

Alaska's Citizen Guidelines for Drone Privacy

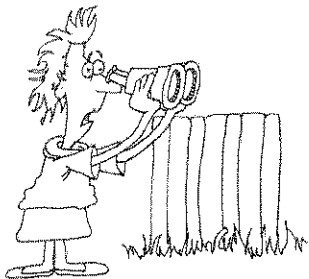
Frequently Asked Questions

When is flying my drone a breach of privacy?

Alaskans are serious when it comes to personal privacy. How do you define privacy when it comes to drones? This question is being contemplated worldwide because with such new technology, new boundaries must be identified and defined. Safety is easier to tackle because a person can see the aircraft, operator and the effects of a flight. Privacy includes thoughts, sentiments and emotion.

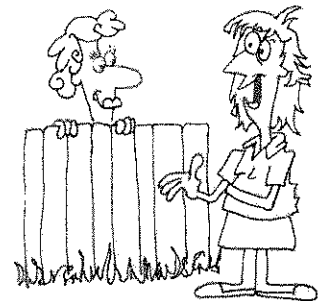
Alaska's Constitution guarantees Alaskans the Right to Privacy. Article 1, Section 22 states, "The right of the people to privacy is recognized and shall not be infringed. The legislature shall implement this section." The legislature has a long-standing history of protecting Alaskans' privacy by instituting statutes regarding stalking, harassment, indecent viewing, sending explicit images, and misusing confidential information. The Legislative Task Force continues to review these protections particularly as they relate to unmanned aircraft systems.

For the purpose of Alaska's Drone Privacy Guidelines this document will imply that the definition of privacy includes the more specific individual interest of not permitting others to pry into personal affairs with which they have no legitimate concern, and exposing them against an individual's will. This concept has been recognized as "the right to be let alone."



Private Citizen: Please recognize that individuals experience different levels of sensitivity to interruption to privacy. Was the drone flight intentionally directed at you or just passing through? Do you believe the operator of the drone was flying in an inappropriate way? Be as specific as possible so that you can report the incident to local law enforcement.

Drone Operator: Might you be perceived as interrupting someone's freedom? Would you complete the same action in person as you are doing with your drone? Be courteous and respectful to others.



I have a "reasonable expectation of privacy."



Yes, all Alaskans have a reasonable expectation of privacy to live without fear of unwarranted personal invasion. With equal importance, Alaskans enjoy the right to be left alone.

The definition for **Reasonable Expectation of Privacy** directly relates to law enforcement requirements to obtain a warrant before actions of search and seizure.

United States Constitution provides:

First Amendment guarantees the right to peaceably assemble including the liberty for any group to associate in private.

Fourth Amendment forbids the government from performing warrantless and unreasonable searches of any area in which a person maintains a reasonable expectation of privacy.

More sections of the Constitution support other areas of personal privacy.

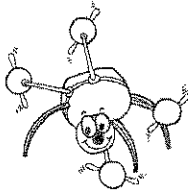
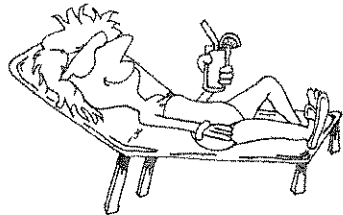
Who owns the airspace above my house?

Private Citizen: The FAA governs the airspace from the ground up without limitations regarding private, public, government or other categories of property owners. While we enjoy the sense of privacy in our backyards for the most part, we do not control what happens in the air above our heads.

Drone Operator: Fly with respect. Don't fly your drone where people typically expect privacy. Don't use your drone to harass people. In public areas, don't invade people's personal space and their solitude.

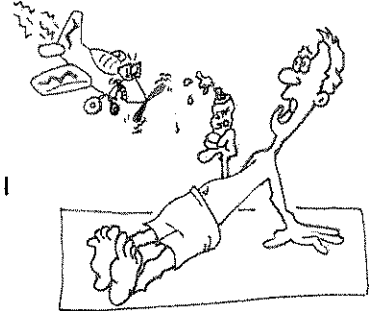
I'm sunbathing on my deck and my son is flying his drone ...

The FAA governs the airspace from the ground up. Help your son understand courteous flying so he doesn't disturb the neighbors or fly somewhere he shouldn't.



