

THE AGE OF UNMANNED AVIATION: PROTECTION OF PRIVACY

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The backdrop to American privacy law is, in many ways, a history of technological advancement.¹ Beginning with a “right to be let alone” in 1890;² there exist patterned demands for more robust privacy protection in the wake of technological innovation.³ Today, new privacy concerns are growing with the emergence of unmanned aircraft systems (UAS)--widely known as drones--and their projected proliferation in the national airspace system (NAS).⁴ The following discussion will first seek to identify where unmanned aircraft fit within the legal system, particularly in terms of privacy law. Next, the discussion will turn to the sources of law available for the protection of privacy rights in an unmanned aircraft age. Keeping in mind the sources of protection available at both federal and state levels, the discussion will explore the strengths and weaknesses of federal-state authority, as well as possible pitfalls that state lawmakers may face.

¹ See ROBERT ELLIS SMITH, *BEN FRANKLIN’S WEB SITE: PRIVACY AND CURIOSITY FROM PLYMOUTH ROCK TO THE INTERNET* 6 (2000). The author points out, “[e]ach time when there was renewed interest in protecting privacy it was in reaction to new technology.” *Id.*

² See Samuel D. Warren & Louis D. Brandeis, *The Right to Privacy*, 4 HARV. L. REV. 193, 195 (1890).

³ See SMITH, *supra* note 1, at 6-7. The author associates historical calls for privacy with three distinct periods of technological development: “First, in the years before 1890, came cameras, telephones, and high-speed publishing; second, around 1970, came the development of computers; and third, in the late 1990s, the coming of personal computers and the World Wide Web” *Id.*

⁴ See e.g., *The Future of Drones in America: Law Enforcement and Privacy Considerations*, Hearing Before the S. Comm. on the Judiciary, 113th Cong. 2 (2013) (statement of Sen. Patrick J. Leahy, Chairman, S. Comm. on the Judiciary) (“My concerns about the domestic use of drones extend beyond Government and law enforcement. Before we allow widespread use of drones in the domestic airspace, we have to carefully consider the impact on the privacy rights of Americans.”); John Villasenor, *Observations from Above: Unmanned Aircraft Systems and Privacy*, 36 HARV. J. L. & PUB. POL’Y 457, 459 (2013) (“The most common concern regarding domestic UAS relates to their potential impact on privacy.”).

I. CONCEPTUALIZING THE PROTECTION OF PRIVACY RIGHTS

The age of unmanned aircraft brings with it new concerns about the security of privacy rights;⁵ these concerns are compounded by the amorphous character of privacy itself, which entails a number of competing conceptualizations.⁶ This article does not seek to offer an exhaustive list, but, rather, it will address several understandings of privacy which are worth mentioning as they relate to UAS operations.⁷

Seclusion, an offshoot of the “right to be let alone,” is preferred by some as the method by which to approach privacy;⁸ the idea being that individuals possess a capacity to preclude others from intruding upon their personal affairs.⁹ Akin to that concept, others believe that privacy is better understood in terms of control—a somewhat broader

⁵ See Thomas Lehigh & David F. Rifkind, *Drones! A Regulatory Process Struggles to Keep Pace*, 41 Admin. & Reg. L. News 4, 4 (2016) (“Privacy is becoming an increasing concern as drones are redefining our expectations of privacy.”).

⁶ RICHARD A. GLENN, *THE RIGHT TO PRIVACY: RIGHTS AND LIBERTIES UNDER THE LAW* 3 (2003). The author indicates that, in addition to there being “little consensus in the academic literature on a definition of privacy,” any attempt at conceptualizing privacy is a “monumental quest.” *Id.*

⁷ For a more thorough discussion of the differently conceptualized notions of privacy, see generally GLENN, *supra* note 6, at 3 (“For some, privacy is simply a condition of physical separation—the right to be apart, to live one’s life in seclusion. For others, privacy is about control—the right to control the intimacies of life. For still others, privacy is about secrecy—the right to determine for oneself if and to what extent personal information is disseminated.”), and ADAM D. MOORE, *PRIVACY RIGHTS: MORAL AND LEGAL FOUNDATIONS* 13 (2010).

