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UAS: UNDERSTANDING THE AIRSPACE OF STATES

STEPHEN J. MIGALA*

ABSTRACT

On August 29, 2016, regulations issued by the Federal Aviation Administration (FAA) went into effect that, for the first time in history, apply only to airspace below 500 feet. At the same time, in response to concerns over privacy and security, and the FAA's delay in issuing these regulations, several states passed their own laws restricting drones. Simply put, these laws are on a collision course. The majority of commentators believe these state laws will be federally preempted, but they are most likely wrong. Very little attention has been paid to the strong argument that the FAA may not have authority to exclusively, or even partially, regulate that airspace, let alone that they cannot do so to the exclusion of state laws. This article aims to inform those debates. It highlights statutes used by the FAA, and even some courts, to assert regulatory authority, and it shows that relevant text in the U.S. Code is misleadingly incomplete and not actually the law. Also, reviving a hundred years of context, history, and legislative intent, this article highlights other congressional limitations that the FAA has exceeded. All told, this article concludes that states can restrict drones over their own low-lying airspace.

I. INTRODUCTION

AIRSPACE ABOVE the United States has generally been thought of as governed exclusively at the federal level. For decades, there was no need to reevaluate this premise simply because no novel scenarios required its reexamination. Today, on the cusp of a new age of unmanned aerial vehicles delivering goods from dealer to doorstep, pervasive intrusions of miniature

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cameras floating outside of our homes' windows, and other broad privacy and national security implications, it is time to re-examine whether federal law prevents states from regulating low-lying airspace.

Indeed, the Federal Aviation Administration (FAA) has recently—and for the first time—asserted its jurisdiction over all airspace in the United States through statements, fact sheets, and regulations regarding drones, which are also known as unmanned aerial systems (UASs). However, for the most part, these rules and assertions have largely gone unnoticed for their encroachment on a dormant area of law that never excluded states from regulating low-lying airspace. With numerous states now enacting laws that restrict UASs, many presume these laws will be federally preempted. But a close look at the law will show little basis for such presumptions.

Upon careful examination of historical context, federal statutes governing airspace, case law, and a preemption analyses, this article argues that states are not preempted from regulating the areas below federal “navigable airspace.” In other words, states can enact laws preventing drone flights below 500 feet above ground level, regardless of FAA policies or regulations allowing, or not prohibiting, such operation.

This article's conclusions are based on examinations of mis-transcribed and miscodified provisions of law in the U.S. Code that differ from true source law, as well as statutory definitions, legislative history, historical context, and case law regarding airspace and preemption analyses.

The implications of this article's conclusions stand to affect many other areas of law. A good swath of Fourth Amendment and government surveillance jurisprudence is based on the notion that one does not have a reasonable expectation of privacy where aircraft can legally fly. Thus, allowing states to establish “no drone zones” in non-navigable airspace will have the direct effect of establishing privacy norms and reasonable expectations involving UASs.

By allowing states to keep laws that regulate these “recent inventions and business methods,”¹ our society will not only set a

¹ A famous phrase taken from a law review article by Samuel D. Warren and Louis D. Brandeis. Samuel D. Warren & Louis D. Brandeis, *The Right to Privacy*, 4 HARV. L. REV. 193, 195 (1890). Over a hundred years ago, Warren and Brandeis warned of new “mechanical devices” in the form of portable cameras and “business methods” in the form of celebrity journalism, which they foreshadowed would vastly expand and threaten norms of privacy. Today, the miniaturization

framework for the development of future commerce, personal convenience, safety, and security, it will also firmly establish the bounds of what we choose to hold as “sacred precincts of private and domestic life.”²

A. THE FLIGHT PLAN

To guide readers through the legal landscape, this article begins, in Part II.A, with a brief background on drones. Next, Part II.B presents a history and description of the FAA’s drone regulations. Part II.C then examines the FAA’s position on whether its regulations preempt state law.

Part III is where the heart of this article lies, laying out in detail the accurate versions of law, definitions, history, context, and legislative intent that have rarely been found in case law or other commentaries. Part III.A.1 introduces a mistranscribed law in the U.S. Code that is often erroneously used to assert federal control and preemption of all airspace. Afterward, Part III.A.2 looks at the limited authority Congress granted to the FAA to regulate only within navigable airspace and not in the several hundred feet above ground where drones usually operate. Part III.A.3 then describes the bounds and altitudes of navigable airspace and how those have remained constant for nearly a century. Part III.A.4 evaluates other authorities on which the FAA has relied to promulgate its drone regulations and argues that they do not grant the FAA the powers it claims. Part III.B examines nearly a century of state regulation of low-lying airspace and modern efforts to regulate drones. Later, Part III.C briefly introduces the most relevant case law on airspace, privacy, government takings, and states’ rights.

Part IV presents a brief preemption analysis, relying heavily on the deep dive taken in Part III. And after concluding that most state laws are not preempted, this article clarifies how and where the FAA can regulate in Part V. All told, this article makes some novel assertions and hopes to, at the very least, better inform a public debate that appears to have overlooked both some key legal arguments and the historical evolution of our laws on aviation and airspace.

and aerial portability of common cameras again threatens to bring a paradigmatic shift to perceptions of personal privacy.

² *Id.*

B. NOMENCLATURE

One other introductory point must be made regarding nomenclature. Commonly known as “drones,” remote-controlled or human-less aircraft have many other names depending on their use or on the speaker. Congress and the FAA use the term “UAS” to refer to “an aircraft that is operated without the possibility of direct human intervention from within or on the aircraft.”³ And within that term, they also classify a subset called small UASs or “sUASs.”⁴ Meanwhile, most states initially favored the more overarching and publicly familiar term “drone,” which is the term even the military first used.⁵ While attempting to keep fidelity to the term used in the law that is analyzed, this article will generally use both UAS and drone interchangeably.

II. BACKGROUND

A. WHY ALL THE BUZZ?

Drones are on their way to becoming commonplace, if not ubiquitous. In 2015, some estimated that more than 4 million drones were sold and that sales could increase to 20 million by 2020.⁶ Moreover, proponents estimate that integrating UASs into the U.S. national airspace system will have an economic impact of more than \$13 billion and 70,000 jobs in only the first three years.⁷

³ FAA Modernization and Reform Act of 2012, Pub. L. No. 112-95, § 331(8), 126 Stat. 11, 72 (codified at 49 U.S.C. § 40101 (2012)).

⁴ *Id.* § 331(6).

⁵ Ben Zimmer, *The Flight of ‘Drone’ from Bees to Planes*, WALL ST. J. (July 26, 2013, 7:36 PM), <http://www.wsj.com/articles/SB10001424127887324110404578625803736954968> [<https://perma.cc/PR3U-3VV8>]. The origins of the term “drone” can be traced to 1935, when a U.S. naval admiral observed a demonstration of a British remote-controlled aircraft, the “Queen Bee,” used for target practice. The admiral ordered a subordinate to develop something similar for the U.S. Navy, and that officer used the name drone for his aircraft, in homage to the *Queen Bee*. With the slight buzzing sound made by quadcopters, the most common form of drones, the term drone seems even more appropriate today.

⁶ Rob Stott, *Consumer Drones Sales to Reach Almost 4 Million This Year, 16 Million by 2020*, DEALERSCOPE (Nov. 10, 2015), <http://www.dealerscope.com/article/consumer-drones-sales-to-reach-almost-4-million-this-year-16-million-by-2020/2/> [<https://perma.cc/8WY7-4FLC>] (summarizing a recent Juniper Research report).

⁷ ASS’N FOR UNMANNED VEHICLE SYS. INT’L (AUVSI), *THE ECONOMIC IMPACT OF UNMANNED AIRCRAFT SYSTEMS INTEGRATION IN THE UNITED STATES 2* (2013), <https://higherlogicdownload.s3.amazonaws.com/AUVSI/958c920a-7f9b-4ad2-9807-f9a4e95d1ef1/UploadedImages/>

The increasing prevalence of drones has raised new questions about airspace, property rights, security, and privacy. When U.S. Senator Rand Paul appeared on CNN in January 2015 and threatened to shoot down any drone over his house,⁸ he was not the first person to believe that his property rights extended to the air above his home. As drones began to proliferate, many other incidents implicating safety, privacy, and national security drew national attention. Conspicuously absent from these incidents was any meaningful legal enforcement or any clear indication as to rules for drones from the FAA.⁹ Noting a void and rising public concern, states began to legislate on the issue.¹⁰ At the same time, the FAA, after years of consideration, released its final rules on sUASs, which went into effect on August 29, 2016.¹¹ With many amateur commentators suggesting that state laws could be preempted, and with court cases just starting to examine the issue, this article sets out to inform that discussion. But first, the FAA's approach to regulating drones is introduced.

B. FAA'S PART 107 sUAS REGULATIONS

1. FAA Regulation Before the sUAS Final Rule

Prior to the FAA's new Title 14, Part 107 regulations, the FAA considered all UASs to be "aircraft" generally and restricted their use, unless operators had an exemption or used them ac-

New_Economic%20Report%202013%20Full.pdf [https://perma.cc/WHF4-UVFK].

⁸ Adam B. Lerner, *Rand Paul: I'd Shoot a Drone Out of the Sky*, POLITICO (Jan. 28, 2015, 11:48 AM), <http://www.politico.com/story/2015/01/rand-paul-id-have-shot-that-drone-out-of-the-sky-114679> [https://perma.cc/TCJ3-RHV3].

⁹ The FAA's enforcement actions to date demonstrate that it is overwhelmed. As of July 2016, and going back several years, the FAA has only fined a total of twenty-four people or companies for illegal drone flights. Jason Koebler, *The FAA Gave Us a List of Every Drone Pilot Who Has Ever Been Fined*, MOTHERBOARD (June 1, 2016, 1:20 PM), <http://motherboard.vice.com/read/faa-drone-fines> [https://perma.cc/E82K-6KGW]. As opposed to the millions of drones sold, the FAA only has about 1,500 enforcement personnel, most of whom are dedicated to commercial aircraft maintenance inspections. Mike Colin, *FAA Executive Announces Modified Approach To Enforcement*, JDA J. (May 11, 2012), <http://jdasolutions.aero/blog/faa-executive-announces-modified-approach-to-enforcement/> [https://perma.cc/4Q4Y-VBHL].

¹⁰ See *infra* Part III.B.4.

¹¹ Operations and Certification of Small Unmanned Aircraft Systems, 81 Fed. Reg. 42,064, 42,066 (June 28, 2016) (codified at 14 C.F.R. pt. 21); see *infra* Part II.C.

ording to standards for model aircraft.¹² The standards for model aircraft were voluntary and used guidelines created for hobbyists in 1981.¹³ Contained within an FAA “advisory circular” (AC), the guidelines asked operators not to fly higher than 400 feet above the ground and, if flying within three miles of an airport, to notify that airport or control tower.¹⁴ In 2007, the FAA clarified that those operating a drone under the hobbyist guidelines could not do so for any commercial purpose.¹⁵ In 2012, Congress passed a law forbidding the FAA from regulating any aircraft being operated like model aircraft.¹⁶ By virtue of that law, as long as drones were being flown in accordance with the AC guidelines, the FAA could not regulate them.¹⁷ In 2015, the FAA said that it could require aircraft certifications for UASs but in its “discretion” chose not to.¹⁸ Its discretion changed less than two months later, when the FAA published an interim final rule requiring all drones to be federally registered.¹⁹ However, that requirement was short-lived. In May 2017, a federal appellate court struck down the registration requirement for drones operated as model aircraft.²⁰ But from 1981 to 2015, the voluntary guidelines on how to operate model aircraft remained stagnant. In September 2015, the FAA released AC No. 91-57A, but it did

¹² See FED. AVIATION ADMIN., U.S. DEP’T OF TRANSP., ADVISORY CIRCULAR NO. 107-2, SMALL UNMANNED AIRCRAFT SYSTEMS 3-1 (2016), http://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_107-2.pdf [<https://perma.cc/S6JQ-JFZW>].

¹³ FED. AVIATION ADMIN., U.S. DEP’T OF TRANSP., ADVISORY CIRCULAR NO. 91-57, MODEL AIRCRAFT OPERATING STANDARDS (1981), http://www.faa.gov/documentLibrary/media/Advisory_Circular/91-57.pdf [<https://perma.cc/B6FN-JVHG>].

¹⁴ *Id.*

¹⁵ Unmanned Aircraft Operations in the National Airspace System, 72 Fed. Reg. 6689, 6690 (Feb. 13, 2007) (codified at 14 C.F.R. pt. 91).

¹⁶ FAA Modernization and Reform Act of 2012, Pub. L. No. 112-95, § 336, 126 Stat. 11, 77 (codified at 49 U.S.C. § 40101 (2012)).

¹⁷ *Id.* § 336(2).

¹⁸ Clarification of the Applicability of Aircraft Registration Requirements for Unmanned Aircraft Systems (UAS) and Request for Information Regarding Electronic Registration for UAS, 80 Fed. Reg. 63,912, 69,914 (Oct. 22, 2015) (codified at 14 C.F.R. ch. I) (“Historically, the FAA, through the exercise of its discretion, has not enforced the statutory requirements for aircraft registration in 49 U.S.C. § 44101 for model aircraft.”).

¹⁹ Registration and Marking Requirements for Small Unmanned Aircraft, 80 Fed. Reg. 78,593, 78,638 (Dec. 16, 2015) (codified at 14 C.F.R. pt. 48.1).

²⁰ *Taylor v. Huerta*, 856 F.3d 1089, 1093 (D.C. Cir. 2017) (“In short, Section 336 of the FAA Modernization and Reform Act prohibits the FAA from promulgating ‘any rule or regulation regarding a model aircraft.’ The Registration Rule is a rule regarding model aircraft. Therefore, the Registration Rule is unlawful to the extent that it applies to model aircraft.”).

not do much to change the voluntary rules for most UAS operators.²¹

2. *FAA Modernization and Reform Act of 2012*

Despite the growing number of drones and high-profile incidents, neither the FAA nor Congress meaningfully acted to regulate them until 2012, when Congress passed the FAA Modernization and Reform Act of 2012 (FMRA).²² But FMRA did not do much to create law on its own; instead, the law gave the FAA definitions to use and parameters by which to regulate. FMRA created classes of UASs. The sUASs were defined as those weighing less than fifty-five pounds.²³ Heavier drones were categorized more broadly as UASs.²⁴

For sUASs, Congress charged the FAA with making a “final rule on small unmanned aircraft systems that will allow for civil operation of such systems in the national airspace system.”²⁵ For other UASs, Congress directed the FAA to develop a “comprehensive plan to safely accelerate the integration of civil unmanned aircraft systems into the national airspace system.”²⁶

While the FAA was working on its sUAS rules and its comprehensive integration plan, Congress also, within Section 333 of FMRA, instructed the FAA to determine if certain UASs could be safely operated.²⁷ Eventually, the FAA would use Section 333 to allow applications for exemptions from the prohibition on operating drones outside of the AC’s guidelines or for business purposes.²⁸ As of September 28, 2016, the FAA had issued 5,551 individual exemptions.²⁹ UASs can now be operated either

²¹ FED. AVIATION ADMIN., U.S. DEP’T OF TRANSP., ADVISORY CIRCULAR NO. 91-57A, MODEL AIRCRAFT OPERATING STANDARDS (2015), http://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_91-57A.pdf [<https://perma.cc/MM2V-EPWR>].

²² FAA Modernization and Reform Act of 2012, Pub. L. No. 112-95, § 331 126 Stat. 11, 77 (2012) (codified in part at 49 U.S.C. § 40101 et seq.).

²³ *Id.* § 331(6).

²⁴ *See id.* § 331(9).

²⁵ *Id.* § 332(b), 126 Stat. at 74.

²⁶ *Id.* § 332(a), 126 Stat. at 73.

²⁷ *Id.* § 333, 126 Stat. at 75.

²⁸ Fed. Aviation Admin., § 333, https://www.faa.gov/uas/beyond_the_basics/section_333/ [<https://perma.cc/5U3A-ME46>].

²⁹ *Id.*

under this Section 333 exemption or under the new Part 107 regulations.³⁰

3. *sUAS Part 107 Regulations*

Part 107 is the FAA's newest framework for regulating all other sUASs not operated by government agencies or under a Section 333 exemption.³¹ Following much delay, and a notice of proposed rulemaking issued back in February 2015,³² the final Part 107 regulations within Title 14 were finally published in June 2016 and went into effect on August 29, 2016.³³ The regulations can be summarized as requiring civil operators to earn a new specialized remote pilot certificate; operate only in good weather conditions and certain distances away from clouds; not operate at night; remain clear of airports and their airspace; maintain visual line of sight with the drone; not fly directly over persons; and remain within 400 feet above ground level or within a 400-foot radius of a structure.³⁴ However, because navigable airspace, at its lowest point, begins at least 500 feet above ground, these regulations marked the first time the FAA had exclusively regulated in the non-navigable airspace.³⁵ Moreover, as already mentioned, many states grew weary of waiting for the FAA to regulate UASs and issued their own rules regarding drones.³⁶ Some even restricted where drones can fly in the same non-navigable or low-lying airspace.³⁷ Because these laws are regulating literally in the same space, many see these sets of laws on a collision course.

C. THE FAA'S ATTITUDE ON LOW-ALTITUDE PREEMPTION

The FAA's position on the issue of states regulating drones in non-navigable airspace is not entirely clear. On one hand, the FAA's regulations specifically avoided including a preemption

³⁰ See *id.*; see also *Fact Sheet – Small Unmanned Aircraft Regulations (Part 107)*, FED. AVIATION ADMIN. (June 21, 2016), https://www.faa.gov/news/fact_sheets/news_story.cfm?newsId=20516 [<https://perma.cc/D5PT-Q4RE>].

³¹ 14 C.F.R. § 107.1 (2016).

³² Operation and Certification of Small Unmanned Aircraft Systems, 80 Fed. Reg. 9544 (Feb. 23, 2015) (codified at 14 C.F.R. pt. 21 et seq.).

³³ Operation and Certification of Small Unmanned Aircraft Systems, *supra* note 11 (issuing a new Part 107 to Title 14 of the Code of Federal Regulations).

³⁴ See 14 C.F.R. pt. 107 (2016).

³⁵ See 14 C.F.R. § 1.1 (2016).

³⁶ See *infra* Part III.B.4.

³⁷ *Id.*

clause.³⁸ On the other hand, its regulations suggested that some laws may be preempted on a case-by-case basis.³⁹ Moreover, FAA officials have made statements that suggest implied preemption, such as, “FAA regulations . . . apply to . . . [drones, which] have extended the national airspace down to the ground.”⁴⁰

Also puzzling was a memorandum released in December 2015 by the FAA’s Office of Chief Counsel entitled “State and Local Regulation of Unmanned Aircraft Systems (UAS) Fact Sheet,” in which the office attempted to explain the federal framework of aviation regulation.⁴¹ Although the memorandum did not specifically say airspace-related UAS restrictions were preempted, instead stating, “Federal courts strictly scrutinize state and local regulation of overflight,” it quoted case law that recommended field preemption, and suggesting that states consult with the FAA about such laws.⁴² Many saw it as a warning to states to not try to regulate where UASs can fly.⁴³ Curious too was the memorandum’s oscillation between quoting authorities that seemed to

³⁸ Operation and Certification of Small Unmanned Aircraft Systems, 81 Fed. Reg. at 42,194.

³⁹ *Id.* (“The FAA is not persuaded that including a preemption provision in the final rule is warranted at this time. Preemption issues involving small UAS necessitate a case-specific analysis that is not appropriate in a rule of general applicability.”).

⁴⁰ Gregory S. McNeal, *The Federal Government Thinks Your Backyard is National Airspace and Toys Are Subject to FAA Regulations*, FORBES (Nov. 18, 2014, 12:47 PM), <https://www.forbes.com/sites/gregorymcneal/2014/11/18/the-federal-government-thinks-your-backyard-is-national-airspace-and-toys-are-subject-to-faa-regulations/#be42b8a5c022> [<https://perma.cc/G9UZ-K77L>] (quoting Jim Williams, the head of the FAA’s UAS Integration Office); see also *Huerta v. Haughwout*, No. 3:16-CV-358 (JAM), 2016 WL 3919799, at *4 (D. Conn. July 18, 2016) (“It appears from oral argument as well as from the FAA’s website that the FAA believes it has regulatory sovereignty over every cubic inch of outdoor air in the United States (or at least over any airborne objects therein). If so, that ambition may be difficult to reconcile with the terms of the FAA’s statute that refers to ‘navigable airspace’ . . .”).

⁴¹ OFFICE OF CHIEF COUNSEL, FED. AVIATION ADMIN., STATE AND LOCAL REGULATION OF UNMANNED AIRCRAFT SYSTEMS (UAS) FACT SHEET (2015) [hereinafter REGULATION OF UAS FACT SHEET 2015], http://www.faa.gov/uas/resources/uas_regulations_policy/media/uas_fact_sheet_final.pdf [<https://perma.cc/N6JA-54N7>].

⁴² *Id.* at 3.

⁴³ *E.g.*, Andrew S. Fraker & Thomas E. Williams, *Drones - Division Between Federal and State Law and What it Means to You*, NAT’L L. REV. (Feb. 17, 2016), <http://www.natlawreview.com/article/drones-division-between-federal-and-state-law-and-what-it-means-to-you> [<https://perma.cc/T6A5-NC9L>] (“According to the FAA, . . . no state or local government may attempt to regulate the operation or flight of aircraft, including drones.”).

support preemption specifically in the navigable airspace, and ones that applied to all airspace.⁴⁴

It is entirely possible that the FAA itself has not yet taken an official stance on the issue. Perhaps it is waiting to see how courts rule or whether it will be necessary to take a firm stance. However, at the very least, the FAA, in its memorandum and elsewhere, has succumb to relying on provisions of the U.S. Code that are not actually the law. And as a result, it is quite possible that the FAA has autonomously expanded its authority beyond Congress's specific grants under the Commerce Clause. Regardless, these misunderstandings, spurred both by erroneous U.S. Code provisions and overlooked statutory limitations, ought to be corrected. When the correct authorities are analyzed in concert with their legislative intent and historical context, it becomes evident that states are not preempted from restricting UASs in their low-lying nonnavigable airspace.