Know Before You Fly provides recreational flying rules for hobby pilots.
www.alaskadrones.org

Someone is flying their drone and interrupting my restful afternoon at the beach. They won't stop even when I "shoo" it away...



Try to identify from where the operator is controlling the drone. Provide as much information as possible to local law enforcement. This might be a situation of harassment. AS 11.16.120(a)(6)

Can I shoot it down if it's flying over my house?

Private Citizen: While news articles have referenced drones as "skeet," this presumption is not appropriate in Alaska. As a practical matter, the value associated with a recreational drone could be \$25 to more than \$1,000. As commercial use is rapidly becoming allowed by the FAA, that small drone you see could carry specialized equipment and cost more than \$100,000. Both the hobby drone and the commercial drone may look very similar as you view it from the ground.

Drone Operator: Before you fly over private property, obtain the owner's permission and explain the purpose for your flight path. Generally, you should always fly away from populated areas.

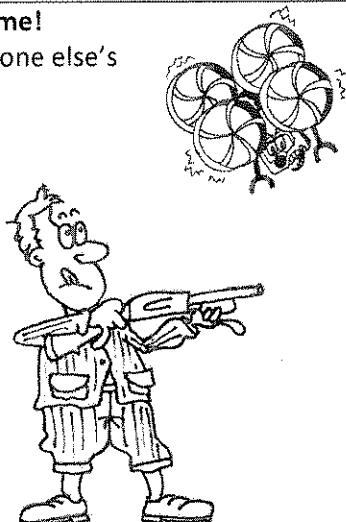
Looks like a moving target to me!
Remember that drone is someone else's personal property.

It's best to know;

"Why is a drone flying over your property?"

"Is it engaged in a violation of law?"

"Who and where is the drone operator?"



If you shoot it down or damage it:

(Legislative Legal)

Destruction of property

Discharging a weapon in a restricted area

Cannot take the law into your own hands

What can I do if the drone's "buzzing" annoys me? Noise Ordinance

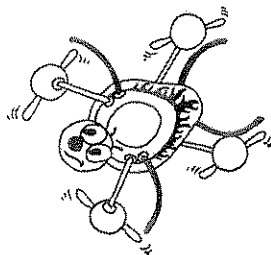
Private Citizen: Many annoying noises are allowable in both public and private areas. The decibel limit separating acceptable noise level is generally compared to the noise from a standard lawn mower or small engine.

Drone Operator: The drone's "buzzing" may not be the only problem. The proximity of the aircraft to another person may be the primary issue of concern. Be courteous to others and stay away unless invited.

That buzzing sound is as irritating as a mosquito!

(Legislative Legal)

A drone typically makes less noise than a standard lawn mower.



I can't swat it away like a mosquito but I can call local authorities if it is a persistent pest.

If the drone is flown during locally recognized waking hours, a drone is probably not in violation of a noise ordinance.

Because drones are relatively quiet, any noise you hear might instead be an alert to the bystander that the drone operator is flying too close to people and should be reported to the FAA for unsafe operations. This might be a situation of harassment. AS 11.16.120(a)(6)

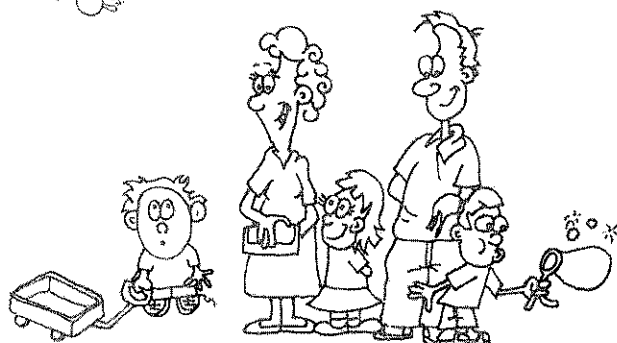
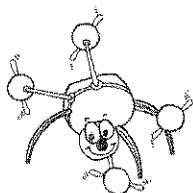
What do I do if a drone is photographing through my window or hovering around my house?

Private Citizen: A drone can be treated in the same way as another camera. If an individual is flying a drone in such a way that you feel violated, the local law enforcement can investigate for breach of privacy laws.

