



The Rise of Drones and the Erosion of Privacy and Trespass Laws

By Ronnie R. Gipson Jr.

As a law professor, one of the pleasures of my profession is teaching tort law to first-year law students. When we start on the law of trespass, I begin by describing the situation of kids cutting across an elderly man's yard on the way home from school. I start simple, then add variables to the description as we talk through the hypothetical circumstances. In this way, I am able to illustrate nuances to the students to introduce several legal doctrines, such as the landowner/occupier trichotomy, the attractive nuisance doctrine, privacy, and trespass.

Technological advancements are giving new life to this tried-and-true learning methodology. In particular, the development and growth of unmanned aerial systems/vehicles (UAS/UAV) technology, commonly referred to as drones, is forcing state legislators, practitioners, and legal scholars to examine the reach and application of the trespass doctrine and the right to privacy. This article addresses recent developments in the law pertaining to trespass and the right to privacy associated with drone operations. While identifying the developments, the article advances the position that we must protect trespass and the right to privacy, as tort claims from erosion as recreational and commercial drone use grows and becomes commonplace.

Trespass

What is a trespass? *Trespass* is defined as an entry onto another's land without permission, irrespective of any damage caused.¹ The schoolkids cutting across the elderly man's lawn illustrates a trespass. The kids cross the land without permission of the landowner; thus, their mere entry onto the land constitutes a trespass. Trespass is an intentional tort, and, from a policy perspective, the kids' intrusion onto the owner's property without permission entitles the owner to damages because of the infringement of the property owner's right to exclude.

When a drone replaces the kids in the hypothetical, then the trespass analysis becomes tortured because the drone never physically touches the land but instead encroaches into the airspace immediately above the land. Logic suggests that the historical,

land-based tort of trespass should apply when a drone penetrates the immediate, reachable airspace above a property owner's land just as if the drone had actually touched the ground. Thus, when an object intrudes into the airspace above their land, landowners ordinarily assume that a trespass has occurred. But that is not necessarily the case in today's law.

In reliance in large part on the *Restatement (Second) of Torts*, the traditional trespass doctrine does not apply when a drone invades only a property owner's airspace. Instead, the trespass doctrine that makes sense when a physical touching occurs gives way to the tort of aerial trespass, which applies to the right of a drone operator to operate through the navigable airspace above the land.² At this point in the law, the analysis becomes more complicated.

The foundation for distinguishing the trespass doctrine from an aerial trespass comes from *United States v. Causby*, a seminal constitutional law case widely known for its holding on the Takings Clause of the Fifth Amendment to the U.S. Constitution.³ In *Causby*, the U.S. government leased an airfield adjacent to a chicken farm operation. The government used the airfield to train bombers prior to deploying them for combat in the European theater during World War II. As part of the operations, the bombers flew low-level approaches into the airspace directly above the chicken farm. The bombers flew so low that they barely cleared the treetops on some occasions. The noise and vibrations emanating from continuous bomber-training operations had a deleterious effect on the chicken farm's operations. The most vivid consequence was that the chickens were frightened out of their minds—literally. The chickens got so scared that they ran at top speed into the sides of buildings on the farm, killing themselves—historical poultricide. As a result of the loss of revenue, the Causbys sued the federal government, arguing that the intrusion of bombers into the airspace above their real property constituted a taking under the Fifth Amendment requiring compensation. The court agreed.

A companion argument advanced by the Causbys in the lower courts was that the bombers committed a common law trespass through the airspace above their land. The formulation of the Causbys' argument on trespass was based on the common law *ad coelum* doctrine, which advances the notion that ownership of real property includes the airspace above the land up to the edges of the atmosphere.⁴ The Causbys, in

Ronnie R. Gipson Jr. (rrgipson@memphis.edu) is a visiting assistant professor at the University of Memphis Cecil C. Humphreys School of Law. Gipson is a fixed-wing private pilot who spent a decade representing different stakeholders in the aviation industry. He is now an aviation law scholar who provides policy advice to the aviation industry.

