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Incoming: Regulating Drones in Oklahoma

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COMMENTS

Incoming: Regulating Drones in Oklahoma

I. Introduction

Unmanned Aerial Vehicles (UAVs, or drones) are an exciting new technology with a wide range of applications. UAVs are already playing valuable roles in law enforcement, search-and-rescue missions, and disaster relief, as well as in certain commercial applications, such as land and pipeline surveillance.¹ They are also exciting tools for the media and for professional and amateur photographers alike.² Currently, state legislatures across the United States are assessing if and how UAVs should be regulated within their states, taking into account not only these potential benefits but also privacy concerns of individuals.³ Thus far, thirty-nine states have enacted statutes addressing UAVs.⁴ As Oklahoma develops its own statutory response to UAVs, it should not only take into consideration potential shortfalls of applicable tort and criminal laws already in place, but also strive to strike a fair and reasonable balance between, on one hand, Oklahomans' expectations of privacy and, on the other, the sundry potential benefits of UAV technology for some of Oklahoma's primary industries—namely, oil and gas and agriculture.

This Comment examines the inability of existing theories of liability to adequately address the privacy concerns posed by UAVs. It also examines UAV-related state legislation attempting to fill those gaps. Part II quickly outlines the role of the Federal Aviation Administration (FAA) in UAV regulation, as well as the constitutional implications of UAV use under the First and Fourth Amendments. Part III analyzes the potential commercial and environmental applications of UAVs in Oklahoma, focusing on Oklahoma's primary industries. Part IV examines existing Oklahoma statutes and common law doctrines that may be used to impose liability for misuse of UAVs, including trespass, invasion of privacy, and nuisance. Part V outlines UAV statutes enacted by other states and analyzes UAV bills previously proposed or recently enacted by the Oklahoma legislature.

1. *Current Unmanned Aircraft State Law Landscape*, NAT'L CONF. ST. LEGISLATURES (June 8, 2017), <http://www.ncsl.org/research/transportation/current-unmanned-aircraft-state-law-landscape.aspx> [hereinafter *Current Landscape*].

2. *Id.*

3. *Id.*

4. *Id.*

Finally, Part VI offers suggestions for Oklahoma's statutory response to UAVs based on the best practices of other states.

II. Federal Regulations and Constitutional Implications of UAVs

A. Federal Regulation

The FAA, which bears the responsibility of ensuring safety and efficiency within the American aerospace system,⁵ has been charged with the task of providing a regulatory framework for the integration of UAVs into the national airspace.⁶ While this responsibility, as mandated in the FAA Modernization and Reform Act of 2012 (FMRA), is unquestionably extensive in scope, its focus is safety regulations.⁷ The integration of drones, however, raises serious questions outside the mere realm of safety. One key question is whether the use of drones by law enforcement may constitute an unreasonable search under the Fourth Amendment. Further, operation of UAVs by hobbyists and commercial users raises questions of the manner and extent to which individual privacy rights are to be protected against UAVs with image-capturing capabilities.

Unfortunately, uncertainty exists as to which governmental entity should be answering these questions.⁸ While some believe the FAA has the power to create and impose UAV privacy regulations, nothing in the FMRA expressly delegates this particular authority.⁹ It is possible that Congress will, in the future, expressly delegate authority to the FAA to create substantive UAV privacy protections, but there is concern that the FAA is ill-equipped to address issues so far outside its wheelhouse.¹⁰ Indeed, the FAA has actively steered away from questions of privacy. On August 29, 2016, the FAA's final rule on the operation and certification of UAVs went into effect. The rule covers requirements for remote pilots and visual

5. *See Mission*, FED. AVIATION ADMIN., <http://www.faa.gov/about/mission> (last visited Apr. 15, 2017) (stating that the mission of the FAA "is to provide the safest, most efficient aerospace system in the world").

6. *FAA Modernization and Reform Act (P.L. 112-095) Reports and Plans*, FED. AVIATION ADMIN., https://www.faa.gov/about/plans_reports/modernization/ (last visited Apr. 15, 2017) (stating that the FAA Modernization and Reform Act (FMRA) will "seek[] to improve aviation safety and capacity of the national airspace system, [and] provide a framework for integrating new technology safely into our airspace").

7. Melissa Barbee, *Uncharted Territory: The FAA and the Regulation of Privacy Via Rulemaking for Domestic Drones*, 66 ADMIN. L. REV. 463, 480 (2014).

8. *Id.* at 479.

9. *Id.*

10. *Id.* at 480.

observers and restrictions on UAV weight, altitude, and speed, but issues of privacy are notably absent.¹¹ Alternatively, Congress may forego delegating the responsibility to the FAA and formulate federal UAV privacy policy legislation itself. Congress has, in fact, already proposed bills directed at UAV use. As of 2016, however, none had moved passed committee.¹² Further, none contemplate privacy protections against nongovernment operators, but focus solely on use by law enforcement.¹³

In the absence of federal UAV laws, states have begun enacting their own.¹⁴ While some of these statutes may eventually be preempted should Congress choose to act,¹⁵ states are currently able to implement whatever UAV privacy regulations they deem appropriate for their state. These statutes vary in method and scope,¹⁶ illustrating the heterogeneity of states' needs and concerns regarding UAVs. Further complicating this process, however, are unanswered questions at the constitutional level. To what extent do hobbyists have a right under the First Amendment to record and publish material captured by their UAVs? Are police precluded under the Fourth Amendment from using UAVs without first obtaining a warrant? In drafting UAV legislation, states must anticipate the answers as best they can.

B. UAVs and the First Amendment

In September 2015, a drone flown by an animal rights group was shot down in Oklahoma over an annual pigeon-shooting fundraiser for Senator Jim Inhofe, co-founder, ironically, of the Senate's drone caucus.¹⁷ Though a dramatic example, this occurrence illustrates the type of clash that can result between privacy and First Amendment rights from the use of UAVs. While UAVs unquestionably implicate privacy concerns, it is important to acknowledge the other side of the coin. The freedom of speech and freedom of press guaranteed by the First Amendment may be implicated when

11. Small Unmanned Aircraft Systems, 14 C.F.R. § 107.3 (2016).

12. Barbee, *supra* note 7, at 478-79; *see infra* Part V.

13. Barbee, *supra* note 7, at 478-79.

14. *See infra* Part V.

15. Barbee, *supra* note 7, at 481.

16. *See Current Landscape*, *supra* note 1, for the variation in state legislation of UAVs.

17. Elise Viebeck, *Enemy Drone Shot Down over Inhofe Fundraiser*, WASH. POST: POWER POST (Sept. 14, 2015), <https://www.washingtonpost.com/news/powerpost/wp/2015/09/14/enemy-drone-shot-down-over-inhofe-fundraiser/>.

limitations are imposed on the use of UAVs to record.¹⁸ The First Amendment, however, does not necessarily provide for an unmitigated right to record.¹⁹

While law delineating the limits of the right to record remains very underdeveloped, the proliferation of drones will likely produce cases regarding the issue. While it is not generally illegal to photograph or videotape people in public, this is not necessarily a right afforded by the First Amendment.²⁰ Further, if the First Amendment only protects some types of aerial videography and not others, along what lines is this distinction to be drawn? Possibilities include photography versus non-artistic photographs, journalists versus non-journalists, and public matters versus private matters, among others.²¹

Prior to the FAA's finalization of its UAV rule, the FAA prohibited the commercial use of UAVs, including journalistic use. Drone journalism programs and storm chasers alike received condemnation from the FAA for their unauthorized journalistic uses of UAVs.²² The FAA's final rule, however, opened up UAV use to commercial users, including journalists.²³ First Amendment problems may still exist, however, in the restrictions imposed by states as they attempt to protect against invasions of privacy. Until the law in this area further develops, it will be difficult to determine how the balance should be struck between these two core interests.