Drone Operator: Enjoy your drone with your family and friends who welcome its presence.

Welcomed Drone:

The family drone hovering and taking a portrait when grandma came to visit.



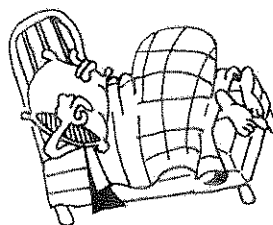
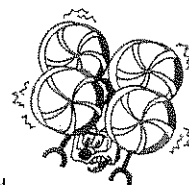
Unwelcomed Drone:

You weren't dreaming. And the buzzing sound was not your alarm clock. The drone was spying through the bedroom window. Who knows where the

pilot is and how those pictures might be used.

The drone operator may be violating one or more of the following laws:

AS 11.41.270 Stalking, nonconsensual conduct prohibits monitoring by technical means
AS 11.61.120(a)(6) Harassment, publishing or distributing certain images
AS 11.61.123 indecent viewing or photography



The neighbor is chasing my dog with his drone!

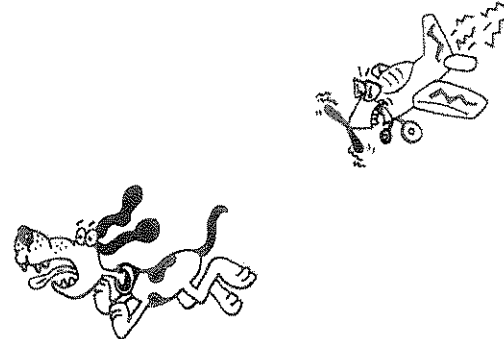
Private Citizen: Know your animal control laws.

Drone Operator: Harassing an animal may come with criminal penalties.

Although the pet's owner may have introduced the dog to a flying toy, the noise and unfamiliarity of the neighbor's drone buzzing around could frighten Fido and could be considered harassment.

If the dog swats the drone out of the sky and chews it up, would it be considered damaging another's personal property or self defense by the dog?

Would this be governed by local ordinance or statute?



How will the photos/video be stored or used?

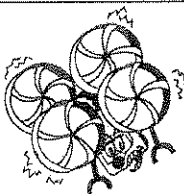
Private Citizen: Many recreational drone operators have posted video and pictures on social media sites. This is a great way to share interesting photography.

Drone Operator: If you are photographing something with your drone, in a place where you would not be welcomed if you were taking pictures in person, you shouldn't be there.

A drone is used to record your PIN over your shoulder while you are at the ATM.



A drone records images through your office window of a newly signed contract.



A drone peers through the window while your child is napping.



There are many examples of inappropriate use of photography or capturing information using technological devices that Alaskans are concerned about. If you believe someone has obtained unapproved images, contact local law enforcement.

Does the drone operator record the images for inappropriate purposes?

Was personal identification stolen?

AS 45 Personal Information Protection Act

Are images being posted in an inappropriate way?

AS 11.61.116 Sending an explicit image of a minor

AS 11.61.120(a)(6) Harassment: publishing or distributing certain images

AS 11.61.123 Indecent viewing or photography

Are the images being used for personal gain?

AS 11.76.113 and AS 11.76.115 Misconduct involving confidential information in the first and second degree



Can I use a drone for my business?

Private Citizen: I see lots of images on commercial web sites and social media where drones are used for business purposes. Can I use mine for business?

Drone Operator: Be aware that commercial use of unmanned aircraft systems has not been generally approved by the FAA. The time will come when all safety concerns have been well vetted and business use will become more commonplace. But remember, at this time, if you make money by using your drone, obtain authorization from the FAA.

Today, the **FAA prohibits commercial use of unmanned aircraft systems** unless the business has been granted a waiver to use the aircraft for specific purposes in the business.



Businesses are beginning to receive authorization to use unmanned aircraft systems for commercial use. Thus far, the most common authorizations have been awarded for specific movie production and specific agriculture tasks.

Recreational aircraft continues to advance technologically and many people are waiting for the opportunity to use drones as part of business.

I understand the safety concerns for not flying a drone in traffic but what about privacy?

Private Citizen: Drones flying over moving traffic is dangerous but I also don't want GPS tracking and photographing me while driving.

