/.

block of airspace” pursuant to any limitations imposed to “ensure the UA can operate safely with other airspace users.” *Id.* Once an agency has obtained a COA, it only needs to file a pro forma registration of each drone. *See* Letter from James H. Williams, Manager, UAS Integration Office, Fed. Aviation Admin., to COA Holders (Nov. 5, 2014).⁶ For example, the New Mexico Army National Guard, which provided the helicopter in this case, has submitted an application to the FAA to operate unmanned aircraft systems. *See* Attachment, Letter from John S. Duncan, Director, Flight Standards Service, AFS-1, Fed. Aviation Admin., to Ginger McCall, EPIC Open Government Counsel (Sept. 24, 2013 (response to a Freedom of Information request submitted by EPIC to the FAA concerning drone license applications)).⁷

State and local police are already beginning to deploy drone technology into their law enforcement efforts. The “rapid advance of drone technology has sparked interest by police and sheriff offices in acquiring drones.” Tom Berry, *Drones Over the Homeland: How Politics, Money and Lack of Oversight Have Sparked Drone Proliferation, and What We Can Do*,

⁶ http://www.faa.gov/uas/regulations_policies/media/Registration_letter.pdf.

⁷ Available at <https://epic.org/2013/10/epic-foia---new-information-on.html>.

Ctr. for Int'l Policy 14 (2013).⁸ The Department of Justice, Bureau of Justice Statistics has not conducted a survey of law enforcement use of aviation units since 2007, so the federal government has not provided any specific accounting of the extent of law enforcement use of drones as of 2014. *See* Bureau of Justice Statistics, *Data Collection: Census of Law Enforcement Aviation Units*.⁹ But such use is becoming commonplace. *See, e.g.,* Kris Gutierrez, *Drone Gives Texas Law Enforcement Bird's-eye View on Crime*, Fox News (Nov. 16, 2011).¹⁰ Even law enforcement agencies have acknowledged the invasiveness of drone surveillance. *See* Joseph Serna, *LAPD Seeks to Limit Civilian Drone Flights Over Police Stations*, L.A. Times (Aug. 1, 2014) (“‘What concerns us is that they are filming over private property and it’s gated – you’re looking at the layout of the police station, how we operate, personnel license plates,’ said police Lt. Michael Ling. ‘It’s kind of like if it was your house, if they’re flying over your backyard you’d start asking questions about it.’”).¹¹

⁸ *Available at*

http://www.ciponline.org/images/uploads/publications/IPR_Drones_over_Homeland_Final.pdf.

⁹ <http://www.bjs.gov/index.cfm?ty=dcdetail&iid=341> (last visited Dec. 2, 2014).

¹⁰ <http://www.foxnews.com/us/2011/11/16/drone-gives-texas-law-enforcement-birds-eye-view-on-crime/#ixzz1dyV9Tde>.

¹¹ <http://www.latimes.com/local/lanow/la-me-ln-lapd-civilian-drone-hollywood-lot-20140801-story.html>.

A recent industry report estimates that expenditures on drones will rise from \$6.4 Billion to \$11.5 Billion per year over the next decade. Press Release, Teal Group, *Teal Group Predicts Worldwide UAV Market Will Total \$91 Billion in Its 2014 UAV Market Profile and Forecast* (July 17, 2014).¹² And given the broad range of law enforcement uses, it is likely that “the domestic use of drones to conduct surveillance and collect other information will have a broad and significant impact on the everyday lives of millions of Americans going forward.” *The Future of Drones in America: Law Enforcement and Privacy Considerations*, 113th Cong. 1 (2013) (statement of Sen. Patrick Leahy, Chairman, Senate Judiciary Committee).¹³

Drones generally fit into two broad categories: (1) small drones that are inexpensive and can be flown at low altitudes and (2) large drones and unmanned aerial systems, capable of operating at higher altitudes, which are equipped with advanced surveillance equipment. See Virginia Dep’t of Criminal Justice Servs., *Unmanned Aircraft Systems (UAS) Protocols for use by Law Enforcement Agencies* 13 (2006);¹⁴ see also Fed. Aviation Admin., *Busting Myths about the FAA and Unmanned Aircraft*, News &

¹² Available at <http://tealgroup.com/index.php/about-teal-group-corporation/press-releases/118-2014-uav-press-release>.

