FEDERALISM — PREEMPTION — MASSACHUSETTS DISTRICT COURT FINDS PORTION OF LOCAL DRONE ORDINANCE PREEMPTED BY FAA REGULATION. — *Singer v. City of Newton*, No. CV 17-10071, 2017 WL 4176477 (D. Mass. Sept. 21, 2017).

Drones are the future: so some hope, and so some fear. For all their promise,[1] drones pose risks, and in 2016, the Federal Aviation Administration (FAA) issued its first rule governing commercial drone operations.[2] State and local governments have passed laws of their own, but subnational regulation presents a distinct problem: a drone cannot fly freely across city and state lines if inconsistent laws interfere with its path.[3] But because federal law is supreme, cities and states do not have the final word.[4]

Recently, in *Singer v. City of Newton*,[5] a federal district court addressed the preemptive effect of federal law on local drone regulations for the first time. The court held that the federal government had not claimed exclusive regulatory authority over drones,[6] but it nonetheless

---

[1] Commercial drones can be used for farming and agriculture, construction inspection, insurance inspection, internet services delivery, package delivery, storm tracking, mapping, filmmaking, and more. *See* Divya Joshi, *What Are Drones Good For? Common Commercial Applications of Drones in Agriculture, Business and the Military*, BUS. INSIDER (Aug. 15, 2017, 1:44 PM), http://www.businessinsider.com/commercial-drone-uses-agriculture-business-military-2017-8 [https://perma.cc/A3EA-676B]; *see also* ARTHUR HOLLAND MICHEL & DAN GETTINGER, CTR. FOR THE STUDY OF THE DRONE AT BARD COLL., DRONE YEAR IN REVIEW: 2017, at 14 (2018), http://dronecenter.bard.edu/files/2018/01/CSD-Drone-Year-in-Review-Web.pdf [https://perma.cc/72PM-E8PK] (observing that commercial drone use is "currently hindered by the short maximum flight time and range of most drones," but expecting "major breakthroughs in [drone] endurance . . . [and] likely advances in communications systems that allow drones to be operated over large distances").

[2] Operation and Certification of Small Unmanned Aircraft Systems, 81 Fed. Reg. 42,063 (June 28, 2016) (codified in scattered sections of 14 C.F.R.). The FAA defines a "[s]mall unmanned aircraft" as "an unmanned aircraft weighing less than 55 pounds on takeoff, including everything that is on board or otherwise attached to the aircraft." 14 C.F.R. § 107.3 (2018). Small unmanned aircraft are sometimes referred to as drones. *E.g.*, First Amended Complaint for Declaratory and Injunctive Relief at 3, Singer v. City of Newton, No. CV 17-10071 (D. Mass. Sept. 21, 2017) [hereinafter First Amended Complaint].

[3] *See* OFFICE OF THE CHIEF COUNSEL, FAA, STATE AND LOCAL REGULATION OF UNMANNED AIRCRAFT SYTEMS (UAS) FACT SHEET 2 (Dec. 17, 2015), https://www.faa.gov/uas/resources/uas_regulations_policy/media/uas_fact_sheet_final.pdf [https://perma.cc/STP7-UYA8] [hereinafter FAA Fact Sheet] (warning against a "patchwork quilt" of local regulations and arguing that "[a] navigable airspace free from inconsistent state and local restrictions is essential to the maintenance of a safe and sound air transportation system").

[4] *See* U.S. CONST. art. VI, cl. 2 ("This Constitution, and the Laws of the United States . . . shall be the supreme Law of the Land; . . . any Thing in the Constitution or Laws of any State to the Contrary notwithstanding."); Gade v. Nat'l Solid Wastes Mgmt. Ass'n, 505 U.S. 88, 98 (1992) (plurality opinion) (recognizing express and implied preemption). The Supremacy Clause analysis is the same for local ordinances as it is for statewide laws. Hillsborough County v. Automated Med. Labs., Inc., 471 U.S. 707, 713 (1985).