⁸ ANITA L. ALLEN, *UNPOPULAR PRIVACY* 29 (2011).

⁹ See *Olmstead v. United States*, 277 U.S. 438, 479-80 (1928) (Brandeis, J., dissenting).

formulation than that of seclusion.¹⁰ But even within this camp, dissension reigns among adherents as to what, specifically, is controlled.¹¹ For some, privacy denotes control over the extent another has access to the various parts of us.¹² Meanwhile, for others, privacy touches on an individual's control over the kinds of information another may access.¹³ Apart from seclusion and control, there are other conceptualizations of privacy--including those premised on the belief that privacy is a reflection of an individual's intimate decision making.¹⁴ Finally, there are reductionists--whose conception of privacy unites many of the competing notions of privacy;¹⁵ wherein protection derives from other enumerated rights, such as property, as opposed to an independently recognized right.¹⁶

II. SOURCES OF PRIVACY LAW IN AN AGE OF UNMANNED AVIATION

¹⁰ See MOORE, *supra* note 7, at 13.

¹¹ See *id.*

¹² Richard B. Parker, *A Definition of Privacy*, 27 RUTGERS U. L. REV. 275, 281 (1974).

¹³ MOORE, *supra* note 7, at 13.

¹⁴ See *Eisenstadt v. Baird*, 405 U.S. 438, 453 (1972) ("If the right of privacy means anything, it is the right of the individual . . . to be free from unwarranted governmental intrusion into matters so fundamentally affecting a person as the decision whether to bear or beget a child.").

¹⁵ See MOORE, *supra* note 7, at 14.

¹⁶ MOORE, *supra* note 7, at 14-15. The author points out that reductionist believe privacy rights "[d]erive from other rights such as life, liberty, and property rights--there is no overarching concept of privacy but rather several distinct core notions that have been lumped together." *Id.*; see also JON L. MILLS, *PRIVACY: THE LOST RIGHT* 4 (2008), for an interesting reductionist-take on privacy, asserting, "[p]rivacy is hardly a one-dimensional concept and is probably more akin to the 'bundle of sticks' we talk about when legally conceptualizing property rights." *Id.*

Keeping in mind the current and potential capabilities of unmanned aircraft, the discussion turns to which source of law is best suited for the protection of privacy rights as drone usage escalates. Initially, this decision will likely entail two important considerations. First, how privacy is conceptualized in relation to UAS operations;¹⁷ and second, how drone litigation alters concurrent technological development.¹⁸ To put it differently, lawmakers are walking a tightrope between enacting legislation that preserves individual privacy and enacting legislation that effectively impedes industry development and operations beneficial to society. Ultimately, such lawmakers will hail from either the federal or state level, and will be attempting to enact privacy legislation in any of the following forms: constitutional, statutory, regulatory (to a certain extent), or the common law's privacy torts.¹⁹

A. PROTECTIONS EMANATING FROM THE STATE LEVEL

1. THE ISSUE OF PREEMPTION

¹⁷ See MILLS, *supra* note 16, at 6. The author demonstrates the importance of conceptualizing privacy by indicating that constitutional privacy is better suited for the protection of "personal autonomy;" whereas privacy tort law, for prevention of "intrusiveness associated with unauthorized disclosure of personal information").

¹⁸ See STUART BANNER, WHO OWNS THE SKY? 294 (2008). In discussing emergence of the aviation industry, the author notes, "[t]echnological change . . . [drove] legal change, but meanwhile that very legal change was one of the forces causing the industry to develop the way it did." *Id.* As a result, judges and lawmakers of the time were placed in a difficult position of apportioning burden amongst property owners and airlines; thereby indirectly impacting development of flight. *Id.*

¹⁹ See MILLS, *supra* note 16, at 107.