C. UAVs and the Fourth Amendment

One of the most compelling issues regarding UAV technology is how it should be integrated into our Fourth Amendment jurisprudence. Drone use promises tremendous benefits to law enforcement, including keeping officers out of harm's way and facilitating evidence collection. But current Fourth Amendment jurisprudence does not necessarily provide an easy analysis for whether or when the use of drone technology by law enforcement constitutes a Fourth Amendment search. Under *Katz v. United States*, law enforcement officials must obtain a warrant in situations where an individual has a subjective expectation of privacy and where "society is

18. Marc Jonathan Blitz, James Grimsley, Stephen E. Henderson & Joseph Thai, *Regulating Drones Under the First and Fourth Amendments*, 57 WM. & MARY L. REV. 49, 80-107 (2015).

19. *Id.* at 88-91.

20. *Id.*

21. *Id.*

22. *Id.* at 82-83.

23. *Id.* at 83.

prepared to recognize [that expectation] as ‘reasonable.’”²⁴ Under the Supreme Court cases *California v. Ciraolo*, *Dow Chemical Co. v. United States*, and *Florida v. Riley*, the Fourth Amendment typically does not preclude evidence obtained through warrantless aerial surveillance of open fields or curtilage from public airspace.

Under the general rule that visual observation does not constitute a Fourth Amendment search, the Court has consistently upheld the constitutionality of warrantless aerial surveillance. In *Ciraolo*, law enforcement officials received a warrant based on their observation of marijuana from a plane as they flew over the property at 1000 feet.²⁵ The Court held that the “respondent’s expectation that his garden was protected from [aerial observation was] unreasonable and is not an expectation that society is prepared to honor.”²⁶ Three years later, the Court decided *Riley*, which also involved aerial observation of marijuana on private property, but here the police flew only 400 feet above the ground.²⁷ The Court held that helicopters flying at 400 feet are not sufficiently rare to make their presence unreasonable under *Katz*.²⁸ Finally, in *Dow Chemical*, the Court held that photographs obtained through an aerial mapping camera did not violate the Fourth Amendment, noting that even though the camera had zooming capabilities and captured “a great deal more than the human eye could ever see,” the photographs were not so revealing of intimate details as to raise constitutional concerns.²⁹

This trilogy of cases illustrates the Court’s past willingness to interpret aerial surveillance—including aerial photographic surveillance—as reasonable in the Fourth Amendment context. The trend is clear, as the Court has thus far pushed the boundary of reasonableness further and further with each new advancement in aerial surveillance. Under current precedent, police may fly above private property and zoom in with a camera without first obtaining a warrant. But is unmitigated, warrantless police use of drones beyond that which society is prepared to accept as

24. 389 U.S. 347, 361 (1967) (Harlan, J., concurring) (“My understanding of the rule that has emerged from prior decisions is that there is a twofold requirement, first that a person have exhibited an actual (subjective) expectation of privacy and, second, that the expectation be one that society is prepared to recognize as ‘reasonable.’”).

25. *California v. Ciraolo*, 476 U.S. 207, 209 (1986).

26. *Id.* at 214.

27. *Florida v. Riley*, 488 U.S. 445, 448 (1989).

28. *Id.* at 451-52.

29. *Dow Chem. Co. v. United States*, 476 U.S. 227, 235, 249-50 (1986).

reasonable? The preemptive legislative response of many states to drone technology suggests that, perhaps, it is.³⁰

Yet, for the Supreme Court to hold that drone surveillance requires a warrant, it would first have to overcome a few hurdles of its own creation. First, photographs or video obtained from camera-bearing UAVs would not necessarily be more intrusive than photographs or video obtained from helicopters, so the Court would have to find a creative way to distinguish drones from the aerial surveillance in *Dow Chemical*. Additionally, the Court has attempted to safeguard privacy against police use of advancing technology by basing the reasonability analysis, in part, on whether the technology is in general public use.³¹ In *Kyllo v. United States*, police used a thermal imaging device to observe inside a home.³² Distinguishing this technology from the cameras in *Ciraolo* and *Dow Chemical*, the Court held that use of the thermal imaging device failed the *Katz* reasonability test largely because such a device was not in general public use.³³ Drones, however, pass this test. They are already in general public use, owned and operated by everyday hobbyists, and soon to be employed pervasively by commercial users.

Kyllo was a self-proclaimed effort by the Court to “take the long view” of the Fourth Amendment so that it may serve as precedent that sufficiently addresses “yet-to-be-developed technology.”³⁴ In doing so, the Court appeared to retract a bit from *Dow Chemical* in a manner that bears significant relevance to advancing aerial surveillance technologies. The Court noted:

The present case involves officers on a public street engaged in more than naked-eye surveillance of a home. We have previously reserved judgment as to how much technological enhancement of ordinary perception from such a vantage point, if any, is too much. While we upheld enhanced aerial photography of an industrial complex in *Dow Chemical*, we noted that we found “it important that this is *not* an area immediately adjacent to a private home, where privacy expectations are most heightened.”³⁵

30. See *infra* Part V.

31. See *Kyllo v. United States*, 533 U.S. 27, 34, 40 (2001).

32. *Id.* at 29.

33. *Id.* at 33-34.

34. *Id.* at 40, 42.

35. *Id.* at 33 (quoting *Dow Chem. Co. v. United States*, 476 U.S. 227, 237 n.4 (1986)).

Extrapolating from the aerial surveillance trilogy and *Kyllo*, the constitutionality of warrantless UAV surveillance could be based on whether or not the surveillance is of a private home or whether the drone possesses enhanced zooming capabilities or additional surveillance technologies that are not in general public use.

III: Oklahoma Commercial Interests

Prior to the FAA's finalization of its UAV rule, commercial use of UAVs was forbidden, and violations were subject to hefty fines.³⁶ However, during this time the FAA granted authorization in the form of section 333 exemptions to more than 5500 entities.³⁷ These exemptions authorized commercial use on a case-by-case basis and restricted that use to very specific types of operations.³⁸ Some of these operations are particularly applicable to Oklahoma. It is clear from the commercial use of UAVs pursuant to section 333 exemptions that UAVs have many beneficial applications to Oklahoma industries, which may now be widely implemented.

A. Oil and Gas

The FAA provided exemptions for commercial operations related to oil and gas, Oklahoma's largest industry. In all, the FAA gave authorization for such use to more than eighty-five entities.³⁹ These oil and gas operations included pipeline and oil-field inspection, aerial data acquisitions, photogrammetry, precision aerial surveys, exploration, platform inspections on land and over water, oil spill responses, aerial imaging for safety and monitoring of controlled access oil and gas facilities, and oil and gas industry infrastructure inspection and demonstration flights.⁴⁰

36. See *Section 333*, FED. AVIATION ADMIN., https://www.faa.gov/uas/beyond_the_basics/section_333/ (last visited Apr. 15, 2017); see also Alan Levin, *FAA Seeks Largest Fine Yet on Drones in Near-Miss Crackdown*, BLOOMBERG BUS. (Oct. 6, 2015, 3:57 PM), <http://www.bloomberg.com/news/articles/2015-10-06/faa-urges-largest-fine-yet-on-drones-in-crackdown-on-near-misses> (reporting that the FAA fined SkyPan International Inc. for \$1.9 million for making sixty-five drone flights in airspace above New York).

37. *Section 333*, *supra* note 36.

38. *Id.*

39. *Authorizations Granted Via Section 333 Exemptions*, FED. AVIATION ADMIN., https://www.faa.gov/uas/beyond_the_basics/section_333/333_authorizations/ (filter exceptions for "Oil") (last visited Apr. 15, 2017).

40. *Id.*

Drones promise to lower costs and increase efficiency in areas such as data collection and pipeline inspection.⁴¹ They could also help mitigate environmental risks through the quick detection and monitoring of methane gas leaks.⁴² The cumulative economic benefit to Oklahoma promises to be significant.