[5] No. CV 17-10071, 2017 WL 4176477.

[6] *Id.* at *4.

invalidated specific provisions of a city's ordinance because they conflicted with federal law.[7] Though the court's ruling is not binding in other jurisdictions, *Singer* has the potential to guide the outcomes of future preemption challenges to local drone laws.[8] But by purporting to confine its holdings to the specific facts before it, the court stopped short of identifying a conceptual basis for the decision: that operational safety and licensing matters ought to be targets of exclusive federal regulation. The states, for their part, should get to regulate drone purpose and function — what drones can be used for and what types of things they can do.

Michael Singer is a physician-inventor living in Newton, Massachusetts,[9] and he hopes to use small unmanned aircraft to deliver medical services.[10] But in December 2016, the city passed an ordinance that would have made any such project impossible.[11] The ordinance imposed conditions on the operation of pilotless aircraft, in addition to those already imposed by the FAA.[12] Singer said that he could not comply with both sets of rules and still fly his drones.[13]

Singer sued to prevent the city from enforcing the ordinance, challenging four provisions in particular: (1) the requirement that all owners register their pilotless aircraft with the city clerk's office; (2) the ban on flight below 400 feet over private property without the landowner's consent; (3) the ban on flight over any city or school property without the city's permission; and (4) the requirement that aircraft in flight remain within the operator's line of sight.[14] He argued that federal regulations

---

[7] *Id.* at *4–6.

[8] *See* John Goglia, *Federal Judge Overturns City Drone Ordinance in First Ruling of Its Kind*, FORBES: #THEVERDICT (Sept. 21, 2017, 7:00 PM), https://www.forbes.com/sites/johngoglia/2017/09/21/federal-judge-overturns-city-drone-ordinance-in-first-ruling-of-its-kind/ [https://perma.cc/YN2T-2N8Y] (revealing that "several cities [had] been awaiting [the *Singer*] decision before going forward with their own local laws"); Joel E. Roberson & Jennifer M. Nowak, *Local Drone Law Struck Down by Federal Preemption*, HOLLAND & KNIGHT: AVIATION L. BLOG (Sept. 27, 2017), https://www.hklaw.com/aviationlawblog/local-drone-law-struck-down-by-federal-preemption-09-27-2017/ [https://perma.cc/2VBK-JFPK] (describing the decision as a potentially useful "indicator of where federal courts are likely to draw the lines when faced with preemption challenges in this area").

[9] First Amended Complaint, *supra* note 2, at 5.

[10] *See id.* at 5, 10.

[11] *See* NEWTON, MASS., ORDINANCES § 20-64 (2016); *see also Singer*, 2017 WL 4176477 at *1.

[12] ORDINANCES § 20-64; *see also* 14 C.F.R. § 107 (2018).

[13] First Amended Complaint, *supra* note 2, at 10–12. In particular, the ordinance imposed severe restrictions on drone use *below* an altitude of 400 feet, ORDINANCES § 20-64(c)(1)(a), that clashed with the FAA's ban on drone use *above* 400 feet from the ground (or any ground structure), 14 C.F.R. § 107.51(b).

[14] First Amended Complaint, *supra* note 2, at 7–8, 13.

passed under the Federal Aviation Act of 1958[15] preempted these restrictions.[16]

The preemption claim took two forms.[17] Singer first argued that the ordinance was field preempted: federal regulation of airspace was so "pervasive" as to "entirely occup[y] the[] field[] of law," thereby forestalling any state or local legislation in the same space.[18] But even if local regulation of some kind was allowed, Singer maintained, the ordinance was conflict preempted because he could not at once comply with both the ordinance and the federal rules.[19]

The U.S. District Court for the District of Massachusetts agreed in part.[20] Judge Young invalidated the four challenged provisions of the ordinance, finding that they conflicted with the federal regulations.[21] But he dismissed the field preemption argument[22] and let the remainder of the ordinance stand.[23]