The federal government is not alone in its endeavor to individual rights of privacy; state governments also have the ability to offer protection to their citizens.²⁰ State involvement, however, becomes a complicated matter with respect to unmanned aircraft. In the coming age of unmanned aviation, the unmanned aircraft presents an interesting dichotomy in the choice between federal or state level protection.²¹ From a federal position, the fact that UAS fit the profile of an aircraft lends credence to the proposition that unmanned aircraft are the subject of exclusive federal control.²² At the same time, commercial and recreational operations stand to principally impact the individual privacy of states' citizens through purely local operations—at least for the foreseeable future.²³ The concept of preemption is a designation of federal authority over areas that have traditionally been the province of the federal government or a contemplation of such

²⁰ MILLS, *supra* note 16, at 160 (“In light of the failures of federal constitutional law and common-law torts to protect certain privacy rights, many states have created remedies to protect their citizens’ privacy rights.”).

²¹ See William B. Buzbee, *Introduction*, in PREEMPTION CHOICE 2 (2009).

²² See 49 U.S.C. § 40102(a)(6) (2012) (defining “aircraft” as “any contrivance invented, used, or designed to navigate, or fly in, the air”); see generally *Nw. Airlines v. Minnesota*, 322 U.S. 292, 303 (1944) (Jackson, J., concurring) (“Congress has recognized the national responsibility for regulating air commerce. Federal control is intensive and exclusive. Planes do not wander about in the sky like vagrant clouds. They move only by federal permission, subject to federal inspection, in the hands of federally certified personnel and under an intricate system of federal commands.”); Cloar, *supra* note 52, at 85 (discussing the “fundamental point of law that the federal government has sole authority to control the nation’s airspace”).

²³ See 14 C.F.R. § 107.31; FMRA, *supra* note 93, §§ 334, 336. Regardless of the operational classification, generally all UAS operations must stay within the visual line of sight of the operator; thereby restricting flights to the immediate vicinity of the operator. *Id.*

authority over other areas traditionally reserved to the states.²⁴ The presence of preemption means that Congress will face a choice between occupying the realm of UAS privacy to the exclusion of the states or leaving some room for state involvement under its police powers.²⁵

a. EXCLUSIVE FEDERAL OR STATE AUTHORITY

The federal government can acquire exclusive authority over UAS privacy in three ways, all of which involve the preemption of an otherwise traditional area of state regulation.²⁶ First, Congress may do so explicitly, by including a preemption clause in its legislation, for instance.²⁷ Second, implied federal preemption may be drawn from the conflict between state and federal law, such that compliance with both is impossible or the state's law obstructs federal law.²⁸ Finally, it may also be that the area of regulation is an area fundamentally committed to the federal government, in which case preemption is inferred.²⁹

²⁴ See Robert R.M. Verchick & Nina Mendelson, *Preemption and Theories of Federalism*, in PREEMPTION CHOICE 14 (2009).

²⁵ See *id.* (discussing how the decision “to preempt state law often draw[s] on ideas of federalism—a general concern with the division of power between the federal and state governments and with maintaining core attributes of state sovereignty”).

²⁶ See Ray Carver, *State Drone Laws: A Legitimate Answer to State Concerns or a Violation of Federal Sovereignty*, 31 GA. ST. U. L. REV. 377, 383 (2015).

²⁷ Mark J. Connot & Jason J. Zummo, *Everybody Wants to Rule the World: Federal vs. State Power to Regulate Drones*, 29 No. 3 Air & Space Law. 1, 14 (2016).

²⁸ *Montalvo v. Spirit Airlines*, 508 F.3d 464, 470 (9th Cir. 2007) (“Courts may find conflict preemption when a state law actually conflicts with federal law or when a state law stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress in enacting the federal law.”).

²⁹ See *id.*

To begin, Congress made an explicit reference to the federal government’s “exclusive” authority over the national airspace in 49 U.S.C. § 40103. At the same time, Congress also delegated rulemaking authority over the safe and efficient use of national airspace to the FAA.³⁰ There are some who maintain that the reference to “exclusive” authority is indicative of a preemption clause.³¹ However, courts have been unwilling to rule favorably on this point, thus preserving, for the time being, some degree of state sovereignty.³²

The fact that Congress has not explicitly preempted the aviation field, however, does not foreclose the existence of exclusive federal authority altogether. The decision to preempt states in an area of the law can be based on implied assertions of preemption just as well—including instances where the subject matter is a federal concern.³³ In *City of Burbank v. Lockheed Air Terminal, Inc.*, for example, the Court held that the federal regulation of aircraft noise preempted local curfew restrictions.³⁴ Even though noise

³⁰ 49 U.S.C. § 40103.