reliance on this doctrine, argued that the bombers' transit through this envelope of airspace above their land constituted a trespass. The trespass issue was not before the Supreme Court, and the *Causby* opinion is therefore grounded in the Takings Clause and not the trespass claim. However, the Supreme Court made references to the trespass doctrine in the *Causby* opinion. The Court, in dicta, rejected the *ad coelum* doctrine but recognized that real property owners' rights of ownership extended to the "superadjacent" airspace or "at least as much of the space above the ground as they can occupy or use in connection with the land."⁵ The Court also acknowledged that aircraft flight was considered to be lawful unless the altitude was so low that the flight path interfered with the existing use of the land or the flight path posed an imminent danger to persons or property on the land. Building upon this language, the Court recognized that aircraft skimming along the surface of the land, but not touching the land, intruded upon the landowner's use and enjoyment of the land to the same extent as a physical trespass at ground level. From this combination of holdings, the term *aerial trespass* was born; however, a uniform definition remains illusory when moving among different jurisdictions.

The *Causby* opinion acknowledged that although the navigable airspace was placed in the public domain, the landowners retained ownership of the airspace above their property that can be occupied or used in connection with the land.⁶ The result was an implied but recognized buffer zone between the airspace next to a landowner's property interests and the navigable airspace utilized by the federal government.⁷ The boundaries of the buffer zone became defined by the Federal Aviation Regulations (FARs), which set the floor for navigable airspace at 500 feet above the ground. Aircraft are not permitted to operate below this altitude unless maneuvering for takeoff and landing. Exceptions exist to allow some fixed-wing operations below this 500-foot floor, but those exceptions contain further restrictions such as minimal distances from people, objects, and buildings, and helicopter operations that are at a safe distance and without hazard to persons or property.⁸

In 2016, the Federal Aviation Administration (FAA) released its final rule on drone operations, which established a hard ceiling of 400 feet for the operation of drones as long as those operations are far enough away from landing and departing aircraft. The 400-foot altitude was selected to provide a vertical safety buffer zone between unmanned flight operations and manned flight operations, which may be permitted to descend to 500 feet. Prior to the issuance of the FAA's final rule on drone operations, and consistent with the holding in *Causby*, the area of airspace below what the FAA arguably defined as navigable airspace was considered within the purview of the states, giving rise to common law claims consistent

with the Tenth Amendment.⁹ With this revised segregation of airspace defined by the FAA's final rule on drones, modern-day technology now imposes the transit of drones through the landowner's superadjacent airspace. Drones in compliance with regulations now legally transit through airspace that sits within the ambit of the landowner's envelope of protection.

From a strict tort law perspective, drones that operate through this superadjacent airspace commit a trespass, violating landowners' rights. The FAA relegation of drones to airspace not previously designated for aircraft flight by the federal government thus increases the pressure to reevaluate and demarcate the boundary between what is now usable navigable airspace and a landowner's superadjacent airspace envelope.

Recognizing the enormity of the change that drones bring to this area of tort law, the Uniform Law Commission (ULC) set out to construct a model tort law called the Uniform Tort Law Relating to Drones Act (Draft Model Act).¹⁰ It is important to note that once the ULC finalizes the Draft Model Act, the proposal will then be submitted to the several states as a uniform tort scheme pertaining to drones. The states will then choose whether or not to adopt the Draft Model Act in whole or in part into their statutory scheme.

In 2018, the ULC released the first Draft Model Act, seeking comment from interested stakeholders. The initial Draft Model Act stated that liability for trespass infringements against the property owner rested with the drone operator. Another important tenet of the initial Draft Model Act was the establishment of a 200-foot shelf above a landowner's property as the upper limit of the immediate reaches of airspace consistent with *Causby*. The initial proposal took the position that the mere presence of a drone within this protected area constituted a per se injury. The drone industry balked at the 200-foot shelf. In 2019, the ULC drafting committee met and revised the Draft Model Act, removing the per se injury tied to the 200-foot shelf to provide greater operational flexibility for drone operators. The drone industry quickly lauded the removal of the 200-foot shelf.¹¹

With the 200-foot restriction absent, the Draft Model Act now contains language that defines a drone passing through airspace above private property as an aerial trespass in line with the *Restatement* but in contravention of the protections set forth in *Causby*.¹² A key component of the proposed aerial trespass doctrine is the requirement for the overflight of the drone to substantially interfere with the land use below. Specifically, the Draft Model Act proposes the following factors to consider in order to assess whether or not an aerial trespass has occurred:

- the amount of time the drone was over the landowner's property;
- the altitude of operation;

- the number and frequency of times that the drone has been operated over the property;
- the time of day of the operation;
- the operator's purpose in operating the drone over the property;
- physical damage caused by the drone operation;
- economic damage caused by the drone operation;
- whether or not the drone was seen or heard over the property;
- whether or not the drone captured audio, video, or photographs; and
- whether or not the landowner has regularly allowed the operation of drones over the property.