Drone Operator: Flying over roads can cause distraction and potential automobile accidents on a road system. Electronic parenting is not yet allowed; you cannot follow your teenage driver with a drone without consent.



A drone flying into traffic could distract drivers and create unsafe driving conditions; physical contact with an automobile could cause damage, and the distraction could distract a driver thus creating unsafe driving conditions.

It is unlawful to use a GPS device to surveille an automobile without the driver's consent. AS ...

What privacy concerns can there be when you're in a crowd?

Private Citizen: Typically if you're in a crowd, privacy is limited. Although the safety concerns are paramount when a drone is flying above a crowd, the photography could identify something that a citizen would not want shared; like your secret fishing hole.

Drone Operator: Never fly above a crowd. As a drone operator, you know how easy the slightest wind change can cause your aircraft to change direction quickly or drop out of the sky. Although most recreational aircraft are very light weight, when it drops with propellers spinning, injury could occur.

Even a happy drone flying above a crowd can create quite a stir.

Safety: If the drone were to fall out of the sky it could injure a bystander. The drone could also inhibit the safety of the crowd by interfering with the activity, distracting people rendering them unaware of happenings nearby, and it could have a run-in with a pesky seagull.

Privacy: During the popular Kenai River fishing season, this drone inadvertently photographed Clyde's map to grandpa's secret fishing hole. Because the map was visible in a public area, the photo of the map can be shared with others. Clyde's secret fishing hole is no longer secret.

Sometimes photographing a crowd could result in the capture of **inadvertent images**. If the drone image shows Captain Blowhole with a catch beyond his limit, that image could be provided to the authorities for legal review.



What happens if a drone captures inadvertent images?

Private Citizen: What happens if a drone captures inadvertent images and those images are posted on social media or reveal something questionable? Photographing in a public area could result in capturing an image that may not have been planned. The image could be of a person not wanting to be photographed but would not be a breach of privacy since it occurred in a public place.

Drone Operator: Be aware of and be sensitive to what you are photographing. Are you capturing proprietary information; is the map to the secret fishing hole copyrighted? If you capture an image of someone appearing to break the law, you may want to surrender images to local authorities. Know your crowd. Some people may not want to be photographed and their sensitivity level to privacy could result in an angry situation.

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MEMORANDUM

June 8, 2015

SUBJECT: Unmanned Aircraft Systems (Work Order No. 29-LS0823)

TO: Representative Shelley Hughes
Attn: Ginger Blaisdell

FROM: Hilary V. Martin 
Legislative Counsel

You have asked a number of questions related to unmanned aircraft systems (UAS) and privacy issues. Please be aware that any situation with a UAS will depend heavily on the specific circumstances of the particular situation. I have answered the questions you asked with the general statutes that might apply. If you have questions about a specific fact scenario, please let me know.

Can a person issue a no trespass or restraining order against the pilot of a UAS so the aircraft cannot be flown over private property?

There are a number of options a person can take regarding a UAS flying over the person's property.

If the activities of the UAS operator amount to stalking under AS 11.41.260 or 11.41.270¹, a person could obtain a protective order under AS 18.65.850 or AS 18.66.100. Using a UAS to follow, record, take pictures of, or otherwise harass someone with a protective order against the operator of a UAS would likely violate the terms of the protective order.

There are some situations where a person operating a UAS could be committing harassment² in the second degree under AS 11.61.120(a), which states:

¹ Under AS 11.41.270, a person commits the crime of second degree stalking when a person knowingly engages in repeated acts of nonconsensual contact that recklessly places another person in fear of death or physical injury. Nonconsensual contact includes "following or monitoring . . . with a global positioning device or similar technological means."

² AS 11.61.118, harassment in the first degree, prohibits specific types of offensive conduct that would not apply to a situation involving a UAS.

(a) A person commits the crime of harassment in the second degree if, with intent to harass or annoy another person, that person

(1) insults, taunts, or challenges another person in a manner likely to provoke an immediate violent response;

(2) telephones another and fails to terminate the connection with intent to impair the ability of that person to place or receive telephone calls;

(3) makes repeated telephone calls at extremely inconvenient hours;

(4) makes an anonymous or obscene telephone call, an obscene electronic communication, or a telephone call or electronic communication that threatens physical injury or sexual contact;

(5) subjects another person to offensive physical contact;

(6) except as provided in AS 11.61.116, publishes or distributes electronic or printed photographs, pictures, or films that show the genitals, anus, or female breast of the other person or show that person engaged in a sexual act; or

(7) repeatedly sends or publishes an electronic communication that insults, taunts, challenges, or intimidates a person under 18 years of age in a manner that places the person in reasonable fear of physical injury.