B. Agriculture

UAVs also offer significant potential in Oklahoma's agricultural industry. The Association for Unmanned Vehicles Systems International, which is the trade group that represents both users and producers of UAVs, projects that the commercial market for UAVs will be dominated at a staggering eighty percent by agricultural uses.⁴³ The potential benefits are clear. UAVs can facilitate aerial data collection of crop progression, which allows for better crop planting and rotation strategies.⁴⁴ They can provide images that show the health of the fields and identify problems affecting crop yield.⁴⁵ They effectively eliminate the need for on-foot and airplane visual inspection, which can be time consuming, unreliable, and costly.⁴⁶ UAVs tailored for agricultural use might also be retrofitted with thermal sensors, which could identify areas of land where plants are showing early signs of stress.⁴⁷

UAVs will also facilitate precision agriculture, which is the process of tailoring the amount of fertilizer, herbicides, pesticides, and other products used in specific areas in the field based on the needs of that specific area, rather than applying the same amount over a large area.⁴⁸ This not only saves farmers money by preventing unnecessary overuse but also reduces the amount of chemical runoff.⁴⁹

41. See Dyan Gibbens, *UAS Manufacturers Are Focusing on Commercial Applications of Unmanned Aircraft in the Petroleum Industry*, OIL & GAS FIN. J. (Dec. 16, 2014), <http://www.ogfj.com/articles/print/volume-11/issue-12/features/drones-in-oil-and-gas.html>.

42. *Id.*

43. Christopher Doering, *Growing Use of Drones Poised to Transform Agriculture*, USA TODAY (Mar. 23, 2014), <http://www.usatoday.com/story/money/business/2014/03/23/drones-agriculture-growth/6665561/>.

44. Clay Dillow, *Why 2015 Is the Year Agriculture Drones Take Off*, FORTUNE (May 18, 2015), <http://fortune.com/2015/05/18/drone-agriculture/>.

45. See *Drones for Agricultural Crop Surveillance*, PRECISION DRONE, <https://web-beta.archive.org/web/20161006081024/http://www.precisiondrone.com/drones-for-agriculture.html> (last visited Apr. 28, 2017).

46. *Id.*

47. Doering, *supra* note 43.

48. *Id.*

49. *Id.*

The FAA has granted section 333 exemptions to more than 888 entities for commercial use in agriculture.⁵⁰ Now that the FAA allows for broad commercial use of UAVs, the agricultural industry in Oklahoma will likely become a major UAV market. According to a 2016 state agriculture overview conducted by the United States Department of Agriculture, Oklahoma ranks fourth in the nation in wheat production and fifth in the nation in cattle and calves.⁵¹ Farmland covers three-fourths of the state; that's roughly thirty-four million acres of land.⁵² With these numbers, the cumulative economic benefit of UAVs to this state industry will undoubtedly be very positive.

C. Weather Forecasting

Though perhaps not as evident as the oil and gas and agricultural applications, UAVs may also play an important role in Oklahoma weather forecasting. The University of Oklahoma, Oklahoma State University, and two other partnering universities have received a significant grant from the National Science Foundation for this purpose.⁵³ The goal is to develop UAVs that improve understanding and monitoring capabilities of atmospheric conditions.⁵⁴ Meteorologists currently build forecasting models based on radar and ground-based instruments, but UAVs could enhance atmospheric data collection and allow for better, more accurate models.⁵⁵ In a state with unpredictable and sometimes violent weather, these improvements in meteorology have the potential to save lives.

IV. Regulation of UAVs Under Current State Statutes and Common Law Doctrines

While UAVs offer significant potential benefits to Oklahoma industries, they also raise legitimate privacy concerns. If private and commercial UAV users capture images of you or your home, what power, if any, do you have

50. *Authorizations*, *supra* note 39.

51. *2016 State Agriculture Overview*, U.S. DEP'T AGRIC., NAT'L AGRIC. STAT. SERV., http://www.nass.usda.gov/Quick_Stats/Ag_Overview/stateOverview.php?state=OKLAHOMA (last visited Apr. 15, 2017).

52. *Oklahoma Agriculture Statistics 2014*, OKLA. DEP'T AGRIC., <http://www.oda.state.ok.us/stats/agstats2014.pdf> (last visited Apr. 28, 2017).

53. *University Researchers to Develop Weather-Forecasting Drone System*, EMERGENCY MGMT. (Aug. 11, 2015), <http://www.emergencymgmt.com/disaster/Researchers-Develop-Weather-Drones.html>.

54. *Id.*

55. *Id.*

to stop them? What types of remedies might you have? How are such remedies to be effectively enforced when it is difficult to prove the UAV's flight path and the identity of the owner?

These questions lack satisfactory answers under the currently available theories of liability. When UAVs interfere with the privacy of Oklahomans, there are few common law doctrines or statutes that truly address the concerns. Theories of liability that may potentially be used to address privacy from UAVs include trespass, private nuisance, and invasion of privacy. As this section illustrates, however, these theories of liability are not perfectly suited to UAV technology and leave disconcerting gaps in protection.

A. Trespass

Trespass liability protects landowners against intentional, physical intrusions onto their land.⁵⁶ As defined in the Restatement (Second) of Torts, trespass encompasses not only situations in which an individual personally enters the land but also situations in which a person causes an object to enter onto the property of another, regardless of whether damages were caused:

The actor, without himself entering the land, may invade another's interest in its exclusive possession by throwing, propelling, or placing a thing either on or beneath the surface of the land or in the air space above it. Thus, in the absence of the possessor's consent or other privilege to do so, it is an actionable trespass to throw rubbish on another's land, even though he himself uses it as a dump heap, or to fire projectiles or to fly an advertising kite or balloon through the air above it, even though no harm is done to the land or to the possessor's enjoyment of it.⁵⁷

Further, the Restatement provides that intrusions may be on, beneath, or (as applicable to UAVs) above the surface of the land.⁵⁸ Trespass by aircraft occurs when the intrusion is within the "immediate reaches of the airspace next to the land" and substantially interferes with the use and enjoyment of the land.⁵⁹ While courts have made clear that the axiom "*cujus est solum, ejus est usque ad coelum*"—he who owns the soil owns

56. RESTATEMENT (SECOND) OF TORTS § 158 (AM. LAW. INST. 1965).

57. *Id.* § 158 cmt. i.

58. *Id.* § 159.

59. *Id.*

upward unto heaven—no longer represents the law, courts have also failed to neatly define or provide a categorical rule for the precise height at which a property owner's ownership ends and public airspace begins. For purposes of trespass, ownership of airspace is restricted to that which is within the "immediate reaches" of the land.⁶⁰ The Supreme Court further described this area as "at least as much of the space above the ground as [the landowner or lawful occupant] can occupy or use in connection with the land."⁶¹

Under Oklahoma law, a trespass is "an actual physical invasion of the property of another."⁶² In the one case in which the Supreme Court of Oklahoma mentioned aerial trespass, it reiterated the "substantial interference" standard articulated in the Restatement. In *Henthorn v. Oklahoma City*, the plaintiffs owned property near Will Rogers World Airport and alleged that aircraft were trespassing, as their altitudes were below 500 feet at the point at which they crossed plaintiffs' property.⁶³ The court held that the plaintiffs must show "substantial interference with the use and enjoyment of the property affected."⁶⁴

Federal cases such as the Tenth Circuit's *Pueblo of Sandia v. Smith*⁶⁵ narrow aerial trespass liability further so that it occurs only upon substantial interference with *actual*, rather than potential, use of the land.⁶⁶ In *Pueblo of Sandia*, for instance, the appellant owned land immediately adjacent to a small airport. Airplanes generally crossed over the appellant's property line at less than 150 feet.⁶⁷ The appellant's land was uninhabited for 3.4 miles past this boundary line.⁶⁸ The court rejected the argument that trespass is interference with possession rather than use, and found that no trespass occurred because there was no substantial interference with the use of the land.⁶⁹ The court noted that the appellees could fly at higher altitudes if the appellant chose to use the airspace near the property line.⁷⁰

60. *Id.*

61. *United States v. Causby*, 328 U.S. 256, 264 (1946).