III. THE LAW?

To support the FAA's first foray into regulating only within the non-navigable airspace, and to claim that state laws are preempted, proponents primarily point to 49 U.S.C. § 40103(a)(1), excerpted below.⁴⁵ And seemingly, at first glance, the text in the U.S. Code appears to offer support for the proposition that the FAA can regulate all airspace. But a thorough look will reveal that is not the case. Combined with statutory grants of authority limited to only navigable airspace, a strong history of past and present state laws in low-lying airspace, and even legislative discussions that show that federal laws were written to avoid overriding state laws, it will become evident that the FAA regulations do not preempt state UAS laws. But first, to dispel the notion that § 40103(a)(1) has bearing on this analysis, a deep dive is taken into the statutory history of the law.

A. THE FEDERAL STATUTES ON AVIATION

1. "Exclusive Sovereignty"?

49 U.S.C. § 40103(a)(1) states: "The United States Government has exclusive sovereignty of airspace of the United States."⁴⁶ This sentence may be regarded as the root of most mis-

⁴⁴ See REGULATION OF UAS FACT SHEET 2015, *supra* note 41, at 6.

⁴⁵ 49 U.S.C. § 40103(a)(1) (2012).

⁴⁶ *Id.*

understandings in analyzing airspace law and the reach of the FAA's authority. The primary problem being that, despite this sentence's prominence in case citations, it is not the law. As will be shown below, this sentence was substantially changed by codifiers of the U.S. Code in an apparent effort to simplify complex phrasing within the original federal statute.⁴⁷ That substantial change culled vital words and context, and consequently, not only changed the ostensible meaning of the provision, but also further masked its true purpose and intent. When courts have reviewed other laws similarly changed from statute to code, they have overwhelmingly held that the source statute—and the intent of Congress—is the law. This provision of law must then be interpreted in its original and unadulterated form, as it was passed in the Federal Aviation Act of 1958⁴⁸ (1958 Act) and as it evolved, nearly verbatim, from the Civil Aeronautics Act of 1938⁴⁹ (1938 Act) and the Air Commerce Act of 1926⁵⁰ (1926 Act) before it. All three Acts' similar provisions on sovereignty, coupled with their legislative history and context, unmistakably show that the version within the U.S. Code today is not a faithful recasting of the law. Thus, as will be explained below, 49 U.S.C. § 40103(a)(1) has nothing to do with federal control of airspace. Instead, the sole purpose of the provision was to assert national sovereignty of airspace against foreign aircraft, not against the several states.

a. Origins of the Language: From Statute to Code

Since manned flight began, there have been three major federal statutes that allowed the federal government to regulate some aspects of airspace and aircraft. The first was the 1926 Act. Next, the 1926 Act was amended, but not entirely supplanted, by the 1938 Act. And finally, the current system is based on the 1958 Act. The 1958 Act replaced the 1938 and 1926 Acts in their entirety and was codified and enacted into positive law in 1994.⁵¹ The version currently found in the U.S. Code still mir-

⁴⁷ “United States of America” was changed to “United States Government” and “exclusive national sovereignty” was changed to “exclusive sovereignty.” *Compare* 49 U.S.C. § 40103(a)(1) (2012), *with* Federal Aviation Act of 1958, Pub. L. No. 85-726, § 1108(a), 72 Stat. 731, 798.

⁴⁸ Federal Aviation Act of 1958, Pub. L. No. 85-726, 72 Stat. 731.

⁴⁹ Civil Aeronautics Act of 1938, Pub. L. No. 75-706, 52 Stat. 973.

⁵⁰ Air Commerce Act of 1926, Pub. L. No. 69-254, 44 Stat. 568, 572.

⁵¹ Act of July 5, 1994, Pub. L. No. 103-272, 108 Stat. 745 (codified at 49 U.S.C. § 40101 et. seq.).

rors the language of the provision as it was codified in 1994.⁵² Although there have been various amendments to the 1958 Act, none have changed the provision regarding sovereignty. And because only minor changes to that provision were made in the 1938 and 1958 Acts, the intent and meaning of the provision on sovereignty may be traced back to its origin in the 1926 Act.⁵³ For ease and clarity of comparison, the evolution of this provision is presented next.

The provision from the U.S. Code, as currently found at 49 U.S.C. § 40103(a)(1), states the following: “(a) Sovereignty and Public Right of Transit.—(1) The United States Government has exclusive sovereignty of airspace of the United States.”⁵⁴

The same provision in the Federal Aviation Act of 1958 stated:

Foreign Aircraft Sec. 1108. (a) The United States of America is hereby declared to possess and exercise complete and exclusive national sovereignty in the airspace of the United States, including the airspace above all inland waters and the airspace above those portions of the adjacent marginal high seas, bays, and lakes, over which by international law or treaty or convention the United States exercises national jurisdiction.⁵⁵

After only comparing the two citations, and without historical context, it already seems quite doubtful that Congress intended to assert complete and exclusive preemption of all airspace. Rather, it appears likely that Congress was asserting that the United States—as a nation—can regulate or exclude *foreign* aircraft, even when they are over certain types of water. Nowhere in

⁵² Compare *id.*, with 49 U.S.C.S. § 40103(a)(1) (2012).

⁵³ *E.g.*, *Russello v. United States*, 464 U.S. 16, 23 (1983) (“The evolution of these statutory provisions supplies further evidence [of what] Congress intended”); *Ute Indian Tribe v. State of Utah*, 716 F.2d 1298, 1303 (10th Cir. 1983) (“In determining legislative intent it is necessary to consider the legislation in its historical context and not as if it was passed today.”); *Israel-British Bank (London) Ltd. v. Fed. Deposit Ins. Corp.*, 536 F.2d 509, 512 (2d Cir. 1976) (“We may consider the history of the phrase as it finally evolved, with particular reference to the language used in earlier statutes. We may also search for the policy intended to be enacted. As Justice Cardozo wrote: ‘(The words) came into the statute . . . freighted with the meaning imparted to them by the mischief to be remedied.’” (quoting *Duparquet Huot & Moneuse Co. v. Evans*, 297 U.S. 216, 220–21 (1936))); *In re Shaver*, 140 F.2d 180, 181 (7th Cir. 1944) (“[W]here the law on a particular subject is revised and rewritten, all provisions of the old law which are retained in the new act are regarded as having been continuously in force and as not having been repealed.”).

⁵⁴ § 40103(a)(1).

⁵⁵ The Federal Aviation Act of 1958, Pub. L. No. 85-726, § 1108, 72 Stat. 731, 798.

the 1958 statute did it say the “United States Government.”⁵⁶ Moreover, the original section title of “Foreign Aircraft” from the 1958 statute was deleted and replaced by an awkward combined title, “Sovereignty and Public Right of Transit.”⁵⁷

When one examines the 1926 and 1938 Acts, on which the Federal Aviation Act of 1958 was, and the current U.S. Code provision is, based, it becomes exceedingly clear that Congress used this section to declare sovereignty only internationally; it did not intend to trample on the sovereignty of states’ airspace rights.

As stated above, each of the three major aviation acts either replaced or directly amended the previous one. Although small changes were made to the phrasing of the provision, the intent never changed from when sovereignty against foreign aircraft was first declared in the original law from 1926:

Sec. 6. Foreign Aircraft.—(a) The Congress hereby declares that the Government of the United States has, to the exclusion of all foreign nations, complete sovereignty of the airspace over the lands and waters of the United States, including the Canal Zone. Aircraft a part of the armed forces of any foreign nation shall not be navigated in the United States, including the Canal Zone, except in accordance with an authorization granted by the Secretary of State.⁵⁸

Subsequently, the Civil Aeronautics Act of 1938 amended the 1926 Act to state:

(i) The Air Commerce Act of 1926, as amended, is further amended—

. . .

(3) By striking out the first sentence of section 6 and inserting in lieu thereof the following: “The United States of America is hereby declared to possess and exercise complete and exclusive national sovereignty in the air space above the United States, including the air space above all inland waters and the air space above those portions of the adjacent marginal high seas, bays, and lakes, over which by international law or treaty or convention the United States exercises national jurisdiction.”⁵⁹

⁵⁶ *Id.*

⁵⁷ Compare § 40103(a)(1), with § 1108, 72 Stat. at 798.

⁵⁸ Air Commerce Act of 1926, Pub. L. No. 69-254, Ch. 344 § 6, 44 Stat. 568, 572 (at one point codified in 49 U.S.C. § 176 (1938)).

⁵⁹ Civil Aeronautics Act of 1938, Pub. L. No. 75-706, Ch. 601, tit. XI, § 1107(i)(3), 52 Stat. 973, 1028 (1938).

The 1938 Act was eventually replaced by the 1958 Act, but with respect to this provision, the text of the 1938 Act remained, almost exactly, as the relevant text in the 1958 Act (with the small exception of “airspace *of* the United States” in lieu of “air space *above* the United States”).⁶⁰

b. International Intent and Origins

The reason the U.S. Congress thrice put such similar language about international sovereignty in a domestic law was because that principle signaled what *type* of sovereignty the United States asserted against foreign countries: complete and exclusive.

While today it is clear that a nation controls its own airspace, before World War I there was a debate as to whether the air could be regulated at all or if airspace was subject to a free right of flight, similar to the right to travel on the high seas.⁶¹ Three main approaches to sovereignty were debated: the first approach claimed that all air was free and that anyone could travel through the air; the second claimed that nations had sovereignty over their airspace, but that it was “subject to a right or servitude of innocent passage”; and the third approach held that a nation had “absolute state sovereignty” over its airspace.⁶² After World War I and the devastation caused by weaponized aircraft, the international community realized that absolute sovereignty was required and galvanized around that third approach.⁶³

⁶⁰ Compare *id.*, with § 1108(a), 72 Stat. at 798.

⁶¹ E.g., AM. BAR ASS'N., REPORT OF THE SPECIAL COMMITTEE ON THE LAW OF AVIATION 6, 22 (1921) (“[T]he development of peace time international air law was long retarded by a conflict of views among jurists . . . , but the view which has definitely prevailed is that of territorial sovereignty over the air. The guiding principles of an International Air Navigation Convention . . . included the recognition of sovereignty over the air above territories and territorial waters”); George Gleason Bogert, *Problems in Aviation Law*, 6 CORNELL L. Q. 271, 273–75 (1921) (comparing international approaches to sovereignty).

⁶² E.g., Stuart S. Ball, *The Vertical Extent of Ownership in Land*, 76 U. PA. L. REV. 631, 639–40 n.19 (1928) (outlining and citing several sources for the three main approaches to a nation’s sovereignty over airspace); see also HENRY G. HOTCHKISS, A TREATISE ON AVIATION LAW 5–6 (1928); GEORGE W. LUPTON, JR., CIVIL AVIATION LAW 2–4 (1935) (outlining the various doctrines on sovereignty and stating absolute sovereignty was the approach adopted by the 1919 Paris Convention).

⁶³ HOTCHKISS, *supra* note 62, at 6 (“[B]y the end of the war it was perfectly clear that all the countries . . . had agreed that the nation had sovereignty over its airspace.”).

Absolute, or complete and exclusive, sovereignty over airspace was widely adopted in the first major international treaty regarding air travel: The International Convention Relating to the Regulation of Aerial Navigation, sometimes known as the Paris Convention of 1919. In article 1, the treaty stated: “The High Contracting Parties recogni[z]e that every Power has complete and exclusive sovereignty over the air space above its territory.”⁶⁴ That same principle, and even that same phrase “complete and exclusive,” was the one Congress used to describe the United States’ sovereignty in both the 1938 and 1958 Acts.⁶⁵

The United States played a vital role in shaping the Paris Convention and was even a signatory, but because of the Convention’s association with the League of Nations, the U.S. Senate did not vote on it, and consequently the United States never ratified that treaty.⁶⁶ Of course, without ratification, the sovereignty provision in the 1919 Paris Convention would not be incorporated into our laws and the United States would have no statement as to what type of sovereignty it asserted.⁶⁷ At a time when other nations ratified that 1919 Convention or made other unilateral statements of sovereignty over airspace in their laws,⁶⁸ the 1926 Act was the method through which Congress and the United States gave international notice that it claimed absolute sovereignty from foreign aircraft and states over its airspace.⁶⁹

⁶⁴ Int’l Convention Relating to the Reg. of Aerial Navigation art. 1, Oct. 15, 1919, 11 L.N.T.S. 173.

⁶⁵ Federal Aviation Act of 1958, Pub. L. No. 85-726, § 1108, 72 Stat. 731, 798; Civil Aeronautics Act of 1938, Pub. L. No. 75-706, Ch. 601, § 1107(i)(3), 52 Stat. 973, 1028 (1938); Air Commerce Act of 1926, Pub. L. No. 69-254, Ch. 344, § 6, 44 Stat. 568, 572 (The 1926 act used a similar term “to the exclusion of all foreign nations, complete sovereignty.”).

⁶⁶ W. JEFFERSON DAVIS, AERONAUTICAL LAW 23 (1930) (“The principle argument heard against it is the same argument that was heard in 1919: That the Convention is connected with the League of Nations. This argument is based on the fact that a provision is made for the League to have present a delegate at all meetings of the Permanent Commission which administers the work of the International Convention on Air Navigation.”).

⁶⁷ See U.S. CONST., art. VI, cl. 2.

⁶⁸ *E.g.*, ROBERT WRIGHT, THE LAW OF AIRSPACE 106 (1968) (citing and explaining Great Britain’s Air Navigation Act of 1920). In some countries, the 1919 treaty was automatically incorporated into their national laws. Others, like Great Britain, passed laws to give effect to the treaty. *Id.*

⁶⁹ HOTCHKISS, *supra* note 62, at 10–11 (“But although the United States has no rights of flight guaranteed by treaty over other countries, it had definitely erected barriers of exclusion to foreign aircraft in this country. It has been pointed out

The wording of the provision changed slightly from 1926 to 1938. Instead of the phrasing in the 1926 Act, “to the exclusion of all foreign nations, complete sovereignty,”⁷⁰ the 1938 Act amended the provision to read, “complete and exclusive national sovereignty.”⁷¹ This may also be explained by international context. In 1931, the United States finally ratified the 1928 Pan American Convention on Commercial Aviation, sometimes referred to as the Habana Convention, which it signed in 1928.⁷² The Habana Convention and its principle on sovereignty was, at the time the 1938 act was passed, the only “multilateral convention dealing with public international air law [that the United States had] ratified.”⁷³

It appears evident that the technical rewording of the 1938 Act was meant to fall more in line with the 1928 Habana Convention.⁷⁴ Article 1 of the 1928 Habana Convention, using much of the same language from the 1919 Paris Convention, stated: “The High Contracting Parties recognize that every state has *complete and exclusive sovereignty over the air space above its territory and territorial waters.*”⁷⁵ This matched almost exactly the way the sovereignty provision was minimally rephrased in the 1938 Act: “The United States of America is hereby declared to possess

that Article 6 of the Air Commerce Act proclaims the sovereignty of the United States over the airspaces above its territory.”).

⁷⁰ Ch. 344, § 6, 44 Stat. at 572.

⁷¹ Civil Aeronautics Act of 1938, Pub. L. No. 75-706, Ch. 601, § 1107(i)(3), 52 Stat. 973, 1028 (1938).

⁷² Commercial Aviation: Convention Between the United States of America and Other American Republics, Feb. 20, 1928, 47 Stat. 1901, T.S. No. 840 [hereinafter Commercial Aviation Convention].

⁷³ *Hearing on H.R. 5234 and H.R. 4652 Before the H. Comm. on Interstate & Foreign Commerce*, 75th Cong. 256 (1937) (statement of Denis Mulligan, Solicitor’s Office, Department of Commerce); see Van Vechten Veeder, *The Legal Relation Between Aviation and Admiralty*, 2 AIR L. REV. 29, 29 (1931) (“By the express terms of the [1919 Paris and 1928 Habana Conventions], ‘every power has complete and exclusive sovereignty over the airspace above its territory and territorial waters.’ Although the United States has not ratified either convention, it has expressly adopted the principle of national sovereignty in the Act of Congress known as the Air Commerce Act of 1926.”).

⁷⁴ See HOTCHKISS, *supra* note 62, at 11 (“The general policy of the United States is indicated in the Air Commerce Act of 1926 and in the Havana Convention which is the proposed code for the Americas in matters of aviation. It is to be expected that this or some similar code will be adopted in time by the United States . . .”).

⁷⁵ Commercial Aviation Convention, *supra* note 72, art. 1 (emphasis added to ease comparison).

and exercise *complete and exclusive national sovereignty in the air space above the United States.*⁷⁶

Moreover, the 1926 Act only described the areas over which the United States had sovereignty as “lands and waters of the United States.”⁷⁷ The 1938 Act amended that language, adding “all inland waters and . . . the adjacent marginal high seas, bays, and lakes, over which by international law or treaty or convention the United States exercises national jurisdiction.”⁷⁸ This too has a simple explanation. At the time these laws were passed, there were disputes in international law as to what type of waters would be considered territory and how far into those water’s boundaries a nation’s sovereignty would extend.⁷⁹ It was not until the 1982 U.N. Convention on the Law of the Sea that those disputes would be mostly resolved.⁸⁰ The additional language added by the 1938 Act clarified the areas over which the United States asserted its declared type of sovereignty. Obviously, if the sovereignty provision was meant for a domestic audience, such as the several states, there would be no need to cross-reference international treaties or define sovereignty over types of waters.

Later, the Chicago Convention of 1944 would also retain similar language regarding sovereignty: “The contracting States recognize that every State has complete and exclusive sovereignty over the airspace above its territory.”⁸¹ Many other international

⁷⁶ Ch. 601, § 1107(i)(3), 52 Stat. at 1028 (emphasis added to ease comparison).

⁷⁷ Air Commerce Act of 1926, Pub. L. No. 69-254, ch. 344, § 6, 44 Stat. 568, 572.

⁷⁸ Ch. 601, § 1107(i)(3), 52 Stat. at 1028.

⁷⁹ Commercial Aviation Convention, *supra* note 72, art. 1, reprinted in WILLIAM M. MALLOY, TREATIES, CONVENTIONS, INTERNATIONAL ACTS, PROTOCOLS AND AGREEMENTS 1910–1923, at 3773 (1923) (Because of these disputes, the 1919 Paris Convention included specific language about territorial waters; Article 1 continued to say, “For the purpose of the present Convention the territory of a State shall be understood as including the national territory, both that of the Mother Country and of the colonies, and the territorial waters adjacent thereto.”).

⁸⁰ U.N. Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397, 21 I.L.M. 1261.

⁸¹ Convention on International Civil Aviation art. 1, Dec. 7, 1944, 61 Stat. 1180 [hereinafter Chicago Convention]; The Chicago Convention, the common name for the International Civil Aviation Convention, superseded the Paris and Habana Conventions. ROWLAND W. FIXEL, LAW OF AVIATION 43 (4th ed., 1967). The language in the Chicago Convention on waters in article 2 stated: “For the purposes of this Convention the territory of a State shall be deemed to be the land areas and territorial waters adjacent thereto under the sovereignty, suzerainty, protection or mandate of such State.” Chicago Convention, *supra* note 81, art. 2,

agreements and individual nations would also use similar language.⁸²

Thus, all three versions of the domestic statutes' provisions on sovereignty were statements of national rights and sovereignty meant for a foreign audience. The provision derived from the 1919 Paris Convention in response to a then-unsettled debate about how airspace would be protected from other nations. The provision was not meant in any way to affect the several states, or assert federal control or preemption of airspace. It was only meant to assert the United States' sovereignty against foreign nations and foreign aircraft.⁸³

c. Legislative History

After textual and contextual examination, the aim of the sovereignty provision appears clear. But if there was still any lingering hesitation as to the intent and purpose of this provision, a review of its legislative history ought to remove all doubt. To begin, a House report regarding the 1926 Act expressly con-

61 Stat. at 1181; Comm. on Aeronautical Law of the Am. Bar Ass'n, *Current Status of Aviation Law—American Bar Association Committee Report*, 14 J. AIR L. & COM. 217, 217 (1947) ("Settled principles of international law now give each Nation absolute sovereignty over the airspace above the territory under their jurisdiction. The very first article of Chapter I of the Chicago International Aviation Convention restates this principle. This means, for example, that Russia, Yugoslavia, England or the United States may exclude all foreign aircraft or these Nations may prescribe the terms and conditions under which foreign aircraft may land on their territory, or fly over such territory, for any purpose.").

⁸² *E.g.*, 2 U.S. SENATE COMM. COMMERCE, 89TH CONG., AIR LAWS AND TREATIES OF THE WORLD 2545 (Comm. Print 1965) (citing the U.S.S.R. Air Code of 1961, which in article 1 stated: "The complete and exclusive sovereignty over the airspace of the U.S.S.R. shall belong to the U.S.S.R. Airspace of the U.S.S.R. shall be deemed to be the airspace above the land and water territory of the U.S.S.R. including the space above the territorial waters as determined by the laws of the U.S.S.R. and by international treaties concluded by the U.S.S.R."); 1 U.S. SENATE COMM. ON COMMERCE, 89TH CONG., AIR LAWS AND TREATIES OF THE WORLD 631 (Comm. Print 1965) (citing Egyptian Decree—Law No. 57 Concerning Air Navigation, May 23, 1935: "The State shall exercise complete and exclusive sovereignty over the airspace above its territory. The term 'airspace' shall include the adjacent territorial waters.").