¹³ Available at <http://www.judiciary.senate.gov/meetings/time-change-the-future-of-drones-in-america-law-enforcement-and-privacy-considerations>.

¹⁴ Available at <http://www.dcjs.virginia.gov/cple/documents/UAS%20Protocols%20GA.pdf>.

Updates (March 07, 2014);¹⁵ Jose Pagliery, *Expect Heavy FAA Drone Regulations*, CNN Money, Nov. 24, 2014.¹⁶

Small, inexpensive drones make it extraordinarily easy to conduct aerial surveillance at low altitudes in the superadjacent airspace surrounding homes and other private property. Larger drones with sophisticated equipment have surveillance capabilities that are functionally equivalent to those of smaller drones because advanced sensors and imaging software provide detailed images of private spaces, even from high altitudes.

Small drones are inexpensive and easy to purchase; prices currently range from less than hundred dollars to a few thousand dollars. Many of these low-end drones, used by law enforcement as well as hobbyists and researchers, are equipped with high definition cameras that can transmit or record live video. For example, the inexpensive Hubsan X4 Quadcopter can stream live video from up to 100 meters away and uses a memory card to capture video images. Hubsan, *FPV Hubsan X4* (2008).¹⁷ The Hubsan X4 utilizes a front facing camera with 640 x 480 resolution that gives the user a first person view just as if the individual was flying an actual helicopter. *See*

¹⁵ Available at <http://www.faa.gov/news/updates/?newsId=76240>.

¹⁶ Available at <http://money.cnn.com/2014/11/24/technology/faa-drone-regulation/>.

¹⁷ <http://hubsan.com/products/FPV/H107D.htm>.

Id. The X4 measures 4 in x 4 in x 2 in, weighs less than 13 ounces, and costs around \$160. *Id.*; Amazon, *Hubsan H107D FPV X4 Mini RTF Quadcopter*.¹⁸

The DJI Inspire 1, a more sophisticated small drone, shoots up to 4K resolution at 24-30 frames per second and can capture 12 megapixel photos. DJI, *Inspire 1: Features* (2014).¹⁹ 4K is an ultra-high definition resolution that exceeds the resolution of most high definition televisions sold today. The high-resolution camera makes possible far more detailed analysis of the area viewed than would be possible with the naked eye. The gimbal and camera system keep the images steady in flight and has a 94-degree wide-angle field of view that rotates 360 degrees. *Id.* The Inspire 1 can transmit high definition video up to two kilometers away. *Id.* The drone can be operated by a single person or simultaneously controlled by two operators — one to control the flight path and one to control the camera. *Id.* The Inspire 1 is about the size of a small desktop printer and weighs less than seven pounds. DJI, *Inspire 1: Specs* (2014).²⁰

State law enforcement agencies, including those in New Mexico, are already planning to deploy these new devices for aerial surveillance. The New Mexico Army National Guard, for example, is currently testing the

¹⁸ <http://www.amazon.com/Hubsan-H107D-FPV-Mini-Quadcopter/dp/B00GSNWB5K> (last visited Dec. 5, 2014).

¹⁹ <http://www.dji.com/product/inspire-1>.

²⁰ <http://www.dji.com/product/inspire-1/spec>.

RQ-11 Raven Unmanned Aerial System (UAS). See Kenneth A. Nava, Deputy Chief of Staff Planes, Operations, and Training, Memorandum for NGB-72, Departments of the Army and Air Force, *Memorandum for NGB-72, New Mexico National Guard Airborne Imagery Proper Use Memorandum (PUM) for Title 32 RQ-11 Raven Unmanned Aerial System (UAS) Training, 1 January – 31 December 2013* (Feb. 5, 2013).²¹

AeroVironment, the drone vendor, states that the RQ-11 Raven is “a lightweight solution designed for rapid deployment and high mobility” for operations “requiring low altitude surveillance and reconnaissance intelligence.” AeroVironment, *Raven RQ-11B: Technical Specifications V1.01.09*.²² (the capabilities of other AeroVironment drone technologies are described in more detail below).