62. *Fairlawn Cemetery Ass'n v. First Presbyterian Church, U.S.A. of Okla. City*, 1972 OK 66, ¶ 14, 496 P.2d 1185, 1187.

63. 1969 OK 76, ¶ 2, 453 P.2d 1013, 1014.

64. *Id.* ¶ 15, 453 P.2d at 1016.

65. 497 F.2d 1043 (10th Cir. 1974).

66. *See id.* at 1044; RESTATEMENT (SECOND) OF TORTS § 159 cmt. k (AM. LAW INST. 1965).

67. *Pueblo of Sandia*, 497 F.2d at 1044.

68. *Id.*

69. *Id.* at 1046; *see also* RESTATEMENT (SECOND) OF TORTS § 159 cmt. k ("Subsequent Federal cases have limited the trespass liability to such cases, so that, even though there is a

Under this formulation of aerial trespass, it appears that tort claims of trespass by UAVs would be largely unsuccessful. There are few occasions in which a UAV passing overhead could be construed as substantial interference with the actual use of land. Even in cases in which a UAV flies low over the property for an extended period, it likely would not prevent the property owner from using the airspace if the owner so chose.

Oklahoma criminal-trespass statutes may appear at first to offer a more useful option, yet these too fall short. Title 21, section 1835 of the Oklahoma Statutes states:

Whoever shall willfully or maliciously enter the garden, yard, pasture or field of another after being expressly forbidden to do so or without permission by the owner or lawful occupant thereof when such property is posted⁷¹ shall be deemed guilty of trespass and upon conviction thereof shall be fined in any sum not to exceed Two Hundred Fifty Dollars (\$250.00); provided, that this provision shall not apply to registered land surveyors and registered professional engineers for the purpose of land surveying in the performance of their professional services.⁷²

Oklahoma then separately criminalizes trespass upon private land devoted to farming, ranching, or forestry,⁷³ but with some exceptions: among the groups excepted are government officials and parties engaging in oil and gas activities with surface-owner or mineral-owner permission.⁷⁴ Title 21, section 1835.2 of the Oklahoma Statutes provides that “whoever willfully enters private land of another that is primarily devoted to farming, ranching, or forestry purposes without permission by the surface owner, surface lessee, hunting lessee, or lawful occupant thereof shall be deemed guilty of trespass.”⁷⁵

flight below the prescribed minimum altitude, there is no trespass unless there is such interference with actual, as distinguished from potential, use.”).

70. *Pueblo of Sandia*, 497 F.2d at 1044.

71. 21 OKLA. STAT. § 1835(A) (2011) (“For purposes of this section, ‘posted’ means exhibiting signs to read as follows: ‘PROPERTY RESTRICTED’; ‘POSTED – KEEP OUT’; ‘KEEP OUT’; ‘NO TRESPASSING’; or similar signs which are displayed. Property that is fenced or not fenced must have such signs placed conspicuously and at all places where entry to the property is normally expected.”).

72. *Id.*

73. *Id.* § 1835.2(A).

74. *Id.*

75. *Id.*

In addition to title 21, section 1835.2, Oklahoma further protects private land devoted to farming, ranching, and forestry with the Oklahoma Private Lands and Public Recreation Act.⁷⁶ This Act prohibits all recreational trespass on such lands, regardless of postings.⁷⁷ For the purposes of this Act, recreational trespass means “remaining on land for a recreational use after being asked to leave by the owner, or the entry on land for a recreational use without the express or implied consent of the owner.”⁷⁸ Recreational use means “any activity undertaken for exercise, education, relaxation, or pleasure on land owned by another.”⁷⁹ Penalties include either a fine of \$250 or imprisonment for up to ten days. Multiple convictions can lead to fines of \$2500 or up to six months’ imprisonment.⁸⁰

It is questionable whether the wording of Oklahoma trespass statutes could be interpreted to encompass UAVs. The word “whoever” (used in both title 21, sections 1835 and 1835.2 of the Oklahoma Statutes) appears to contemplate trespass by humans, rather than by devices, onto private property. Similarly, the Oklahoma Private Lands and Public Recreation Act contemplates instances where “the person is on the land.”⁸¹ In some states the term “entry” in criminal trespass statutes is defined broadly enough to potentially encompass UAVs.⁸² For example, the Arizona criminal trespass statute defines “entry” as “the intrusion of any part of any instrument or any part of a person’s body inside external boundaries of a structure or unit of real property.”⁸³ Here, UAVs would easily fall under the term “instrument.” Oklahoma trespass statutes, however, do not include definitions for “entry.” Thus, whether the term “entry” in Oklahoma’s trespass statutes encompasses intrusions by instruments or objects remains an open question for the court.

Even if courts impose liability for UAV intrusions under the theory of trespass, this avenue of liability proves problematic. First, it would theoretically impose liability on the hapless hobbyist who accidentally and unknowingly skirted his or her UAV across a corner of someone else’s airspace. Given the ease of making such a mistake, this could commonly

76. *Id.* §§ 1835.3 to 1835.10.

77. *Id.* §§ 1835.5 to 1835.6.

78. *Id.* § 1835.4.

79. *Id.*

80. *Id.* § 1835.7.

81. *Id.* § 1835.5.

82. John Villasenor, *Observations from Above: Unmanned Aircraft Systems and Privacy*, 36 HARV. J.L. & PUB. POL’Y 457, 499 (2013).

83. ARIZ. REV. STAT. ANN. § 13-1501 (West 2012); *see also* Villasenor, *supra* note 82.

occur. Second, trespass concepts fail to address the primary concern at issue. Presumably, private land owners' chief concern over UAVs entering their personal airspace is not that they will interfere with the actual or potential use of their land or with other property rights, but rather that they will intrude upon privacy. Considering the zooming capabilities of UAV cameras, the relative location of the UAV just within or just outside of private airspace makes little difference with regard to privacy implications.

It is unclear whether current Oklahoma trespass law encompasses protection against intrusions by UAVs. Even if it does, limitations imposed by trespass liability would serve only as half measures toward addressing UAV privacy intrusions.

B. Private Nuisance

Private nuisance also addresses interference with the use or enjoyment of land, but, unlike trespass, private nuisance does not require actual entry onto the land.⁸⁴ Private nuisance generally requires intent and unreasonableness.⁸⁵ Reasonableness is often determined by balancing the gravity of the harm against the utility of the conduct.⁸⁶ Considerations include the severity of the harm, whether the invasion was avoidable, the suitability of the locality, and the level of burden involved in minimizing the harm.⁸⁷ Further, most private nuisance litigation involves recurrent or continuing invasion.⁸⁸ Significantly, nuisance generally involves such conditions as vibrations, smoke, odors, noise, heat, and light.⁸⁹

Oklahoma law provides both a statutory and a common law claim for private nuisance, the former incorporating but not abrogating the latter.⁹⁰ The Oklahoma nuisance statute provides that nuisance may be an act that “[a]nnoys, injures or endangers the comfort, repose, health, or safety of others,” “[o]ffends decency,” or “[i]n any way renders other persons insecure in life, or in the use of property.”⁹¹ Oklahoma has also adopted the Restatement (Second) of Torts’ standard for common law private

84. RESTATEMENT (SECOND) OF TORTS § 822 (AM. LAW INST. 1965).

85. *Id.*

86. *Id.* §§ 829-831.

87. *Id.*; see also *Pendergrast v. Aiken*, 236 S.E.2d 787 (N.C. 1977).

88. See RESTATEMENT (SECOND) OF TORTS § 825 cmt. d.

89. See *City of Tecumseh v. Deister*, 1925 OK 661, ¶ 9, 239 P. 582, 584 (stating that a nuisance could be anything that is “calculated to interfere with the comfortable enjoyment of a man’s house, as smoke, noise, or bad odors, even when not injurious to health”).