⁸³ *See* 2 U.S. SENATE COMM. COMMERCE, *supra* note 82; *see also* HOTCHKISS, *supra* note 62, at 84 (stating the provision on sovereignty in the 1926 Act "accords with the provisions of the International Convention for the Regulation of Air Navigation (to which the United States is not a party but in the framing of which its representatives were active)."); Rodger F. Williams, *Federal Legislation Concerning Civil Aeronautics*, 76 U. PA. L. REV. 798, 801 (1928) ("The statement is but the declaration of an established rule, and is not the creation by Congress of a principle applicable to its jurisdiction alone.).

firms the first international origins and aims of the provision: “The declarations of the sovereignty of the United States as against foreign nations in the air space above the United States is based upon a similar declaration found in the International Air Navigation Convention.”⁸⁴

Additionally, a compilation of the history of the bill by the Senate Office of the Legislative Counsel further shows, in several different documents, that the provision originated from the 1919 Paris Convention and in no way intended to abridge the sovereignty of states:

Article 1 of the International Air Navigation Convention provides that “the high contracting parties recognize that every power has complete and exclusive sovereignty of the air space above its territory.” In this section the Congress declares that the United States adheres to the same principle and not to the principle urged by some international jurists that there is a free right of flight in the air space above a nation regardless of the consent or the restrictions by law of that nation.

The section in nowise affects the apportionment of sovereignty as between the several States and the United States, but only as between the United States and the rest of the world. In so far as the States had sovereignty in air space at the time of the adoption of the Constitution and such sovereignty was not by that instrument delegated to the Federal Government, and in so far as the States may have subsequently acquired sovereignty in air space in accordance with the Constitution, such sovereignty remains unchanged.⁸⁵

Congressional testimony from expert William MacCracken—who helped draft the 1926 Act and would later be appointed the first head of the Aeronautics Branch of the Department of Com-

⁸⁴ H.R. REP. NO. 69-572, at 10 (1926).

⁸⁵ OFFICE OF THE LEGISLATIVE COUNSEL, U.S. SENATE, LEGISLATIVE HISTORY OF THE AIR COMMERCE ACT OF 1926, at 38 (1928) [hereinafter LEGISLATIVE HISTORY OF THE AIR COMMERCE ACT] (excerpting the appendix to H.R. REP. NO. 69-572, which was not included with some versions of H.R. REP. NO. 69-572 as referenced in note 84); see also *Bureau of Civil Air Navigation in the Department of Commerce: Hearings on H.R. 10255 Before H. Comm. on Interstate & Foreign Commerce*, 68th Cong. 67 (1924) [hereinafter *Hearings on H.R. 10522*] (appending statement of Mr. MacCracken before the First National Air Institute at Detroit, Michigan, on October 11, 1922: “This [1919 Paris Convention] declaration of principle applies only to international law and is not controlling as between the several States and the Federal Government . . . This being true, the control of the air space over the United States is vested in the respective States, except insofar as the Federal Government may exercise control over it under the powers delegated to it by the States in the Constitution and amendments thereto.”).

merce⁸⁶—also affirmed the international debate as to types of sovereignty, as well as why the United States and the international community needed a statement on sovereignty in the first place:

MR. DENISON. If you have already answered this question you need not answer it again, Mr. MacCracken. I want to ask whether or not, as a principle of international law as to national sovereignty between nations, in the law of nations, is it recognized that national sovereignty extends into the air, so that if an airplane crosses a national boundary it is considered as an infringement of the sovereignty of the country?

MR. MACCRACKEN. Yes, that is the accepted rule of international law at the present time. Of course, prior to the International Air Navigation Convention that was debated, the representatives of this country contending for national sovereignty of the air, and some of the European countries against it. But the International Air Navigation Convention finally went on record as recognizing the sovereignty of the air.⁸⁷

During hearings on the 1938 Act, a representative from the Department of Commerce, who was responsible for granting foreign aircraft permission to fly in the United States,⁸⁸ gave an excellent description of how the provision on sovereignty was understood and applied:

A certain principle of international air law is of prime importance in this matter. It differs from the law of the sea. It is the doctrine of sovereignty in air space, which does not allow an air line of one country to do business in foreign territory without the permission of the foreign government concerned.⁸⁹

The legislative history of the 1958 Act is devoid of any discussion as to the sovereignty provision. And because the only changes from the 1938 Act were typographical and mostly involved replacing “air space” with “airspace”—as “airspace” was

⁸⁶ STUART BANNER, WHO OWNS THE SKY? 79 (2008) (“William MacCracken . . . would become the most important American government official in the field of aviation in 1926 . . .”).

⁸⁷ *Hearings on H.R. 10522*, *supra* note 85, at 62 (testimony of William MacCracken, Jr., Chairman, Comm.on the Law of Aeronautics, Am. Bar Ass’n).

⁸⁸ *Hearing on H.R. 5234 and H.R. 4652 Before the H. Comm. on Interstate & Foreign Commerce*, *supra* note 73, at 257 (statement of Denis Mulligan, Solicitor’s Office, Department of Commerce) (“[T]he authority to grant authorization to foreign aircraft to navigate in the United States is in the Secretary of Commerce, . . . the pertinent provision of the Air Commerce Act, section 6, under which the Secretary now exercises authority with regard to foreign aircraft.”).

⁸⁹ *Id.* at 254–55.

used in the Chicago Convention—it appears obvious that no change to the original intent of the provision regarding sovereignty was meant. This is perhaps best explained by the architect of the 1958 Act, Senator Monroney: “By no means [are] all of [the Act’s] provisions new Many are taken almost verbatim from existing law”⁹⁰

Contemporary reports, books, written commentaries by the American Bar Association, and even state laws, all treated the provision as solely an external declaration over foreign aircraft, similar to and derived from the 1919 International Convention. It was not until the codification errors and liberties taken with the title of the provision, that this common understanding devolved into a different, erroneous, and cursory assumption.

The nearly identical language in three separate federal acts, clear intent from the source statute in 1926, international conventions, and common and contextual understandings all point to one inescapable conclusion: the provision on sovereignty had nothing to do with domestic law or sovereignty of the federal laws over the state laws. In fact, as will be explained in Part III.B.3, many states not only made laws regulating aviation and airspace both before and after the 1926 and 1938 Acts, but a number of them also declared sovereignty over the airspace within their own state. They likely would not have done so if the provision on sovereignty was understood as amounting to exclusive federal control of all airspace.

Perhaps today the provision would not be mistaken if it was still phrased as it was in the 1926 Act: “to the exclusion of all foreign nations, complete sovereignty.”⁹¹ The language from the 1958 Act, “complete and exclusive national sovereignty in the airspace,” may be best taught as just another way of saying “sov-

⁹⁰ 85 CONG. REC. 13,649 (July 14, 1958); *see* 85 CONG. REC. 16,887 (Aug. 11, 1958) (statement by Sen. Payne: “The original plan had been to amend the whole Civil Aeronautics Act, section by section, but it soon became apparent that this would be a very detailed and difficult process with much risk of error through overlooking minute but important words and phrases. The Congress therefore decided to approach the problem of creating a Federal Aviation Agency by reenacting the entire statute and adding or changing practically nothing except as necessary to create the agency and give it powers to deal with air safety.”); *see also* C.P. Trussell, *New Air Agency Voted by Senate*, N.Y. TIMES, July 15, 1958, at 53 (“Much of the bill calls for the re-enactment of an aviation law that began in 1926, only bringing it up to date in language to apply more closely to the jet-age crowding of the skies.”).

⁹¹ Air Commerce Act of 1926, Pub. L. No. 69-254, ch. 344, § 6, 44 Stat. 568, 572.

foreign soil,” but for airspace.⁹² There is no doubt that a nation has absolute, or in other words, “complete and exclusive” sovereignty over its soil. And this provision was similarly meant to inform the world that there would be no doubt as to the *type* of sovereignty of airspace. For example, it should be clear that just because a part of the United States, say a part of Oregon, is regarded as being “sovereign soil of the United States,” that does not preclude nor prohibit the state of Oregon from regulating within its own borders. To put it another way, international declarations of sovereignty do not in any way affect the domestic system of federalism and the rights of states to govern themselves.⁹³

But if the purpose and intent of the sovereignty provision was external to foreign nations, and not internal to assert power over the states, how did this provision on sovereignty become so convoluted? To answer that question, one may look no further than the U.S. Code.

d. Confusing the Codification of Positive Law

The U.S. Code is a sexennially published compilation of public laws organized via subject matter by the Office of the Law Revision Counsel (OLRC) and its predecessors in the House of Representatives since 1926.⁹⁴ Statutes enacted into positive law are ones that are congressionally prescribed to go into a specific section of the code, and citation to a positive law part of the code is legal evidence of such law.⁹⁵ For all other statutes, which may pertain to many different fields of law, OLRC codifiers try to arrange and distill their parts in the U.S. Code in a way that

⁹² Federal Aviation Act of 1958, Pub. L. No. 85-726, § 1108, 72 Stat. 731, 798.

⁹³ *E.g.*, Madeline C. Dinu, *State Sovereignty in Airspace*, 17 J. AIR L. & COM. 43, 49 (1950) (“Mere statements that complete and exclusive sovereignty is in the United States, such as those embodied in the Air Commerce Act of 1926 and in the Civil Aeronautics Act of 1938, cannot be of any genuine assistance in finding a solution [for whether a state or the federal government has control over the navigable airspace]. First, they must be viewed as legislative announcements by the national government that it has and will exercise full control over these skies *in the society of nations*, i.e., declarations of exclusive sovereignty vis-a-vis foreign powers, but hardly controlling on fundamental constitutional questions such as *internal* sovereignty. This distinction between *internal* and *external* sovereignty has been accepted even by those who favor federal supremacy.”).

⁹⁴ See Act of June 30, 1926, Pub. L. No. ch. 712, 44 Stat. 777, 777; *Detailed Guide to the United States Code Content and Features*, OFF. OF THE L. REVISION COUNS., U.S. HOUSE OF REPRESENTATIVES, http://uscode.house.gov/detailed_guide.xhtml [<https://perma.cc/MW6G-8YBQ>] [hereinafter *Detailed Guide to the Code*].

⁹⁵ 1 U.S.C. § 204 (2012).

will be easier to find and understand.⁹⁶ Those OLC-arranged parts of the U.S. Code are referred to as non-positive law titles.⁹⁷ Sometimes OLC makes changes that are overtly acknowledged and explained in “Historical and Revision notes.”⁹⁸ However, these notes do not always show all of their changes. In the end, regardless of whether a mistranscription was accidental or a purposeful attempt to better organize or simplify text, the same maxim from the Supreme Court applies: “the Code cannot prevail over the Statutes at Large when the two are inconsistent.”⁹⁹

Returning now to the provision on sovereignty of airspace, when one traces its history through historical editions of the U.S. Code, it becomes evident that something odd happened. After the 1938 Act, the 1940 edition of the Code, 49 U.S.C. § 176 (1940), had the provision’s section titled “Foreign Aircraft—(a) Sovereignty of airspace declared,” and the text matched the 1938 Act’s text exactly.¹⁰⁰ The same was true of all subsequent editions of the U.S. Code until after the 1958 Act passed. Thereafter, the Code’s text remained the same, but the section received a new title from an unknown source: “Declaration of national sovereignty in air space; operation of foreign aircraft.”¹⁰¹ This may seem minor, but titles are important as they can give a hurried researcher a sense of context.¹⁰² The same title remained until 1994, and the relegation of “foreign aircraft” to follow the semicolon made it appear either that it was not wholly relevant or that “foreign aircraft” had nothing to do with the subsection on sovereignty.¹⁰³ Moreover, subsection

⁹⁶ *Detailed Guide to the Code*, *supra* note 94.

⁹⁷ *Id.*

⁹⁸ *Id.* For more background on the difference between positive law and non-positive law, see *generally Positive Law Codification*, OFF. OF THE L. REVISION COUNS., U.S. HOUSE OF REPRESENTATIVES, <http://uscode.house.gov/codification/legislation.shtml> [<https://perma.cc/BEW6-DZX5>].

⁹⁹ *Stephan v. United States*, 319 U.S. 423, 426 (1943); *U.S. Nat. Bank of Oregon v. Indep. Ins. Agents of Am., Inc.*, 508 U.S. 439, 448 (1993) (“Though the appearance of a provision in the current edition of the United States Code is ‘prima facie’ evidence that the provision has the force of law, 1 U.S.C. § 204(a), it is the Statutes at Large that provides the ‘legal evidence of laws,’ . . .”).

¹⁰⁰ 49 U.S.C. § 176 (1940).

¹⁰¹ 49 U.S.C. § 1508 (1958).

¹⁰² See, e.g., *United States v. Spears*, 729 F.3d 753, 756 (7th Cir. 2013) (“A caption cannot override a statute’s text, but it can be used to clear up ambiguities.”); *United States v. Krilich*, 159 F.3d 1020, 1028 (7th Cir. 1998) (“Although a statute’s title can inform the understanding of ambiguous text, it does not ‘limit the plain meaning of the text.’” (quoting *Pa. Dep’t of Corr. v. Yeskey*, 524 U.S. 206, 212 (1998))).

¹⁰³ See § 1508.

(b), within that same section title, led with “Foreign aircraft,” likely making one think that this was the only part to which the same title applied.¹⁰⁴ After thirty-six years, these minor title changes may have provided just enough confusion to lead to a dramatic change when the text of the law was reworded and codified into positive law.

In 1994, Congress aimed to make technical improvements to laws relating to transportation, and through a 658-page statute, enacted many laws then codified in Title 49—including the sovereignty provision at issue here—into positive law.¹⁰⁵ In so doing, Congress renumbered and rearranged many sections.¹⁰⁶ But Congress also made clear, in legislative history and in the text of the codifying law itself, that it did not intend to make substantive changes to existing laws.¹⁰⁷ Unfortunately, the changes made to the text of the provision on sovereignty were, in fact, quite considerable. And afterwards, those who only looked at the language of the provision in the Code and did not dig any deeper were led astray by the rewording.

After the 1994 positive law codification, what had then been § 1508(a) was moved to § 40103.¹⁰⁸ The title of the section was changed, for a time, to read: “Sovereignty and use of airspace,” and the text of the provision was changed to appear as it still does to this day: “(a) SOVEREIGNTY AND PUBLIC RIGHT OF TRANSIT.—(1) The United States Government has exclusive sovereignty of airspace of the United States.”¹⁰⁹ This author carefully examined all 152 pages of the new Part A “Air Commerce and Safety” of Subtitle VII “Aviation Programs” in Title 49 of the Code and could not find a section where any of the remaining portions of the original text from the 1958 Act were inserted.¹¹⁰ This author concludes, after an exhaustive search, that the words of the original statute were improperly cut from ninety-four words to thirteen and put in a completely different context than Congress had, since 1926, thrice affirmed. The cursory re-

¹⁰⁴ *See id.*

¹⁰⁵ Act of July 5, 1994, Pub. L. No. 103-272, 108 Stat. 745 (“An Act [t]o revise, codify, and enact without substantive change certain general and permanent laws, . . . [in] title 49, United States Code, ‘Transportation’, and to make other technical improvements in the Code.” This Act completed the positive-law codification of all of Title 49. *See* 1 U.S.C. § 204 (2012)).

¹⁰⁶ *See id.*

¹⁰⁷ § 1(a), 108 Stat. at 745.

¹⁰⁸ § 1(d), 108 Stat. at 1101.

¹⁰⁹ *Id.*

¹¹⁰ *See* 49 U.S.C. §§ 40101–42303 (2012).

wording and codification of the clause led courts and commentators to conclude a meaning contrary to that which Congress had unambiguously intended.

To support this conclusion, one can first look to a separate part of the 1994 codifying statute. In section 6(a) of the 1994 Act, Congress said: “Sections 1–4 of this Act restate, without substantive change, laws enacted before July 1, 1993, that were replaced by those sections. Those sections may not be construed as making a substantive change in the laws replaced.”¹¹¹ The section at issue, § 40103, was indeed within section 1(d) of the act.¹¹² Given this instruction, and the statement in section 1 of the law indicating the same, the law itself is essentially directing a reader to the original law and not the misstated revision in the Code. And because the most current version of 49 U.S.C. § 40103 is based on the 1994 law, and that law directs readers not to construe any change as substantive, the pre-1994 version of the law—the 1958 Act—must control. Put simply, and almost confoundingly, the text of the law itself instructs that in this case, its own text is not the law.

The legislative history of the 1994 law also supports this interpretation. The House and Senate reports for the bill both stated that the bill’s purpose was to “revise, codify, and enact [the laws] without substantive change . . . and to make other technical improvements in the Code.”¹¹³ Adding more support, according to the Senate report on the 1994 codifying law, substituting “United States Government” for “United States of America” was a standard practice done throughout Title 49.¹¹⁴ Thus, it was likely not thought that such a technical and small change would change the meaning of any provision. Moreover, most provisions in Title 49 refer to domestic transportation matters; the fact that this one (likely overlooked) provision was meant as an assertion of sovereignty against foreign aircraft made this particular substitution unique and unintended in its result.

i. A Question of Statutory Interpretation

Now, understanding the history of the sovereignty provision from context, to intent, to act, to code—we must verify that we

¹¹¹ § 6(a), 108 Stat. at 1378.

¹¹² § 1(d), 108 Stat. at 1101.

¹¹³ S. REP. NO. 103-265, at 1 (1994); H.R. REP. NO. 103-180, at 1 (1994).

¹¹⁴ S. REP. NO. 103-265, at 4 (“‘United States Government’ is substituted for ‘United States’” when referring to the Government).

can legally interpret the current text of the code in the same way that Congress intended. We know that non-positive law parts of the U.S. Code that conflict with their source statute cannot prevail,¹¹⁵ but this circumstance sets forth an unusual question: What should happen when a positive law provision of the U.S. Code conflicts with its source statute? After all, it was not the OLRC compilers of the code who abridged the law unofficially, it was Congress who took the 658 pages of law revisions, as suggested by the OLRC, and enacted them into positive law. But at the same time, Congress instructed that no substantive changes were intended and that their codification was essentially ministerial. So now, does the plain text control? And if it does, would it follow that the OLRC, with the blessing of a duly enacted congressional law, can change the meaning of a law? Thankfully, and surprisingly, federal courts have already addressed this question in the negative: the law is to remain substantively unchanged from its original act.

Courts uniformly agree that in cases like this, no substantive change should be interpreted. The Supreme Court ran into this problem just a year after the recodification of Title 49 in *American Airlines v. Wolens*.¹¹⁶ The provision at issue did not involve a dramatic rephrasing, but even so, in a footnote, the Court cited to the 1994 law and noted that even with different phrasing, "Congress intended the revision to make no substantive change."¹¹⁷

The Sixth Circuit in *Bower v. Federal Express Corp.*, similarly agreed, citing a different part of the legislative history of the 1994 Act:

As in other codification bills enacting titles of the United States Code into positive law, this bill makes no substantive change in the law. It is sometimes feared that mere changes in terminology and style will result in changes in substance This fear might have some weight if this were the usual kind of amendatory legislation when it can be inferred that a change of language is intended to change substance. In a codification law, however, the courts uphold the contrary presumption: the law is intended to remain substantively unchanged.¹¹⁸

¹¹⁵ See *Stephan v. United States*, 319 U.S. 423, 426 (1943); *U.S. Nat. Bank of Oregon v. Indep. Ins. Agents of Am., Inc.*, 508 U.S. 439, 448 (1993).

¹¹⁶ 513 U.S. 219 (1995).

¹¹⁷ *Id.* at 223 n.1.

¹¹⁸ *Bower v. Fed. Exp. Corp.*, 96 F.3d 200, 204–05 (6th Cir. 1996) (citing H.R. REP. NO. 103-108, at 5 (1993)).

The Sixth Circuit, in that same case, also highlighted several Supreme Court decisions: *Finley v. United States*,¹¹⁹ which said, “[N]o changes in law or policy are to be presumed from changes of language in the revision unless an intent to make such changes is clearly expressed”;¹²⁰ and *United States v. Ryder*,¹²¹ which held, “It will not be inferred that the legislature, in revising and consolidating the laws, intended to change their policy, unless such intention be clearly expressed.”¹²²

The D.C. Circuit, in a separate case dealing with the same 1994 Act, took the same view: “[I]t is well established that language revisions in codifications will not be deemed to alter the meaning of the original statute.”¹²³ Many other courts across several different circuits have also upheld this general principle.¹²⁴ No case law was found to support relying on a codification revision that was different than the source statute.

In sum, from the collective wisdom of several federal courts, the statute’s history, the recodifying statute’s instruction, the legislative history behind the recodifying statute, common understandings that Congress’s intent controls, and simple common sense, the best solution is to ignore the current misstated provision in the U.S. Code and go to the source-law, the original 1958 Act, as reprinted in the *Statutes at Large*.

With this guidance, it is crystal clear that § 40103(a)(1) was not intended to assert federal control of all airspace against the states; it was *only* meant as an expression of sovereignty against foreign aircraft and nations. Consequently, it has no place, should be afforded no weight of law, and should not be used in any domestic case. Congress ought to either revise the passage to its true form, or more practically, abolish the provision alto-

¹¹⁹ 490 U.S. 545 (1989).

¹²⁰ *Id.* at 555.

¹²¹ 110 U.S. 729 (1884).

¹²² *Id.* at 740.

¹²³ *Port Auth. of New York & New Jersey v. Dep’t of Transp.*, 479 F.3d 21, 41 (D.C. Cir. 2007).