Absent a clear Fourth Amendment prohibition on warrantless surveillance, a law enforcement agency could routinely deploy these devices for “low altitude surveillance” of activities in the home or on private property. The trespass rule provides a clear way to distinguish earlier aerial observation cases from the type of invasive aerial surveillance that small drones will enable. See Sean M. Kilbane, *Drones and Jones: Rethinking*

²¹ Available at <https://www.muckrock.com/foi/new-mexico-227/new-mexico-army-national-guard-drone-documents-2501/#805046-j-13-0004>.

²² http://www.avinc.com/downloads/AV_RAVEN-DOM_V10109.pdf (last visited Dec. 5, 2014).

Curtilage Flyover in Light of the Revived Fourth Amendment Trespass Doctrine, 42 Cap. U. L. Rev. 249, 277 (2014) (“Any physical intrusion of vertical curtilage to gather information is a ‘search’ under the Fourth Amendment.”).

Not all drone surveillance will occur at low altitudes; much of the advanced surveillance technology will allow the government to conduct aerial surveillance that is functionally equivalent. Large drones now carry advanced surveillance devices – including powerful cameras, thermal imaging systems, radar, infrared imaging systems, and other sophisticated electronic sensors – that can be used to peer into a private home just as effectively as a small drone hovering outside the bedroom window. *See, e.g.,* General Atomics, *Sensor Systems* (2014).²³ *See also* M. Ryan Calo, *The Drone as Privacy Catalyst*, 64 Stan. L. Rev. Online 29, 30 (Dec. 12, 2011).

Several companies manufacture large, high altitude drones that have advanced surveillance capabilities. For example, AeroVironment, a leading manufacturer of advanced drone systems including the ones now being tested in New Mexico, provide these advanced surveillance systems. *See generally*, AeroVironment, *Unmanned Aircraft Systems* (2014).²⁴

AeroVironment manufactures unmanned aerial systems with surveillance

²³ http://www.ga-asi.com/products/sensor_systems/index.php.

²⁴ <http://www.avinc.com/uas/>.

technology that offers technology typically deployed on helicopters or planes. This include, for example, software that automatically detects moving objects in real time. AeroVironment, *Unmanned Aircraft Systems: Sensors & Capabilities* (2014).²⁵ AeroVironment also offers a suite of gyro-stabilized payloads, referred to as "Mantis," which can be used on drones as well as manned vehicles. *Id.* The Mantis not only produces high-resolution color, but the ability to record infrared thermal video. *Id.* The Mantis payloads are designed to provide surveillance during the day or night. *Id.* The practical consequence is that drone surveillance enables not only the capture of more detailed imagery than is available to the naked eye but also observation and recording at night when people might reasonably believe they could not be readily observed.

AeroVironment's drones can be manually operated or programmed for autonomous navigation based on pre-designated GPS coordinates. AeroVironment, *Unmanned Aircraft Systems: Tactical ISR* (2014).²⁶ For example, the Shrike VTOL is a helicopter-like drone that takes off and lands vertically and can hover in place. AeroVironment, *Unmanned Aircraft Systems: Shrike VTOL* (2014).²⁷ Just like a helicopter, the Shrike VTOL can

²⁵ <http://www.avinc.com/uas/sensors-capabilities>.

²⁶ http://www.avinc.com/uas/small_uas/.

²⁷ http://www.avinc.com/uas/small_uas/shrike/.