³¹ See *e.g.*, *Huerta v. Haughwout*, No. 3:16-cv-358(JAM), 2016 WL 3919799, at *4 (D. Conn. July 18, 2016) (noting that “the FAA believes it has regulatory sovereignty over every cubic inch of outdoor air in the United States”).

³² See *Braniff Airways v. Neb. State Bd. of Equalization and Assessment et al.*, 347 U.S. 590, 595 (1954) (stating that exclusive federal sovereignty over air space “did not expressly exclude the sovereign powers of the states”); *Montalvo*, 548 F.3d at 470; *Connot*, *supra* note 107, at 14 (“Although that clause seems to show Congress’s intent to preempt all state laws, courts have held that there is no general express preemption in the field of aviation.”).

³³ See *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 (1947) (discussing the concept of implied preemption as including “federal interest[s] so dominant that the federal system will be assumed to preclude enforcement of state laws on the same subject”).

³⁴ 411 U.S. 624, 633 (1973).

control is a traditional subject of state police power, the pervasiveness of federal regulation in aviation compelled preemption for the sake of national uniformity.³⁵ Noise control may be a precursor for what is to become of privacy rights in an age of unmanned aviation. Like noise control, privacy is generally considered a state police power. The presence of an aircraft, however, complicates matters by creating strong federal interests in favor of preemption. Therefore, state laws directed at UAS operations may be found invalid for regulating a field in which the federal government exclusively occupies--not unlike the local curfews at issue in Burbank.³⁶

The extent to which exclusive federal authority sweeps is also open for debate. In Burbank, for instance, the Court ruled favorably for the federal preemption of "aircraft noise," despite the absence of express preemption by Congress over an area traditionally reserved for state law.³⁷ In its reasoning, the Court noted an inescapable need for federal law in aviation as justification for its displacement of state law.³⁸ Conversely, in Braniff Airways, state enforcement of a tax on aircraft equipment survived preemption challenge.³⁹ Despite the fact that the state tax touched on the government's federal commerce power, it was not inconsistent with that power.⁴⁰ Accordingly, the state law taxing aircraft equipment was permitted to exist alongside federal law in an aviation

³⁵ See *id.* at 638-39.

³⁶ Burbank, 411 U.S. at 626.

³⁷ See *id.*

³⁸ See *id.*

³⁹ Braniff Airways, 347 U.S. at 596.

⁴⁰ See *id.*

setting that also touched on interstate commerce concerns. Likewise, state regulation of aerial advertising withstood preemption challenge in *Skysign Intern., Inc. v. City of Honolulu*, where the Ninth Circuit concluded that the “exclusive sovereignty” provision of § 403103, standing on its own, was insufficient to support a holding in favor of preemption.⁴¹ Rather, the court cited a need for more “affirmative” action by the federal government.⁴²

All told, it seems fairly settled for the time being that some room exists for the state regulation of “aviation subfields.”⁴³ With respect to unmanned aircraft operations, it remains to be seen whether a state’s attempt to regulate associated privacy concerns falls within “aviation subfields.”⁴⁴ However, there is very good reason to believe state laws over UAS privacy will fit within the parameters of such subfields; where privacy rights

⁴¹ 276 F.3d 1109, 1116 (9th Cir.2002).

⁴² *Id.*

⁴³ *Connot*, *supra* note 108, at 15; *see* *Braniff Airways*, 347 U.S. at 597 (“[E]xistent federal air-carrier regulation does not preclude the Nebraska tax challenged here.”); *see e.g.*, *Martin ex rel. Heckman v. Midwest Express Holdings, Inc.*, 555 F.3d 806 (9th Cir.2009) (defective product claim); *Air Transport Ass’n of America, Inc. v. Cuomo*, 520 F.3d 218 (2d Cir. 2008) (“[T]he FAA does not preempt all state law tort actions.”); *but see* *Witty v. Delta Airlines, Inc.*, 366 F.3d 380, 385 (5th Cir. 2004) (holding that “federal regulatory requirements for passenger safety warnings and instructions are exclusive and preempt all state standards and requirements.”).