The court began with a review of the relevant federal legislation.[24] In 2016, responding to a congressional directive,[25] the FAA issued a final rule on the commercial operation of drones.[26] The regulations require the operators to register their aircraft with the FAA,[27] to fly the aircraft no higher than 400 feet above the ground (or above a structure),[28] and to keep the aircraft in sight (or in the sight of a designated observer) during flight.[29] The FAA's line-of-sight requirement could be waived.[30]

Singer urged the court to infer from these regulations a "federal intent to occupy the field" exclusively.[31] The court rejected this argument on the basis of the rule's preamble, which referred to a fact sheet that the FAA had published for state and local governments the year before.

---

15 49 U.S.C. §§ 40101 et seq. (2012).

16 First Amended Complaint, *supra* note 2, at 10–12.

17 *Id.*

18 *Id.* at 10.

19 *Id.* at 11–12.

20 *See Singer*, 2017 WL 4176477, at *6.

21 *Id.*

22 *Id.* at *4.

23 *Id.* The ordinance contains other provisions, which are exclusively aimed at the protection of privacy and the prevention of nuisances, such as bans on the operation of drones "for the purpose of conducting surveillance," NEWTON, MASS., ORDINANCES § 20-64(c)(1)(f) (2016), or to capture images, audio, or video of a person wherever she "would have a reasonable expectation of privacy," or to "harass, annoy, or assault a person, or to create or cause a public nuisance," *id.* § 20-64(c)(1)(g).

24 *Singer*, 2017 WL 4176477, at *3.

25 FAA Modernization and Reform Act of 2012, § 332(a)(1), 49 U.S.C. § 40101 note (2012). Congress had directed the FAA to "develop a comprehensive plan to safely accelerate the integration of civil unmanned aircraft systems into the national airspace system." *Id.*

26 14 C.F.R. § 107 (2018).

27 *Id.* §§ 91.203(a)(2); 107.13.

28 *Id.* § 107.51(b).

29 *Id.* §§ 107.31, .33.

30 *Id.* § 107.205 (including line-of-sight in a list of waivable requirements).

31 *Singer*, 2017 WL 4176477, at *3.

According to the preamble, this fact sheet "provides examples of State and local laws affecting [unmanned aerial systems] for which consultation with the FAA is recommended and those that are likely to fall within State and local government authority."[32] On this basis, the judge concluded that the FAA had "explicitly contemplate[d] state or local regulation of pilotless aircraft."[33] He accordingly rejected Singer's field preemption argument.[34]

Judge Young then turned to conflict preemption. The city had argued that the preamble text constituted an "invitation extended by the FAA" for cities to regulate drones.[35] The city insisted that this grant of authority meant that the ordinance was not preempted because it "fit[] squarely into a niche that the FAA has recognized."[36] It did not respond specifically to any of Singer's four conflict preemption challenges, each of which the judge found persuasive.[37]

The judge first invalidated the ordinance's registration provision because it conflicted with the FAA's explicit prohibition on additional registration requirements without approval, which the city had not sought.[38] He criticized the city for its "clear derogation of the FAA's intended authority."[39]

Next, the court found that federal regulations preempted the city's altitude and public property restrictions because, together, they created a de facto citywide drone ban.[40] The FAA banned drone flight above 400 feet; the city's ordinance banned it below 400 feet over private property and at any altitude over public property.[41] The result was "essentially . . . a wholesale ban" that "thwart[ed] not only the FAA's objectives, but also those of Congress for the FAA to integrate drones into the national airspace."[42] The court noted separately that federal law would

---

[32] Operation and Certification of Small Unmanned Aircraft Systems, 81 Fed. Reg. 42,063, 42,194 (June 28, 2016); *see also* FAA Fact Sheet, *supra* note 3, at 3.

[33] *Singer*, 2017 WL 4176477, at *4.

[34] *Id.*

[35] Defendant City of Newton's Memorandum of Law in Support of Its Cross Motion for Summary Judgment and in Opposition to Plaintiff's Motion for Summary Judgment at 9, *Singer*, No. CV 17-10071 [hereinafter Defendant's Memorandum of Law].