Instead of a trespass analysis, the factors proposed by the ULC look more like the analysis for determining whether a Fifth Amendment taking has occurred as in *Penn Central Transportation Co. v. City of New York*.¹³ In *Penn Central*, the owner of Grand Central Terminal applied for permission to build an office building above the historic terminal. The City of New York denied the application in order to preserve the historic nature of the terminal. The owner argued that the denial of the application by the city amounted to a regulatory taking and filed suit seeking compensation under the Fifth Amendment to the Constitution. The case made its way to the U.S. Supreme Court, which used the case to set forth factors to determine whether a regulatory taking has occurred.¹⁴

A multifactor analysis akin to establishing a regulatory taking is an inappropriate construct for analyzing whether a trespass by a drone has taken place because the policy aims are drastically different and there is no government actor in the case of the trespass. To continue down the path of defining an aerial trespass as one that happens only when harm occurs comports with the language in the *Restatement*, but this approach ignores the landowner's rights to pursue a trespass claim for intrusion into the superadjacent airspace, as acknowledged in *Causby*. In *Causby*, the Court wrote, "We think that the landowner, as an incident to his ownership, has a claim to it [superadjacent airspace] and that invasions of it are in the same category as invasions of the surface."¹⁵ With this language, the Court signaled that the landowner's property rights against trespass continued to reach into the superadjacent airspace. The original language in the 2018 version of the Draft Model Act imposed a hard barrier to prevent a trespass from ever occurring, which, however slight, was consistent with *Causby*. In contrast, the introduction of factors to consider in the revised 2019 version of the Draft Model Act addresses the trespass after the event occurs. The introduction of a multifactor test removes the analysis from the realm of trespass and inappropriately places it into the sphere of a takings analysis. It is amazing that an opinion written in 1946 continues to be hotly debated almost 75 years later.

If the provision on trespass in the current version of the Draft Model Act remains unchanged in the final

version transmitted by the ULC to the states, then the onus for protecting landowners' trespass rights will rest with the states. State legislatures that disagree with the ULC and wish to apply the traditional *trespass* definition to aerial intrusions can achieve this protection by refusing to adopt the Model Act. Instead, they can take existing tort schemes and extend those to laws to cover drone operations in order to achieve the necessary level of protection for everyone impacted. The ULC drafting committee should take heed and seek to create a better balance in the language of the Draft Model Act among the competing interests of property owners, drone operators, and the drone industry on the trespass issue. The balanced solution involves eschewing the takings analysis for drone entry into airspace above property and embracing the true definition of *trespass*, which recognizes an entry into the immediate airspace reaches of a property owner as a compensable per se injury.

Right to Privacy

Based on the *Restatement*, privacy consists of a mixture of different rights. The privacy interests protected in tort law include the right to be free from (i) an unreasonable intrusion of a person's seclusion, (ii) the appropriation of a person's name or likeness, (iii) unreasonable publicity given to one's private life, and (iv) publicity that places one in a false light before the public.¹⁶

The infringement of the first privacy right occurs when drones pass through a landowner's airspace. The pass-through represents an unreasonable intrusion on a person's seclusion. If the drone is equipped with a video camera, then the drone's capture of images or video footage without permission infringes on the privacy right of the subject of the images by giving unwanted and unauthorized publicity to a person's private life.¹⁷ In crafting public policy on a drone's privacy intrusion, concerns about the protection of privacy rights of the populace at large come to the forefront of the discussion.

In the Draft Model Act, the ULC charted a path that seeks to avoid offering a model tort law that is directed at a specific technology or that singles out drones when it comes to privacy concerns. Instead, the ULC advances the idea that state laws on privacy are adequate. Only time will tell as technology advances whether or not the ULC's deference to the states on the issue of privacy is a wise one.