⁴⁴ *See* *Connot*, *supra* note 108, at 15.

most at risk belong to state citizens, and the UAS operations at issue are local in nature.⁴⁵ But this is only half the inquiry, as courts determining whether state law is preempted by federal law also look at the “pervasiveness” of federal presence in a given area.⁴⁶ Current federal regulation of unmanned aircraft is sparse,⁴⁷ and where it does exist, neither Congress nor the FAA has expressly preempted the field.⁴⁸ Further, there is little congressional intent with which to draw preemption from and an acknowledgement by the FAA that privacy issues are outside the scope of its rulemaking authority.⁴⁹ Even so, it would be well within Congress’s power to enact legislation at a later date to the exclusion of the states.⁵⁰

⁴⁵ See Gregory S. McNeal, *Drones and the Future of Aerial Surveillance*, 84 GEO. WASH. L. REV. 354, 358 (2016) (“Deferring to state and local governments makes sense, as the vast amount of drone use will occur in situations best handled by state and local authorities.”); Robert A. Heverly, *The State of Drones: State Authority to Regulate Drones, in Game of Drones: The Uses and Potential Abuses of Unmanned Aerial Vehicles in the U.S. and Abroad*, 8 ALB. GOV’T L. REV. 29, 33 (2015) (“Contrary to what one may initially think based on the long established role the federal government has played in regulating flight, there is space in the regulatory landscape for meaningful state regulation of drones and drone-related activities. States can legitimately take a variety of actions that may affect drones, drone operators and drone operations directly, and a variety of actions that are likely to be in the states’ --and the citizens’ --best interests.”).

⁴⁶ Carver, *supra* note 107, at 379.

⁴⁷ Heverly, *supra* note 125, at 31 (stating that “federal drone regulation is considered thin, at best”).

⁴⁸ Connot, *supra* note 108, at 15 (discussing how there is no preemption clause in the recently issued FAA rule, Part 107).

⁴⁹ See *id.* (“[T]he FAA conceded that certain legal aspects concerning drone use may be best addressed at the state or local level.”).

⁵⁰ Heverly, *supra* note 125, at 59 (“[F]ederal law does not currently preclude state laws that purport to regulate drone use in the privacy realm. That does not mean, however, that Congress could not enact laws preempting states from regulating in this area.”).

Advocates for the federal preemption of UAS privacy believe that federal authority should be exclusive in order to maintain the tide of uniformity underlying aviation preemption generally.⁵¹ Likewise, proponents insist on the need for federal preemption to avoid “patchwork” problems associated with varying state laws and standards, such as the uncertainty regarding where or how one may operate an unmanned aircraft in a given state.⁵² Comparatively, other proponents assert that federal authority is more suitable for resolving disputes arising out of operations capable of interstate travel.⁵³ To this point, advocates maintain that existing state laws are broad enough to account for the privacy risks associated with UAS use, thereby removing any need for drone-specific legislation by states.⁵⁴ From an industry perspective, advocates for preemption urge that a conglomerate of different state laws will foster uncertainty and irregularity, thereby stifling industry development.⁵⁵ With more uniformity comes more certainty, which has

⁵¹ See Buzbee, *supra* note 103, at 2; see also Verchick, *supra* note 104, at 18 (“[A] national standard can give each citizen an assurance—even something of an entitlement—to a minimum level of safety, health, or environmental protection, no matter where he or she resides.”).

⁵² Connot, *supra* note 108, at 15.

⁵³ See Verchick, *supra* note 105, at 18. Like other aircraft, UAS are capable of flying a great distance and those unmanned aircraft operating near a state’s border can cross from one state to the next with relative ease.