Under AS 09.45.230(a), a person could bring a civil action against a UAS operator to enjoin or abate a private nuisance. A "nuisance" is defined as "a substantial and unreasonable interference with the use or enjoyment of real property, including water."³ If the person bringing the nuisance action prevails, a court will issue an order to abate the nuisance.⁴ The person bringing the actions may also be entitled to damages.⁵

Is there a noise ordinance that pertains to UAS operation or is there a harassment law that might protect a person from the UAS operator?

There is no state statute that specifically regulates noise level. However, AS 11.61.110, relating to disorderly conduct, prohibits activity that involves "unreasonably loud noise." AS 11.61.110(a)(1) and (a)(2) state:

(a) A person commits the crime of disorderly conduct if,

(1) with intent to disturb the peace and privacy of another not physically on the same premises or with reckless disregard that the conduct is having that effect after being informed that it is having that

³ AS 09.45.255.

⁴ AS 09.45.240.

⁵ AS 09.45.255.

effect, the person makes unreasonably loud noise;

(2) in a public place or in a private place of another without consent, and with intent to disturb the peace and privacy of another or with reckless disregard that the conduct is having that effect after being informed that it is having that effect, the person makes unreasonably loud noise

"Unreasonably loud noise" is defined in AS 11.61.110(b):

As used in this section, "noise" is "unreasonably loud" if, considering the nature and purpose of the defendant's conduct and the circumstances known to the defendant, including the nature of the location and the time of day or night, the conduct involves a gross deviation from the standard of conduct that a reasonable person would follow in the same situation.

"Noise" does not include speech that is constitutionally protected.

It is unclear if a UAS would be loud enough to be considered "unreasonably loud" under this statute.⁶

If the use of a UAS places a person in fear of death or physical injury, the operation of a UAS could potentially be considered stalking.⁷ As mentioned above, using a UAS to follow, take pictures of, or otherwise harass a person could be prohibited by a protective order.

Should there be restrictions on UAS use to above fifty feet or the tallest roof line over private property without permission from the property owner?

You asked if the task force should consider a flight restriction to prohibit a UAS from flying below fifty feet or the tallest roof line over private property without permission from the property owner. While the state can pass laws related to UAS and restrictions on their flights, the law could be subject to a challenge on federal preemption grounds.

Under the Supremacy Clause of the U.S. Constitution, federal law may preclude a state from legislating in an area in four ways: (1) Congress may expressly state that state law is preempted; (2) the scheme of federal regulation may be sufficiently comprehensive so that there is a reasonable inference that federal law left no room for state law in that area; (3) if state law actually conflicts with federal law; or (4) state law may "stand[] as an

⁶ Note that a number of municipalities regulate noise levels. *See, e.g.*, Juneau Ordinance 42.20.095, which prohibits disturbing the peace. The ordinance broadly prohibits a person from making an "unreasonable noise."

⁷ AS 11.41.260 - 11.41.270.

obstacle to the accomplishment and execution of the full purposes and objectives of Congress."⁸

In the FAA Modernization and Reform Act of 2012,⁹ the FAA was directed to write regulations to integrate the use of civil UAS into the national airspace. Section 336 of the law also set limits for recreational or hobby use of UAS. These limits include requirements that the UAS weigh less than 55 pounds, that the UAS be in the visual line-of-sight of the operator at all times, and that a UAS not fly within 5 miles of an airport.¹⁰

It is possible that this comprehensive scheme created by the FAA will preempt any state regulation in the area of UAS. However, this is a rapidly evolving area of the law, and there is very little federal law or regulation on the recreational or hobby use of UAS. Therefore, it is possible that the state could place limits on the recreational or hobby use of UAS, so long as the state law does not conflict with federal law or regulation.