[36] *Id.* at 13.

[37] *Singer*, 2017 WL 4176477, at *4.

[38] *Id.* This prohibition appeared in the same fact sheet that the judge described as having "contemplate[d]" local drone regulation. *Id.*; *see also* FAA Fact Sheet, *supra* note 3, at 2. The judge acknowledged that the fact sheet was an interpretive rule, not a regulation, but he accorded it deference, following *Bowles v. Seminole Rock & Sand Co.*, 325 U.S. 410, 413–14 (1945). *Singer*, 2017 WL 4176477, at *4 n.5.

[39] *Singer*, 2017 WL 4176477, at *4.

[40] *Id.* at *5.

[41] *Id.*; *see also* 14 C.F.R. § 107.51(b) (2018); NEWTON, MASS., ORDINANCES § 20-64(c)(1)(a), (e) (2016). Operators would have to get prior permission from the landowner or from the city to fly within these restricted zones. ORDINANCES § 20-64(c)(1)(a), (e).

[42] *Singer*, 2017 WL 4176477, at *5.

even preempt the public property ban standing alone, because it contained no altitude limitation and therefore extended into navigable airspace.[43]

Lastly, the judge found the visual line-of-sight requirement to be preempted, though with slightly different reasoning. The ordinance, unlike the federal rule, contained neither a designated-observer exception nor a waiver provision.[44] By following the city rule, Singer would also follow the federal one, so compliance with both was not impossible. Even so, the court struck the provision.

"Courts have recognized that aviation safety is an area of exclusive federal regulation," the judge explained.[45] And by regulating the operation of drones, this provision "implicat[ed] the safe operation of aircraft,"[46] thereby impermissibly "[i]ntervening in the FAA's careful regulation of aircraft safety."[47] It was therefore preempted along with the other three challenged provisions.[48] The remainder of the ordinance is still good law, the judge stressed, and "nothing prevents Newton from redrafting the Ordinance to avoid conflict preemption."[49]

By purporting to take a narrow, fact-specific approach to the analysis, the court missed an opportunity to articulate a general standard that would have more completely explained its reasoning while also helping to resolve some of the tension between federal and local drone regulation. In particular, the court's analysis of the line-of-sight provision seems to rest on broader field preemption reasoning than the court acknowledged. The court could have developed the principles guiding that analysis into a clear standard, partitioning operational safety from drone function and purpose. Such a standard would have been consistent with both the traditional divisions of regulatory authority and current FAA guidelines. It might have shown local governments how they could regulate drones and mitigate preemption risks, all without triggering the patchwork problem that most concerns drone advocates.

The court nominally based each of its holdings on conflict preemption, but the invocation of "aviation safety" as a field of exclusive federal control reflects an intuition that drones are the federal government's concern insofar as they are physical objects flying in public airspace. Citing a string of cases establishing congressional intent to occupy the field of aviation safety, the court concluded that attempts to regulate the

---

[43] *Id.*

[44] *Id.*

[45] *Id.* (collecting cases and noting that the "First Circuit, in fact, has ruled 'that Congress intended to occupy the field of pilot regulation related to air safety'" (quoting French v. Pan Am Express, Inc., 869 F.2d 1, 4 (1st Cir. 1989))).

[46] *Id.*

[47] *Id.* at *6.

[48] *Id.*

[49] *Id.*

operation of drones necessarily intruded upon that field.[50] The theory, it seems, is that operational safety and licensing are matters of exclusive federal regulation. But how these airborne drones are used (and for which purposes) are matters that can be left to the states. In other words, FAA rules get the drones into the air; local rules can govern the nature of their use. This distinction, more than that between field and conflict preemption, helps to explain the court's decision.

