SENATE COMMITTEE ON JUDICIARY

OVERSIGHT HEARING

Drones: Is California Law Ready? The Potential, the Perils, and the Impact to Our Privacy Rights

February 17, 2015
2:30 p.m. or upon adjournment of Floor Session
State Capitol, John L. Burton Hearing Room (4203)

BACKGROUND PAPER

I. INTRODUCTION

The development of small unmanned aircraft systems – known variously as "unmanned aerial vehicles," "remote piloted aircraft," or simply "drones" – promises to transform the way Californians interact with each other and their environment. Just a few decades ago, small aircraft of this type were the exclusive domain of hobbyists. Within the last decade or so, the public has become familiar with the military's use of unmanned aircraft to accomplish certain mission objectives, ranging from clandestine intelligence gathering to aerial battlespace engagement. However, in December 2013 when Amazon.com, FedEx, and UPS announced their plans to integrate unmanned aircraft into their logistics and delivery services, the possibility of widespread commercial adoption of this technology became clear.

As with most new technologies, the possibility of having potentially thousands of commercial and private "drones" take to California's skies in the coming years focuses attention on how well state law is prepared to incorporate these vehicles – and the policy issues associated with their operation – into California's legal landscape. This oversight hearing will examine how well California law is prepared to address the anticipated widespread use of unmanned aircraft by commercial and private actors.

II. DRONES: PRESENT AND FUTURE

At present, the use of unmanned aerial vehicles in the skies over California is fairly restricted. Congress effectively closed the national airspace to commercial drone flights in the Federal Aviation Administration (FAA) Modernization and Reform Act of 2012.[1]

[1] H.R.658, 112th Congress (2011-2012). In general, the FAA is tasked with regulating aircraft operations conducted in the national airspace under 49 U.S.C. Sec. 40103. This authority extends to unmanned aircraft operations, , by definition, are considered to be "aircraft." (*See* 49 U.S.C. Sec. 40102(a)(6), which defines an "aircraft" as "any contrivance invented, used, or designed to navigate, or fly in, the air.")

That Act established a framework for safely integrating unmanned aircraft into the national airspace[2] no later than September 30, 2015. Until these vehicles can be safely integrated into our airspace, federal law generally prohibits the commercial use of drones.

The federal Modernization and Reform Act does, however, permit certain commercial unmanned aircraft operations to take place before the integration framework is implemented. Section 333 of the Act authorizes the Secretary of Transportation to establish special interim requirements for the operation of these aircraft by designated operators, provided the aircraft and their operators meet certain minimum standards and have applied for a commercial use exemption. The FAA has promulgated rules allowing for these exempted commercial uses in Part 11 of Title 14 of the Code of Federal Regulations. To date, a handful of commercial operators have applied for, and received, permission to fly commercial drones, including several film production companies, construction, surveying, and inspection companies, and a number of real estate firms. The Act also sets out a separate interim operation exemption for "public unmanned aircraft," allowing public agencies like police departments to operate drones upon application, provided the aircraft and their operators meet certain minimum standards.[3]

Unlike commercial drone operations, flying an unmanned aircraft "strictly for hobby or recreational use" is authorized so long as the operator pilots the craft in accordance with specific safety rules.[4] As a result, most of the drones one sees in California today are being piloted by private citizens. The Modernization and Reform Act's safety rules include a requirement to operate these recreational aircraft "in accordance with a community-based set of safety guidelines," but the lack of more comprehensive rules establishing clear boundaries for when, where, and how these craft are to be operated has raised concerns. (*Id*.) Indeed, a recent poll shows just how far this concern has permeated into the general public. According to Reuters, "[s]ome 73 percent of respondents to [an online poll] said they want regulations for the lightweight, remote-

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[2] The Federal Aviation Act of 1958 delegated regulatory authority over navigable airspace within the United States to the FAA. (*See* 49 U.S.C. Sec. 40101 et seq.) Though not precisely defined, "navigable airspace" means "airspace above the minimum altitudes of flight prescribed by regulations under [the Act], including airspace needed to ensure safety in the takeoff and landing of aircraft." (49 U.S.C. Sec. 40102(a)(32).) It is generally understood, based upon a 1981 FAA Advisory pertaining to "Model Aircraft Operating Standards" and subsequent practice in the aviation industry, that "navigable airspace" describes airspace beginning at a point higher than 400 feet above ground level. Indeed, the FAA has declared that the minimum safe operating altitude for fixed-wing aircraft is 500 feet above ground level. (*See* 14 C.F.R. Sec. 91.119(c).) In light of this declaration, it is difficult to conclude that navigable airspace is understood to include airspace below the point where aircraft may safely operate.