¹²⁴ *See, e.g.*, *Koch Foods, Inc. v. Sec’y, U.S. Dep’t of Labor*, 712 F.3d 476, 484–86 (11th Cir. 2013); *Tinicum Twp., Pa. v. U.S. Dep’t of Transp.*, 685 F.3d 288, 299 (3d Cir. 2012); *DiFiore v. Am. Airlines, Inc.*, 646 F.3d 81, 85 (1st Cir. 2011) (“[T]he changes [to Title 49] were stylistic and ‘not intend[ed] to impair the applicability of prior judicial case law interpreting these provisions.’” (citing H.R. REP. NO. 103–677, at 83 (1994)); *Rainbow Nav., Inc. v. Dep’t of Navy*, 783 F.2d 1072, 1076–77 (D.C. Cir. 1986) (citing *Muniz v. Hoffman*, 422 U.S. 454, 467–74 (1975)); *see also* Norman Singer & Shambie Singer, 1A SUTHERLAND STATUTORY CONSTRUCTION § 28:10 & n.1 (7th ed. 1985)).

gether, as it is already within numerous international treaties, where its foreign purpose and scope would not be so easily adulterated. Other provisions related to the exclusion of foreign aircraft may still be found in 49 U.S.C. §§ 40103(c) and 41703, which § 40103 references.¹²⁵

ii. Court Confusion

In light of all this background, and especially the odd conclusion that the law cannot mean what it says,¹²⁶ it is understandable that courts—at least ones that do not undertake as deep a dive as done here—would read the Code provisions and be tricked into thinking it could only mean a certain thing. What is surprising, however, is just how many courts have misapplied this provision. By an overwhelming majority, most courts have improperly relied on this provision to assert federal control or jurisdiction of all airspace. A list of just some of the courts that have improperly relied on the “sovereignty” sentence in 49 U.S.C. § 40103(a)(1) is included in this footnote.¹²⁷

Thankfully, not all courts have been confused. At one point, before the mistranscriptions, mysterious titles, and adulterated

¹²⁵ 49 U.S.C. §§ 40103(c), 41703 (2012).

¹²⁶ A famous critiquing phrase made famous by Justice Stewart’s in *Jackson v. Lykes Bros. S. S. Co.*, 386 U.S. 731, 736 (1967) (Stewart, J. dissenting) (“The Court today holds that this federal law cannot mean what it says, because this would lead to an ‘incongruous, absurd, and unjust result.’”).

¹²⁷ *E.g.*, *Vorhees v. Naper Aero Club, Inc.*, 272 F.3d 398, 402 (7th Cir. 2001); *San Diego Unified Port Dist. v. Gianturco*, 651 F.2d 1306, 1319 n.8 (9th Cir. 1981) (“[M]any types of aviation regulation are expressly and exclusively federal. For example, . . . the federal government has declared it is ‘to possess and exercise complete and exclusively national sovereignty in the airspace of the United States.’”); *United States v. Helsley*, 615 F.2d 784, 786 (9th Cir. 1979) (Opinion of Kennedy, J.) (“The Congress has declared its authority over national air space by enacting the following provision in Section 1108(a) of the Federal Aviation Act of 1958.”); *Kohr v. Allegheny Airlines, Inc.*, 504 F.2d 400, 404 (7th Cir. 1974) (“Congress expressed the view that the control of aviation should rest exclusively in the hands of the federal government. In section 1108 of the Act, 49 U.S.C. § 1508(a), it is clearly provided that . . .”); *Goodspeed Airport, LLC v. E. Haddam Inland Wetlands & Watercourses Comm’n*, 681 F. Supp. 2d 182, 201 (D. Conn. 2010) (“To begin, the Court agrees that the Federal Aviation Act evidences a clear congressional intent to occupy the entire field of aviation safety to the exclusion of state law. The Federal Aviation Act declares that ‘The United States Government has exclusive sovereignty of airspace of the United States.’”); *Broadbent v. Allison*, 155 F. Supp. 2d 520, 523 (W.D.N.C. 2001) (“As Defendants correctly note, Section 40103 of the Federal Aviation Act states unambiguously that ‘[t]he United States government has exclusive sovereignty of airspace of the United States.’”). The list could continue for quite a while, and there are many more examples, but the point has been made.

recodifications, the Supreme Court succinctly summarized the sovereignty issue and clearly rejected the interpretation that this provision excluded the sovereign power of the states:

The provision pertinent to sovereignty over the navigable air space in the Air Commerce Act of 1926 was an assertion of exclusive national sovereignty. The convention between the United States and other nations respecting international civil aviation . . . accords. The Act, however, did not expressly exclude the sovereign powers of the states After the enactment of the Air Commerce Act, more than twenty states adopted the Uniform Aeronautics Act. It had three provisions indicating that the states did not consider their sovereignty affected by the National Act except to the extent that the states had ceded that sovereignty by constitutional grant Where adopted, however, it continues in effect These Federal Acts regulating air commerce are bottomed on the commerce power of Congress, not on national ownership of the navigable air space, as distinguished from sovereignty. . . . But the federal commerce power over navigable streams does not prevent state action consistent with that power.¹²⁸

It is true that this case came before the 1958 Act; however, because the sovereignty provision in that act came nearly verbatim from the acts analyzed by the *Braniff* court, its background and analysis—and its conclusion—are just as applicable today. Unfortunately, there are few other modern courts that either note the distinction in *Braniff* or otherwise properly understood the provision.¹²⁹

The Supreme Court in *Braniff* also keenly highlighted another problem that has added to the confusion in this area: “Federal Acts regulating air commerce are bottomed on the commerce power of Congress, not on national ownership of the navigable air space, as distinguished from sovereignty”¹³⁰ Although just excerpted above, this sentence is repeated because it underscores a crucial point: there is a difference between sovereignty and ownership, and even exercising jurisdiction. These terms

¹²⁸ *Braniff Airways v. Neb. State Bd. of Equalization & Assessment*, 347 U.S. 590, 595–97 (1954).

¹²⁹ *E.g.*, *Air Pegasus of D.C., Inc. v. United States*, 424 F.3d 1206, 1217, 1217 n.12 (Fed. Cir. 2005) (“We note that while Congress has clearly asserted sovereignty as to foreign nations over the United States’ airspace, at least one Supreme Court decision indicates that the states may retain some authority to regulate intrastate airspace.”); *Skysign Int’l, Inc. v. City & Cty. of Honolulu*, 276 F.3d 1109, 1116 (9th Cir. 2002) (quoting *Braniff Airways*, 347 U.S. at 595)).

¹³⁰ *Braniff Airways*, 347 U.S. at 596.

are often thought of as being interchangeable, but these words are distinct and a difference obviously exists, especially here in the international context.¹³¹ Without going into an extensive discussion of yet another topic that invites much analysis on its own, sovereignty is the ability to have authority, to the exclusion of other sovereigns.¹³² The Supreme Court in *Boumediene v. Bush* recognized the broad problem with the term “sovereignty”: “As commentators have noted, ‘[s]overeignty’ is a term used in many senses and is much abused.”¹³³ The Court went on to distinguish two uses of the term: “When we have stated that sovereignty is a political question, we have referred not to sovereignty in the general, colloquial sense, meaning the exercise of dominion or power . . . but sovereignty in the narrow, legal sense of the term, meaning a claim of right”¹³⁴

Regardless, by citing this foreign sovereignty provision in domestic legal matters, most courts have added to the confusion and led others, including other courts, to improperly believe that jurisdiction is based upon this colloquial sovereignty. But clearly, Congress has the power to make laws affecting airspace not because of federal ownership of the air, but because of the Commerce Clause.¹³⁵ And, as will be detailed more below, Congress already limited the federal government’s ability to regulate

¹³¹ Compare *Sovereignty*, Black’s Law Dictionary (10th ed. 2014), with *Jurisdiction*, Black’s Law Dictionary (10th ed. 2014) (“A government’s general power to exercise authority over all persons and things within its territory . . .”).

¹³² See Joseph H. Beale, *The Jurisdiction of a Sovereign State*, 36 HARVARD L. REV. 241, 241 (1923) (“The power of a sovereign to affect the rights of persons, whether by legislation, by executive decree, or by the judgement of a court, is called *jurisdiction* The creation of a legal right is an act of the law; and the law can act only in accordance with itself. The power of a sovereign, therefore, to affect legal rights depends upon the law; and upon the law must be based all sovereign jurisdiction.”); Dinu, *supra* note 93, at 43, 47 (“The writer has felt it necessary to trace ‘sovereignty’ in some detail, because there are many instances of unsound arguments being used for federal usurpation of power. This is now being seen in the field of aviation.”).

¹³³ *Boumediene v. Bush*, 553 U.S. 723, 754 (2008) (citing RESTATEMENT (THIRD) OF FOREIGN RELATIONS LAW OF THE UNITED STATES § 206 cmt. b (AM. LAW INST. 1986)).

¹³⁴ *Id.*

¹³⁵ Air Commerce Act of 1926, Pub. L. No. 69-254, ch. 344, § 6, 44 Stat. 568 (“An Act To encourage and regulate the use of aircraft in commerce”); *Braniff Airways*, 347 U.S. at 595–97 (“These Federal Acts regulating air commerce are bottomed on the commerce power of Congress.”); U.S. DEPARTMENT OF COMMERCE, STATE AND AERONAUTICAL LEGISLATION DIGEST AND UNIFORM STATE LAWS AERONAUTICS BULLETIN NO. 18, at 3 (1936), <http://hdl.handle.net/2027/uc1.b2.860851?urlappend=%3Bseq=9> [<https://perma.cc/FUQ9-E4WY>] (“The Air Commerce Act of 1926 is based upon the authority of the commerce clause.”).

airspace only to that which affected interstate commerce: the navigable airspace. In contrast, the declaration of sovereignty was as to all airspace, not just the navigable type. This distinction is vital for the next section. Because sovereignty was declared over all airspace, but federal laws regulating airspace were limited by their own terms to navigable airspace, it logically follows that there must be another type of airspace that is recognized as externally sovereign but not regulated by the federal government—non-navigable airspace. In this non-navigable airspace, states always had—and still have—their own sovereignty.

2. *Non-Navigable Versus Navigable Airspace*

The Supreme Court has, for decades, recognized the distinction between navigable and non-navigable airspace.¹³⁶ Such recognition is necessitated by Congress's careful verbiage and asserted authority, originally in 1926, and continuing on in each federal aviation act to the one in force today.¹³⁷

a. Navigable Airspace in the Text of the Acts

In 1926, the Air Commerce Act defined “navigable airspace” within § 10, separate from other all other definitions (which were in section 9):

¹³⁶ See, e.g., *Braniff Airways*, 347 U.S. at 596 (“The declaration of what constitutes navigable air space is an exercise of the same source of power, the interstate commerce clause, as that under which Congress has long declared in many acts what constitutes navigable or non-navigable waters.”); *United States v. Causby*, 328 U.S. 256, 263–64 (1946) (“The altitude required for that operation is not the minimum safe altitude of flight which is the downward reach of the navigable airspace Hence, the flights in question were not within the navigable airspace which Congress placed within the public domain But Congress has defined navigable airspace only in terms of one of them—the minimum safe altitudes of flight.”); *Florida v. Riley*, 488 U.S. 445, 451–52 (1989) (discussing navigable airspace); *California v. Ciraolo*, 476 U.S. 207, 213–14 (1986) (relying on the fact that observations were made from the public navigable airspace).

¹³⁷ See *Rapanos v. United States*, 547 U.S. 715, 731 (2006) (“We have also emphasized, however, that the qualifier ‘navigable’ is not devoid of significance.”). For another example of the limited use of navigable, see *Solid Waste Agency of N. Cook Cty. v. U.S. Army Corps of Eng'rs*, 531 U.S. 159, 172 (2001) (“The term ‘navigable’ has at least the import of showing us what Congress had in mind as its authority for enacting [a different act using the term ‘navigable waters,’ the Clean Water Act of 1972].”); see also *id.* at 173–74 (“[W]e have reaffirmed the proposition that the grant of authority to Congress under the Commerce Clause, though broad, is not unlimited We thus read the statute as written to avoid the significant constitutional and federalism questions raised by respondents’ interpretation, and therefore reject the request for administrative deference.”).

As used in this Act, the term “navigable airspace” means airspace above the minimum safe altitudes of flight prescribed by the Secretary of Commerce under section 3, and such navigable airspace shall be subject to a public right of freedom of interstate and foreign air navigation in conformity with the requirements of this Act.¹³⁸

In the 1938 Civil Aeronautics Act, the term was basically the same. “Navigable air space” was defined as “air space above the minimum altitudes of flight prescribed by regulations issued under this Act.”¹³⁹

The 1958 Act kept the basic definitions from the previous acts but added take-off and landing to its definition: “‘Navigable airspace’ means airspace above the minimum altitudes of flight prescribed by regulations issued under this chapter, and shall include airspace needed to insure safety in take-off and landing of aircraft.”¹⁴⁰

In the 1994 recodifying act, the definition was kept the same: “‘navigable airspace’ means airspace above the minimum altitudes of flight prescribed by regulations under subparts I and III of this part, including airspace needed to ensure safety in the takeoff and landing of aircraft”¹⁴¹ The same provision still sits at 49 U.S.C. § 40102(a)(32).¹⁴²

Each act, then, made efforts to define and distinguish navigable airspace from all airspace. Each act also referenced regulations promulgated by the contemporary aviation agency to determine the bounds of navigable airspace. That history will be discussed more below, in Part III.A.3, but for now, it will be easiest to simplify that navigable airspace extends down to 1,000 feet above cities and congested areas, and, mostly, extends down to 500 feet elsewhere, as above persons or property.¹⁴³ Below those altitudes lies non-navigable airspace—and that remainder is left to the states.

¹³⁸ Ch. 344, § 10, 44 Stat. at 574.

¹³⁹ Civil Aeronautics Act of 1938, Pub. L. No. 75-706, ch. 601, § 1(24), 52 Stat. 973, 979.

¹⁴⁰ 49 U.S.C. § 1301(24) (1958).

¹⁴¹ Act of July 5, 1994, Pub. L. No. 103-272, 108 Stat. 745, 1100.

¹⁴² 49 U.S.C. § 40102(a)(32) (2012).

¹⁴³ 14 C.F.R. §§ 1.1, 91.119(c) (2012).

b. Legislative History Regarding Navigable Airspace

i. *The 1926 Act*

Legislative history from the Air Commerce Act of 1926—from which the term “navigable airspace” originated and remained essentially unchanged to this day—confirms there was always a meaningful distinction between “navigable” and “non-navigable” airspace:

The declaration of what constitutes navigable air space is an exercise of the same source of power, the interstate commerce clause, as that under which Congress has long declared in many acts what constitutes navigable or nonnavigable waters. The public right of flight in the navigable air space owes its source to the same constitutional basis which, under decisions of the Supreme Court, has given rise to a public easement of navigation in the navigable waters of the United States, regardless of the ownership of the adjacent or subjacent soil.

The whole framework and, in many cases, the very language of the bill may fairly be said to be merely the application to air transportation of provisions of the statutes and principles of law long established as to water transportation.¹⁴⁴

To apply that same framework envisioned by Congress, it is clear that the federal government never had the ability to regulate all waters, only navigable waters.¹⁴⁵ Similarly, it can only be concluded that in using the term navigable airspace, Congress in 1926—and future Congresses that carried on that definition in subsequent aviation statutes—never intended, or may even have thought it possible, to assert federal control of all or low-lying airspace. The state of federal power over navigable waters and non-navigable waters at the time of the 1926 Act can be

¹⁴⁴ H.R. REP. NO. 69-572, at 10 (Mar. 17, 1926) (from the Committee on Interstate and Foreign Commerce accompanying S.41, which became the enacted law).

¹⁴⁵ See *Rapanos v. United States*, 547 U.S. 715, 731 (2006) (“We have also emphasized, however, that the qualifier ‘navigable’ is not devoid of significance.”). For another example of the limited use of navigable, see *Solid Waste Agency of N. Cook Cty. v. U.S. Army Corps of Eng’rs*, 531 U.S. 159, 172 (2001) (“The term ‘navigable’ has at least the import of showing us what Congress had in mind as its authority for enacting [a different act using the term ‘navigable waters,’ the Clean Water Act of 1972].”); see also *id.* at 173–74 (“[W]e have reaffirmed the proposition that the grant of authority to Congress under the Commerce Clause, though broad, is not unlimited We thus read the statute as written to avoid the significant constitutional and federalism questions raised by respondents’ interpretation, and therefore reject the request for administrative deference.”).

found in preeminent cases such as *The Daniel Ball*¹⁴⁶ and *Leovy v. United States*.¹⁴⁷ In *Leovy*, the Supreme Court rejected the view that navigable waters included all waters, for it would “extend the paramount jurisdiction of the United States over all the flowing waters,” and the purpose of navigable water regulation was “[to protect] commerce in its international and interstate aspect.”¹⁴⁸ “[T]he term, ‘navigable waters of the United States,’ has reference to commerce of a substantial and permanent character to be conducted thereon.”¹⁴⁹

Just as there was a clear congressional understanding of navigable and non-navigable waters, and Congress intended to keep “the legal features of the bill [founded] in existing principles of law,”¹⁵⁰ this article avers that there is a clear distinction between all airspace and navigable airspace. Congress, the federal government, and the FAA cannot, without authority or sufficient nexus, regulate all airspace to the exclusion of states. And the bedrock definitions, in place since 1926, along with common understandings and legislative history, all support this distinction.

Such an understanding was elucidated in the House report that accompanied the 1926 Act. There, as an explanation to the navigable airspace provision, it was reasoned that:

Congress could prevent from blocking off air space several hundred feet above his land over which he has exercised no control and claiming it as free from any public use for flight purposes. It is not urged that flights should be permitted below certain altitudes or in such manner as to deprive the owner of the submerged land of the normal use and enjoyment of his land. But it is submitted that Congress may provide for minimum safe altitudes of flight which are analogous to harbor lines or the navigable channel of a stream¹⁵¹

¹⁴⁶ 77 U.S. 557, 563 (1870) (“Those rivers must be regarded as public navigable rivers in law which are navigable in fact. And they are navigable in fact when they are used, or are susceptible of being used, in their ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water. And they constitute navigable waters of the United States within the meaning of the acts of Congress, . . . when they form . . . a continued highway over which commerce is or may be carried on with other States or foreign countries in the customary modes in which such commerce is conducted by water.”).

¹⁴⁷ 177 U.S. 621 (1900).

¹⁴⁸ *Id.* at 633.

¹⁴⁹ *Id.* at 632.

¹⁵⁰ H.R. REP. NO. 69-572, at 10 (Mar. 17, 1926).

¹⁵¹ LEGISLATIVE HISTORY OF THE AIR COMMERCE ACT, *supra* note 85, at 44–45.

The comparison to harbor lines and channel streams, and even the express idea that Congress could only prevent blocking of airspace “several hundred feet above” land, all lend support to the idea that the federal government cannot take all airspace or exclusively regulate the non-navigable first few hundred feet of airspace, especially to preempt states. Such was the original idea, explanation, and intent of Congress, and it has never changed through any subsequent federal aviation act. Its principles remain squarely in place today.

Another key provision born in the 1926 Act, and carried on in every subsequent federal aviation act, was the public right of transit: “There is hereby recognized and declared to exist in behalf of any citizen . . . a public right of freedom of transit through the navigable airspace.”¹⁵² This enacted right means that people can only fly in certain types of airspace—navigable airspace—and not all airspace.¹⁵³ Recall, from Part III.A.1.a above, that the assertion of U.S. sovereignty of airspace against foreign aircraft was not limited to “navigable airspace,” but it was asserted for all airspace, the “airspace of the United States.”¹⁵⁴ In contrast, Congress recognized that for federal authority to be based on the Constitution, there needed to be a nexus to commerce, and so the FAA’s authority and the rights

¹⁵² Taken from the 1958 Act because the 1994 recodification altered some phrasing. Federal Aviation Act of 1958, Pub. L. No. 85-726, § 104, 72 Stat. 731, 740. All of the right of transit provisions are excerpted here for ease of reference and comparison. From the 1926 Act: “[S]uch navigable airspace shall be subject to a public right of freedom of interstate and foreign air navigation in conformity with the requirements of this Act.” Air Commerce Act of 1926, Pub. L. No. 69-254, ch. 344, § 10, 44 Stat. 568, 574. The 1938 version: “There is hereby recognized and declared to exist in behalf of any citizen of the United States a public right of freedom of transit in air commerce through the navigable air space of the United States.” Civil Aeronautics Act of 1938, Pub. L. No. 75-706, tit.1, § 3, 52 Stat. 973, 980. In the 1958 Act, the same provision remained verbatim. Federal Aviation Act of 1958 § 104. And, in the 1994 positive law recodification, the provision was reworded and renumbered as 49 U.S.C. § 40103(a)(2), and read: “A citizen of the United States has a public right of transit through the navigable airspace.” Act of July 5, 1994, Pub. L. No. 103-272, §1, 108 Stat. 745, 1101.

¹⁵³ See, e.g., *King v. Burwell*, 135 S. Ct. 2480, 2483 (2015) (“The Court nevertheless must do its best, ‘bearing in mind the “fundamental canon of statutory construction that the words of a statute must be read in their context and with a view to their place in the overall statutory scheme.”’”); *Landgraf v. USI Film Products*, 511 U.S. 244, 295 (1994) (Blackmun, J., dissenting) (“[It is a] settled rule that a statute must, if possible, be construed in such fashion that every word has operative effect.”).

¹⁵⁴ See *supra* text accompanying note 55, Federal Aviation Act of 1958, Pub. L. No. 85-726, 72 Stat. 731.

granted for public transit were limited to areas where Congress had authority: the navigable airspace.¹⁵⁵ Other powers not delegated to the federal government—such as the police power to regulate non-navigable low-lying airspace that is not typically used for interstate commerce—should be constitutionally “reserved to the States.”¹⁵⁶

But the navigable and non-navigable reaches of federal power are not simply a matter of a purposeful congressional choice. The reasons for this distinction are just as vital and just as persuasive for the idea that states have control of low-lying, non-navigable, and what courts used to call superadjacent airspace.