“hover-and-stare” in order to, for example, view and record private property. The AeroVironment website describes the Shrike VTOL as “portable, reliable, and quiet” drone intended for “day/night intelligence, surveillance and reconnaissance (ISR).” *Id.*

AeroVironment also makes the RQ-20A-Puma AE, a drone the company describes as “quiet to avoid detection and operates autonomously, providing persistent intelligence, surveillance, reconnaissance and targeting data (ISRT).” AeroVironment, *Unmanned Aircraft Systems: UAS: RQ-20A Puma AE* (2014).²⁸ The Puma is a winged drone, like an airplane, that can fly for 3.5 hours at a time and has a communication range of 15 kilometers. *Id.* Just like the Shrike, the Puma’s payload includes an electro-optical and infrared camera. *Id.*

The technological capabilities of drones are not fixed. Drone manufacturers design the unmanned aerial vehicles so that payloads may be substituted. A drone could be retrofitted with a newer surveillance device, such as the ARGUS-IS (Autonomous Real-time Ground Ubiquitous Surveillance Imaging System), which combines the images of 368 consumer-grade five-megapixel smartphone camera sensors into a single 1.8 gigapixel image. Brian Dobson, *DARPA’s New 1.8-Gigapixel Camera is a*

²⁸ http://www.avinc.com/uas/small_uas/puma/.

Super High-resolution Eye in the Sky, GIZMAG (Feb. 11, 2013).²⁹ ARGUS-IS is the world’s highest-resolution camera, and its creator notes that “[t]here is actually enough resolution to be able to see people waving their arms, or walking around, [or to see] what kind of clothes they wear.” *Id.* Not only is the ARGUS-IS capable of incredible detail, but the system can also process images into a massive video stream by shooting 12 frames per second, covering between ten to twenty square miles. *Id.* These capabilities would allow law enforcement to retroactively or in real-time review and zoom in on private property over several square miles.

The Supreme Court’s prior cases on aerial surveillance assumed the presence of a helicopter or aircraft, but that is no longer a useful way to understand the police conduct at issue in these cases. Recent opinions from state courts on aerial surveillance make clear the need to develop a more robust framework to safeguard both property and privacy interests.

II. Aerial Surveillance in the Superadjacent Airspace Surrounding the Home is a Search Under the Fourth Amendment

This case involves aerial surveillance that took place within the “superadjacent airspace” surrounding the defendant’s home, and is distinguishable from the Supreme Court cases involving surveillance from aircraft in the navigable airspace. The Supreme Court has made clear that

²⁹ <http://www.gizmag.com/argus-is-darpa-gigapixel-camers/26078/>.

individuals have a right to exclude aircraft from entering the superadjacent airspace surrounding their homes. *See United States v. Causby*, 328 U.S. 256 (1946). The Court has also recently held that when the government trespasses on private property for the purpose of gathering information, it triggers the Fourth Amendment. *See Florida v. Jardines*, 133 S. Ct. 1409 (2013) (holding that use of a drug-detection dog at defendant's front door was a trespassory search); *United States v. Jones*, 132 S. Ct. 945 (2012) (holding that installation of a GPS tracking device on defendant's car was a trespassory search).

These property protections are heightened around the home. “[W]hen it comes to the Fourth Amendment, the home is first among equals. At the Amendment's ‘very core’ stands ‘the right of a man to retreat into his own home and there be free from unreasonable governmental intrusion.’” *Jardines*, 133 S. Ct. at 1414 (quoting *Silverman v. United States*, 365 U.S. 505, 511 (1961)). Therefore it is “not surprising that in a case involving a search of a home, property concepts and privacy concepts should so align.” *Id.* at 1419 (Kagan, J., concurring). Yet in this case, the lower court found that no search occurred even though defendant testified that the helicopter “was hovering about fifty feet above him and was ‘kicking up dust and debris.’” *State v. Davis*, 2014-NMCA-042, ¶ 11, 321 P.3d 955, 959.