The issues of trespass and privacy are intertwined. For this reason, landowners have difficulty separating their trespass claims from their privacy claims. This difficulty is evident in cases where one right is advanced as a cause of action while the other right lurks in the background and yet drives the outcome.

An incident from Ulster, New York, in 2014 demonstrates the degree to which a drone may be said to invade privacy and the need to craft clear policy

positions that protect privacy rights as technology advances.¹⁸ In this incident, a man dropped off his mother at the doctor's office for a medical appointment. The man then flew his drone equipped with a camera, taking photos and video footage of the exterior of the medical building as a means to promote his videography enterprise. None of the pictures or video captured showed either the interior of the building or patients. Nonetheless, the drone operator was tried criminally for unlawful surveillance. The statute used to charge the drone operator contained language specifically stating that the purpose of the law was to protect innocent persons' privacy by preventing others from filming them without authorization.

Although the defendant in the Ulster incident did not intend to violate any individual's privacy, this event shows the potential harm that can occur as a result of the actions of a drone operator who has no respect for the potential privacy interests of those who might be impacted by the presence of a drone. Consider a circumstance where a drone operator conducts the same type of flight but with the purpose of capturing the identity of people submitting themselves for treatment at a plastic surgery facility, a family planning facility, or a cancer treatment facility. The mere presence of the patients at those facilities may not be information that the patients want in the public domain through the internet or social media platforms. Only the implementation of strong privacy laws that disincentivize this type of behavior will serve to protect the population's privacy rights from rogue drone operators.

Landowners Versus the Nascent Drone Industry

The emergence of drones into our society is a recent phenomenon. With any new and developing technology, the legal policy-making often lags behind. UAS/UAV technology is no different. What we are seeing is that while incidents involving drones make their way into the news and onto the internet, those incidents rarely make their way to the trial and appellate courts. As a result, there are very few matters that can start to frame the law in this area, good or bad.

The first noteworthy incident occurred in 2017 in New York between two neighbors.¹⁹ The drone operator was a teenage boy who received the drone as a Christmas gift. The boy flew the drone over the house of his neighbor, who then complained. That interaction between the neighbors did not go well, and no agreement to alter the drone's flight path was reached. The boy reportedly flew the drone over the neighbor's house an additional 13 times over the next six months. Applying the traditional *trespass* definition, the boy's drone trespassed over the neighbor's property a total of 14 times. Applying the Draft Model Act's *aerial trespass* definition, although an intrusion into the neighbor's airspace occurred, no compensable injury occurred. The landowner relied on the traditional

trespass definition and acted accordingly. Each time that the drone appeared over her property, the neighbor called the police. The incident escalated beyond acceptable societal norms when the neighbor abused her official government position as a deputy corrections office commissioner by setting up a special detail at her house to arrest the teenage boy and his father.

The lengths to which this neighbor went in order to prevent the trespass of the drone over her house and to protect her privacy rights is a testament to the seriousness of the disputes that arise when opposing rights come into conflict. The event shows the importance of the need for clear and easily understood rules to protect trespass and privacy rights in order to avoid a legal climate where landowners resort to self-help measures to vindicate their rights.

Another incident also involved feuding neighbors but added the element of gunplay. In this 2015 unpublished California case,²⁰ the drone operator was flying his homebuilt drone for the first time when his teenage neighbor shot it down with a shotgun. The drone owner's ensuing exchange of emails with the teenager's father did not resolve the matter. The drone owner filed a small claims suit seeking payment for the homebuilt drone. In this instance, there was a genuine disagreement as to whether or not the drone was flying over the drone operator's farm or the neighbor's farm. Regardless of the dispute about the drone's location, the neighbor cited privacy concerns as one of the motivating factors legitimizing the destruction of the drone. In one of the emails sent by the father to the drone operator, he wrote, "Perhaps in SF [San Francisco] it is normal for folks to have drones hovering over their property but we live in the country for privacy."²¹ At trial in county court, the neighbor indicated that the shooting of the drone was justified because he wanted peace and quiet in his neighborhood. The court awarded the drone owner \$700 and attorney fees of \$150.