When Congress was debating the 1926 Act, states had already stepped in to legislate minimum altitudes of flight.¹⁵⁷ There was a real concern by some prominent legal minds that the federal government could not regulate, and thereby take, airspace without a constitutional amendment.¹⁵⁸ The solution settled upon was to create an easement through the public right of transit, which the House report on the 1926 Act said was to be:

superior to the right of the owner of the subjacent land to use such air space for conflicting purpose. The public right of freedom of navigation is analogous to the easement of public right of navigation over the navigable waters of the United States. The primary source of power to impose such an easement is the commerce clause.¹⁵⁹

• • • •

Similarly, the committee is of the opinion that the Federal Government may assert under the commerce clause and other constitutional powers a public right of navigation in the navigable air space, regardless of the ownership of the land below and regard-

¹⁵⁵ *E.g.*, BANNER, *supra* note 86, at 151 (“[T]he basic axiom of American constitutional law [is] that the federal government possessed only whatever powers were granted to it in the Constitution.”); *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 640 (1952) (Jackson, J., concurring) (“[T]he Federal Government as a whole, possesses only delegated powers. The purpose of the Constitution was not only to grant power, but to keep it from getting out of hand.”).

¹⁵⁶ U.S. CONST. amend. X.

¹⁵⁷ *See infra* text accompanying notes 247–58.

¹⁵⁸ *E.g.*, BANNER, *supra* note 86, at 97 (“[There was a] worry that any legislative incursion on the landowner’s right to his airspace would be unconstitutional. If the airspace was the landowner’s property, there was a plausible argument that a statute taking that property away from the landowner required compensation.”); *id.* at 99 (“A statute abrogating the *cujus est solum* maxim, by allowing aviators to fly over private land, ran a considerable risk of being held unconstitutional.”).

¹⁵⁹ LEGISLATIVE HISTORY OF THE AIR COMMERCE ACT, *supra* note 85, at 42–43.

less of any question as to the ownership of the air or air space itself. The only pertinent decision in this country on this point hold that flight in the navigable air space does not constitute a trespass; they are, however, merely two unreported lower court cases in Minnesota and Pennsylvania.¹⁶⁰

The two cited unreported state cases, read and considered by the House committee, turned on this distinction of navigable versus non-navigable airspace.¹⁶¹ They were *Commonwealth v. Nevin*¹⁶² and *Johnson v. Curtiss Northwest Airplane Company*.¹⁶³ The Pennsylvania case held that in passing a trespass law in 1905, less than two years after the age of manned flight began, the legislature could not have intended that trespass apply to the air, nor would it have expected that required printed notices would be visible from aloft; the court found the defendants not guilty.¹⁶⁴ A year later, the Minnesota court was the first to expressly reject the endless application of the *cujus est solum* maxim, calling it “a legal fiction, devoid of substantial merit.”¹⁶⁵ Minnesota already had a law prohibiting flights at less than 2,000 feet above ground level over large cities, and the judge ruled that as long as aircraft remained that high, no trespass would occur.¹⁶⁶ The Congress was then informed that trespass would not be a legal issue as long as aircraft remained in the upper air and not in the non-navigable airspace. Thus, Congress likely intended both this navigable distinction, and the use of an easement via the public right of transit, to ensure that so long as aircraft remained at a certain height, property rights were not taken or trampled on.¹⁶⁷

¹⁶⁰ *Id.* at 45.

¹⁶¹ Reprinted or discussed in LEGISLATIVE HISTORY OF THE AIR COMMERCE ACT, *supra* note 85, at 100–04; *see also* WRIGHT, *supra* note 68, at 117–18; BANNER, *supra* note 86, at 120–25.

¹⁶² 2 Pa. D. & C. 241 (Jefferson County, Pa. 1922).

¹⁶³ 128 U.S. Av. Rep. 44 (Ramsey County, Minn. 1923).

¹⁶⁴ *Id.*; 2 Pa. D. & C. 241 (Jefferson County, Pa. 1922); *see* Reprinted or discussed in LEGISLATIVE HISTORY OF THE AIR COMMERCE ACT, *supra* note 85, at 100–04; *see also* WRIGHT, *supra* note 68, at 117–18; BANNER, *supra* note 86, at 120–25.

¹⁶⁵ *E.g.*, BANNER, *supra* note 86, at 123. This would likely set the stage for the Supreme Court’s similar rejection of the maxim several years later in *United States v. Cauby*, 328 U.S. 256, 260–61 (1946).

¹⁶⁶ BANNER, *supra* note 86, at 123.

¹⁶⁷ *See, e.g.*, *Rowe v. N.H. Motor Transp. Ass’n*, 552 U.S. 364, 370 (2008) (“We have said that ‘when judicial interpretations have settled the meaning of an existing statutory provision, repetition of the same language in a new statute indicates, as a general matter, the intent to incorporate its judicial interpretations as well.’”).

In the years after the 1926 Act and the two court cases on which the Act's authors relied, many more courts would support the notion that at a high enough altitude, in the navigable airspace, there were no legal concerns over the primacy of federal rights but that the privilege did not extend to the low-lying non-navigable airspace.¹⁶⁸ Even the 1934 Restatement (First) Torts maintained this vital distinction.¹⁶⁹ With this set of affirming jurisprudence, Congress continued the right of transit in the navigable airspace—and even the careful distinction of regulating only in the navigable airspace—in both the 1938 Act and the 1958 Act which would replace it.

ii. The 1958 Act

The legislative history of the 1958 Act also squarely supports limiting the FAA's authority to the navigable airspace.¹⁷⁰ To begin, when the author of the 1958 Act, Senator Monroney, first introduced his bill, S. 3880, there were numerous references to airspace generally that could have led one to infer that the FAA administrator had authority to regulate and control all airspace.¹⁷¹ The executive director of the National Association of State Aviation Officials (NASAO) voiced his concern over such a

¹⁶⁸ *E.g.*, *Strother v. Pac. Gas & Elec. Co.*, 211 P.2d 624, 631 (Cal. App. 1949) (“We concede that the United States has sovereignty over the higher airspace within its domain But that sovereignty of the air does not authorize the federal government, in the guise of police powers, to interfere with the lower airspace over a private owner’s property, the use of which is intrastate and which is necessary and beneficial to the reasonable enjoyment of his land.”); *Burnham v. Beverly Airways*, 42 N.E.2d 575, 578–80 (Mass. 1942); *Smith v. New England Aircraft Co.*, 170 N.E. 385, 389 (Mass. 1930) (“It is essential to the safety of sovereign States that they possess jurisdiction to control the air space above their territories.”); *Erickson v. King*, 15 N.W.2d 201, 204 (Minn. 1944); *Gardner v. Allegheny Cty.*, 114 A.2d 491, 497 (Pa. 1955) (“*The [federal aviation] Act*, however, *did not expressly exclude the sovereign powers of the states.*”); *id.* at 500 (“Defendants, as well as the Federal Agencies, admit that interstate flights while cruising or in course of flight below 1,000 feet over congested areas, or 500 feet over other than congested areas, may be enjoined by a State Court.”); *Maitland v. Twin City Aviation Corp.*, 37 N.W.2d 74, 76 (Wis. 1949).

¹⁶⁹ RESTATEMENT (FIRST) OF TORTS § 194 (1934) (“An entry . . . in the air space in the possession of another, by a person who is traveling in an aircraft, is privileged if the flight is conducted . . . (c) at such a height as not to interfere unreasonably with the possessor’s enjoyment of the surface of the earth and the air space above it, and (d) in conformity with such regulations of the State and federal aeronautical authorities as are in force in the particular State.”).

¹⁷⁰ The 1938 Act kept the definition essentially the same as the 1926 Act, so its legislative history is not discussed here.

¹⁷¹ *Federal Aviation Agency Act: Hearings on S. 3880 Before the S. Subcomm. on Aviation of the S. Comm. on Interstate & Foreign Commerce*, 85th Cong. 136–37 (1958)

broad interpretation during the first hearings on the bill. He specifically recommended to insert the term “navigable” in front of airspace so as to continue the common understandings, saying:

These sections, taken together, appear to authorize and direct the new Administrator to control and regulate the use of the airspace from the surface to infinity, regardless of the purpose for which it is used.

This we feel to be:

(a) Unnecessary, because it would go far beyond the lower limits of airspace normally required for the safe operation of aircraft, and the normal use of airspace by property owners;

(b) Unwise, because it would rule out in the future many of the valuable contributions made by the States and their communities in such activities as airport development, and local safety regulations; and

(c) Might be considered both as a taking of private property without compensation, and a direct invasion of States rights.¹⁷²

NASAO’s warnings were heeded. Senator Monroney’s first version of the bill gave the administrator powers to control “the use of airspace of the United States”; however, in the final version of the act, that section was kept almost verbatim—except that “navigable” was inserted to modify airspace, and thus modify the administrator’s powers.¹⁷³ Similarly, the first version of the bill “authorized and directed” the administrator to “formulate policy with respect to the use of airspace” and to “assign by rule, regulation, or order the use of airspace.”¹⁷⁴ By the time the 1958 Act was passed, this provision likewise remained nearly verbatim—except that again “navigable” modified airspace in each instance.¹⁷⁵

Also, after the hearings, and after the final version of the bill was entered into the record in the Senate, Senator Wallace Ben-

[hereinafter *Hearings on S. 3880*] (statement of A.B. McMullen, Executive Director, National Association of State Aviation Officials).

¹⁷² *Id.* at 136.

¹⁷³ Compare *Hearings on S. 3880*, *supra* note 171, at 3 (excerpting the original version of the bill, S. 3880, in § 4, not using “navigable” to modify airspace), with Federal Aviation Act of 1958, Pub. L. No. 85-726, § 103, 72 Stat. 731, 740 (using the term “navigable” to modify airspace in the same provision).

¹⁷⁴ *Hearings on S. 3880*, *supra* note 171, at 9 (excerpting the original version of the bill, S. 3880, in § 15(14), which did not use “navigable” to modify airspace).

¹⁷⁵ § 307(a), 72 Stat. at 749 (using the term “navigable” to modify airspace in the same “Use of Airspace” provision).

nett of Utah offered a statement supporting the bill. In that statement, he offered key guidance for those reading what would become the 1958 act:

I hope the proposed law is not interpreted by some to mean that the safety of aeronautics and the efficient utilization of airspace requires preemption by the Federal Government of any and all airspace which might be designated by the Administrator as “navigable airspace.” It is conceivable that all airspace could be designated as suitable for the navigation of aircraft, and I urge that the Administrator’s power of designation be limited by specific provisions of the act so that State and local governments might retain control over vast areas of airspace which, I am sure, are not needed to effectuate the purposes of the act.¹⁷⁶

Perhaps the most telling indication of the intent of the 1958 act can be found in an exchange during hearings on the bill between the president of the Aircraft Owners and Pilots Association and the principal architect of the act, Senator Monroney.¹⁷⁷ In response to a call for stricter language to support federal preemption, Senator Monroney elucidated why the act could not have such an assertion, and why it was vital to have the distinction of navigable airspace:

Senator Monroney. There is a very grave constitutional problem that we have to consider in this, because the Federal Government’s right to regulate airspace would be only for the purpose of interstate commerce. We have no other right to regulate it. Therefore, I think if we would include intrastate flying, or intrastate operations as spelled out specifically in the bill, we might have the whole thing ruled unconstitutional.

As for the decisions affecting the ownership of airspace, above a person’s property—how high does a person’s property line go—is still very much “in the air” so far as the finality of decisions is concerned. The worst thing I think that we could do in this bill would be to go off in the wild blue yonder of speculation as to what the courts may finally hold after many, many cases are heard. With the coming of the jet age you are going to have more and more of these cases.

¹⁷⁶ 85 CONG. REC. 16887 (1958) (floor statement of Senator Bennett).

¹⁷⁷ *E.g.*, Robert Peele, *The Senator Behind the Window Sticker*, N.Y. TIMES (Jan. 2, 2009), http://www.nytimes.com/2009/01/04/automobiles/04MONRONEY.html?_r=0 [<https://perma.cc/DY3Q-PBZN>] (“[Senator Monroney] was instrumental in the creation of the Federal Aviation Administration, an achievement honored in the naming of the F.A.A.’s Mike Monroney Aeronautical Center in Oklahoma City.”).

So the reason that the navigable airspace limitation, the interstate limitations, the reemphasis of air commerce is in the bill, is that we have tried to bring the bill into line with well-defined and well-established precedents as to the powers of the Federal Government and the Congress to regulate these things under the commerce clause.

So we have a very difficult constitutional problem not only in the courts, but we also have more constitutional lawyers per square inch in the distinguished body of which I happen to be a member.¹⁷⁸

It appears from this exchange that Senator Monroney was himself skeptical of the constitutional reaches of the commerce clause and purposefully kept the bill “into line with well-defined and well-established precedents as to the powers of the Federal Government.”¹⁷⁹ Limiting the government’s authority to “navigable” airspace was thus purposeful as to avoid any implication of states’ rights. The intent of the act’s author, key congressional supporters, and even industry concerns all overwhelmingly point to a clear intent to avoid federal regulation of at least some airspace—nonnavigable airspace. In all of the act’s legislative history there is scant support for any opposite notion or argument.

Even more support for the notion that non-navigable airspace was not meant to be regulated by the federal government can be found in a statutory change within the 1958 Act that marked a shift from previous statutes and definitions. The 1958 Act slightly expanded the 1926 and 1938 Acts’ definitions of “navigable airspace” to include “airspace needed to insure safety in take-off and landing of aircraft,” a definition that, apart from a few stylistic changes, remains to this day.¹⁸⁰ The reason for the insertion of this language was not explicitly identified in the legislative history of the 1958 Act, but the repeated discussion of one federal case in particular strongly suggests the reason.¹⁸¹ *Al-*

¹⁷⁸ *Hearings on S. 3880, supra* note 171, at 333–34 (testimony of Joseph B. Hartranft, Jr., President, Aircraft Owners & Pilots Association).

¹⁷⁹ *Id.* at 333.

¹⁸⁰ 49 U.S.C. § 40102(32) (2012) (“[N]avigable airspace’ means airspace above the minimum altitudes of flight prescribed by regulations under this subpart and subpart III of this part, including airspace needed to ensure safety in the takeoff and landing of aircraft.”).

¹⁸¹ The case of *Allegheny Airlines v. Vill. of Cedarhurst*, 132 F. Supp. 871 (E.D.N.Y. 1955), *aff’d*, 238 F.2d 812 (2d Cir. 1956) was significantly discussed at the hearings by two speakers. *Hearings on S. 3880, supra* note 171, at 139 (statement of A.B. McMullen, Executive Director, National Association of State Aviation Offi-

Allegheny Airlines v. Village of Cedarhurst was examined by several speakers during hearings on the 1958 Act.¹⁸² That case held that navigable airspace included airspace necessary for take-off and landing, and therefore localities could not prohibit flight within navigable airspace because it was federally preempted. The case, and the federal preemption analysis, hinged on whether the locality was trying to prohibit flight in navigable or non-navigable airspace. The insertion of the take-off and landing language within the 1958 Act's definition of navigable airspace was thus likely meant to ensure that the holding, affirmed by the Second Circuit,¹⁸³ would apply nationwide and that states and cities could not prohibit flight around airports—in navigable airspace.¹⁸⁴ Because the core issue was whether airspace below 1,000 feet above the city could be federally regulated,¹⁸⁵ and be-

cial); *Hearings on S. 3880*, *supra* note 171, at 54 (statement of E. Thomas Burnard, Executive Director, Airport Operators Council).

¹⁸² *Hearings on S. 3880*, *supra* note 171, at 139 (statement of A.B. McMullen, Executive Director, National Association of State Aviation Officials); *id.* at 54 (statement of E. Thomas Burnard, Executive Director, Airport Operators Council); *id.* at 332 (statement of Joseph B. Hartranft, Jr., President, Aircraft Owners & Pilots Association). All of these speakers discussed *Allegheny Airlines*, 238 F.2d 812.

¹⁸³ *Allegheny Airlines*, 238 F.2d at 814 (“The appellants do not dispute that the federal government has preempted the field of regulation and control of the flight of aircraft in the air space 1,000 feet or more above the ground. The dispute relates to lower reaches of air space which are necessary for take-offs from and landings at airports.”).

¹⁸⁴ Compare another widely discussed case in the hearings, *United States v. Drumm*, 55 F. Supp. 151 (D. Nev. 1944), and Senator Monroney's statement ensuring that the language in the 1938 Act language on which the *Drumm* court relied to find that safety of all aircraft required federal certification of all pilots was repeated in the 1958 Act “because there is a settled case decision on that.” *Hearings on S. 3880*, *supra* note 171, at 334 (testimony of Joseph B. Hartranft, Jr., President, Aircraft Owners & Pilots Association). The only other case as frequently discussed was *Cedarhurst*, and thus there is a strong likelihood that expanding that definition of navigable airspace was done because there was also “a settled case decision on that.” The lack of further discussion in the legislative history of the 1958 Act suggests that such an understanding was uncontroversial. *See, e.g.*, *Rowe v. New Hampshire Motor Transp. Ass'n*, 552 U.S. 364, 370 (2008) (“We have said that ‘when judicial interpretations have settled the meaning of an existing statutory provision, repetition of the same language in a new statute indicates, as a general matter, the intent to incorporate its judicial interpretations as well.’” (quoting *Merrill Lynch, Pierce, Fenner & Smith Inc. v. Dabit*, 547 U.S. 71, 85 (2006))).

¹⁸⁵ *Allegheny Airlines*, 132 F. Supp. at 881 (“The defendants also contend that Congress, by the Air Commerce Act of 1926 and the Civil Aeronautics Act of 1938, recognized that the airspace of not less than 1,000 feet over congested areas was navigable airspace and that the airspace under 1,000 feet was not navigable airspace and was not regulated by Congress.”).

cause it was only found to be preempted as an extension of the navigable airspace pursuant to the commerce power, that holding implicitly concluded the same as Senator Monroney: the federal government could not regulate non-navigable airspace. With such a holding and enactment comes the implicit logical corollary: had the airspace been non-navigable, a state or local law banning overflight within that non-navigable airspace would not have been federally preempted.

All told, the legislative history of the 1958 Act only points to two conclusions: (1) there is a vital distinction between navigable and non-navigable airspace; and (2) the federal government cannot regulate non-navigable airspace and preempt or overrule states. If there was no limit to how low the FAA could regulate, then the term “navigable” to describe airspace would be unnecessary. However, it was specifically inserted into the final version of the 1958 Act to prevent federal overreach. The legislative history of the 1958 Act showed a stated intent to carry on with the constitutional and statutory limits so clearly stated in the legislative history of the 1926 Act. Even contemporary commentators noted that the 1958 Act tried to maintain much of the status quo from the 1926 and 1938 Acts and purposefully avoided answering the extent to which the federal government could supplant states’ rights.¹⁸⁶

c. National Airspace System: Unrelated to Navigable Airspace

While at least the first sixty years of federal aviation acts and amendments were consistent in using the defined term “navigable airspace,” only recently has another confusing term pervaded amendments to our federal aviation law: the “national airspace system” or “NAS.” Remarkably, even though that term

¹⁸⁶ WRIGHT, *supra* note 68, at 116 (“The end result [of the Federal Aviation Act of 1958] is that except for its establishment of a right of transit through navigable airspace, Congress never really got into the space ownership argument, apparently choosing quite appropriately to view that as a local property matter to be determined by state law.); *see id.* at 116–17 (“The sum total of federal and state statutory law, then, is that congressional enactments (a) have asserted national sovereignty and control over navigable airspace, with (b) a corresponding free right of passage by aircraft through such space, but (c) without making any definitive statement on ownership of nonnavigable airspace. . . .”); *see also* 85 CONG. REC. 13,649 (July 14, 1958); 85 CONG. REC. 16,887 (Aug. 11, 1958) (statement by Senator Payne stating that apart from creating the FAA, the 1958 Act changed practically nothing from the prior acts); Trussell, *supra* note 90, at 53.

is used repeatedly in the two recent federal laws,¹⁸⁷ and is found within sixteen different sections of the U.S. Code, it is not defined by statute.¹⁸⁸

Curiously, the term is also used in fourteen different sections of federal regulations; however, it is only defined once, within Title 32, which deals with national security regulations:

National Airspace System (NAS). The NAS consists of the overall environment for the safe operation of aircraft that are subject to the FAA's jurisdiction. It includes: air navigation facilities, equipment and services, airports or landing areas; aeronautical charts, information and services; rules, regulations and procedures, technical information, and manpower and material. Included are system components used by the DoD.¹⁸⁹

Even more curiously, a similar definition, not from source law but from a 2015 Presidential Memorandum, is included in the annotated notes to the U.S. Code.¹⁹⁰ The presidential definition mirrors the C.F.R. regulation above, nearly exactly, except that the President's definition adds "the common network of U.S. airspace."¹⁹¹

¹⁸⁷ FAA Modernization and Reform Act of 2012, Pub. L. No. 112-95, 126 Stat. 11 (using "national airspace system" forty-one times but using "navigable airspace" once in § 413); FAA Extension, Safety, and Security Act of 2016, Pub. L. No. 114-190, 130 Stat. 615 (using the term fifteen times but not using "navigable airspace" at all).

¹⁸⁸ The term first appeared in federal statutes in 1986 when Congress designated July 6, 1986, as "National Air Traffic Control Day." Act of July 3, 1986, Pub. L. No. 99-355, 100 Stat. 758 (1986). The closest semblance to an existing statutory definition appears in 49 U.S.C. § 40102(a)(4)(F) where the term is used, defining an air navigation facility to include buildings and systems dedicated to the "national airspace system." In a 2000 law, Congress, in findings related to "national airspace redesign," referred to the "national airspace" as "comprising more than 29 million square miles, handling more than 55,000 flights per day." Wendell H. Ford Aviation Investment and Reform Act for the 21st Century, Pub. L. No. 106-181, title VIII, § 736, 114 Stat. 171 (2000) (codified at 49 U.S.C. § 40103). Such a definition would objectively lead one to presume that the term is then referring to navigable airspace-related subjects.