⁵⁴ See Connot, *supra* note 108, at 16. The author indicates those advocating for federal preemption “argue that it is unnecessary for state or local governments to enact drone-specific legislation because existing state laws on privacy, harassment, and trespassing already cover unlawful acts committed with drones.” *Id.*

⁵⁵ See Verchick, *supra* note 105, at 18-19 (discussing that federal preemption of state law is “advantage[ous] for regulated entities”).

the effect of increasing manufacturer confidence in the market--where an acceptable design in one state will be acceptable in all states.⁵⁶

The state's role in local concerns and citizen-privacy struggles against the notion that because UAS are aircraft, the federal government preemptively assumes authority over the privacy issues with unmanned aviation. Indeed, at this time, even the most unregulated class of UAS operators – hobbyist – must maintain a visual line of sight with the aircraft during flight operations.⁵⁷ Preemption opponents--or those in pursuit of avoiding federal preemption--draw attention to the current state of affairs (highly localized operations) to underscore UAS privacy's place among state police powers.⁵⁸ In fact, setting aside the localization of current UAS operations, the violation of privacy rights alone are traditionally reserved to the states.⁵⁹ Thus far, the Court has not shied away from extending state authority to conduct that disrupts communal tranquility, such

⁵⁶ See *id.*; see generally WHITEHOUSE.GOV., *supra* note 29 (discussing a recent report over drone manufacturers who are beginning to incorporate privacy into their designs).

⁵⁷ See FMRA, § 336(c)(2).

⁵⁸ See Nat'l Fed'n of Indep. Bus. v. Sebelius, 132 S. Ct. 2566, 2578 (2012). Writing for the Court, Chief Justice Roberts described the "general power of governing" that individual states possess as "police power." *Id.* To illustrate, the Chief Justice pointed out a number of local issues in which states maintain authority over to the exclusion of the federal government, including "punishing street crime, running public schools, and zoning property for development . . ." *Id.*

⁵⁹ Katz, 389 U.S. at 350-51 ("But the protection of a person's general right to privacy . . . is, like the protection of his property and of his very life, left largely to the law of the individual states.").

as the perpetual harassment of other persons by the operator of an unmanned aircraft.⁶⁰ Additionally, because unmanned aircraft use will vary among states and localities, federal preemption's 'one size fits all' approach may be impractical.⁶¹ To this point, cynics of preemption purport that state authority over inherently local activity gives states an opportunity to better shape regulations in accordance with local needs.⁶² Deferring to state authority benefits the federal government just as well, wherein states, acting as "laboratories," offer up a cross section of regulatory schemes, much like the state privacy statutes that will be discussed herein.⁶³ Congress, in turn, will be able to use these state models to implement more meaningful legislation at a later date, in what is otherwise an unknown and rapidly emerging field of technology.⁶⁴

b. SHARED POWERS BETWEEN THE FEDERAL AND STATE LEVELS

⁶⁰ See *Kovacs v. Cooper*, 336 U.S. 77, 83 (1949) ("The police power of a state extends beyond health, morals, and safety, and comprehends the duty, within constitutional limitations, to protect the well-being and tranquility of a community. A state or city may prohibit acts or things reasonably thought to bring evil or harm to its people."); see also *Connot*, *supra* note 107, at 16.

⁶¹ See *Connot*, *supra* note 108, at 16 ("[N]ot only does each state and city have its own topographic characteristics, but operating a drone in an urban area as opposed to a rural setting also differs and each poses unique risks. The federal government's 'one size fits all' approach for every state, city, county, park, and school in the country is not practical. Hence, opponents argue that states need flexibility to enact rules that address their unique challenges.").

⁶² See *Verchick*, *supra* note 105, at 16.

⁶³ See *id.*

⁶⁴ See *Heverly*, *supra* note 125, at 33 ("Trying regulatory schemes at the state level provides the federal government with data on how the market and market actors react to varying regulatory requirements, as well as allowing states to attempt to address local issues that may be raised in drone use.").

The dichotomy at issue between localized UAS operations and individual privacy presents competing justifications for and against federal preemption. However, preemption choice does not occur in a vacuum; in between both extremes exists a paradigm of shared powers.⁶⁵ There, federal and state governments allocate authority over a particular subject area, each attempting to reap its own respective benefits.⁶⁶

According to proponents, a shared power scheme reconciles the push and pull between federal-state authority. The federal government maintains “exclusive sovereignty” over airspace usage and safety and, in recognition of state sovereignty, enacts regulatory floors where privacy is concerned.⁶⁷ States, in the absence of complete federal preemption, are free to exercise their police powers over privacy interests to the extent that state regulation is not more restrictive than the level of protection provided by the federal government.⁶⁸ Consequently, citizens acquire a base-level assurance of protection from the federal government, with the possibility of more robust protection at the state level.⁶⁹

c. THE EFFECTS OF FEDERAL COMMON LAW

⁶⁵ See Verchick, *supra* note 105, at 19 (“A very appealing approach is to capture benefits on both sides by creating a hybrid, power-sharing arrangement between the federal government and the states . . .”).