90. *Nichols v. Mid-Continent Pipe Line*, 1996 OK 118, ¶ 8, 933 P.2d 272, 276.

91. 50 OKLA. STAT. § 1 (2011).

nuisance,⁹² which is “a nontrespassory invasion of another’s interest in the private use and enjoyment of land.”⁹³

As with trespass, Oklahoma has a right-to-farm statute covering nuisance liability, which applies a different standard for agricultural activity. Title 50, section 1.1 of the Oklahoma Statutes, which contemplates nuisance liability for agricultural activities, states that “[a]gricultural activities conducted on farm or ranch land, if consistent with good agricultural practices and established prior to nearby nonagricultural activities, are presumed to be reasonable and do not constitute a nuisance unless the activity has a substantial adverse effect on the public health and safety.”⁹⁴

While the presence of UAVs on one’s private property arguably interferes with one’s enjoyment of the land, case law on private nuisance suggests that an action could not lie absent a showing that the UAV created excessive noise, light pollution, vibrations, air pollution, or similar condition. Several landowners have been successful in nuisance actions brought for low-flying aircraft, but these involved the presence of one or more of these factors.⁹⁵ The mere fact of their presence was insufficient. A few courts have allowed nuisance claims for interference with peace of mind, such as when a funeral parlor is placed next door, yet the courts attempted to articulate some tangible interference in these cases as well.⁹⁶ While nuisance due to interference with peace of mind offers a possible argument for UAVs with photographic technologies, this argument pushes the doctrine beyond its current limits. Further, a nuisance action based on the noise or other tangible effects of UAVs would likely fail because such effects must be substantial in nature.⁹⁷

Some, however, may find private nuisance to be a particularly attractive theory of liability in the context of UAVs because it generally provides for the self-help remedy of abatement. Oklahoma’s nuisance statute, for instance, provides that “[a] person injured by a private nuisance may abate it by removing, or, if necessary, destroying the thing which constitutes the nuisance, without committing a breach of the peace or doing unnecessary

92. *Nichols*, ¶ 11, 933 P.2d at 277.

93. RESTATEMENT (SECOND) OF TORTS § 821D.

94. 50 OKLA. STAT. § 1.1(B).

95. Brian Craig, *Online Satellite and Aerial Images: Issues and Analysis*, 83 N.D. L. REV. 547, 560 (2007).

96. *See Brown v. Arbuckle*, 198 P.2d 550, 553 (Cal. Ct. App. 1948) (“Medical testimony was received to the effect that the mental strain caused thereby would reasonably result in direct physical disturbances.”).

97. RESTATEMENT (SECOND) OF TORTS § 827 cmt. d.

injury.”⁹⁸ The United States has already seen several instances of property owners employing self-help remedies by shooting down UAVs that cross over their property lines. A successful claim of private nuisance could, in states that allow for abatement, preclude potential liability for destruction of property where such destruction is reasonable. Whether this remedial action exceeds the bounds of private nuisance theory remains an issue for the courts.

C. Invasion of Privacy, Stalking, and Peeping Tom

Invasion of privacy, in effect, “fill[s] in the gaps left by trespass [and] nuisance.”⁹⁹ Restatement (Second) of Torts section 652B provides that an invasion of privacy occurs if someone “intentionally intrudes, physically or otherwise, upon the solitude or seclusion of another or his private affairs or concerns,” so long as a reasonable person would find such an intrusion highly offensive.¹⁰⁰ While this type of invasion of privacy does not require the element of publication,¹⁰¹ publication is almost always involved.¹⁰² Few cases address the act of taking a picture uncoupled from the subsequent act of publication.¹⁰³

In general, courts have not considered the taking of a person’s photograph without his or her consent an invasion of privacy.¹⁰⁴ This is particularly true when the picture is taken in a public place. Courts refuse to find invasion of privacy when photographs are taken in public, even when the photographer continuously follows the subject for this purpose.¹⁰⁵ Courts are more likely to find invasion of privacy when the photograph is taken of the subject inside his or her home.¹⁰⁶ Even so, monetary recovery generally requires a showing that the subject suffered emotional distress as a result.¹⁰⁷

Oklahoma recognizes a common law tort of invasion of privacy based on the Restatement’s standard.¹⁰⁸ This includes the “intrusion upon seclusion”

98. 50 OKLA. STAT. § 14.

99. William L. Prosser, *Privacy*, 48 CAL. L. REV. 383, 392 (1960).

100. RESTATEMENT (SECOND) OF TORTS § 652B.

101. *Id.* § 652B cmt. a.

102. Phillip E. Hassman, Annotation, *Taking Unauthorized Photographs as Invasion of Privacy*, 86 A.L.R.3d 374 § 2 (1978).

103. *Id.*

104. Hassman, *supra* note 102.

105. *Id.*

106. *Id.*

107. *Id.*

108. *Munley v. ISC Fin. House, Inc.*, 1978 OK 123, ¶ 17, 584 P.2d 1336, 1340.

form of invasion.¹⁰⁹ Oklahoma has also enacted criminal statutes prohibiting certain behaviors that either fall within the invasion of privacy umbrella or relate heavily to it. For instance, Oklahoma has a criminal statute prohibiting the appropriation of a person's image for advertisement purposes without the person's consent.¹¹⁰ Oklahoma has also enacted a Peeping Tom statute, which makes loitering around residences for the purpose of watching its occupants a misdemeanor.¹¹¹ It provides:

Every person who uses photographic, electronic or video equipment in a clandestine manner for any illegal, illegitimate, prurient, lewd or lascivious purpose with the unlawful and willful intent to view, watch, gaze or look upon any person without the knowledge and consent of such person when the person viewed is in a place where there is a right to a reasonable expectation of privacy, or who publishes or distributes any image obtained from such act, shall, upon conviction, be guilty of a felony.¹¹²

This statute potentially encompasses UAV privacy infringements where a camera-mounted UAV is used to film a residence and its occupant. Further, liability under this statute differs from Oklahoma's trespass statute because it does not turn on whether the equipment was inside or outside property lines. It does, however, require a particular motive that would not always be applicable.

Originally, the Peeping Tom statute's applicability was limited to instances where the victim had a reasonable expectation of privacy.¹¹³ In *Durant v. State*, the court noted that, in addition to residences, this includes locker rooms, dressing rooms, and restrooms.¹¹⁴ It does not, however, include images taken in a public place.¹¹⁵ In *Durant*, the appellant had hidden a camera in his backpack and attempted to take photographs of a female student's undergarments while she was sitting in the lobby of an Oklahoma City community college.¹¹⁶ The court held that section 1171(b) of the Peeping Tom statute did not apply because she was in a public place

109. *Id.* ¶ 13, 584 P.2d at 1339.

110. 21 OKLA. STAT. § 839.1 (2011).

111. 21 OKLA. STAT. § 1171(A) (2011).

112. *Id.* § 1171(B).

113. *Id.*

114. 2008 OK CR 17, ¶ 6, 188 P.3d 192, 193.

115. *Id.* ¶ 9, 188 P.3d at 194.

116. *Id.* ¶ 3, 188 P.3d at 193.

and the statute refers to one's reasonable expectation of privacy while in a particular location, not to expectations of privacy about a particular place on one's body.¹¹⁷

This decision appears to have led to the enactment of section 1171(c), approved only months after the *Durant* decision, which broadened Peeping Tom liability to include protection of private areas of the body "regardless of whether the person is in a public or private place."¹¹⁸ A *Durant* concurrence appropriately highlights that when it comes to issues involving developing technology, legislative response is generally reactionary: "The legislative branch has simply not kept up with the fantasies of the deviant mind and the technology used to fulfill those abhorrent fantasies. Most criminal statutes are written as a reaction to some type of conduct or in an attempt to curb future conduct, deemed to be 'criminal.'"¹¹⁹

The *Durant* decision illustrates Oklahoma's willingness to make an exception to the general rule that protection from such privacy invasions does not extend to public areas. Should Oklahoma wish to expand to some degree protections against the use of UAVs to surreptitiously record individuals for prurient purposes outside the home, extending the Peeping Tom statute may provide an appropriate avenue.