¹⁸⁹ 32 C.F.R. § 245.5 (2016).

¹⁹⁰ See accompanying notes to 49 U.S.C. § 40101 (2012).

¹⁹¹ Promoting Economic Competitiveness While Safeguarding Privacy, Civil Rights, and Civil Liberties in Domestic Use of Unmanned Aircraft Systems, 80 Fed. Reg. at 9357 ("(c) 'National Airspace System' means the common network of U.S. airspace; air navigation facilities, equipment, and services; airports or landing areas; aeronautical charts, information, and services; related rules, regulations, and procedures; technical information; and manpower and material. Included in this definition are system components shared jointly by the Departments of Defense, Transportation, and Homeland Security."); see also FED.

The term's origins could not be definitively traced, but it seemingly originated from the FAA itself. Apart from the definition found in the federal regulation, no clear or stable definition was found to indicate what Congress's intentions were when using it.¹⁹² Without statutory language to indicate otherwise, what may seem like a more encompassing term for airspace is not. There was no conferral of authority by Congress and no sufficient nexus to commerce declared with respect to this term. Therefore, one can only conclude that "national airspace system" only amasses different preexisting authorities within one overarching and more recently popular term. It should then be viewed as a descriptive term for the system overseen by the FAA, which any person uses when they arrive at an airport or board a commercial flight.¹⁹³ Despite the term's recent popularity, it does not confer new authorities. At its broadest interpretation, when used in the context of airspace, "national airspace system" is, at most, another term for "navigable airspace."

3. *The Bounds of Navigable Airspace: Minimum Safe Altitudes*

When Congress debated the 1926 Act—apart from wanting to stay within the bounds of the Commerce Clause—it was weary of igniting a debate about property owners' airspace, trespass,¹⁹⁴

AVIATION ADMIN., *Pilot/Controller Glossary* PCG N-1 (2016), http://www.faa.gov/air_traffic/publications/media/pcg.pdf [<https://perma.cc/EB8R-CDUQ>].

¹⁹² The National Airspace System Office was a subdivision within the FAA as early as 1966. See OFFICE OF THE FEDERAL REGISTER, U.S. GOVERNMENT ORGANIZATION MANUAL 418, 626 (1966). And, in 1982, the term was used widely—without reference to airspace—by a congressional office. OFFICE OF TECHNOLOGY ASSESSMENT, U.S. CONGRESS, AIRPORT AND AIR TRAFFIC CONTROL SYSTEM 25 (1982), <https://www.princeton.edu/~ota/disk3/1982/8202/8202.PDF> [<https://perma.cc/4JL9-XWQ8>].

¹⁹³ *Accord National Airspace System Overview*, FED. AVIATION ADMIN., https://www.faa.gov/air_traffic/nas/nynjphl_redesign/documentation/feis/media/Appendix_A-National_Airspace_System_Overview.pdf [<https://perma.cc/5DUA-JJY8>] ("The NAS is made up of a network of air navigation facilities, ATC facilities, airports, technology, and appropriate rules and regulations that are needed to operate the system.").

¹⁹⁴ *E.g.*, FRANCIS M. BURDICK, LAW OF TORTS 406 (4th ed., 1926) (arguing that a flight at low altitude would be trespass, but not a flight at a great height); LEGISLATIVE HISTORY OF THE AIR COMMERCE ACT, *supra* note 85, at 88 ("Learned writers on the subject of the law of aviation have agreed that a natural easement or right of passage should be granted to aircraft and that flight over land at such a height as not to interfere with the use to which the land is actually put should not of itself constitute a trespass.").

nuisance,¹⁹⁵ and government takings.¹⁹⁶ To avoid all of those problems, Congress defined commerce through the navigability test used in admiralty law, issued an easement for all persons through the navigable airspace, and directed the Secretary of Commerce to issue rules as to minimum safe altitudes of flight, which would be, by statutory definition, the lower bounds of the navigable airspace.¹⁹⁷

To fulfill the statutory mandate to set “rules as to safe altitudes of flight,” the Secretary of Commerce issued “Air Commerce Regulations,” under the authority of Sections 3(e) and 10 of the 1926 Act.¹⁹⁸ Every future federal aviation act continued the mandate to have the contemporary agency set rules for the lower bounds of navigable airspace.¹⁹⁹ To date, each iteration of the regulations since 1926 has always contained these minimum safe altitudes. And, perhaps surprisingly, these regulations have not differed significantly in the roughly ninety years they have been in effect.

The first Air Commerce Regulations (ACRs) went into effect at midnight on December 31, 1926.²⁰⁰ Within those first regulations, Section 81, “Flying Rules,” Subsections (G) and (H), defined the minimum altitudes of flight:

(G) **Height over congested and other areas.**—Exclusive of taking off and landing, and except as otherwise permitted by section 86, aircraft shall not be flown—

(1) Over the congested parts of cities, towns, or settlements, except at a height sufficient to permit a reasonably safe emergency landing, which in no case shall be less than 1,000 feet.

¹⁹⁵ William M. Wherry & Cyril Hyde Condon, *Aerial Trespass Under the Restatement of Torts*, 6 AIR L. REV. 113, 125 (1935).

¹⁹⁶ *E.g.*, BANNER, *supra* note 86, at 100, 166–67; *see* LEGISLATIVE HISTORY OF THE AIR COMMERCE ACT, *supra* note 85, at 42–45; *see also* HOTCHKISS, *supra* note 62, at 24.

¹⁹⁷ LEGISLATIVE HISTORY OF THE AIR COMMERCE ACT, *supra* note 85, at 42–45, 61 (“This provision [regarding navigable airspace] does not attempt to settle to what extent the maxim that ‘He who owns the land owns the heavens above and to the center of the earth,’ is law.”); Air Commerce Act of 1926 § 10, 44 Stat. 568, 574. The 1926 Congress’s own report on the matter stated it created this “public right of flight in the navigable airspace [as] a public easement of navigation. . . .” H.R. REP. NO. 69-572, at 33 (Mar. 17, 1926).

¹⁹⁸ Air Commerce Act of 1926 § 3(e), 44 Stat. at 570.

¹⁹⁹ *See* ch. 344, § 10, 44 Stat. at 574; Civil Aeronautics Act of 1938, Pub. L. No. 75-706, ch. 601, § 1(24), 53 Stat. 973, 979; 49 U.S.C. § 1301(24) (1958).

²⁰⁰ ROWLAND W. FIXEL, *THE LAW OF AVIATION* 212 (1st ed. 1927).

(2) Elsewhere at a height less than 500 feet, except where indispensable to an industrial flying operation.

(H) **Height over Assembly of Persons.**—No flight under 1,000 feet in height shall be made over any open air assembly of persons except with the consent of the Secretary of Commerce. Such consent will be granted only for limited operations.²⁰¹

Today, very similar regulations endure. Found at 14 C.F.R. § 91.119, “Minimum safe altitudes,” the current regulations still afford, essentially, that aircraft remain at least 1,000 feet over cities or persons, and above 500 feet elsewhere, except over open water or sparsely populated areas.

§ 91.119 Minimum safe altitudes: General.

Except when necessary for takeoff or landing, no person may operate an aircraft below the following altitudes:

(a) Anywhere. An altitude allowing, if a power unit fails, an emergency landing without undue hazard to persons or property on the surface.

(b) Over congested areas. Over any congested area of a city, town, or settlement, or over any open air assembly of persons, an altitude of 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet of the aircraft.

(c) Over other than congested areas. An altitude of 500 feet above the surface, except over open water or sparsely populated areas. In those cases, the aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure.²⁰²

Thus, while some exceptions have been made to which types of aircraft can go below the minimum safe altitudes of flight, the baseline has always been the same: At least 500 feet, and often 1,000 feet above ground level. The statutory definition of “navigable airspace” incorporated these minimum altitudes and combined them with airspace needed for takeoff and landing. So lie the bounds of the navigable airspace.

²⁰¹ *Id.* at 239 (the referred-to section 86 allowed one to deviate from air traffic rules in case of immediate danger, weather, or other unavoidable cause); *see also*, *e.g.*, AERONAUTICS BRANCH, DEP’T OF COMMERCE, INFORMATION BULLETIN NO. 7, at 33 (1928).

²⁰² 14 C.F.R. § 91.119 (2016). The definition of “congested areas,” where 1,000 feet vertical separation is required, is determined by a case-by-case basis by the FAA. Letter from Rebecca B. MacPherson, Office of Chief Counsel, to Leanne Simmons (Mar. 3, 2010), [http://www.faa.gov/about/office_org/headquarters_offices/agc/pol_adjudication/agc200/interpretations/data/interps/2010/simmons%20-%20\(2010\)%20legal%20interpretation.pdf](http://www.faa.gov/about/office_org/headquarters_offices/agc/pol_adjudication/agc200/interpretations/data/interps/2010/simmons%20-%20(2010)%20legal%20interpretation.pdf) [https://perma.cc/WJ45-7LXM] (stating the FAA interpreted this definition quite broadly); *see also* *Folk v. Sturgell*, No. 08-2155 (4th Cir. Apr. 22, 2010), <http://www.ca4.uscourts.gov/Opinions/Unpublished/082155.U.pdf> [https://perma.cc/X7D3-HECP].

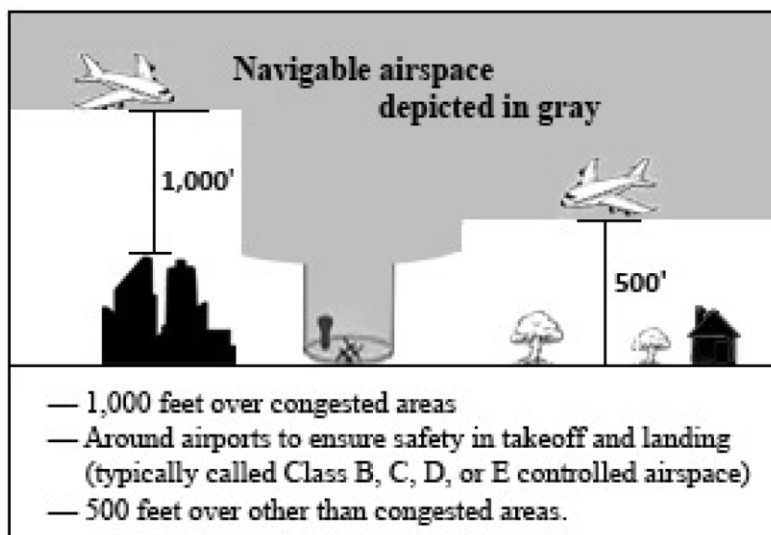


Figure 1: Navigable Airspace

The interrelation between minimum altitudes of flight and the very definition of “navigable airspace” is of prominent importance in analyzing states’ airspace rights. It signifies that in granting federal regulatory authority over only some airspace—the navigable airspace—Congress time and time again, in every single federal aviation act, left a remainder of airspace not subject to federal control: non-navigable airspace. And apart from immediate reaches around airports, this lower-bounds altitude has mostly remained steady at no lower than 500 or 1,000 feet.

4. *The Power of the FAA Administrator*

When federal agencies make regulations, they must list their authority for rulemaking.²⁰³ In the case of its proposed and final sUAS regulations, the FAA listed, among others, 49 U.S.C. § 40103(b)(1) and (2).²⁰⁴ These paragraphs define the power of the FAA administrator. The FAA quoted these two paragraphs as granting the agency authority to regulate for “the efficient use of airspace,” and “protecting individuals and property on the ground.”²⁰⁵ But this may again be misleading because parts of this law as they appear in the Code do not match the 1958

²⁰³ 5 U.S.C. § 553(b)(2) (2012).

²⁰⁴ Operation and Certification of Small Unmanned Aircraft Systems, 80 Fed. Reg. 9543, 9544 (Feb. 23, 2015); Operation and Certification of Small Unmanned Aircraft Systems, 81 Fed. Reg. 42,063, 42,067–68 (June 28, 2016).

²⁰⁵ 80 Fed. Reg. at 9544 (under “Authority for this Rulemaking” section).

Act.²⁰⁶ As will be shown below, this oversimplified interpretation of the law overlooks the key congressional, and constitutional, limitation of the administrator's power relating to the navigable airspace.

First, § 40103(b)(1) is presented for examination. Compare the way the 1958 Act presented parts specifically about airspace with the way the 1994 codification changed it. And query whether it might mislead a reader, the FAA, or a judge to think the FAA can make regulations regarding any airspace. This paragraph's 1994 deletions are "[enclosed]" in brackets and additions from 1994 are in *italics*:

The Administrator *of the Federal Aviation Administration* [is authorized and directed to] *shall* develop plans [for] and [formulate] policy [with respect to] *for* the use of the navigable airspace[;] and assign by [rule,] regulation[,], or order the use of the [navigable] airspace [under such terms, conditions, and limitations as he may deem] necessary [in order] to [insure] *ensure* the safety of aircraft and the efficient utilization of [such] airspace. [He] *The Administrator* may modify or revoke such assignment when required in the public interest.²⁰⁷

Again, we see within the actual law that the administrator's power is clearly limited to navigable airspace in every instance.²⁰⁸ However, after reading the U.S. Code, which omitted two references to navigable airspace but still kept one such reference, a lay observer might hastily conclude that only the FAA's plans and policies are for navigable airspace and that regulations and orders for efficient use are applicable to all airspace. Such a conclusion would be incorrect and disproven by the text of the controlling 1958 Act, as well as its legislative and contextual history. The administrator's power mandate is not to ensure "efficient utilization of airspace"; it is to ensure "efficient utilization of such [navigable] airspace."²⁰⁹ Query whether the FAA is

²⁰⁶ For those that have not read straight through this comprehensive article, a discussion on why the text within parts of title 49 in the current U.S. Code is not the law, see above, Part III.A.1.d.i, text accompanying notes 115–25.

²⁰⁷ Compare Federal Aviation Act of 1958, Pub. L. No. 85-726, § 307(a), 72 Stat. 731, 749 (1958) (codified at 49 U.S.C. § 1348(a) (1958)), and Department of Transportation Act, Pub. L. No. 89-670, § 6(c)(1), 80 Stat. 938 (Oct. 15, 1966) (changing the name of the Federal Aviation Agency to the Federal Aviation Administration), with 49 U.S.C. § 40103(b)(1) (2012).

²⁰⁸ See *supra* Part III.A.1.d.i.

²⁰⁹ Compare 49 U.S.C. § 40103(b)(1) (2012) (omitting "such," which references "navigable"), with Federal Aviation Act of 1958 § 307(a) (the original and source law that included "such" as a direct reference to "navigable airspace").

aware of the true text or if it too has succumb to pernicious reliance on the U.S. Code.

After the discussion in the preceding subsections, detailing how each Congress passing a federal aviation act was very careful and particular to distinguish navigable airspace, it is no wonder that the 1958 Congress also continued this meaningful distinction and used it as a limitation on the administrator's authority. And because the administrator's authority is limited to navigable airspace—as clearly explained by Subsection (b)(1)—Subsection (b)(2) should be similarly read as only allowing air traffic regulations either within the navigable airspace or for aircraft that could affect the navigable airspace.

Section 40103(b)(2), on the other hand, was only changed in the Code to rearrange words and change their tense. Because this paragraph did not undergo significant changes to its text, only the current U.S. Code version is presented here:

- (2) The Administrator shall prescribe air traffic regulations on the flight of aircraft (including regulations on safe altitudes) for—
- (A) navigating, protecting, and identifying aircraft;
 - (B) protecting individuals and property on the ground;
 - (C) using the navigable airspace efficiently; and
 - (D) preventing collision between aircraft, between aircraft and land or water vehicles, and between aircraft and airborne objects.²¹⁰

At first blush, this provision allowing the FAA to make *air traffic* regulations for the protection of “individuals and property on the ground”²¹¹ may seem like a stand-alone power that could be used as a catch-all reason to regulate, including within non-navigable airspace. That is not the case. Even this federal provision was designed to have a nexus to commerce and is dependent on aircraft being able to enter the navigable airspace. The beginning of the provision limits the authority to making “air traffic regulations,” and it ought to be read in concert with its accompanying previous paragraph, § 40103(b)(1), which limits all of the administrator's authority to the navigable airspace.²¹² Taken together and read in the context of all other sections of the 1958 Act, it ought to be clear that the authors of this provision intended no significant change, meant to restate the law as it

²¹⁰ § 40103(b)(2).

²¹¹ *Id.* § 40103(b)(2)(B). Originally, this was “persons and property.” Federal Aviation Act of 1958 § 306.

²¹² § 40103(b)(1).

was since 1926, and wanted to continue limiting the administrator's authority to regulate aircraft to only such aircraft capable of entering the navigable airspace.

Legislative history confirms the intent of this provision as well as its usual nexus to interstate commerce and navigable airspace. The provision on protecting property and persons was suggested by the Civil Aeronautics Administration (CAA) itself in hearings on the 1958 Act.²¹³ But this was again not intended as any substantive change from the 1926 or 1938 Acts. When asked during hearings whether the federal agency currently had "authority to issue traffic rules for the protection of persons and property on the ground," the general counsel of the CAA said that they did, but they wanted any doubt to be removed, "so that there is not any question in anybody's mind. And that is the sole purpose of our amendment."²¹⁴

Aside from solidifying the federal regulatory authority to prohibit "test flights and acrobatics over thickly populated areas,"²¹⁵ what would become § 40103(b)(2)(B) was meant to also solidify authority over "anything sprayed or thrown from an aircraft in flight."²¹⁶ Around the same time that the CAA suggested adding the provision to remove all doubt of pre-existing authority, Representative Preston and Representative Flynt suggested a similar amendment but for a different purpose: protecting persons from potentially harmful aircraft crop sprays.²¹⁷

But even the two representatives realized that their intent had to have some sort of a nexus to commerce and the navigable

²¹³ *Federal Aviation Agency Act: Hearings on H.R. 12616 Before a Subcomm. of the H. Comm. on Interstate & Foreign Commerce*, 85th Cong. 93 (1958) [hereinafter *Hearings on H.R. 12616*] (statement of Hon. James T. Pyle, Administrator of Civil Aeronautics).

²¹⁴ *Id.* at 108–09 (statement of Mr. R.P. Boyle, General Counsel, Civil Aeronautics Administration).

²¹⁵ 85 CONG. REC. H-16081 (1958) (statement of Mr. Harris).

²¹⁶ *Id.*

²¹⁷ *Hearings on H.R. 12616, supra* note 213, at 267 (statement of Rep. Prince H. Preston of Georgia); 85 CONG. REC. H-16081 (1958) ("The Administrator, in subsection 307(c) is authorized and directed to prescribe air traffic rules and regulations for the protection of persons and property on the ground. This should mean more than prohibiting test flights and acrobatics over thickly populated areas. The problem of damage done by crop dusting and spraying from aircraft was presented to the committee and considered . . . Crop dusting and spraying are of great value and importance in certain agricultural operations but it is important that they be conducted in a safe manner. . . . This problem of adequate protection of persons on the ground was discussed in the hearings by the distinguished gentleman from Georgia [Mr. PRESTON].").

airspace, so they reasoned that “the itinerant aircraft that operate in this area of dissemination also constitute a hazard to aviation, because as we know, they are flying under [visual flight rules (VFR)] conditions, have to, and they constitute a portion of the hazard that is brought about by the VFR flying vis-a-vis higher altitude flying.”²¹⁸ Essentially, their argument was that these aircraft would constitute a hazard within navigable airspace and thus could be regulated. They also intended to extend the ability to protect persons and property to another reach of the navigable airspace: airspace used for take-off and landing.

[I]n addition to providing for the protection of persons and property on the ground from possible danger from insecticides and from crop-spraying aircraft, this would make it clear that the Administrator has the duty and the responsibility of protecting persons and property which are located in the glide and take-off path of the airways, airports which are presently in existence and which will be constructed in the future.²¹⁹

Had they intended that the administrator have a wider reaching authority, it is curious why they would relate their amendment to creating hazards in flight and to “persons and property which are located in the glide and take-off path of the airways. . . .” Under either rationale brought by the representatives, or under the CAA’s assertion that this authority already existed, there was a direct link to an effect within the navigable airspace. Given the strong history of states’ rights and clear limitations to the navigable airspace within the 1926 and 1938 Acts, any greater intended authority would have surely sparked more comment and debate in the 1958 Act’s legislative history. Instead, the topic was mentioned only a few times and only as either linked to the navigable airspace or simply reaffirming authority already thought to exist. The provision should thus be interpreted according to its legislative history and contextual limitation to navigable airspace, either of which indicates that this provision does not expand the FAA’s authority to non-navigable airspace.

Taken together, these two provisions at § 40103(b)(1) and (2)—provisions on which the FAA primarily relies to promulgate rules regarding airspace (and in this case sUASs)—show, when read in their proper 1958 version, that the FAA has very

²¹⁸ *Hearings on H.R. 12616, supra* note 213, at 268–69 (statement of Rep. Prince H. Preston of Georgia).

²¹⁹ *Id.* at 269.

limited authority to regulate in non-navigable airspace. With proper historical context, an understanding Congress's intent, and a reading of the proper version of the law, this article asserts that the power of the FAA to regulate below navigable airspace of at least 500 feet is very limited, as explained in Part V.

B. ROLE OF STATES IN AVIATION: PAST TO PRESENT

The debate over how much airspace, and how low, the federal government could regulate was a fascinating and controversial debate that started more than 100 years ago, but it was never completely settled. Each of the federal aviation acts was written to avoid contention on the subject.²²⁰ Some, including the author of the 1958 Act, Senator Monroney, purposefully avoided legislating on the topic of states' airspace rights, hoping that the matter would simply evolve to become settled over time.²²¹ Sadly, the topic remains unsettled today. Courts have not definitively ruled on the matter, and many states are actively legislating in this area, apparently also believing the matter is not settled.²²²

1. States' Rights in the Federal Aviation Acts

Statutory limitations and legislative history are important factors in analyzing states' airspace rights. But perhaps a more compelling argument that states are allowed to regulate their own airspace is that federal law for decades affirmed that very right.