The United States has ruled that a property owner owns only that much airspace above the ground as the owner can occupy or use in connection with the land.¹¹ Therefore, it is possible that if a UAS is flying at a level that does not interfere with the property owner's use of the land, then the UAS flight would be permissible. This holding, however, does not necessarily place any limits on the ability of the state to set a limit on how low a UAS can fly over private property.

As this is a constantly changing area of law, it is difficult to predict with any degree of certainty whether any state regulation would be preempted by federal law.

What happens if someone shoots down a UAS? What if a UAS crashes into a backyard and the property owner does not want to return the UAS?

Shooting a firearm at a UAS or shooting down a UAS would likely be a crime. There are a number of state laws that are implicated if a person shoots down a UAS, depending on the specific circumstances. If, for example, other people are nearby or in the trajectory of the firearm, the activity could potentially be reckless endangerment or assault.¹²

⁸ *Hillsborough County, Fla. v. Automated Medical Laboratories, Inc.*, 471 U.S. 707, 713 (1985).

⁹ Public Law 112-95.

¹⁰ You may wish to review the information the FAA has provided regarding UAS on their website: www.faa.gov/uas.

¹¹ *United States v. Causby*, 328 U.S. 256, 265 (1946).

¹² AS 11.41.200 - 11.41.230 (assault statutes), and AS 11.41.250 (reckless endangerment).

Additionally, shooting down a UAS could be criminal mischief in the third, fourth, or fifth degree, depending on the amount and dollar value of damage to the UAS.¹³ State and municipal law prohibit discharging a firearm in certain places that would prevent a person from attempting to shoot down a UAS.¹⁴

Depending on the particular circumstances, a person who shoots at or shoots down a UAS could potentially claim self-defense or defense of property and premises. Under AS 11.81.350(a):

A person may use nondeadly force upon another when and to the extent the person reasonably believes it is necessary to terminate what the person reasonably believes to be the commission or attempted commission by the other of an unlawful taking or damaging of property or services.

A person could potentially also argue self-defense,¹⁵ although again this would be highly fact dependent.

A person is not entitled to keep a UAS that is not theirs, even if the UAS crashes into their backyard. Refusing to return the UAS could be theft¹⁶ or theft of lost or mislaid property.¹⁷

Any situation involving a UAS that is shot down or crashes into private property will be heavily fact dependent, so it is difficult to determine the consequences of such actions. However, it is very unlikely that a person could keep a UAS that crashed onto the person's property.

¹³ AS 11.46.482 - 11.46.486.

¹⁴ See AS 11.61.190 - 11.61.220 (misconduct involving weapons).

¹⁵ AS 11.81.330(a) states in relevant part: "A person is justified in using nondeadly force upon another when and to the extent the person reasonably believes it is necessary for self-defense against what the person reasonably believes to be the use of unlawful force by the other person"

¹⁶ AS 11.46.100.

¹⁷ Under AS 11.46.160 a person commits theft of lost or mislaid property if the person obtains "property of another knowing that the property was lost, mislaid, or delivered under a mistake as to the nature or amount of the property or the identity of the recipient and the person fails to take reasonable measures to restore the property to the owner with intent to deprive the owner of the property."

Is there a reasonable expectation of privacy that could relate to a private person operating a UAS that invades another person's privacy?

The Constitution of the State of Alaska contains an express right to privacy.¹⁸ However, the Alaska Supreme Court has so far refused to extend this right to apply against private actors.¹⁹ In the same case, however, the Court found that the privacy clause in the Alaska Constitution does evidence a public policy supporting privacy,²⁰ and that there is a common law right to privacy.²¹

The Court recognized the tort of "intrusion upon seclusion" from the Restatement (Second) of Torts § 652B, which states:

One who intentionally intrudes, physically or otherwise, upon the solitude or seclusion of another or his private affairs or concerns, is subject to liability to the other for invasion of his privacy, if the intrusion would be highly offensive to a reasonable person.^[22]

Therefore, even though the right to privacy in the Constitution of the State of Alaska would likely not apply against a private UAS operator, a person could bring a civil suit against a UAS operator for the common law tort of intrusion upon seclusion.

Notes on "Alaska Privacy Guidelines for Drones"

You had asked for some feedback on the "Alaska Privacy Guidelines for Drones" that you sent. Many of the pictures and headings are blank with no commentary or

¹⁸ Art. I, sec. 22, Constitution of the State of Alaska, which states in relevant part: "The right of the people to privacy is recognized and shall not be infringed."