Similarly, Oklahoma's stalking statutes could serve as an appropriate avenue for liability for some forms of UAV privacy invasions. First, title 21, section 1173 of the Oklahoma Statutes criminalizes the act of following or harassing another in a manner that causes a person, or would cause a reasonable person, to "feel terrorized, frightened, intimidated, threatened, harassed, or molested."¹²⁰ Further, the harassment must be malicious and recurrent.¹²¹ The statute defines "harassment" as

a pattern or course of conduct directed toward another individual that includes, but is not limited to, repeated or continuing unconsented contact, that would cause a reasonable person to suffer emotional distress, and that actually causes emotional distress to the victim. . . . Harassment does not include constitutionally protected activity or conduct that serves a legitimate purpose.¹²²

117. *Id.* ¶ 9, 188 P.3d at 194.

118. 21 OKLA. STAT. § 1171(C) (2011).

119. *Durant*, ¶ 2, 188 P.3d at 195 (Lewis, J., specially concurring).

120. 21 OKLA. STAT. § 1173(A)(2).

121. *Id.* § 1173(F).

122. *Id.* § 1173(F)(1).

The term “pattern or course of conduct”¹²³ appears broad enough to encompass the use of technologies, but nothing explicitly suggests that a court would construe it as such.

Second, the Protection from Domestic Abuse Act provides that a victim of stalking or harassment may seek a protection order.¹²⁴ While the Act’s definition of “harassment” is limited to conduct by family or household members or individuals who are or were involved in dating relationships with the individual, its definition for “stalking” encompasses conduct by any adult.¹²⁵ Further, the definition for stalking includes a non-comprehensive list of examples of prohibited conduct that may constitute stalking. This includes following or approaching the individual in a public place or on private property, sending electronic communications, telephoning, and placing an object on the individual’s property. Courts could potentially interpret this broadly enough to encompass the act of following and photographing an individual with a UAV. Otherwise, the Oklahoma legislature could consider amending the statute to add the use of UAVs to the list of enumerated conduct.

Of course, the Peeping Tom and stalking statutes are very limited and would be inapplicable to many potential privacy intrusions by UAVs. Trespass and nuisance, similarly, fall short in their ability to adequately address key UAV privacy concerns. Therefore, Oklahoma should consider either amending existing statutes or enacting UAV-specific statutes.

V. UAV Bills and Statutes

Members of the United States Congress have introduced a small number of bills aimed at restricting the use of UAVs for domestic surveillance.¹²⁶ The Preserving American Privacy Act of 2015 called for a restriction in the amount of personal identifying information law enforcement could obtain through use of UAVs and sought to impose a blanket warrant requirement on such data collection.¹²⁷ It also banned the use of weapons on UAVs in national airspace.¹²⁸ The Preserving Freedom from Unwarranted Surveillance Act of 2013 sought to prevent law enforcement from using

123. *Id.*

124. 22 *id.* § 60.2(A).

125. *Id.* § 60.1(2)-(3); *see also* Null v. Polin, 2014 OK CIV APP 12, ¶ 26, 319 P.3d 689, 693.

126. Barbee, *supra* note 7, at 477.

127. Preserving American Privacy Act of 2015, H.R. 1385, 114th Cong. § 3119c (2015).

128. *Id.* § 3119h.

UAVs to collect evidence in criminal cases.¹²⁹ The Drone Aircraft Privacy and Transparency Act of 2015 sought to amend the FMRA to require a study on privacy risks created by the integration of UAVs.¹³⁰ None of these bills passed. While their mere introduction suggests that Congress may enact UAV privacy policy legislation at some point in the future, no federal laws currently exist on the issue.

In the absence of federal UAV statutes, states have begun crafting their own. In 2015, forty-five states considered a total of 168 bills related to UAVs.¹³¹ In 2016, thirty-eight states considered UAV bills.¹³² Eighteen states passed thirty-two pieces of UAV-related legislation in 2016 alone.¹³³ The short survey of these statutes below illustrates the diversity of state approaches to UAV use by law enforcement and the general public.

A. State Statutes Regulating UAV Use by Law Enforcement

Maine, Nevada, North Dakota, Utah, and Virginia have enacted statutes that limit the use of UAVs by law enforcement.¹³⁴ Maine's UAV statute prohibits law enforcement from operating UAVs without a warrant, except for search-and-rescue operations, the assessment of accidents, fires, floods, and storm damage, and other emergency situations, upon approval.¹³⁵ It also explicitly prohibits law enforcement use of weaponized UAVs.¹³⁶ Unlike other states, Maine's UAV statute addresses First Amendment rights by prohibiting law enforcement's use of UAVs to "conduct surveillance of private citizens peacefully exercising their constitutional rights of free speech and assembly."¹³⁷

Like Maine, Nevada requires a warrant for UAV use by law enforcement, but it goes a step further by requiring that warrants specify the

129. Preserving Freedom from Unwarranted Surveillance Act of 2013, S. 1016, 113th Cong. § 3 (2013).

130. Drone Aircraft Privacy and Transparency Act of 2015, H.R. 1229, 114th Cong. § 3 (2015).

131. *State Unmanned Aircraft Systems (UAS) 2015 Legislation*, NAT'L CONF. ST. LEGISLATURES (Sept. 30, 2016), <http://www.ncsl.org/research/transportation/state-unmanned-aircraft-systems-uas-2015-legislation.aspx>.

132. *State Unmanned Aircraft Systems (UAS) 2016 Legislation*, NAT'L CONF. ST. LEGISLATURES (May 23, 2017), <http://www.ncsl.org/research/transportation/state-unmanned-aircraft-systems-uas-2016-legislation.aspx>.

133. *Id.*

134. *State Unmanned Aircraft Systems (UAS) 2015 Legislation*, *supra* note 131.

135. ME. REV. STAT. ANN. tit. 25, § 4501(4)(B)-(D) (2015).

136. *Id.* § 4501(4)(E).

137. *Id.* § 4501(4)(F).

duration of the UAV surveillance and by limiting the duration of use to a maximum of ten days.¹³⁸ Similarly, North Dakota requires that a warrant for the use of a UAV include a data collection statement that specifies where the UAV will be used, the maximum duration of operation, and the type of data being collected.¹³⁹

Utah allows the government to use UAVs only when pursuant to a warrant or for the purpose of locating a lost or missing individual.¹⁴⁰ Virginia requires a warrant for law enforcement use of UAVs, but also provides for warrantless use of UAVs for purposes that “support the Commonwealth,” including flood, wildfire, traffic, and general damage assessment.¹⁴¹ Florida requires that law enforcement obtain a warrant for UAV use, except “to prevent imminent danger to life or serious damage to property, to forestall the imminent escape of a suspect or the destruction of evidence, or to achieve purposes including, but not limited to, facilitating the search of a missing person.”¹⁴²

B. State Statutes Regarding Nongovernmental UAV Privacy Invasions

Some states have enacted legislation or passed amendments aimed at nongovernmental UAV operators. These statutes seek to protect individuals from privacy invasions. Arkansas, for instance, amended its statute regarding video voyeurism to include a section specifically addressing UAVs.¹⁴³ It prohibits individuals from using UAVs for the purpose of surreptitiously viewing areas of a person’s body generally covered by clothing.¹⁴⁴ Mississippi included UAVs in an amendment to its Peeping Tom statute, making the use of UAVs for Peeping Tom activities a felony.¹⁴⁵

California enacted UAV legislation in response to UAV use by the paparazzi.¹⁴⁶ This statute first incorporates the concept of physical trespass into invasion of privacy, providing that trespass into airspace for the purpose of capturing images constitutes physical invasion of privacy.¹⁴⁷ Second, the statute creates liability for *constructive* invasion of privacy,

138. NEV. REV. STAT. ANN. § 493.112(2) (West 2016).

139. N.D. CENT. CODE ANN. § 29-29.4-03 (West 2015).

140. UTAH CODE ANN. § 63G-18-103 (West 2015).

141. VA. CODE ANN. § 19.2-60.1 (2015).

142. FLA. STAT. § 934.50(4)(c) (2016).

143. ARK. CODE ANN. § 5-16-101(b) (West 2015).

144. *Id.*

145. MISS. CODE ANN. § 97-29-61(1)(b) (West 2015).

146. *State Unmanned Aircraft Systems (UAS) 2015 Legislation*, *supra* note 131.