A. The Use of a Helicopter or Similar Device to Conduct Aerial Surveillance in the Superadjacent Airspace Surrounding the Home is a Trespassory Search

It is well established that entry by an aircraft into the “immediate reaches of air space next to the land” invades a property interest when it “interferes substantially with the [owner’s] use and enjoyment of the land.” Restatement (Second) of Torts § 159(2) (1965). As the Court explained in

Causby:

We have said that the airspace is a public highway. Yet it is obvious that if the landowner is to have full enjoyment of the land, he must have exclusive control of the immediate reaches of the enveloping atmosphere. Otherwise buildings could not be erected, trees could not be planted, and even fences could not be run. The principle is recognized when the law gives a remedy in case overhanging structures are erected on adjoining land.

Causby, 328 U.S. at 264 256, 264 (1946) The landowner owns “at least as much of the space above the ground as the can occupy or use in connection with the land.” *Id.* at 264.

The Court has similarly recognized that “the area ‘immediately surrounding and associated with the home’ – what our cases call the curtilage – as ‘part of the home for Fourth Amendment purposes.’” *Jardines*, 133 S. Ct. at 1414 (quoting *Oliver v. United States*, 466 U.S. 170, 180 (1986)). “This area around the home is ‘intimately linked to the home, both physically and psychologically,’ and is where privacy expectations are most

heightened.” *Id.* at 1415 (quoting *California v. Ciraolo*, 476 U.S. 207, 213 (1986)). In *Jardines*, the Court held that when “officers learned what they learned only by physically intruding on [the defendant’s] property to gather evidence” a Fourth Amendment search occurred. *Id.* at 1417. The Court explained that “[o]ne virtue of the Fourth Amendment’s property-rights baseline is that it keeps easy cases easy.” *Id.*

This case can be similarly decided under the Fourth Amendment trespass test because according to the defendant’s testimony, the State’s helicopter was hovering roughly fifty feet above his home. ” *State v. Davis*, 2014-NMCA-042, ¶ 11, 321 P.3d 955, 959. Like the officer with a drug-detection dog in *Jardines*, a government helicopter hovering at fifty feet above an individual’s backyard has entered into the private area surrounding the home, and therefore aerial surveillance from that vantage is a search under the Fourth Amendment. Unlike the helicopter overflight in *Florida v. Riley*, 488 U.S. 445 (1989), which was hundreds of feet above defendant’s property, the surveillance in this case took place within the immediate space around the land and within the area of defendant’s exclusive control. *See Riley*, 488 U.S. at 451 (“[T]he helicopter was flying at 400 feet when the officer saw what was growing in the greenhouse through the partially open roof and sides of the structure.”). None of the Court’s previous overflight

cases implicated property and trespass interests because those flights took place high above the property, within the navigable airspace. *See California v. Ciraolo*, 476 U.S. 207 (1986) (concerning observation from a private plane at 1,000 feet); *Dow Chem. Co. v. United States*, 476 U.S. 227 (1986) (concerning photographs taken with an aerial mapping camera at 12,000, 3,000, and 1,200 feet).

Importantly, the Supreme Court in *Florida v. Riley* did not decide the issue currently before this court, namely, whether aerial surveillance conducted by law enforcement agents in a low-flying aircraft within the superadjacent airspace surrounding a defendant's home is a search under the Fourth Amendment. The justices in *Riley* ruled that a helicopter overflight 400 feet above the defendant's property was not a search. *Riley*, 488 U.S. at 451-52. Justice White emphasized that "[a]ny member of the public could legally have been flying over Riley's property in a helicopter at the altitude of 400 feet and could have observed Riley's greenhouse." *Id.* at 451.

However, Justice O'Connor wrote separately to clarify the analysis that follows from *Ciraolo*. *Riley*, 488 U.S. at 452 (O'Connor, J., concurring in the judgment). Justice O'Connor stressed that:

the relevant inquiry after *Ciraolo* is not whether the helicopter was where it had a right to be under FAA regulations. Rather, consistent with *Katz*, we must ask whether the helicopter was in the public airways at an altitude at which members of the public

travel with sufficient regularity that *Riley's* expectation of privacy from aerial observation was not "one that society is prepared to recognize as "reasonable."