[3] *See* Section 334 of the FAA Modernization and Reform Act of 2012.

[4] *See* Section 336 of the FAA Modernization and Reform Act of 2012.

control planes," and "forty-two percent went as far as to oppose private ownership of drones, suggesting they prefer restricting them to officials or experts trained in safe operation." (Alwyn Scott, *Americans OK With Police Drones - Private Ownership, Not So Much: Poll* < http://news.yahoo.com/americans-ok-police-drones-private-ownership-not-much-120553042.html> [as of Feb. 12, 2015].)

While the emergence of drone technology presents some compelling public policy challenges, this new technology could potentially revolutionize the way Californians interact with each other and transform California's economy. A new report from Business Insider's Intelligence unit estimates that "[twelve percent] of an estimated $98 billion in cumulative global spending on aerial drones over the next decade will be for commercial purposes." (Marcelo Ballve, *Commercial Drones: Assessing The Potential For A New Drone-Powered Economy* <http://www.businessinsider.com/the-commercial-drones-market-2014-10> [as of Feb. 12, 2015].) Given California's consistent position as one of the ten largest global economies, it is probable that much of the new drone-based economy will develop and prosper here. "While drones are unlikely to become a part of our daily lives in the immediate future," Business Insider concludes that "they will soon begin taking on much larger roles for businesses and some individual consumers, from delivering groceries and e-commerce orders to revolutionizing private security, to changing the way farmers manage their crops — perhaps even aerial advertising." (*Id*.) Indeed, California has already witnessed the transformative impact unmanned aerial vehicles can have on emergency management. In 2013, the California Military Department provided firefighters with lifesaving aerial surveillance while they battled the massive Rim Fire in the foothills of the Sierra Nevada Mountains. This aerial surveillance enabled firefighters to track the fire in real time, enabling commanders to move firefighters out of harm's way and reposition firefighting equipment as the fire actively shifted with the wind across the mountainside.

This oversight hearing will feature comments from researchers, businesses, and industry groups from across the United States who will describe how drones are presently used in California airspace, as well as what the future use of drones may look like.

III. DRONES AND THE RIGHT TO PRIVACY

The California Constitution provides that all people have inalienable rights, including the right to pursue and obtain privacy. (Cal. Const. art. I, Sec. 1.) Because of their inherent maneuverability and the ease with which they may enter spaces infeasible for manned aircraft, the growth of this new technology presents a challenge to maintaining traditional boundaries that separate public and private spheres. Indeed, the unrestricted use of unmanned aerial vehicles – especially those vehicles equipped with sound and video recording equipment – threatens to erode this fundamental right.

Existing state law contains two provisions relevant to drone operations and the preservation of privacy. The first, Civil Code Section 1708.8(a), creates a cause of action for "physical invasion of privacy" where an individual knowingly enters the land of another person in order to invade his or her privacy by capturing a visual image, sound recording, or other physical impression of that person engaging in a personal or familial activity. Civil cases claiming a physical invasion of privacy are rather straightforward to prosecute because the elements are well-defined in case law and trespass is a relatively easy element to prove. More difficult are causes of action that do not require physical trespass, since they generally require a plaintiff to show that his or her "reasonable expectation of privacy" has been violated.

The second state law relevant to drone operations and the preservation of privacy is the tort of "constructive invasion of privacy." Civil Code Section 1708.8(b) states that a person is liable for constructive invasion of privacy when they attempt to capture, in a highly offensive manner, any type of visual image, sound recording, or other physical impression of another person in which that person had a reasonable expectation of privacy, through the use of any device, regardless of whether there was a physical trespass, if the image or recording could not have been achieved without a trespass unless the device was used. A constructive invasion of privacy claim may, thus, be brought against a person who took photos of another in a secluded portion of his or her property even though the photographer never stepped foot onto that person's private land.