147. CAL. CIVIL CODE § 1708.8(a) (Deering 2016).

thereby creating an interesting solution to one of the shortfalls of trespass as an avenue of UAV liability. The provision reads:

A person is liable for constructive invasion of privacy when the person attempts to capture, in a manner that is offensive to a reasonable person, any type of visual image, sound recording, or other physical impression of the plaintiff engaging in a private, personal, or familial activity, through the use of any device, regardless of whether there is a physical trespass, if this image, sound recording, or other physical impression could not have been achieved without a trespass unless the device was used.¹⁴⁸

This section recognizes situations in which a UAV operator hovers a UAV just outside a property owner's airspace, thus avoiding trespass, but is nonetheless able to record the same detail in images as though he or she were on the property due to zooming capabilities and vertical vantage points. While creative, this statute is unique in its breadth and reflects California's unique concerns related to paparazzi. Also, the law's restrictions on photojournalists may raise First Amendment concerns.

Finally, Texas goes further than many states by criminalizing the use of UAVs to capture images of private property or to capture images with the intent to conduct surveillance of individuals, whether or not they are in a public place or lack a reasonable expectation of privacy.¹⁴⁹ This broad prohibition, however, is subject to some nineteen exceptions.¹⁵⁰

C. State Statutes Regarding UAV Applications in Agriculture and Oil and Gas

One of the exceptions listed in Texas's UAV statute is the use of UAVs "by the owner or operator of an oil, gas, water, or other pipeline for the purpose of inspecting, maintaining, or repairing pipelines or other related facilities."¹⁵¹ The images, however, must be captured without the intent to conduct surveillance on an individual or real property.¹⁵² Texas also provides a more general exception providing for all UAV use related to rig protection and oil pipeline safety.¹⁵³ At the same time, Texas prohibits individuals from operating UAVs over or near critical infrastructure

148. *Id.* § 1708.8(b).

149. TEX. GOV'T CODE ANN. § 423.003(a) (West Supp. 2016).

150. *Id.* § 423.005(1).

151. *Id.* § 423.002(a)(17).

152. *Id.*

153. *Id.* § 423.002(a)(18).

facilities, which includes oil and gas operations.¹⁵⁴ These restrictions apply to all individuals other than the owners, the operators, and the government.¹⁵⁵

Louisiana has enacted a statute that regulates UAV use in agricultural commercial operations.¹⁵⁶ Private landowners may use UAVs for agricultural commercial operations so long as data collected from the UAV is used solely for that purpose or in conjunction with a Louisiana postsecondary educational institution.¹⁵⁷

D. Oklahoma's Proposed Bills and Enacted Legislation

Oklahoma has introduced several UAV bills but has enacted only one. Three UAV bills were introduced during the First Session of the 55th Legislature (2015), but all three died in committee. The Oklahoma Unmanned Aerial Surveillance Act, which falls in line with other states' legislation requiring a warrant for law enforcement UAV use, sought to make it "unlawful for an agent of the state or any political subdivision of the state to operate an unmanned aerial vehicle or to disclose or receive information acquired through the operation of an unmanned aerial vehicle."¹⁵⁸ The proposed Act included exceptions for consent, emergency situations (not exceeding forty-eight hours without a warrant), and warrants and court orders.¹⁵⁹ The Act also would have provided an exception allowing for officer use of UAVs on public land, "provided, that the surveillance [would] not be targeted at gathering or producing information concerning any private individuals or organizations that are using or present on the land or property."¹⁶⁰

Like the Oklahoma Unmanned Aerial Surveillance Act, an Oklahoma Senate bill titled "Aircraft; restricting the use of drones" sought to place limitations on law enforcement by prohibiting their use of UAVs without a warrant.¹⁶¹ While both of the above-referenced bills addressed Fourth Amendment concerns by prohibiting warrantless use of UAVs by law enforcement, the latter would have also placed limitations on nongovernment individuals: "Whoever uses a drone to photograph, record,

154. *Id.* § 423.0045.

155. *Id.*

156. LA. STAT. ANN. § 3:44 (2015).

157. *Id.* § 3:44(B)(3).

158. H.B. 1295, 55th Leg., 1st Reg. Sess. (Okla. 2015).

159. *Id.*

160. *Id.*

161. S.B. 503, 55th Leg., 1st Reg. Sess. (Okla. 2015).

or otherwise observe another individual in a place where the individual has a reasonable expectation of privacy is guilty of a misdemeanor.”¹⁶² This provision aimed to protect against infringements upon reasonable expectations of privacy by nongovernment UAV operators.

The third UAV bill introduced in 2015 went as far as allowing individuals to destroy UAVs that fly over their property without incurring civil liability for the damage.¹⁶³ As UAVs have become more common, there have been several instances of individuals employing this proposed self-help remedy, with mixed reception. In July 2015, a Kentucky man was arrested for shooting down a civilian drone with a shotgun after his two daughters told him it was hovering over their property.¹⁶⁴ He faced felony charges of wanton endangerment and criminal mischief.¹⁶⁵ The prior September, a similar instance occurred in New Jersey.¹⁶⁶ One small Colorado town proposed allowing their residents to obtain “hunting” licenses for drones, though the town, Deer Trail, eventually rejected the proposal.¹⁶⁷ The proposal received a harsh response from the FAA, which included a reminder that it regulates the nation’s airspace. The FAA warned, “Shooting at an unmanned aircraft could result in criminal or civil liability, just as would firing at a manned airplane.”¹⁶⁸

Oklahoma is the only state thus far to propose a bill that would allow property owners to shoot down drones. The bill was approved by a Senate committee in February 2015 and advanced to the full Senate.¹⁶⁹ It did not receive further consideration, however, during the Second Session of the 55th Legislature (2016). The bill, though not enacted, illustrates the significance Oklahoma places on the privacy rights of property owners.

162. *Id.*

163. S.B. 492, 55th Leg., 1st Reg. Sess. (Okla. 2015).

164. Bill Chappel, *Dispute Emerges Over Drone Shot Down by Kentucky Man*, NPR (July 31, 2015, 5:11 PM), <http://www.npr.org/sections/thetwo-way/2015/07/31/428156902/dispute-emerges-over-drone-shot-down-by-kentucky-man>; Elisha Fieldstadt, *Case Dismissed Against William H. Meredith, Kentucky Man Arrested for Shooting Down Drone*, NBC NEWS (Oct. 27, 2015, 1:28 PM), <http://www.nbcnews.com/news/us-news/case-dismissed-against-william-h-merideth-kentucky-man-arrested-shooting-n452281>.

165. Chappel, *supra* note 164.

166. *Id.*

167. Barbee, *supra* note 7, at 477; *see also Colorado Town Shoots Down Drone-Hunting Season*, NBC NEWS (Apr. 2, 2014, 10:50 AM), <http://www.nbcnews.com/news/us-news/colorado-town-shoots-down-drone-hunting-season-n69721> [hereinafter *Colorado Town*].

168. *Colorado Town*, *supra* note 167.