¹⁹ *Luedtke v. Nabors Alaska Drilling, Inc.*, 768 P.2d 1123, 1130 (Alaska 1989). The Court did leave open the possibility that the right could be extended against private actors:

The parties in the case at bar have failed to produce evidence that Alaska's constitutional right to privacy was intended to operate as a bar to private action. . . . Absent a history demonstrating that the amendment was intended to proscribe private action, or a proscription of private action in the language of the amendment itself, we decline to extend the constitutional right to privacy to the actions of private parties.

²⁰ *Id.* at 1132 - 1133.

²¹ *Id.* at 1133.

²² *Id.* quoting The Restatement (Second) of Torts § 652B.

Representative Shelley Hughes

June 8, 2015

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information. I have not addressed any of these "blank" pictures or headings. If you have a specific question about something to be covered by the handout, please let me know.

The first picture refers to AS 11.16.120(a)(6). This is an incorrect citation. If you are referring to the harassment statutes, the correct citation is AS 11.61.120. Additionally, AS 11.61.120(a)(6) only prohibits publishing or distributing "electronic or printed photographs, pictures, or films that show the genitals, anus, or female breast of the other person or show that person engaged in a sexual act." This is not a situation that would apply to every instance of a UAS flying over someone's private property.

If I may be of further assistance, please advise.

HVM:dla
15-388.dla



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Research Brief

TO: Representative Shelley Hughes
FROM: Chuck Burnham, Legislative Analyst
DATE: April 6, 2015
RE: Legal Decisions on Drones and Privacy
LRS Report 15.367

You asked whether any courts have decided cases regarding citizens' expectation of privacy with regard to the use of unmanned aircraft systems.

As you know, unmanned aircraft systems (UAS), also variously referred to as unmanned aerial vehicles (UAV) and "drones," have no onboard pilot and are operated remotely. Drones range from palm-size devices with a range of only a few dozen yards that must be flown within sight of the operator, to vehicles with wingspans as great as a Boeing 737 that can fly hundreds of miles at great speeds and at altitudes of greater than 60,000 feet while using sophisticated satellite navigation, video, and detection systems monitored by operators on the other side of the globe. The possible applications of UAS include military and covert missions, law enforcement, search and rescue, weather and other scientific research, border surveillance, and others. The Federal Aviation Administration (FAA) expects the use of drones, particularly by law enforcement agencies, to expand rapidly in coming years as the devices become more readily available and their costs decrease.¹ The specter of the proliferation of drones for domestic surveillance has raised concern for advocates of privacy and civil liberties.

We located no court case that is precedential with regard specifically to the interaction between UAS and privacy rights. The American Civil Liberties Union (ACLU) is among the organizations advocating for stricter regulation of drones to ensure citizens' privacy rights are not infringed upon by the extraordinarily powerful surveillance systems on board certain UAS. In a 2011 report on the topic, the ACLU reviewed U.S. Supreme Court decisions on the use of *manned* aircraft and other methods of surveillance, and the variations from those decisions the Court may make in future cases involving UAS, as follows:

In the 1986 decision *California v. Ciraolo* [476 U.S. 207 (1986)], the Supreme Court focused on whether an individual has a privacy interest in being free from aerial surveillance of his backyard. The police had received a tip that Dante *Ciraolo* was growing marijuana in his backyard, but high fences prevented them from viewing his backyard from the street. The police borrowed a plane, flew it over the backyard and easily spotted marijuana plants growing there. *Ciraolo* argued that his Fourth Amendment rights were violated because the government did not get a warrant. The Court rejected this argument, explaining that there was no intrusion into his privacy because "[a]ny member of the public flying in this airspace who glanced down could have seen everything that these officers observed."

In *Dow Chemical Co. v. United States* [476 U.S. 227 (1986)], also decided in 1986, the Supreme Court addressed whether the Environmental Protection Agency violated Dow's Fourth Amendment rights when it employed a commercial aerial photographer to use a precision aerial mapping camera to take photographs of a chemical plant. The Court found no violation, in part because the camera the EPA used was a "conventional, albeit precise, commercial camera commonly used in mapmaking," and "the photographs here are not so revealing of intimate details as to raise constitutional concerns." However, the Court suggested that the use of more sophisticated, intrusive surveillance might justify a different result. It wrote, "surveillance of private property by using highly sophisticated surveillance equipment not generally available to the public, such as satellite technology, might be constitutionally proscribed absent a warrant."