Id. at 454 (quoting *Katz v. United States*, 389 U.S. 347, 361 (1967) (Harlan, J., concurring)). That same analysis should apply here as a police helicopter operating at 50 feet above a person's property violates a reasonable expectation of privacy under *Katz*. But the court can also decide this case on property-based grounds because the helicopter was not in the navigable airspace.

The Supreme Court first recognized an individual's property interest in excluding aircrafts from within the superadjacent airspace surrounding their home in *United States v. Causby*, 328 U.S. 256 (1946). In *Causby*, the Court considered an individual's claim that the government had "taken" his property "within the meaning of the Fifth Amendment by frequent and regular flights of army and navy aircraft over [his] land land at low altitudes." *Id.* at 258. Specifically, the flight paths at issue in *Causby* passed "over this property at 83 feet, which is 67 feet above the house, 63 feet above the barn and 18 feet above the highest tree." *Id.* The Court made clear that "[w]hile the owner does not in any physical manner occupy that stratum of airspace or make use of it in the conventional sense, he does use it in somewhat the same sense that space left between buildings for the purpose of light and air

is used. The superadjacent space at this low altitude is so close to the land that continuous invasions of it affect the use of the surface of the land itself.” *Id.* at 265. Similar to the planes in *Causby*, the government helicopter in this case invaded the superadjacent airspace surrounding the defendant’s home.

When a police helicopter enters the “superadjacent space” above an individual’s home for the purpose of conducting aerial surveillance, that is a trespassory search under the test articulated in *Jardines*, 133 S. Ct. at 1414, and *United States v. Jones*, 132 S. Ct. 945, 949 (2012). If the Fourth Amendment did not protect landowners from invasive low-level aerial surveillance by police aircraft, it would impose an impermissible burden on individuals seeking to protect the privacy of their homes and most intimate areas. “To require individuals to completely cover and enclose their curtilage is to demand more than the ‘precautions customarily taken by those seeking privacy.’” *Florida v. Riley*, 488 U.S. 445, 454 (1989) (O’Connor, J., concurring in the judgment) (quoting *Rakas v. Illinois*, 439 U.S. 128, 152 (1978) (Powell, J., concurring)).

B. State Courts Increasingly Restrict Aerial Surveillance by the Police

State courts have also considered this issue, and have ruled that privacy and property rights protect individuals from low-level aerial surveillance and other intrusions into their superadjacent space. For example,

the Vermont Supreme Court ruled in 2008 that the Vermont state constitution prevented the police use of a helicopter to conduct aerial surveillance at 100 feet over a defendant's property. *State v. Bryant*, 950 A.2d 467, 470, 474 (Vt. 2008). The court in *Bryant* found that "Vermont citizens have a constitutional right to privacy that ascends into the airspace above their homes and property." *Id.* The court also found that the Supreme Court's decisions in *Florida v. Riley*, 488 U.S. 445 (1989), *California v. Ciraolo*, 476 U.S. 207 (1986), and *Dow Chemical Company v. United States*, 476 U.S. 227 (1986), provided only "minimal guidance" on the question of whether aerial surveillance from a helicopter at 100 feet above a defendant's property violated his constitutional privacy rights. *Bryant*, 950 A.2d at 474-77.

The Vermont Supreme Court found that the defendant had a legitimate expectation of privacy against such surveillance, relying in part on Justice O'Connor's concurring opinion in *Riley*. *Bryant*, 950 A.2d at 478-79. The court emphasized that the defendant was not required to block off all views of his property in order to maintain privacy from invasive aerial surveillance. *Id.* at 479. The court also found that state and federal regulations prohibited such low helicopter flights for safety reasons:

Several sets of governmental regulations lend support to our analysis of the legitimacy of defendant's expectation of privacy.