The first federal act regarding aviation, the Air Commerce Act of 1926,²²³ had a provision, in § 4, that stated: "The several

²²⁰ *E.g.*, HOTCHKISS, *supra* note 62, at 24 ("So far [f]ederal legislation has studiously avoided any definition of rights in the air space. . .").

²²¹ *Hearings on S. 3880, supra* note 171, at 114 (statement of A.B. McMullen, Executive Director, National Association of State Aviation Officials) ("*Senator Monroney* . . . One of the problems, of course, is on the question of airspace over cities and towns and communities, and particularly with reference to landing. It apparently seems to me, however, that the question has never yet been fully resolved by the courts as to how high up property rights extend and we have been more or less reluctant to enter that field until such time as the courts have finally spoken in regard to the adequate protection of property rights.

Mr. McMullen. Well, sir, that is a very difficult question.

Senator Monroney. It is a very difficult question and with all of the other difficult questions in there, I hope we can tailor this bill to where we will not find it necessary to go into something that is going to be subject to as much controversy as the extension of property rights vertically is, without even the courts having any definite resolution of it.").

²²² *See infra* text accompanying notes 259–70.

²²³ Air Commerce Act of 1926, Pub. L. No. 69-254, ch. 344, 44 Stat. 568.

States may set apart and provide for the protection of necessary airspace reservations in addition to and not in conflict with airspace reservations established by the President under this section or with any civil or military airway designated under the provisions of this Act.”²²⁴

This section specifically annunciated the right of states to enact their own airspace reservations, so long as they did not conflict with airspace reservations made by the President or with any civil or military airway.²²⁵ Both the federal and state airspace reservations were applicable to both navigable airspace and non-navigable airspace. Although the state airspace reservation provision remained unaffected after the 1938 Act,²²⁶ it was eventually omitted when the 1958 Act repealed the 1938 and 1926 Acts.²²⁷ However, the reasons for its omission did not have anything to do with curtailing states’ rights, as will be explained below. And assuming, *arguendo*, that it was purposefully removed from the statute with an eye towards preventing states from restricting flights over parts of their lands, it does not mean that right—one that the states clearly had and asserted with their own laws—disappeared with the provision. To put it another way, the original provision was not a grant of authority to the states, it was a recognition of their preexisting authority. Obviously, the failure of Congress to keep a provision as to the right of states, or to otherwise list rights of states but not include a certain one, does not mean that the states still do not have that right.²²⁸ Quite the opposite. Except for a preemption analysis, which will be discussed later, if federal law is silent on the subject then states typically retain their rights.²²⁹

2. *The Omission of Section 4 Did Not Abrogate States’ Rights*

The 1958 Act was passed in response to increasing mid-air collisions resulting from separate air traffic control of military and

²²⁴ *Id.* ch. 344, § 4. Federal regulations also restated this annunciation of states’ rights. 2 Fed. Reg. 2184 (Oct. 14, 1937) (CAR 60.34).

²²⁵ Today, airspace reservations are known as prohibited or restricted airspace.

²²⁶ Civil Aeronautics Act of 1938, Pub. L. No. 75-706, 52 Stat. 973; 49 U.S.C. § 174 (1952).

²²⁷ Federal Aviation Act of 1958, Pub. L. No. 85-726, title XIV, § 1401(a), 72 Stat. 731, 806.

²²⁸ *See* U.S. CONST. Amend. X.

²²⁹ *See, e.g.,* *Bond v. United States*, 134 S. Ct. 2077, 2086 (2014) (“In our federal system, the National Government possesses only limited powers; the States and the people retain the remainder. The States have broad authority to enact legislation for the public good—what we have often called a ‘police power.’”).

civilian airspace.²³⁰ These accidents, stemming from the fact that large swaths of military airspace left little airspace for the growing civilian industry, were frequently cited in hearings as the main reason for the 1958 Act.²³¹ Even the summaries of the Act by its author and principal supporters boiled down the Act's purpose as rectifying the struggle between civil and military airspace: "The broad purpose of this legislation is to establish a new Federal Aviation Agency with powers adequate to enable it to provide for the safe and efficient use of the *navigable* airspace by civil and military air operations."²³²

After World War II and the increased need to safeguard the airspace above military and other sensitive areas, the use of federal airspace reservations was widespread. As was expressed in Senate hearings on the 1958 Act, "One of the most serious problems confronting aviation is the increasing need for airspace by civil and military users."²³³ It was argued that the way the military annexed airspace for its own reservations interfered with and delayed civil aviation, and even led to mid-air crashes.²³⁴

At that time, there was a diffusion of responsibility for military airspace. The President had authority for military reservations, under § 4, the Secretary of Defense had authority over military airways, and still other airspace allocations were decided by the Civil Aeronautics Board. The diffusion became unworkable. Eventually, President Truman issued an executive order establishing the Air Coordinating Committee to solve airspace

²³⁰ *E.g.*, Richard E. Mooney, *New Agency on Air Safety Requested by Eisenhower: Congress Urged to Merge Military and Civil Units Now Running Aviation's Traffic, Research and Planning*, N.Y. TIMES, June 14, 1958, at 1; *Hearings on S. 3880*, *supra* note 171, at 303 (statement of William K. Lawton, Executive Director, National Business Aircraft Association, Inc.) ("In the recent months past, the air carriers have met tragedy through midair collisions involving military aircraft. The waves of indignation that rose and swept throughout the Nation, the loud cries for immediate improvement in our system of air traffic control have resulted in our meeting here today.").

²³¹ *E.g.*, *Hearings on S. 3880*, *supra* note 171, at 303; *Text of President's Plan for a New Aviation Agency*, N.Y. TIMES, June 14, 1958, at 11; C.P. Trussell, *New Air Agency Voted by Senate: Control of Civil and Military Planes Given to One Group in Bipartisan Measure*, N.Y. TIMES, July 15, 1958, at 53.

²³² 85 CONG. REC. 16083 (1958) (statement of Rep. Flynt) (emphasis added); 85 CONG. REC. 16084 (1958) (statement of Rep. Harris) (emphasis added); H. REP. NO. 85-2360, at 1 (1958) (emphasis added).

²³³ *Hearings on S. 3880*, *supra* note 171, at 151 (1958) (statement of E.R. Quesada, Chairman, Airways Modernization Board).

²³⁴ *Id.* at 342 (statement of A.F. Bonnalie).

problems.²³⁵ But as the number of planes²³⁶ and reservations²³⁷ increased, the Committee became hampered by its own infighting and procedural problems.²³⁸ Indeed, in the debate about this bill, much angst was directed to the Air Coordinating Committee.²³⁹ Eventually, in 1957, the Civil Aeronautics Board (CAB) stepped in and issued new regulatory procedures to “attain the maximum effective utilization of the available airspace,”²⁴⁰ asserting its jurisdiction over airspace for both civil and military use.²⁴¹

The CAB, a civilian agency, stepped in to control airspace matters of the military and national security, which troubled many.²⁴² Because the authorities for airspace allocation were vested in provisions like § 4, and because there was a question as to whether the military could be bound by a civilian agency’s rules, many called for a federal statute to formally consolidate that airspace allocation and solve those “shifting sands of legal

²³⁵ Exec. Order No. 9781, 11 Fed. Reg. 10,645 (Sept. 19, 1946); S. REP. NO. 85-1811, at 14 (1958) (“[A]ll matters involving the use of airspace were referred to the Airspace Panel of the interagency Air Coordinating Committee, a group first set up by Executive order in 1946, with representatives of the Army, Navy, Air Force, Post Office, Treasury, and Commerce Departments, as well as from the Civil Aeronautics Board and the Federal Communications Commission.”).

²³⁶ S. REP. NO. 85-1811, at 13 (1958) (“The number of planes seeking their share of our airspace has almost quadrupled since 1938. . . . [M]ore airspace is required for each if proper separation is to be maintained.”).

²³⁷ *Id.* (“In addition, a significant amount of airspace has been ‘reserved’ or declared ‘off limits’ to aircraft for a variety of governmental purposes.”).

²³⁸ *Hearings on H.R. 12616, supra* note 213, at 30 (statement of General E.R. Quesada, Chairman, Airways Modernization Board) (“In this hodgepodge of authorities, the committee method has been used to assign airspace on a case-by-case basis resulting in long debate, serious delay, and patchwork solutions.”).

²³⁹ 85 CONG. REC. 16084 (1958) (statement of Rep. Harris) (“Under this system [with the Air Coordinating Committee], airspace has been assigned on a case-by-case basis, often resulting in delays and patchwork solutions to many critical airspace problems.”); *Hearings on S. 3880, supra* note 171, at 164 (“Senator Monroney. One man must have the final responsibility, and to delay decision interminably with interservice discussions, as in the Air Coordinating Committee . . . would lead to a disagree of nullification of what the bill seeks to achieve on the allocation of airspace.”); S. REP. NO. 85-1811, at 14 (1958).

²⁴⁰ *Hearings on S. 3880, supra* note 171, at 446 (quoting Air Traffic Rule 60-9 of the Civil Air Regulations, effective April 1, 1958).

²⁴¹ *Id.* at 445–46 (statement of Mr. James R. Durfee, Chairman, Civilian Aeronautics Board). The rule 60–9 and 60.13A (noticed in proposed rulemaking on July 28, 1957) became effective April 1, 1958, just months before the 1958 Act was passed. “Subject only to that reservation power to the President, the Board asserted in this rule complete jurisdiction over the airspace.” *Id.*

²⁴² S. REP. NO. 85-1811, at 14 (1958).

ambiguity.”²⁴³ But even this call for consolidation caused consternation, and a debate was had over whether the singular agency would be placed under the executive branch or whether it should be an independent agency.²⁴⁴

Eventually, the singular agency, now known as the FAA, was created under the executive branch. And, because the executive had ultimate control of this agency, it was thought that the President’s statutory power over airspace in § 4 of the 1926 Act would be redundant and unnecessary.²⁴⁵

Throughout the hearings for the 1958 Act, and in all of the accompanying reports and testimony that make up the comprehensive legislative history, at no time was there any discussion about states’ rights to enact airspace reservations under § 4. The only related argument revolved around the President’s § 4 “authority to make airspace reservations for national defense or other governmental purposes.”²⁴⁶ It appears that Congress was either unconcerned with continuing to enunciate states’ rights or so focused on the President’s power under § 4 and consolidating civil and military navigable airspace to promote commercial flights that it did not consider the states’ powers. No indication of an intent to repeal or prohibit states’ airspace reservation rights was found in any legislative history of the 1958 Act. Even outside of federal legislation, and regardless of § 4 reservation rights, states, from before the 1926 Act to well after the 1958 Act, still believed—and to this day believe—that they have the right to make laws about their own airspace.

²⁴³ *Id.* (“The present legislation proposes to clear away this ambiguity once and for all by vesting unquestionable authority for all aspects of air space management in the Administrator of the new Agency.”).

²⁴⁴ *Hearings on S. 3880, supra* note 171, at 267 (statement of Mr. MacIntyre, Under Secretary of the Air Force) (“The Department of Defense feels very strongly that this new Agency must be clearly established in the executive branch of the Government. . . . For example, section 25 of the Monroney bill would repeal section 4 of the Air Commerce Act of 1926, under which the President has been authorized to set apart and protect airspace reservations in the United States for national defense purposes. . . . But it is felt that serious constitutional questions would be raised if that agency, wielding a power so fundamental to the protection of national defense interests, were not an executive agency at least subject to the direction and control of the President.”).

²⁴⁵ *Id.* at 164 (“Mr. Quesada . . . I think it is well to emphasize again, if I may, the President’s authority under section 4 of the Air Commerce Act would not be relinquished, and it must be clear to all that the allocation of airspace as a very, very serious implication in terms of military operations.”).

²⁴⁶ H. REP. NO. 85-2360, at 3 (1958).

3. *Historical State Laws*

State aviation laws, enacted both before and after the first federal aviation act, evince that Americans always believed states had at least some rights to control their airspace. In 1911, Connecticut passed the first law regulating aviation in the United States.²⁴⁷ By 1920, aviation committees were born in the American Bar Association (ABA) and in the National Conference of Commissioners on Uniform State Laws.²⁴⁸ These committees actively debated whether aviation should be legislated exclusively at the federal level or both through federal and state governments. After considering the issue, the ABA concluded, in 1921, that without a constitutional amendment, the federal government could not exclusively regulate airspace and air commerce.²⁴⁹

Around the same time, in 1922, the National Conference of Commissioners on Uniform State Laws adopted the influential “Uniform State Law for Aeronautics.”²⁵⁰ By 1928, ten states and one territory had incorporated that law.²⁵¹ By 1936, it had been enacted, either partially or in whole, in twenty-one states;²⁵² that number rose to twenty-three by 1944.²⁵³ If the provision on sovereignty in the 1926 and 1938 Acts were truly meant to forbid states from regulating airspace, it would seem unlikely that so many states and preeminent legal organizations would have passed and recommended laws asserting states’ sovereignty over their own airspace.

²⁴⁷ The law said “every aeronaut was held responsible for all damages.” HOTCHKISS, *supra* note 62, at 38 (citing Conn. Laws of 1911, ch. 90, § 3117).

²⁴⁸ *Id.* at 21; BANNER, *supra* note 86, at 125.

²⁴⁹ HOTCHKISS, *supra* note 62, at 20–21, 68 (“[P]roperty rights of the land owner in the airspace above land is so absolute that before aviation can become possible a constitutional amendment will be necessary since until this is done every flight involves a series of repeated trespasses amounting to a taking of property without due process of law.”); *see also* BANNER, *supra* note 86, at 116, 118 (citing Cornell law professor George Borget of the National Conference of Commissioners on Uniform State Laws, and also citing the legal advisor to the U.S. Army Air Service as advocating for a necessary constitutional amendment in order to regulate airspace and avoid trespass suits).

²⁵⁰ HOTCHKISS, *supra* note 62, at 24; BANNER, *supra* note 86, at 125–26.

²⁵¹ HOTCHKISS, *supra* note 62, at 24.

²⁵² 1936 U.S. Av. R. 376 (listing all the states adopting the uniform law and providing the citation to those laws).

²⁵³ 1944 U.S. Av. R. 129. The National Conference of Commissioners on Uniform State Laws ceased recommending that states enact the uniform law in 1943. *Braniff Airways v. Nebraska State Bd. of Equalization & Assessment*, 347 U.S. 590, 596 (1954).

The Uniform State Law for Aeronautics did not simply denote that states could regulate airspace; it explicitly declared state sovereignty of airspace not assumed by the federal government:

Sec. 2. Sovereignty in Space.

Sovereignty in the space above the lands and waters of this State is declared to rest in the State, except where granted to and assumed by the United States pursuant to a constitutional grant from the people of this State.

Sec. 3. Ownership of Space.

The ownership of the space above the lands and waters of this state is declared to be vested in the several owners of the surface beneath, subject to the right of flight described in section 4.

Sec. 4. Lawfulness of Flight.

Flight in aircraft over the lands and waters of this state is lawful unless at such a low altitude as to interfere with the then existing use to which the land or water or the space over the land or water is put by the owner, or unless so adopted as to be imminently dangerous to persons or property lawfully on the land or water beneath.²⁵⁴

As of July 2017, nineteen states still had active statutes that expressly asserted their sovereignty of their own airspace,²⁵⁵ and twenty-two states still had an assertion of airspace ownership by surface owners as active laws, as described in Sections 2 and 3 of the Uniform Law, respectively.²⁵⁶

Further support for the historical understanding that airspace was not exclusively regulated at the federal level can be seen not just from assertions in the laws about state sovereignty of airspace, but also in states, and even cities, regulating minimum altitudes of flight.²⁵⁷ Before the 1926 Act, six states and New

²⁵⁴ HOTCHKISS, *supra* note 62, at 24.

²⁵⁵ ARIZ. REV. STAT. ANN. § 28-8206; CAL. PUB. UTIL. CODE § 21401; COLO. REV. STAT. ANN. § 41-1-106; DEL. CODE ANN. tit. 2, § 302; HAW. REV. STAT. ANN. § 263-2; IDAHO CODE ANN. § 21-202; IND. CODE ANN. § 8-21-4-2; ME. REV. STAT. tit. 1, § 6; MD. CODE ANN., TRANSP. § 5-104; MINN. STAT. ANN. § 360.012; MONT. CODE ANN. § 67-1-202; NEV. REV. STAT. ANN. § 493.030; N.J. STAT. ANN. § 6:2-4; N.C. GEN. STAT. ANN. § 63-11; N.D. CENT. CODE ANN. § 2-03-02; TENN. CODE ANN. § 42-1-102; UTAH CODE ANN. § 72-10-123; WIS. STAT. ANN. § 114.02; WYO. STAT. ANN. § 10-4-301. Additionally, New York still has rules regarding minimum safe altitudes, which appear to be modeled after contemporary federal regulations. N.Y. GEN. BUS. LAW § 245 (McKinney).

²⁵⁶ In addition to the nineteen states listed in note 255, above, three states still have provisions similar to Uniform Law § 3. States that have a provision on ownership, but repealed their sovereignty provision are: MO. ANN. STAT. § 305.020; S.D. CODIFIED LAWS § 50-13-3; VT. STAT. ANN. tit. 5, § 402.

²⁵⁷ HOTCHKISS, *supra* note 62, at 50–51.

York City already had restrictions for minimum altitudes of flight, and more would enact such restrictions even after the 1926 Act.²⁵⁸

4. Current State Laws

Apart from laws about state sovereignty of airspace recounted above, one of the more telling observations about states' rights to enact laws regarding UASs is the extent to which many already have. In fact, the majority of states have enacted laws relating to UASs. As of July 2017, at least thirty-nine states had enacted such laws. These laws can be categorized in several ways.²⁵⁹ Many laws deal with law enforcement's use of UASs.²⁶⁰ Other laws forbid weaponizing UASs.²⁶¹ Many states are starting to restrict local or municipal laws regarding UASs.²⁶² Another substantial subset restricts the use of UASs with regard to hunting and wildlife.²⁶³ States have even enacted laws to prevent in-

²⁵⁸ *Id.* (Connecticut (added after 1926), 2000 feet, Laws 1927, ch. 324; Kansas, 1000 ft. over cities and 250 ft. over premises, KANSAS REV. STAT. 1923 ch. 3-106; Maine, 1000 ft., Laws 1923, ch. 220, Laws of 1925, ch. 189; Massachusetts, 3000 ft. over thickly settled places or business districts, 1000 ft. over open-air assemblies, 500 ft. over buildings or persons, Acts 1922, ch. 534, Acts 1925, ch. 189; Minnesota, "Low height," Laws 1925, ch. 406; New Jersey, 2000 ft., Laws 1921, ch. 124; New York City, 2000 ft. City Ordinance No. 52, July, 18, 1921).

²⁵⁹ UAS laws not categorized in one of the subsequent categories include: N.D. CENT. CODE §§ 54-60-28 to 54-60-29 (UAS test site program); HAW. REV. STAT. § 201-72.6 (same); IOWA CODE § 808.15 (admissibility of evidence obtained by unmanned aerial vehicle); KY. REV. STAT. ANN. § 183.086 (no reckless operations of unmanned aircraft); OHIO REV. CODE ANN. § 122.98 (formation of a committee to research and develop UASs); R.I. GEN. LAWS § 1-8-1 (granting authority for state regulation of UASs generally); WYO. STAT. ANN. § 10-4-303 (no landings on another's property).

²⁶⁰ ALASKA STAT. §§ 18.65.900-18.65.909, 29.10.200, 29.35.146; FLA. STAT. § 934.50; IDAHO CODE § 21-213; 725 ILL. COMP. STAT. 167/1-167/40; IND. CODE § 35-33-5-9; IOWA CODE §§ 321.492B, 808.15; ME. STAT. tit. 25, § 4501; MONT. CODE ANN. § 46-5-109; N.C. GEN. STAT. §§ 15a-300.1 to 15a-300.2; N.D. CENT. CODE §§ 29-29.4-01 to 29-29.4-06; OR. REV. STAT. § 837.310; TENN. CODE ANN. § 39-13-609; UTAH CODE ANN. §§ 63G-18-101 to 63G-18-105; VT. STAT. ANN. tit. 20, § 4622; VA. CODE ANN. § 19.2-60.1; WIS. STAT. § 175.55.

²⁶¹ FLA. STAT. ANN. § 330.411; N.C. GEN. STAT. § 14-401.24; OR. REV. STAT. § 837.365; NEV. REV. STAT. § 493.106; UTAH CODE ANN. § 72-14-303; VT. STAT. ANN. tit. 13, § 4018; WIS. STAT. § 941.292.

²⁶² ARIZ. REV. STAT. ANN. § 13-3729; CONN. GEN. STAT. ANN. § P.A. 17-52; § 1; GA. CODE ANN. § 6-1-4; LA. STAT. ANN. § 2.2; MD. CODE ANN., ECON. DEV. § 14-301; OR. REV. STAT. § 837.385; TEX. GOV'T CODE ANN. § 423.009; UTAH CODE ANN. § 72-14-103; VA. CODE ANN. § 15.2-926.3.