The California Supreme Court has explained that in order to claim a violation of the constitutional right to privacy, a plaintiff must establish the following three elements: (1) a legally protected privacy interest; (2) a reasonable expectation of privacy in the circumstances; and (3) conduct by the defendant that constitutes a serious invasion of privacy. (*Hill v. National Collegiate Athletic Assn.* (1994) 7 Cal.4th 1.) The first element – a legally recognized privacy interest – generally falls within one of two classes: (1) interests in precluding the dissemination or misuse of sensitive and confidential information ("informational privacy"); or (2) interests in making intimate personal decisions or conducting personal activities without observation, intrusion, or interference ("autonomy privacy"). (*Id* at 35.) Both the "physical invasion of privacy" outlawed in Civil Code Section 1708.8(a) and the "constructive invasion of privacy" outlawed in Civil Code Section 1708.8(b) qualify as legally protected privacy interests.

The second element – a reasonable expectation of privacy – is a bit more difficult to discern, since it is a fluid term which depends on broadly based and widely accepted community norms. (*See e.g.* Rest.2d Torts, Sec. 652D.) Community norms develop over time and necessarily change with the onset of new technologies. For older technologies, such as photography and audio recording devices which have long been used by individuals to invade privacy, there are established standards to apply. However, the standards and inquiries a court should employ when evaluating privacy expectations with regards to novel concepts and new technologies, such as unmanned aerial

vehicles, are still evolving. For example, until last year, a constructive invasion of a person's privacy required the use of a "visual or auditory enhancing device," like a camera or voice recorder. AB 2306 (Chau, Ch. 858, Stats. 2014) removed the visual or auditory enhancing device requirement, thereby expanding the constructive invasion of privacy tort to newer technologies that enable individuals to invade the privacy of others using devices that do not necessarily employ audio or visual enhancing capabilities, including very basic camera-equipped drones. That bill helped modernize California law and advance the public conversation about expectations of privacy in the face of new technology.

Federal law does not offer much guidance on what a reasonable expectation of privacy would be in relation to private party drone operations, and case law creates little protection for individuals from government owned devices. In *Florida v. Riley*, the U.S. Supreme Court considered a case where police flew over a greenhouse located on the defendant's property in a helicopter at 400 feet, looked into the greenhouse and saw marijuana. The Court, in a split decision, held that the defendant could not reasonably have expected the contents of his greenhouse to be immune from examination by an officer seated in an aircraft flying in navigable airspace at an altitude where private and commercial flight was routine. (*Florida v. Riley* (1989) 488 U.S. 445.) The dissent argued that the inquiry should have instead focused on whether low-level helicopter surveillance by the police of activities in an enclosed backyard was consistent with the aims of a free and open society. The dissent wrote that, "under the plurality's exceedingly grudging Fourth Amendment theory, the expectation of privacy is defeated if a single member of the public could conceivably position herself to see into the area in question without doing anything illegal." *(Id.* at 456.)

That case, dealing with government actors and potential Fourth Amendment violations, does little to shed light on the question of privately owned drones and the amount of privacy reasonably expected by members of the community. As Justice Alito noted in a recent concurrence, many of the Supreme Court's earlier privacy-related decisions rest on the assumption that people have "a well-developed and stable set of privacy expectations." (*United States v. Jones* (2012) 132 S. Ct. 945, 962.) A person's actual expectation of privacy may be much harder to define when examined in light of new technology. Justice Alito explains:

> . . . technology can change those expectations. Dramatic technological change may lead to periods in which popular expectations are in flux and may ultimately produce significant changes in popular attitudes. New technology may provide increased convenience or security at the expense of privacy, and many people may find the tradeoff worthwhile. And even if the public does not welcome the diminution of privacy that new technology entails, they may eventually reconcile themselves to this development as inevitable. . . . On the other hand, concern about

new intrusions on privacy may spur the enactment of legislation to protect against these intrusions. (*Id*.)

Finally, the third element – a serious invasion of a privacy interest – requires a court to make a specific inquiry into the nature of the invasion. The California Supreme Court has explained that "invasions of privacy must be sufficiently serious in their nature, scope, and actual or potential impact to constitute an egregious breach of the social norms underlying the privacy right. Thus, the extent and gravity of the invasion is an indispensable consideration in assessing an alleged invasion of privacy." (*Hill v. National Collegiate Athletic Assn.*, 7 Cal.4th at 37.)

This oversight hearing will feature comments from privacy-focused groups who will help illuminate the connection between drone technology and the maintenance of our fundamental right to privacy. These commenters will describe some recent examples where private drone operations and privacy interests came into conflict, and how California law would or would not have provided clear guidelines for resolving these conflicts.