This division between operational regulations and functional ones also accords with the distinction between areas of law "traditionally left to the states" and those "traditionally occupied by the federal government."[51] And the FAA, for its part, has indicated that it intends to respect this traditional division of authority: its local government guidance grants that regulations for "privacy, trespass, and law enforcement operations," among others, fall within the states' traditional police power and "generally are not subject to federal regulation."[52]

Privacy regulation, a central issue in the drone debate and a main focus of the city's drone ordinance, provides a helpful example. State and local governments are particularly well suited to protect privacy. While there are some "sector-specific" federal privacy laws,[53] state privacy torts "cover what most people think of when they think of personal privacy and social privacy norms."[54] State common law provides the basis for modern privacy law,[55] and the states remain "especially important laboratories for innovations in information privacy law."[56] State legislatures "identify areas of regulatory significance" more readily than do their federal counterparts,[57] and decentralization allows for "simultaneous experiments" with varied privacy laws.[58] Where federal privacy laws do exist, they are at their best when they "only establish a . . . minimum standard that states may exceed" through their own experimentation.[59]

---

50 *See id.* at *5–6.

51 *Id.* at *2.

52 FAA Fact Sheet, *supra* note 3, at 3; *see also* John Villasenor, *Observations from Above: Unmanned Aircraft Systems and Privacy*, 36 HARV. J.L. & PUB. POL'Y 457, 514 (2013) ("State power to address trespass, invasion of privacy, harassment, and stalking is well established.").

53 Paul M. Schwartz, Feature, *Preemption and Privacy*, 118 YALE L.J. 902, 916 (2009) (collecting examples); *cf.* Margot E. Kaminski, Essay, *Drone Federalism: Civilian Drones and the Things They Carry*, 4 CALIF. L. REV. CIR. 57, 65 (2013) (cautioning that a federal drone privacy law would add to the "somewhat haphazard[] . . . patchwork" of federal privacy regulations).

54 Kaminski, *supra* note 53, at 65.

55 Schwartz, *supra* note 53, at 907.

56 *Id.* at 916.

57 *Id.* at 917.

58 *Id.* at 918.

59 *Id.* at 919; *see also id.* at 918–21 (noting the existence of "important federal statutory contributions" to the privacy landscape, beyond which states can and do regulate, *id.* at 918, and criticizing laws that preempt states' ability to offer greater safeguards).

The City of Newton drafted its drone ordinance largely in response to privacy concerns: The ordinance itself refers to the city's interest in "protecting the privacy of residents."[60] And at the City Council's first meeting discussing the draft ordinance, councilors "stressed that privacy concerns were the impetus for bringing [the drone] issue forward."[61] But the city went too far.

Had the City Council made use of the distinction between operational safety and licensing on the one hand, and drone function and purpose on the other, its ordinance might have survived Singer's challenge. Though the court did not specifically address the ordinance's more targeted provisions aimed exclusively at the protection of privacy, the judge noted that "a court must be wary of invalidating laws in areas traditionally left to the states."[62] This statement suggests that a city may promulgate a wide range of rules concerning the manner in which drones are used because these rules do not interfere with the federal government's control over operational safety.[63] But a city may not regulate flight operations, nor may it effectively ban drone flight altogether in defiance of express congressional intent to encourage drone use.[64] In this case, the ordinance was drafted with an intention to protect citizens' privacy, but it extended into the FAA's operational safety and licensing domain. If the city had recognized this distinction, it might have accomplished its goals while steering clear of preemption.

Allowing local governments to regulate the nature of drone use while leaving operational safety and licensing regulation to the exclusive control of the federal government would help to stave off the "patchwork" problem of inconsistent local regulation. If towns that severely restricted drone use encircled a town with no such regulations, external companies could hardly access the isolated drone devotees within. A jurisdictional division between operational safety and manner of use would break the siege. An FAA-controlled airspace would be for everyone to use, but local towns could still impose limits. Not all drone services would be available in all areas,[65] but this piecemeal provision of services is not nearly so problematic. Companies regularly roll out

---

60 NEWTON, MASS., ORDINANCES § 20-64 pmbl. (2016).

61 Defendant's Memorandum of Law, *supra* note 35, at 3.

62 *Singer*, 2017 WL 4176477, at *2.