⁶⁶ *See id.*

⁶⁷ *See id.*

⁶⁸ *See id.*

⁶⁹ *See id.*

Just as Congress may attain exclusive authority over an area by preemption; federal courts procure similar authority through the formation of federal common law.⁷⁰ As an initial matter, federal courts are expected to apply state substantive law in the absence of statutory or preemptive action by Congress—including when violations of privacy are committed by unmanned aircraft.⁷¹ However, congressional inaction is not dispositive of the issue; privacy-related disputes concerning unmanned aircraft may also be susceptible to federal common law.⁷² If so, the federal court will engage in a lawmaking function on its own accord; whereby federal law is said to control.⁷³

For a great number of cases involving a valid application of federal common law, justification is based on a need for uniformity, such as in *Clearfield Trust Co. v. United States*.⁷⁴ However, the crux of the *Clearfield Trust* decision concerned obligations and rights of the United States.⁷⁵ Likewise, in *Howard v. Lyons*, uniformity again took a backseat to more pressing factors favoring the application of federal common law--

⁷⁰ See *City of Milwaukee v. Illinois*, 451 U.S. 304, 313 n.7 (1981) (“If state law can be applied, there is no need for federal common law; if federal common law exists, it is because state law cannot be used.”).

⁷¹ See *Erie R.R. Co. v. Tompkins*, 304 U.S. 64, 78 (1938) (“Except in matters governed by the Federal Constitution or by acts of Congress, the law to be applied in any case is the law of the state”); see generally THOMAS O. MCGARITY, *THE PREEMPTION WAR* 55 (2008).

⁷² See *Clearfield Trust Co. v. United States*, 318 U.S. 363, 367 (1943).

⁷³ See *id.* (“In the absence of an applicable Act of Congress it is for the federal courts to fashion the governing rule of law according to their own standards.”).

⁷⁴ See *id.* According to the Court, where the United States was a party and the forged check at issue originated under federal law, reliance on state law would foster “exceptional uncertainty.” *Id.* As a result, the need for uniformity was “plain.” *Id.*

⁷⁵ See *id.* at 366 (“The duties imposed upon the United States and rights acquired by it”).

subjects of “peculiarly federal concern.”⁷⁶ Just as in *Clearfield Trust* and *Lyons*, the need for uniformity in aviation law does not likely suffice for the purposes of federal common law. And unlike the disputed commercial paper in *Clearfield Trust* from which the national rights and duties originated from, privacy implications raised by unmanned aircraft do not definitively concern national obligations. Moreover, neither side of the dichotomy coin discussed above necessarily presents a federal concern like the federal officer’s immunity did in *Lyons*.

Suppose Congress generally touches an area of the law legislatively. In doing so, Congress opens the door for federal courts to create federal common law--filling in legislative gaps left open by Congress.⁷⁷ The FAA Modernization and Reform Act of 2012,⁷⁸ like the Migratory Bird Conservation Act in *Little Lake Misere*, does not specifically address to what governing body authority over a particular instance belongs.⁷⁹ Instead, each enactment generally addresses its respective field. The generality of federal presence was enough to justify application of federal common law in *Little Lake Misere*.⁸⁰ However, the United States may not necessarily be a party to future cases that arise in the age of unmanned aviation like it was in *Little Lake Misere*. And so, while the FMRA opens

⁷⁶ See *Howard v. Lyons*, 360 U.S. 593, 597 (1959) (describing privileged statements of federal officers as matters of “peculiarly federal concern”).

⁷⁷ See *United States v. Little Lake Misere Land Co., Inc.*, 412 U.S. 580, 593 (1973) (“[T]he inevitable incompleteness presented by all legislation means that interstitial federal lawmaking is a basic responsibility of the federal courts.”).