169. Bill Chappel, *‘Drone Shoot-Down Bill’ Advances in Oklahoma*, NPR (Feb. 10, 2015, 1:50 PM), <http://www.npr.org/sections/thetwo-way/2015/02/10/385239519/drone-shoot-down-bill-advances-in-oklahoma>.

Titled “Torts: providing civil immunity for damage or destruction of a drone on personal property,” the bill reads as follows:

B. Any person owning or controlling real estate or other premises who voluntarily damages or destroys a drone located on the real estate or premises or within the airspace of the premises not otherwise regulated by the Federal Aviation Administration, shall, together with any successors in interest, if any, not be civilly liable for causing the damage or destruction to the property of such person.¹⁷⁰

Given the FAA’s comments regarding the Deer Trail proposal, Oklahoma may have been met with some resistance from the FAA had the bill been enacted. Even if an individual shoots at a drone flying below FAA-regulated airspace (typically 400 feet above the ground), shooting into the air implicates air safety concerns, so the FAA could get involved.¹⁷¹

The bill had other clear drawbacks. It likely would have led to the destruction of UAVs in cases in which the owner was unaware the device was flying over private property. Further, property owners might have misinterpreted the measure as providing immunity for the discharge of their weapon where such discharge would otherwise be prohibited, such as over private property in an urban area.¹⁷²

During the Second Session of the 55th Legislature (2016), five additional UAV bills were introduced, four of which died in committee. House Bill 2368 sought to prohibit operation of UAVs over private agricultural property.¹⁷³ House Bill 2591 sought to require the owner’s contact information to be affixed to their UAV.¹⁷⁴ House Bill 3001 sought to create the Oklahoma Use of Unmanned Aerial Vehicles Act, which would have mandated compliance with FAA rules, prohibited warrantless use of UAVs by law enforcement, and authorized UAV use by media, among other things.¹⁷⁵ House Bill 2337 sought to create the Oklahoma Unmanned Aerial Surveillance Act, which would have barred law enforcement from using UAVs except pursuant to valid warrants or court orders, individual consent,

170. S.B. 492, 55th Leg., 1st Reg. Sess. (Okla. 2015).

171. *Colorado Town*, *supra* note 167.

172. See A. Michael Fromkin & Zak Colangelo, *Self-defense Against Overflying Drones*, WASH. POST (Oct. 3, 2014), <https://www.washingtonpost.com/news/volokh-conspiracy/wp/2014/10/03/self-defense-against-overflying-drones/>.

173. H.B. 2368, 55th Leg., 2d Reg. Sess. (Okla. 2016).

174. H.B. 2591, 55th Leg., 2d Reg. Sess. (Okla. 2016).

175. H.B. 3001, 55th Leg., 2d Reg. Sess. (Okla. 2016).

or during an emergency situation.¹⁷⁶ It also would have prohibited equipping UAVs with weapons.¹⁷⁷ Violations had severe repercussions, including fines of up to \$2500 and jail time of up to six months.¹⁷⁸

While the above-referenced bills all died in committee, Oklahoma did pass one piece of UAV legislation: House Bill 2599, now codified in title 3, section 322 of the Oklahoma Statutes. This statute imposes civil liability for the operation of a UAV less than 400 feet over a critical infrastructure facility or within a distance whereby the UAV interferes with the operations or causes a disturbance to the facility.¹⁷⁹ Exceptions include the owners and operators of the critical infrastructure facility or their agents, law enforcement agencies, and the government.¹⁸⁰ The statute defines critical infrastructure facilities primarily in terms of oil and gas sites, though the term also includes facilities such as electrical power generating facilities and cell towers.¹⁸¹

VI. Suggestions for Oklahoma UAV Regulations

While Oklahoma has passed one piece of UAV legislation, the statute does not address issues of UAV use by law enforcement or issues of individual privacy. As Oklahoma develops its legislative response to these issues, other states' UAV statutes serve as useful models. With regard to restrictions on law enforcement, all states that have enacted such statutes have imposed a warrant requirement. Oklahoma should do so as well. The United States Congress has likewise illustrated its concern over this issue by introducing legislation mandating warrants for UAV use.¹⁸² While the constitutionality of warrantless UAV searches by law enforcement remains an open question,¹⁸³ the warrant restriction draws a clear line that protects the privacy of individuals against government abuse of this new technology.

Further, Oklahoma should consider following the example of Nevada and North Dakota in requiring a limit to the duration of UAV use granted by warrants. Given the nature of the technology, the duration of UAV surveillance would appear to be a factor in determining reasonability under

176. H.B. 2337, 55th Leg., 2d Reg. Sess. (Okla. 2016).

177. *Id.*

178. *Id.*

179. 3 OKLA. STAT. § 322(B) (2016).

180. *Id.* § 322(C).

181. *Id.* § 322(A)(1).

182. *See* H.R. 1385, 114th Cong. (2015).

183. *See supra* Part II.

Katz. It makes sense then to impose duration limits on the general warrant exception. In addition, Oklahoma should also consider an explicit ban on the weaponization of UAVs by law enforcement as several states have already done.¹⁸⁴ Further, violations should result in the inadmissibility of any evidence collected as a result of the violation.

With regard to restrictions on nongovernmental use, the easiest solution to protecting against UAV privacy invasions appears to be amending existing applicable statutes. While Texas's and California's statutory solutions appear too restrictive, amending, for instance, Oklahoma's Peeping Tom or stalking statutes to incorporate this new technology would be simple and effective. Oklahoma could add UAVs to the enumerated examples of methods of stalking in the statute's definitions. Similarly, Oklahoma could amend its trespass and nuisance statutes to incorporate UAV intrusions. This way the state could incorporate additional privacy protections under existing and acceptable frameworks.

Finally, Oklahoma may be interested in UAV legislation regarding the agricultural industry as evidenced by the introduction of House Bill 2368 in 2016, which sought to prohibit UAVs over private agricultural property.¹⁸⁵ While the wide-sweeping UAV-specific protections of Texas may be attractive, Oklahoma already provides additional protections for these industries against intrusion under title 21, section 1835.2 of the Oklahoma Statutes—Trespass to Private Land Primarily Devoted to Farming, Ranching, or Forestry¹⁸⁶—and the Oklahoma Private Lands and Public Recreation Act, which prohibits recreational trespass.¹⁸⁷ These may be broad enough to encompass aerial trespass, depending on judicial interpretation. Here, too, the legislature could amend existing statutes to incorporate UAVs into the definitions. Oklahoma could, for instance, add a definition for “entry” to section 1835.2, similar to Arizona's trespass statute, defining it as “the intrusion of any part of any instrument or any part of a person's body inside external boundaries of a structure or unit of property.”¹⁸⁸

184. *See supra* Section V.A.

185. H.B. 2368, 55th Leg., 2d Reg. Sess. (Okla. 2016).

186. 21 OKLA. STAT. § 1835.2 (2011).

187. *Id.* § 1835.6; *see supra* Part IV.A.

188. ARIZ. REV. STAT. ANN. § 13-1501(3) (2012).

VII. Conclusion

UAV technology promises many advantages for Oklahomans and Oklahoma's primary industries. From efficient pipeline inspection to crop surveying to weather forecasting, UAVs will undoubtedly have a significant and positive impact on the state. With the FAA's recent finalization of its UAV rule, Oklahoma, along with many other states, needs to prepare for the proliferation of this new technology. The state should not only pass legislation that prohibits warrantless UAV surveillance by law enforcement but should also take steps to address the privacy concerns implicit in the unique capabilities of UAVs to capture audio, still images, and video from above while allowing their owners to maintain relative anonymity. Oklahoma statutes and common law theories of trespass, private nuisance, and invasion of privacy all leave significant gaps through which UAVs might easily pass. The Oklahoma legislature should consider closing those gaps with simple amendments or by addressing these privacy concerns in a larger, UAV-specific statute. Regardless of the method, the state should seek to balance the benefits of commercial use, the rights of UAV hobbyists, and the privacy concerns of the public.

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