IV. DRONES AND THE RIGHT TO FREE SPEECH

While it is clear that the use of unmanned aerial vehicles to collect evidence within private property without a warrant raises significant Fourth Amendment concerns, and that the operation of such devices over private property can, at times, be tantamount to an invasion of the homeowner's or tenant's right of privacy[5] absent permission, the First Amendment implications associated with the use and regulation of these devices is less obvious, in particular when the devices are flown over public property. At the very least, the use and regulation of these "drone" technologies arguably invokes one of the most complex areas of constitutional law: the balance between an individual's right to privacy, and the First Amendment's protection of the right to create and disseminate information, including the right to take photographs and videos, and the right to publish matters of public concern.[6]

The First Amendment to the U.S. Constitution provides that Congress shall make no law abridging the freedom of speech, or of the press, or the right of the people

[5] Existing physical and constructive invasion of privacy civil liability statutes operate to protect individuals from having physical impressions (such as photos or sound recordings) taken of their personal or familial activities either by physical trespass in a manner that is offensive to a reasonable person, or through the use of enhancing devices under circumstances in which a person has a reasonable expectation of privacy and in a manner that is highly offensive to a reasonable person. (*See* Civ. Code Sec. 1708.8.)

[6] This discussion presumes that the owner and operator of an unmanned aerial vehicle is a private individual, since the U.S. Supreme Court has very clearly stated that "the Government's own speech . . . is exempt from First Amendment scrutiny." (*Johanns v. Livestock Marketing Ass'n* (2005) 544 U.S. 550, 553.)

peaceably to assemble, and to petition the government for a redress of grievances. (U.S. Const., 1st Amend., as applied to the states through the 14th Amendment's Due Process Clause; *see Gitlow v. New York* (1925) 268 U.S. 652; *see also* Cal. Const. art. 1, Sec. 2, which protects the right of every person to "freely speak, write and publish his or her sentiments on all subjects, being responsible for the abuse of this right.") The freedom of speech, however, is not limited solely to the spoken word or to that which is published using a printing press. Rather, the scope of protection afforded by the First Amendment extends to other mediums of expression such as music, dancing, visual art, films, and photographs. Indeed, as recently as 2011, the U.S. Supreme Court reaffirmed its prior decisions which held that "the creation and dissemination of information are speech within the meaning of the First Amendment." (*Sorrell v. IMS Health Inc*. (2011) 131 S. Ct. 2653, 2667 [internal citations omitted].) In that regard, drones could feasibly facilitate a person's ability to engage in protected First Amendment activity by helping capture images, videos or other information, especially where such aircraft could help gather otherwise inaccessible information. In the public sphere, drones could enable the press to monitor community activities, police activities, activities of public officials, and so forth—much of which arguably constitute matters of public concern.[7]

Recognizing at the outset that there are at least some First Amendment rights associated with activities facilitated by drones (however debatable the scope of those rights and the protection that they might be entitled to), there then arises two distinct issues: (1) what happens when the exercise of that right infringes upon the right of an individual's privacy within his or her own home; and (2) what, if any, privacy or public safety concerns might arise that could constitute a compelling enough governmental interest warranting the regulation of the free exercise of that right over public lands?[8]

With regard to the first issue, people generally have a reasonable expectation of privacy within the boundaries of their home, and as a matter of public policy this right should not be eroded simply because emerging technologies would enable others to intrude and gather private information without physically trespassing onto the property. With respect to the second issue, the line between what is public and private becomes much more blurry, and the competing rights of the parties involved become that much harder

[7] Government power to protect the privacy interests of citizens by penalizing publication or authorizing causes of action for publication typically is found to implicate First Amendment rights directly. (*See e.g*. William Prosser, Law of Torts 117 4th ed. 1971.) Accordingly, prohibiting the use of drones that could help gather news or report on matters of public concern in order to protect the privacy rights of citizens could run into similar difficulties.

[8] A separate consideration within each of these issues, but particularly the second, is whether the First Amendment affords any additional protection when the speaker is the "press" as opposed to a private individual or corporation, a question to which the Supreme Court has historically answered in the negative, but which could change "if the press could prove in a particular case that the application of a general law significantly burden[s] its ability to function . . . ." (Chemerinksy, Constitutional Law Principles and Policies (2011) 4th ed., p. 1214.)

to balance. Arguably, the protections that would be appropriate and necessary to protect a person's right of privacy over their own home are not necessarily appropriate when extended to public buildings – particularly where public servants perform public duties which become, by their nature, of public concern. Indeed, when analyzing legislation that has sought to protect privacy interests of an individual in public or semi-public spaces, this Committee has consistently emphasized the importance of balancing such interests against the First Amendment protection of truthful publications of matters of public concern.