In addition to the relevant FAA regulations, other federal law authorizes the National Guard to assist in state “counter-drug activities,” . . . and National Guard regulations govern those activities. The National Guard regulations require all aerial counter-drug operations to adhere to specific altitude restrictions. . . . The altitude-restriction regulation begins with the following admonition: “Altitude restrictions exist for the safety of the flight crew, passengers, aircraft, persons and property on the ground. Furthermore, restrictions exist in [counter-drug operations] to protect the rights guaranteed under the Constitution.” . . . the regulations require that all National Guard aircraft performing counter-drug missions “will maintain a minimum altitude of 500 feet AGL [above ground level],” with exceptions not relevant to this case. . . . A mission may be conducted below 500 feet to verify an eradication or reconnaissance objective if “descent is no lower than 200 feet AGL.” “Upon verification ... the pilot must return to a minimum of 500 ft AGL. Sustained flight below 500 ft AGL is not authorized.”

Bryant, 950 A.2d at 479-80 (citations omitted). Vermont state laws also prohibited operating aircraft at altitudes below 500 feet. *Id.* at 480.

The Supreme Court of Vermont thereby limited surveillance overflights to those occurring at normal, legal flight altitudes, and which do not cause undue interference with the interests of the property owner.

Similarly, the Court of Appeals of Ohio has limited surveillance overflights on Fourth Amendment grounds. In *State v. Little*, 918 N.E.2d 230, 233 (Ohio Ct. App. 2010), local law enforcement, working with a state law enforcement agency, flew a helicopter down from roughly 500 feet to

roughly 100 feet in order to confirm their sighting of possible contraband, and later obtained a warrant based on their search. *Id.* at 233-34.

The court in *Little* found that the defendant had a subjective intent to maintain the privacy of his curtilage based on his fence, signs, and the conditions of the area. *Id.* at 235. The court adopted the expectation of privacy test outlined by the plurality in *Riley*, that the legality of the search hinged on the overflight not occurring at an “unsafe altitude in violation of FAA regulations,” and nor did it otherwise interfere “with the defendant’s normal use of his property or other parts of the curtilage.” *Id.* at 236. The court concluded that because the airspace above the home in *Little* “was not publicly navigable airspace” due to its proximity to an airport, appellants *did* have a reasonable expectation of privacy, and the aerial surveillance was therefore “forbidden by the Fourth Amendment.” *Id.* at 237, 238.

In *Moss v. State*, 878 S.W.2d 632 (Tex. App. 1994), the Court of Appeals of Texas held that while observation from a helicopter at 350 to 400 feet was not a search, the police violated defendant’s privacy rights when they circled the area at a low altitude for twenty to forty minutes. *Id.* at 640-41. The court noted that the helicopter hovering at a low altitude generated noise, wind, and turbulence and thereby upset nearby children. *Id.* at 641.

Therefore “there was warrantless intrusion on appellant’s property that violated appellant’s reasonable expectation of privacy.” *Id.*

Similarly, in *Commonwealth v. Oglialoro*, 579 A.2d 1288 (Pa. 1990), the Supreme Court of Pennsylvania held that where a helicopter was low enough during a search to cause loud noise and vibration of a house and windows, the search was intrusive and flying the helicopter at this low level created a risk of harm to people and property. *Id.* at 1294.

The New Mexico Constitution provides similar protections against unreasonable searches and seizures. *See State v. Ryon*, 2005-NMSC-005, ¶23, 108 P.3d 1032. But “[b]ecause both the United States and the New Mexico Constitution provide overlapping protections against unreasonable searches and seizures,” this Court applies an “interstitial approach” to addressing privacy violations. *State v. Ketelson*, 2011-NMSC-023, ¶ 10, 257 P.3d 957. “If the right is protected by the federal constitution, then the state constitutional claim is not reached.” *Id.*

Other state courts have recognized that invasions of the superadjacent space are invasions of property.