In another unpublished opinion, the California Court of Appeal dealt with the issues of privacy and trespass directly relating to drone operations.²² Here, once again, neighbors got into a disagreement after the drone operator used his drone to fly over the neighbor's property using a preprogrammed route to surreptitiously take photographs of his neighbor's property. The drone's flight path invaded the neighbor's superadjacent airspace (trespass) and was used to capture images without permission (right to privacy infringement). At trial, the court found that the drone's flight path was a trespass and an invasion of privacy. The court awarded damages, attorney fees, and costs to the neighbor whose property was the subject of the unauthorized photography. This decision was affirmed on appeal.

Conclusion

When citizens feel that their privacy rights and property interests are threatened, they may take matters

into their own hands, and their actions may have real-world implications. Policy makers must step in and create sensible laws that achieve the dual purpose of (1) protecting landowners' rights against trespass and citizens' rights against privacy invasions by drone operators and (2) protecting drone operators' rights to fly their craft in the airspace as designated by the FAA.

The 2019 version of the ULC's Draft Model Uniform Tort Law Relating to Drones Act achieves this goal for property owners only on the issue of privacy, but the Act falls short in balancing stakeholders' interests on the issue of trespass. The ULC should go back to the drawing board and revive the 200-foot barrier as the demarcation line between property owners' airspace and the airspace within which drone operators are allowed to fly drones above private property. The 200-foot hard shelf is understandable to the general public, and it is an easy limitation to teach, to examine for licensure purposes, and to enforce with drone operators. Equally important, the 200-foot hard shelf comports with the language in *Causby* and with the layperson's understanding and extension of the trespass doctrine to the airspace above landowners' land.

As for future law school students, the example of the schoolkids who cut across the elderly man's lawn will no longer suffice to illustrate and teach tort law doctrines such as trespass and privacy. Instead, tort law professors will need to create hypotheticals that include bickering neighbors, salacious images captured by drones, and shotguns used to assert landowners' rights. It almost makes me want to sit in the student's seat again.

Endnotes

1. RESTATEMENT (SECOND) OF TORTS § 158 (Am. Law Institute 1965).
2. Kyle Joseph Farris, *Flying Inside America's Drone Dome and Landing in Aerial Trespass Limbo*, 53 VAL. U. L. REV. 247, 248–49 (Fall 2018); see also RESTATEMENT (SECOND) OF TORTS, *supra* note 1, § 329.
3. *United States v. Causby*, 328 U.S. 256 (1946).
4. Farris, *supra* note 2, at 249; see also RESTATEMENT (SECOND) OF TORTS, *supra* note 1, § 159 cmt. g.
5. *Causby*, 328 U.S. at 264–65.
6. *Id.* at 264.
7. Farris, *supra* note 2, at n.52.
8. 14 C.F.R. § 91.119 (2020).
9. Farris, *supra* note 2, at n.128.
10. (UNIF. LAW COMM'N 2019), <https://www.uniformlaws.org/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=5bbdd6ae-9c3f-7a80-6a0f-6cdf54dbfe9e&forceDialog=0>.
11. Brian Wynne et al., *New Approach to State Drone Laws Balances Privacy and Innovation*, TECHCRUNCH (July 3, 2019).
12. RESTATEMENT (SECOND) OF TORTS, *supra* note 1, §159(2), § 329.
13. Penn Cent. Transp. Co. v. New York, 438 U.S. 104 (1978).
14. *Id.*
15. *United States v. Causby*, 328 U.S. 256, 265 (1946).
16. RESTATEMENT (SECOND) OF TORTS, *supra* note 1, §§ 652A–652E.
17. *Id.* §§ 652A–652E.
18. Jessie Smith, *Criminal Surveillance or Innocent Droning?*, HUDSON VALLEY ONE, May 1, 2015.
19. Reuven Blau, *Corrections Department Official Used Jail Officers to 'Intimidate' Teen as Rikers Manhunt Kicked Off*, DAILY NEWS, Mar. 5, 2018.
20. Eric Joe v. Brett McBay, No. 2102429 (Cal. Super. Ct., Stanislaus Cty. 2015).
21. *Id.*
22. Glaser v. Mitchel, No. A155815, 2019 Cal. App. Unpub. LEXIS 7424 (Cal. Ct. App. Nov. 7, 2019).