If the activities facilitated by drones are deemed to be protected activities under the First Amendment, then any regulation of those protected activities would likely be subjected to strict scrutiny. Under a strict scrutiny analysis, any regulation of activities protected under the First Amendment must further a "compelling governmental interest," and must be narrowly tailored to achieve that interest.[9] Moreover, insofar as a regulation might apply to public forums (or designated public forums) otherwise held open for speech, any such regulations must also be content neutral. If the regulation in question would apply to non-public forums, the restrictions must only be reasonable and viewpoint neutral.

If the regulation applies to commercial drones, however, strict scrutiny would not apply. While commercial speech is not unprotected, it does not receive the full protection that strict scrutiny is designed to ensure. Instead, in commercial speech cases – those involving "expression related solely to the economic interests of the speaker and its audience" – the Supreme Court has developed a four-part test for determining when the government may regulate speech commensurate with the First Amendment. (*Cent. Hudson Gas & Elec. Corp. v. Public Serv. Comm'n* (1980) 447 U.S. 557, 561.)

> At the outset, we must determine whether the expression is protected by the First Amendment. For commercial speech to come within that provision, it at least must concern lawful activity and not be misleading. Next, we ask whether the asserted governmental interest is substantial. If both inquiries yield positive answers, we must determine whether the regulation directly advances the governmental interest asserted, and whether it is not more extensive than is necessary to serve that interest. (*Id*. at 566.)

[9] Any restriction of drones that are deemed to be a prior restraint would arguably face a "heavy presumption" of unconstitutionality. [*See e.g. Bantam Books, Inc. v. Sullivan* (1963) 372 U.S. 58, 70; *New York Times v. U.S.* (1971) 403 U.S. 713, 714; *see also Nebraska Press Assn. v. Stuart* (1976) 427 U.S. 539, 559 ("prior restraints on speech and publication are the most serious and least tolerable infringement on First Amendment rights.").] The Court has very clearly stated that a prior restraint cannot be justified based on "the insistence that the statute is designed to prevent" speech that "tends to disturb the public peace and to provoke assaults and the commission of crime." (*Near v. Minnesota* (1931) 283 U.S. 697, 721-722.)

This oversight hearing will feature comments from representatives of the press and newsgathering organizations who will help draw out the connection between drone technology and free speech activities. These commenters will describe how unmanned aerial vehicles are used to enable the free exercise of speech and press, and will discuss how new laws restricting drone usage may implicate these rights.

V. DRONES, PROPERTY RIGHTS, AND LAND MANAGEMENT

The development of unmanned aircraft technology, and the ease with which this new class of vehicles can traverse traditional boundaries, challenges policymakers to reexamine classical notions of property rights and land management. For the past several centuries, property law has mainly limited its concern to events taking place at or near ground level. California property law generally reflects this focus on things terrestrial. Our laws pertaining to implied easements, trespass, nuisance, and the like examine activities taking place largely on the ground. Only occasionally do our property laws look skyward.[10] As the adoption of drone technology becomes more widespread, state policymakers will be required to consider how (or whether) our existing property laws should to be adapted to address this new reality.

One of the first issues policymakers will have to confront is where to mark the boundary between private property – where owners of land may ostensibly prohibit unauthorized entry by drone – and public airspace. Unfortunately, existing law on the question doesn't provide clear guidance. At common law, the maxim "*cuius est solum, eius est usque ad coelum*" (whoever owns the soil, it is theirs up to heaven) rendered all airspace above one's land as part of their estate. With the advent of aircraft and air travel, the common law understanding of property rights extending to the stratosphere gave way to a belief that the public ought to be able to traverse the skies as freely as they do the seas. The case of *United States v. Causby* (1946) 328 U.S. 256 formalized this new, more limited understanding of property rights. In that case, the U.S. Supreme Court recognized "that the airspace is a public highway," but also held in unresolved tension that "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." (*Id*. at 264.) The Court explained:

> [t]he landowner owns at least as much of the space above the ground as he can occupy or use in connection with the land. . . . While 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 airspace at this low altitude is so close to the land that continuous invasions of it

[10] Zoning and environmental laws that regulate such things as building height limits and visual impacts to skylines are familiar examples.