In *Brenner v. New Richmond Regional Airport Commission*, 816 N.W.2d 291 (Wis. 2012), the Supreme Court of Wisconsin considered whether an extension of an airport’s runway amounted to the taking of an

easement because the resulting overflights had diminished the plaintiff's use and enjoyment of his property. *Id.* at 294. The court referred to the Restatement (Second) of Torts § 159 when considering plaintiff's interest in the airspace above his home.³⁰ The *Brenner* court determined that "a taking occurs in airplane overflight cases when government action results in aircraft flying over a landowner's property low enough and with sufficient frequency to have a direct and immediate effect on the use and enjoyment of the property." *Id.* at 350, 356.

Here, as in *Brenner*, the aerial surveillance overflight (a) entered into the superadjacent airspace surrounding the defendant's home – within 50 feet according to his statement, and (b) the defendant's use and enjoyment of his land was substantially interfered with as he was "bothered by the racket of the helicopter," and compelled to get "out of bed to see what was going on." *State v. Davis*, 2014-NMCA-042, ¶ 11, 321 P.3d 955, 959. The overflight was therefore a trespass under the Restatement. When the government obtains information by physically intruding on a constitutionally protected area, a "search" within the meaning of the Fourth Amendment has

³⁰ The Restatement (Second) of Torts § 159 (1965) specifically considers "intrusions upon, beneath, and above surface of earth." Under the Restatement, flights by aircraft in the air space above the land of another is a trespass if, but only if, (a) it enters into the immediate reaches of the air space next to the land, and (b) it interferes substantially with the other's use and enjoyment of his land. *Id.*

occurred. *See Jones*, 132 S. Ct. at 950. The trespassory search via overflight therefore violated the Fourth Amendment.

C. Property Interests Align With Reasonable Expectations of Privacy

When the police intrude upon the home privacy interests and property interests are closely aligned, as the Supreme Court's recent decision in *Florida v. Jardines*, 133 S. Ct. 1409 (2013), demonstrates. In *Jardines*, the Court ruled that an officer's use of a drug-detection dog on the front porch of the defendant's house was a search under the Fourth Amendment trespass test. *Jardines*, 133 S. Ct. at 1414. Justice Kagan further explained in a concurring opinion, joined by Justices Ginsburg and Sotomayer, that the case could just as easily have been decided "by looking to *Jardines*' privacy interests." *Jardines*, 133 S.Ct. at 1418 (Kagan, J., concurring). Justice Kagan wrote that "[i]t is not surprising that in a case involving a search of a home, property and privacy concepts should so align." *Id.*

Property rights influence "our 'shared social expectations' of what places should be free from governmental intrusions." *Id.* Justice Kagan's view brings together the two main Fourth Amendment privacy doctrines: one based on trespass, the other based on the reasonable expectation of privacy test. Compare *United States v. Jones*, 132 S. Ct. 945, 949 (2012) (Scalia, J.) (holding that installation and use of a GPS device to track


defendant's vehicle was a trespassory search) with *Jones*, 132 S. Ct. at 958 (Alito, J., concurring) (arguing that the long term monitoring of defendant's movements was a search under the *Katz* test). As Justice Kagan explained "the sentiment 'my home is my own,' while originating in property law, now also denotes a common understanding—extending even beyond that law's formal protections—about an especially private sphere." *Jardines*, 133 S. Ct. at 1418 (Kagan, J., concurring).

When law enforcement agents conduct warrantless aerial surveillance around an individual's home, they violate both the homeowner's property interests and an individual's reasonable expectation of privacy that they will not be subjected to observation and recording by government surveillance devices. As the police move from the era of the helicopter to an age of unmanned aerial drones, outfitted with sophisticated surveillance technology, courts must give full weight to the state and federal constitutional provisions that safeguard citizens against unlawful searches.

CONCLUSION

For the foregoing reasons, *amicus curiae* Electronic Privacy Information Center respectfully requests that this Court affirm the decision of the Court of Appeals.

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CERTIFICATE OF SERVICE

I hereby certify that a copy of this pleading was served by hand delivery to the Attorney General's and Public Defender's boxes at the Supreme Court on December 8, 2014.


Jerry Todd Wertheim