¹ The FAA maintains a website on its activities regarding UAS at <http://www.faa.gov/about/initiatives/uas/>.

In *Florida v. Riley* [488 U.S. 445 (1989)], decided in 1989, the police had received a tip that Michael Riley was growing marijuana in a greenhouse on the property surrounding his home. The interior of the greenhouse was not visible from the ground outside the property, and the greenhouse had a ceiling, though two panels in the ceiling were missing. A police officer flew over the greenhouse and spotted marijuana through the openings in the roof. While no reasoning commanded a majority of the Court, four justices concluded that its decision in *Ciraolo* applied because Riley had left part of the greenhouse open to public view, and so the search was constitutional.

Because of their potential for pervasive use in ordinary law enforcement operations and capacity for revealing far more than the naked eye, drones pose a more serious threat to privacy than do manned flights. There are good reasons to believe that they may implicate Fourth Amendment rights in ways that manned flights do not.

Government use of UAVs equipped with technology that dramatically improves on human vision or captures something humans cannot see (such thermal or x-ray images) should be scrutinized especially closely by the courts. This follows from the Supreme Court's statement in *Dow Chemical* that using sophisticated technology not generally available to the public may be considered a search under the Fourth Amendment. It is also suggested by the 2001 case *Kyllo v. United States* [533 U.S. 27 (2001)], in which the court rejected the use of thermal imaging devices to peer into a suspect's home without a warrant.

Further, the Supreme Court has suggested that the pervasive or continuous use of a surveillance technology may heighten Fourth Amendment concerns. In *United States v. Knotts* [460 U.S. 276, 283-84 (1983)], the Supreme Court addressed whether attaching primitive "beeper" tracking technology to a car violated the driver's Fourth Amendment rights. Although it concluded that the use of the beeper in that case did not violate the Fourth Amendment, it held that if "such dragnet type law enforcement practices" as "twenty-four hour surveillance of any citizen of this country" ever arose, it would determine if different constitutional principles would be applicable. Citing to this language in *Knotts*, the federal appeals court in Washington D.C. recently ruled that attaching a GPS device to a person's car and tracking his movements for 28 days fell into this category of dragnet-type surveillance and held that the government's warrantless tracking violated the Fourth Amendment [*United States v. Maynard*, 615 F.3d 544, 556 (2010)].²

The 2012 case *United States v. Jones* (132 S. Ct. 945, 949) addressed whether police can use a global position system (GPS) device to track the movement of a suspect without a warrant. The U.S. Supreme Court found the tactic to be an unlawful search and seizure. In separate concurring opinions, Justices Alito and Sotomayor indicated that the persistent surveillance enabled by rapid advances in technology may be constitutionally problematic. In a concurrence joined by three of his colleagues, Justice Alito wrote "in circumstances involving dramatic technological change, the best solution to privacy concerns may be legislative" (*Jones* at 964). As you know, numerous states have enacted or are considering legislation on drones, and several bills to increase federal oversight of UAS have been introduced in Congress in recent years.³

The cases discussed above deal with government use of drones. In circumstances involving the use of UAS by private businesses or individuals, FAA regulations on airspace may be implicated in addition to state and local laws on trespassing, stalking, harassment and other property and privacy issues, depending on the specific facts of the case in question. If you have question about the legality of the use of drones by private entities under specific scenarios, we recommend that you consult with Legislative Legal Services.

We hope this is helpful. If you have questions or need additional information, please let us know.

² Jay Stanley and Catherine Crump, "Protecting Privacy from Aerial Surveillance: Recommendations for Government Use of Drone Aircraft," American Civil Liberties Union, December 2011, pp. 13-15, <https://www.aclu.org/files/assets/protectingprivacyfromaerialsurveillance.pdf>.

³ The Electronic Privacy Information Center advocates for, among other concerns, strict regulation of UAS. The Center tracks state and federal legislation on the issue on its website at <https://epic.org/privacy/drones/#topnews>.