> affect the use of the surface of the land itself. We think that the landowner, as an incident to his ownership, has a claim to it, and that invasions of it are in the same category as invasions of the surface. (*Id*. at 264-65.)

While recognizing the existence of these two competing interests, the Court declined to delineate the boundary between public and private airspace. (*See Id*. at 266 ["we need not determine at this time what those precise limits are"].) Clarifying this threshold question of where private property rights end and the public servitude for air travel begins is a crucial first step that must be taken before policymakers can address the issue of drone use, property rights, and land management.

If it is true, as the Supreme Court seems to indicate, that private landowners hold some power over adjacent airspace, policymakers will need to consider whether existing rights appurtenant to ownership should be extended or interpreted to apply to drone operations. One of the most basic of such rights is the right to exclude. California law codifies this right in its civil trespass statute, Civil Code Section 3334, which establishes liability for damages resulting from unauthorized entry onto the land of another. However, since our trespass jurisprudence has historically developed with a view toward surface activities, it is unclear whether existing trespass laws would apply to drone flights across private land. The impact drone technology will have on the right to exclude – the right to maintain a boundary between public and private spaces – cannot be overstated. We have traditionally marked this boundary with things like fences, gates, and walls, but such boundaries are rendered obsolete by machines that can effortlessly glide above them. Even though drone technology is in its infancy, we have already witnessed disputes between landowners who have used these machines to traverse traditional boundaries. In one notable dispute, a New Jersey man shot an aerial drone from the sky when it entered his land. (*See* Steve Beck, *New Jersey Man Accused of Shooting Down Neighbor's Remote Control Drone* <http://philadelphia.cbslocal.com/2014/09/30/new-jersey-man-accused-of-shooting-down-neighbors-remote-control-drone/> [as of Feb. 13, 2015].) Such extreme measures threaten public safety, and it will be incumbent upon state policymakers to develop clear rules to ensure they do not happen in the future.

The need to be able to exclude undesirable activities from property impacts the management of public land in much the same way as it does private land. Land managers may find that unrestricted drone use in the skies overlying property under their care could undermine the values they are tasked with preserving. In the National Parks, for example, there have been instances where drone use by visitors has threatened wildlife and risked damaging natural features like geysers and thermal pools. (*See* Mike Koshmrl, *Despite Ban in Parks, Drones Are in the Air* <http://www.jhnewsandguide.com/news/environmental/despite-ban-in-parks-drones-are-in-the-air/article_b2190e3a-893b-5229-b5bc-370b0946f71e.html> [as of Feb. 13, 2015].) The Park Service has responded by issuing a temporary moratorium on private unpermitted drone use in National Park units until more long-term regulations

can be formulated. (*See Unmanned Aircraft to be Prohibited in America's National Parks* <http://home.nps.gov/news/release.htm?id=1601> [as of Feb. 13, 2015].) More generally, drone use in city parks may present a safety risk to park visitors, especially for aerial vehicles with exposed fast-moving components or operators with insufficient training. In a similar manner, unrestricted drone use over public lands hosting prisons, police stations, and military installations, may threaten the security of such facilities. As policymakers examine the impact of drone use on public land management, the issue of maintaining the security and integrity of public facilities is certain to be paramount.

This oversight hearing will feature presentations by representatives from the California State Parks and members of California's law enforcement community, who will discuss issues with drone use they have encountered while managing land and facilities under their care. These commenters will describe how the unregulated use of unmanned aerial vehicles may undermine the safety and security of public lands, and may interfere with an agency's ability to carry out its mission.

VI. CONCLUSION

Drone technology is poised to revolutionize many aspects of California's economy, and holds the promise to create entirely new industries in the state. With these potential economic benefits comes the risk that, like any technology, unmanned aerial vehicles could be used in ways that undermine fundamental rights like privacy, and threaten the safety and security of California residents. As this technology continues to unfold, policymakers will have to take a close look at state law and explore how to integrate this technology into our legal system. Policymakers will undoubtedly face the difficult task of balancing the need to allow for technological innovation with the need to ensure civil order. This oversight hearing will help illuminate some of the policy questions likely to arise as California moves forward with this exciting new technology.

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