63 Neither would the rule that protects against nuisance, an area of traditional state regulation, by banning any drone use intended to "harass, annoy, or assault a person, or to create or cause a public nuisance." ORDINANCES § 20-64(c)(1)(i).

64 *See* 49 U.S.C. § 40101 note (2012).

65 For example, if Singer wanted to deliver medical devices by drone and take photographs to verify the deliveries, he would still not be able to in the City of Newton. But Newton could no longer prevent him from making deliveries in other cities or other states.

services with pilot programs in isolated cities.[66] For now, Newton would not be among the participating cities: its residents have decided that the cost of allowing services that depend on drone photography is too high, as is their prerogative. As drone-provided services become more common, they might change their minds.

The drone industry's development can turn on where the boundary between federal and local regulatory authority falls.[67] As final statutory or regulatory explanations of the line do not appear to be close at hand, an opinion that proposed a provisional framework for identifying where exclusive federal regulation ends could have contributed to the debate, given states and cities guidance on how to draft valid ordinances, and offered other courts a tool to resolve similar cases.

Because drone use can implicate areas of traditional FAA regulation and areas of traditional state and local law, local governments need to be able to draft drone ordinances without encroaching on the FAA's regulation of the airspace.[68] Drones are objects flying in public airspace, but they are also tools that pose privacy, nuisance, and trespass risks. A presumption that the federal government has authority over the first category and states and localities over the second is both consistent with expectations and easy to apply. This standard, applied to the *Singer* facts, provides a more complete justification for the four *Singer* holdings than does the opinion's conflict preemption argument. An articulation of this more general principle would therefore have strengthened the court's reasoning while offering stronger guidance on how to resolve the preemption tensions in federal and subnational drone regulation.

---

[66] *See, e.g.*, Press Release, Amazon.com, Inc., Amazon Introduces Prime Now: One-Hour Delivery on Tens of Thousands of Daily Essentials Exclusively for Prime Members (Dec. 18, 2014), http://phx.corporate-ir.net/phoenix.zhtml?c=176060&p=irol-newsArticle&ID=2000521 [https://perma.cc/V2GY-DADZ] ("Prime Now launches in Manhattan today with plans to expand to additional cities in 2015.").

[67] Last year, the Senate and the House introduced two bills specifically intended to define the yet-indistinct boundaries: the Drone Federalism Act of 2017, S. 1272, 115th Cong. (2017), and the Drone Innovation Act of 2017, H.R. 2930, 115th Cong. (2017). The FAA is running its own program to study the problem: In December 2017 and January 2018, state, local, and tribal governments partnered with interested public and private stakeholders to submit proposals for regulating drones below 200 feet above the ground. The FAA intends to enter into memorandums of agreement with the participating local governments in May 2018 and begin testing the proposed regulatory frameworks. *UAS Integration Pilot Program*, FAA (Jan. 4, 2018, 11:32 AM), https://www.faa.gov/uas/programs_partnerships/uas_integration_pilot_program/splash/ [https://perma.cc/4QMY-J2DH].

[68] In *United States v. Causby*, 328 U.S. 256 (1946), the Supreme Court found that the FAA's authority to burden a landowner's property rights in the "immediate reaches of the enveloping atmosphere" was limited. *Id.* at 264. But this is not to say that the FAA has regulatory jurisdiction only above a certain altitude: the FAA asserts authority to regulate any outdoor flight operations in the Washington, D.C. Metropolitan Area Flight Restricted Zone, for example. *See* Villasenor, *supra* note 52, at 491; *see also* Michael N. Widener, *Local Regulating of Drone Activity in Lower Airspace*, 22 B.U. J. SCI. & TECH. L. 239, 245 (2016) ("All we learn from *Causby* for certain is that Congress placed navigable airspace, wherever found, into the public domain.").