⁷⁸ FMRA, *supra* note 92.

⁷⁹ See *Little Lake Misere*, 412 U.S. at 580.

⁸⁰ See *id.* at 593.

up the possibility for interstitial federal lawmaking, private party operations – such as those commercial or recreational in nature – appear to foreclose application of federal common law.

More recently, the Supreme Court appears to be retreating somewhat on the federal common law front--holding that unless there is significant conflict between state and federal law, clear intent by Congress to preempt, or something more than a mere federal element, federal courts should not depart from the strictures of Erie.⁸¹

To conclude, absent preemptive force by Congress or creation of federal common law by federal judges, the laws of the states will ostensibly preside over disputes arising out of violations by UAS. In 2013, the aviation industry witnessed an emergence of state actions directed toward unmanned aircraft operations.⁸² From 2013 through 2015, 45 states throughout the U.S. have considered bills and resolutions pertaining to UAS operations.⁸³ A sizeable number of these state actions related to privacy matters.⁸⁴ The following discussion identifies the form in which these laws may take.

⁸¹ See *Empire Healthchoice Assur., Inc. v. McVeigh*, 547 U.S. 677, 693-701 (2006).

⁸² See Amanda Essex, Nat'l Conference of State Legislatures, *Taking Off: State Unmanned Aircraft Systems Policies* 13 (last updated Sept. 9, 2016), available at <http://www.ncsl.org/research/transportation/current-unmanned-aircraft-state-law-landscape.aspx>.

⁸³ *Id.*

⁸⁴ See Essex, *supra* note 165, at 14 (“Since 2013, 22 states . . . have passed legislation that falls within the broad category of privacy. This includes legislation related to warrant requirements for UAS use by law enforcement agencies and protection from privacy violations committed by non-government operators, including peeping toms.”); see generally Heverly, *supra* 124, at 48, where the author discusses different categories of state-centered laws over UAS.

2. SOURCES OF STATE PROTECTION

Privacy rights at the state level derive much of their protection from similar sources utilized at the federal level. Constitutionally, some states offer greater protection than otherwise available under the U.S. Constitution;⁸⁵ however, as is the case at the federal level, constitutional privacy at the state level generally centers on inherently personal matters dissimilar to those raised by unmanned aircraft.⁸⁶ Likewise, state legislators, much in the same way as their federal counterparts, enact statutory privacy protections.⁸⁷ Often, state statutes will cover the same subject area legislated in federal statutes.⁸⁸ Even so, state laws continue to offer diverse modes of regulation that can be drawn on by other jurisdictions down the road.⁸⁹

III. CONCLUSION

As the technology for and popularity of unmanned aircraft reach new heights, individual privacy faces new and unique risks. To what extent UAS may impact privacy interests largely factors on the conceptualization assigned to any given operation. The

⁸⁵ See MILLS, *supra* note 16, at 161.

⁸⁶ See generally *id.* at 161-62 (listing areas in which state constitutions provide privacy-directed protections).

⁸⁷ See *id.* at 163-65. The author indicates “at least nineteen states provide some form of statutory recognition of the right to publicity.” *Id.* at 163. Also, states curb privacy violations by statutorily addressing “video intrusion.” *Id.* at 165.

⁸⁸ See *id.* at 165.

⁸⁹ See *id.* at 170 (“States provide a separate and distinct source of policies for addressing privacy invasions. With explicit conditional protections and varied statutory remedies, state policies accord an important option for protecting privacy and operate as important laboratories for privacy policy.”).

task of conceptualizing anticipated drone operations may fall on officials at either the federal or state level. Congress retains the ultimate power to claim exclusive authority over UAS privacy, though doing so flies in the face of traditional state police powers. For now, states are free to pursue drone-specific legislation without much limitation under the current legal framework. Such legislation, however, may not encroach upon areas of aviation where federal authority preempts state authority, such as the regulation of airspace safety. Based on established principles of preemption and the historical roles taken by federal and state jurisdictions, the most beneficial arrangement to all parties involved would likely encompass a shared-power arrangement, through which the federal government would maintain authority over most aspects of aviation, while states preserve some autonomy to address local concerns of privacy surrounding highly localized UAS operations.