²⁶³ IDAHO CODE § 36-1101; 720 ILL. COMP. STAT. 5/48-3; IND. CODE § 14-22-6-16; MICH. COMP. LAWS §§ 324.40111c-324.40112; N.H. REV. STAT. ANN. § 207:57; N.C. GEN. STAT. § 113-295, 14-401.24; OR. REV. STAT. § 498.128; S.C. CODE ANN.

terference with wild firefighting,²⁶⁴ police,²⁶⁵ and manned aircraft.²⁶⁶ Several deal with restrictions on use of UASs in an effort to protect people's privacy.²⁶⁷ And finally, and most pertinently, a number of states already restrict where UASs can operate.²⁶⁸

In that final category, restricting where UASs can operate, at least nine states have enacted laws that are essentially low-lying airspace restrictions.²⁶⁹ Those laws range from specifically including UAS operations in the definition of criminal trespass to protecting low-lying airspace immediately above police operations, prisons, and critical infrastructure facilities, such as power, gas, and chemical facilities. Notably, Tennessee even uses non-navigable airspace to define the altitudes in which UASs cannot operate over private property.²⁷⁰

These laws do not just show states rightly believe they have the authority to enact these non-navigable airspace restrictions for UASs, but they also show the need for such state-based regula-

§50-11-2200; TENN. CODE ANN. § 70-4-301; W. VA. CODE § 20-2-5; WIS. STAT. § 29.083.

²⁶⁴ UTAH CODE ANN. § 65A-3-2.5; CAL. PENAL CODE § 402; IND. CODE § 35-44.1-4-10.

²⁶⁵ ARIZ. REV. STAT. ANN. § 13-3729; CAL. PENAL CODE § 402; IND. CODE § 35-44.1-4-10.

²⁶⁶ N.C. GEN. STAT. § 14-280.3.

²⁶⁷ ARK. CODE ANN. § 5-16-101; CAL. CIV. CODE § 1708.8; FLA. STAT. § 934.50; IDAHO CODE § 21-213; KAN. STAT. ANN. § 60-31a02; LA. STAT. ANN. § 14:283; MISS. CODE ANN. § 97-29-61; N.C. GEN. STAT. § 15a-300.1; OR. REV. STAT. § 163.700; TENN. CODE ANN. §§ 39-13-901 to 93-13-907; TEX. GOV'T CODE ANN. §§ 423.001–423.008; WIS. STAT. § 942.10.

²⁶⁸ DEL. CODE tit. 11, § 1334 (no operations over events with more than 1,500 people, over incidents with first responders, or over critical infrastructures); FLA. STAT. ANN. § 330.41 (no operations over critical infrastructures); LA. STAT. ANN. § 14:337 (no operations over certain facilities, including schools); LA. STAT. ANN. § 14:63 (defining criminal trespass to include operating a UAS over property of another); LA. STAT. ANN. § 14:108 (no operations over a police cordon); NEV. REV. STAT. § 493.103 (no operations under 250 feet over property when owner notifies UAS operator); NEV. REV. STAT. § 493.109 (no operations over new critical facilities); OKLA. STAT. tit. 3, § 322 (no operations over critical infrastructure facilities); OR. REV. STAT. § 837.380 (restrictions over property when owner notifies UAS operator); S.D. CODIFIED LAWS § 50-15-3 (no operations over prisons or military facilities); TENN. CODE ANN. § 39-14-405 (criminal trespass via UAS over private property in nonnavigable airspace); TEX. GOV'T CODE ANN. §§ 411.062, 411.065 (restrictions over state Capitol Complex); TEX. GOV'T CODE ANN. § 423.0046 (restrictions over sports venues); WIS. STAT. § 114.045 (no operations over a correctional institution).

²⁶⁹ See *supra* note 267 and accompanying text.

²⁷⁰ TENN. CODE ANN. § 39-14-405.

tion.²⁷¹ States and localities are worried about protecting vital utilities like water, power, and gas. Some also worry about interference with firefighting and police activities. And still more worry about intrusions of privacy, surveillance, voyeurism, and invasions of reasonable expectations of privacy.

Ten states specifically include a right to privacy in their constitutions,²⁷² and protecting citizens from hovering UASs that record them from outside their windows are likely the kinds of protections that fall within this right to privacy.²⁷³ State legislatures are in the unique position of being able to pass laws related to privacy. In contrast, the FAA has explicitly said “that its mission is to provide the safest, most efficient aerospace system in the world, and does not include regulating privacy.”²⁷⁴

Moreover, as a practical matter, regardless of what rights states have over their low-lying airspace, their zoning power already provides a functional, albeit inelegant and hard-to-enforce alternative to effectuate restrictions on where UASs can operate. Combined with the general federal requirement to keep UASs within an operator’s range of sight, states or municipalities can simply prohibit the takeoff or landing of UASs within large areas.²⁷⁵ Rather than use this hodgepodge of a workaround, it seems more beneficial to allow states to have more plenary control of low-lying airspace. That way states can be more targeted and responsive to safety and security issues, while still balancing privacy concerns and promoting businesses. Overall, for an in-

²⁷¹ State courts had long ago recognized the need for states to control immediate reaches of airspace. *E.g.*, *Erickson v. King*, 15 N.W.2d 201, 204 (Minn. 1944) (“It is the proper function of the legislative department of government in the exercise of the police power to consider the problems and risks that arise from the use of new inventions and endeavor to adjust private rights and harmonize conflicting interests by comprehensive statutes for the public welfare.” (quoting *Smith v. New England Aircraft Co. Inc.*, 170 N.E. 385, 389, 390 (Mass. 1930))).

²⁷² ALASKA CONST. art. I, § 22; ARIZ. CONST. art. II, § 8; CAL. CONST. art. I, § 1; FLA. CONST. art. I, § 23; HAW. CONST. art. I, §§ 6, 7; ILL. CONST. art. I, § 6; LA. CONST. art. I, § 5; MONT. CONST. art. II, § 10; S.C. CONST. art. I, § 10; WASH. CONST. art. I, § 7.

²⁷³ See also William L. Prosser, *Privacy*, 48 CALIF. L. REV. 383, 389 (1960) (presenting four forms of the invasion of privacy tort: (1) intrusion upon seclusion; (2) public disclosure of embarrassing facts; (3) publicity in a false light; and (4) appropriation of one’s name or likeness).

²⁷⁴ Operation and Certification of Small Unmanned Aircraft Systems, 81 Fed. Reg. 42,063, 42,190 (June 28, 2016).

²⁷⁵ See, *e.g.*, *Gustafson v. City of Lake Angelus*, 76 F.3d 778, 790 (6th Cir. 1996); *Condor Corp. v. City of St. Paul*, 912 F.2d 215, 219 (8th Cir. 1990); *Casciani v. Nesbitt*, 659 F. Supp. 2d 427, 439 (W.D.N.Y. 2009), *aff’d*, 392 F. App’x 887 (2d Cir. 2010).

dustry aimed at recreational use or providing short-range delivery alternatives, it would appear wiser to regulate ubiquitous drones closer to the way we do cars than to expensive and complex aircraft.

C. CASE LAW

Germane to the right of states to enact laws about their non-navigable airspace is how courts have historically evaluated these rights. A brief high-level survey begins next.

1. *The Supreme Court and Airspace*

Any recap of case law involving airspace properly starts at the guidestar case of *United States v. Causby*.²⁷⁶ There, a couple outside of Greensboro, North Carolina, owned a large farm, including several structures used to raise chickens. Their farm was less than 2,500 feet from a nearby airport, and the glide path of landing planes, including government-owned military aircraft, passed directly over their property at 83 feet.²⁷⁷ Reasoning that “the fact that the planes never touched the surface” was “irrelevant,” the Court concluded that there was a government easement in the air and thus a taking of property rights.²⁷⁸

Causby is often cited as ending the purported ancient doctrine of property law, that one who owned land owned all that was above and below it, “*Cujus est solum ejus est usque ad coelom.*” The court held that “it has no place in the modern world,” partly because of the general principle that “the air is a public highway, as Congress has declared.”²⁷⁹ But what is often overlooked is that the Court only ended that maxim in the navigable airspace; the court affirmatively retained it in the non-navigable airspace,²⁸⁰ just as the *Johnson v. Curtiss Northwest Airplane Company* case had done more than two decades earlier.²⁸¹

²⁷⁶ 328 U.S. 256, 258 (1946).

²⁷⁷ *Id.*

²⁷⁸ *Id.* at 262, 268.

²⁷⁹ *Id.* at 260–61.

²⁸⁰ *Id.* at 264 (“Hence, the flights in question were not within the navigable airspace which Congress placed within the public domain.”); *id.* at 265 (“The superadjacent airspace at this low altitude is so close to the land that continuous invasions of it affect the use of the surface of the land itself. We think that the landowner, as an incident to his ownership, has a claim to it and that invasions of it are in the same category as invasions of the surface.”); *see also id.* 265 n.11; *accord, e.g.,* Dinu, *supra* note 93, at 43, 51.

²⁸¹ *Johnson v. Curtiss Northwest Airplane Company*, 1928 U.S. Av. Rep. 218 (Ramsey County, Minn. 1923); *see also supra* text accompanying notes 161–67.

Throughout the opinion, the Court relied on the distinction between navigable and non-navigable airspace. Despite regulations for minimum safe altitudes of flight regulations that included take-off and landing,²⁸² the Court went back to Congress's definition: "The Civil Aeronautics Authority has, of course, the power to prescribe air traffic rules. But Congress has defined navigable airspace only in terms of one of them—the minimum safe altitudes of flight."²⁸³ The Court even suggested that regulations allowing too low of a minimum safe altitude would have presented them with a "question of the validity of the regulation."²⁸⁴ One other point made by the Court warrants highlighting: the Court acknowledged, quoted, and relied upon North Carolina's statutory assertion of their own state sovereignty over airspace to support their holding for the landowners in "immediate reaches of the superadjacent airspace."²⁸⁵

The lesson from *Causby* is then that reliance on the statutory definition of navigable airspace is paramount. There is a level of superadjacent or non-navigable airspace where, "if the landowner is to have full enjoyment of the land, he must have exclusive control of the immediate reaches of the enveloping atmosphere."²⁸⁶ State statutes asserting those rights for the states and for landowners were also endorsed and harmonized with the federal laws.²⁸⁷ Thus, the end of the *ad coelum* doctrine only applied to the upper navigable airspace and not to the non-navigable airspace.²⁸⁸

²⁸² 14 C.F.R. § 60.350 (Supp. 1941).

²⁸³ *Causby*, 328 U.S. at 264.

²⁸⁴ *Id.* at 263.

²⁸⁵ *Id.* at 266 (also quoting with approval the North Carolina law, derived from the Uniform State Law for Aeronautics, that asserted state sovereignty). For a discussion of that state Uniform Code, see *supra* text accompanying notes 250–56.

²⁸⁶ *Causby*, 328 U.S. at 264, 265 ("While the owner does not in any physical manner occupy that stratum of airspace or make use of it in the conventional sense, he does use it in somewhat the same sense that space left between buildings for the purpose of light and air is used.")

²⁸⁷ *Id.* at 266.

²⁸⁸ Many contemporary commentators and courts caught this vital distinction. *E.g.*, John C. Cooper, *State Sovereignty vs. Federal Sovereignty of Navigable Airspace*, 15 J. AIR L. & COM. 27 (1948) ("[The Supreme] Court has divided the airspace over the United States into two zones. In the lower zone next to the earth's surface, private property in the airspace is permitted and we must assume that in that zone normal relationships exist between State and Federal sovereignty as elsewhere in State territory. But in the upper zone (the navigable airspace) the rights of the Federal Government seem to have been considered so paramount that Congress was able to place the navigable airspace, as stated in the Court's opin-

2. *Other Takings Cases*

Many cases have held that when the government, even with helicopters, flies below 500 feet, such flights are compensable takings, even if they are only transitory. Such cases are presented here, *en masse*, to briefly demonstrate that many courts do not believe that the government has a right to be in what turns out to be non-navigable airspace.²⁸⁹ The natural corollary to these decisions is that if the government has created a compensable easement in non-navigable airspace, where it does not have the statutory easement of the public right of transit, then any private person flying or operating in the same airspace would commit a trespass.

3. *Privacy and Airspace*

The issue of navigable and nonnavigable airspace has serious ramifications not only concerning states' rights and federalism, but also for privacy and government surveillance as well. Several cases have established that so long as police surveillance is made from "a public vantage point where [anyone has] the right to be,"²⁹⁰ then police do not need a warrant—even if surveilling from an aircraft. In *California v. Ciraolo*, the Supreme Court relied on the fact that police observations from a private airplane "took place within public navigable airspace," to conclude the target had no reasonable expectation of privacy.²⁹¹ Later, in *Dow*

ion, 'within the public domain.');" Dinu, *supra* note 93, at 43, 51 ("So far as the private property owner is concerned, the superadjacent *non*-navigable airspace below safe altitudes of flight . . . has the quality of *property*, and as an incident to his ownership of the land, the landowner has a claim to such non-navigable airspace. Invasions of it are like trespass on the surface, and the rights of the private property-owner are paramount in such non-navigable airspace."); *Andrews v. United States*, 108 Fed. Cl. 150, 155–56 n.4 (2012). *Air Pegasus of D.C., Inc. v. United States*, 424 F.3d 1206, 1219 (Fed. Cir. 2005); *United States v. Praylou*, 208 F.2d 291, 294 (4th Cir. 1953).

²⁸⁹ See, e.g., *Griggs v. Allegheny Cty., Pa.*, 369 U.S. 84, 90 (1962); *Palisades Citizens Ass'n v. C. A. B.*, 420 F.2d 188, 392 (D.C. Cir. 1969); *United States v. 15,909 Acres*, 176 F. Supp. 447, 448 (S.D. Cal. 1958); *Speir v. United States*, 485 F.2d 643, 646–47 (Ct. Cl. 1973); *Aaron v. United States*, 311 F.2d 798, 801 (Ct. Cl. 1963); *A. J. Hodges Indus., Inc. v. United States*, 355 F.2d 592, 597 (Ct. Cl. 1966); *Jensen v. United States*, 305 F.2d 444, 446 (Ct. Cl. 1962); *Dick v. United States*, 169 F. Supp. 491, 494 (Ct. Cl. 1959); *Highland Park, Inc. v. United States*, 161 F. Supp. 597, 598 (Ct. Cl. 1958); *Persyn v. United States*, 34 Fed. Cl. 187, 195–96 (1995), *aff'd*, 106 F.3d 424 (Fed. Cir. 1996); *Hsu v. County of Clark*, 173 P.3d 724, 731–32 (Nev. 2007).

²⁹⁰ *California v. Ciraolo*, 476 U.S. 207, 213 (1986).

²⁹¹ *Id.* at 213–14.

Chemical Co. v. United States,²⁹² the Court again held that taking aerial photographs from navigable airspace was not a prohibited search under the Fourth Amendment.²⁹³

With *Ciraolo* and *Dow Chemical*, the definition of “navigable airspace” started to become expressly entangled with Fourth Amendment considerations of reasonable expectations of privacy and government surveillance. Under this line of jurisprudence, if a drone has a legal right to hover outside of your window, just feet above your property—as the FAA part 107 regulations allow—then not only can strangers peer into your home, but the police can too, even without a warrant.²⁹⁴

Three years after *Ciraolo*, those same maxims were again tested, this time against modern aviation advancements in the form of helicopters. In *Florida v. Riley*,²⁹⁵ the government arrested a defendant based on an aerial observation of drugs from a helicopter hovering at 400 feet.²⁹⁶ The Supreme Court noted that because “helicopters are not bound by the lower limits of the navigable airspace,” the flight was not “contrary to law or regulation,” so the Court allowed the warrantless observation.²⁹⁷ Justice Brennan, dissenting, found it curious that “the reach of the Fourth Amendment can be so largely defined by administrative regulations issued for purposes of flight safety.”²⁹⁸

Applying *Riley* confirms that if states are not allowed to step in to prevent drones from operating at low altitudes, then those operations would be legal under FAA rules and erase any reasonable expectation of privacy. That would, in turn, allow the police to operate a drone outside your window, just the same as anyone else.

²⁹² 476 U.S. 227 (1986).

²⁹³ *Id.* at 239.

²⁹⁴ *E.g.*, *United States v. Warford*, 439 F.3d 836, 843–44 (8th Cir. 2006) (upholding a warrantless evidence obtained by helicopter 200–300 feet above ground).

²⁹⁵ 488 U.S. 445 (1989).

²⁹⁶ *Id.* at 448–49.

²⁹⁷ *Id.* at 451; *see, e.g.*, *United States v. Ramo*, 961 F.2d 217 (9th Cir. 1992); *State v. Rodal*, 985 P.2d 863, 867 (Or. Ct. App. 1999) (upholding helicopter surveillance when it was operated lawfully and unintrusively); *Henderson v. People*, 879 P.2d 383, 389–90 (Colo. 1994) (en banc) (upholding helicopter surveillance where there was no substantiation of significant wind, dust, threat of injury, or nuisance); *State v. Davis*, 360 P.3d 1161 (N.M. 2015) (helicopter at a disputed altitude, but so low as to cause physical damage from downwash and excessive noise and debris made the search unreasonable).

²⁹⁸ *Riley*, 488 U.S. at 458 (Brennan, J., dissenting).

Through such decisions, the FAA has been made the *de facto* arbiter of reasonable expectations of privacy, despite recognition by the FAA itself that: “its mission is to provide the safest, most efficient aerospace system in the world, and does not include regulating privacy.”²⁹⁹ But the problem is that if the FAA does not factor privacy considerations into their rules, then there is no other federal entity that can or will.³⁰⁰

States should therefore be allowed to pass drone laws for the additional reason that they have a traditional responsibility to protect the privacy of their residents. Regulating *how* drones are used is one way to achieve this, but for true protection from personal intrusions, states must also be able to regulate *where* drones cannot be used.

Ultimately, despite spending significant time framing statutory context, historical originals, miscodifications, specific congressional grants of authority, states’ views, and case law on airspace and takings—and how that all affects privacy—this article’s argument hinges on one key question: Are state laws regarding UASs preempted by federal law or federal regulations?

IV. PREEMPTION ANALYSES OF FEDERAL AVIATION LAWS

The Supremacy Clause in Article VI, Clause 2 of the U.S. Constitution allows Congress to “preempt” or invalidate a state law through a federal statute.³⁰¹ The congressional invalidation can be found expressly in a statute, or if there is no express preemption language in a statute, then it can be found to have implicitly preempted a state law or rule.³⁰² Implicit preemption can be found either through “conflict” preemption or “field” preemption.³⁰³ Whenever any type of preemption is found, the state law is held to be without effect. Despite this strong power, there is a hesitancy by courts to use it: “In all pre[]emption cases, . . . we

²⁹⁹ Operation and Certification of Small Unmanned Aircraft Systems, *supra* note 274.

³⁰⁰ It should be noted that an agency within the Department of Commerce has released voluntary UAS privacy principles, but they have no legal force or enforcement mechanisms. *Multistakeholder Process: Unmanned Aircraft Systems*, NAT’L TELECOMMUNICATIONS & INFO. ADMIN. (June 21, 2016), <https://www.ntia.doc.gov/other-publication/2016/multistakeholder-process-unmanned-aircraft-systems> [<https://perma.cc/7788-VZ4H>].

³⁰¹ *E.g.*, *Oneok, Inc. v. Learjet, Inc.*, 135 S. Ct. 1591, 1595 (2015).

³⁰² *Id.*

³⁰³ *Id.*

start with the assumption that the historic police powers of the States were not to be superseded by the Federal Act unless that was the clear and manifest purpose of Congress.”³⁰⁴

A. EXPRESS PREEMPTION

The Federal Aviation Act of 1958 contained no mention of preemption. Neither did the 1926 and 1938 Acts on which it was based.³⁰⁵ Quite the opposite. Until 1958, the governing laws expressly allowed for state airspace regulation.³⁰⁶ When the 1958 Act later omitted that section, there was no indication that this right was intended to be curtailed.³⁰⁷ Even the FAA Modernization and Reform Act of 2012, which dealt with UASs, did not contain any indicia of preemption.³⁰⁸ And in the most recent 2016 federal act on aviation,³⁰⁹ despite other versions of the bill having a section that included a statement expressly preempting state and local laws, Congress ultimately chose not to discuss preemption.³¹⁰

Only in one place for matters of aviation has Congress ever written an express preemption. In the Airline Deregulation Act of 1978, Congress preempted state and local laws “relating to a price, route, or service of an air carrier.”³¹¹ However, that was in a provision that required a complex government certification of

³⁰⁴ *Medtronic, Inc. v. Lohr*, 518 U.S. 470, 485 (1996).

³⁰⁵ According to the 1958 Act’s principal author Senator Monroney. 85 CONG. REC. 13,649 (July 14, 1958); *see also* 85 CONG. REC. 13,649 (July 14, 1958); *see* 85 CONG. REC. 16,887 (Aug. 11, 1958) (statement by Sen. Payne: “The original plan had been to amend the whole Civil Aeronautics Act, section by section, but it soon became apparent that this would be a very detailed and difficult process with much risk of error through overlooking minute but important words and phrases. The Congress therefore decided to approach the problem of creating a Federal Aviation Agency by reenacting the entire statute and adding or changing practically nothing except as necessary to create the agency and give it powers to deal with air safety.”); *see also* C.P. Trussell, *New Air Agency Voted by Senate*, N.Y. TIMES, July 15, 1958, at 53 (“Much of the bill calls for the re-enactment of an aviation law that began in 1926, only bringing it up to date in language to apply more closely to the jet-age crowding of the skies.”).

³⁰⁶ *See supra* text accompanying notes 223–27.

³⁰⁷ *See supra* text accompanying notes 230–45.

³⁰⁸ FAA Modernization and Reform Act of 2012, Pub. L. No. 112-95, 126 Stat. 11.

³⁰⁹ FAA Extension, Safety, and Security Act of 2016, Pub. L. No. 114-190, 130 Stat. 615.

³¹⁰ S. 2658, 114th Cong. § 2142 (2016), <https://www.congress.gov/bill/114th-congress/senate-bill/2658/text> [<https://perma.cc/WA5U-WGDB>].

³¹¹ Airline Deregulation Act of 1978, Pub. L. No. 95-504, § 4, 92 Stat. 1705, 1708 (codified at 49 U.S.C. § 41713 (2012)).

an air carrier and has no applicability to UASs. History clearly shows that Congress knew how to indicate express preemption generally for matters of aviation and particularly for UASs.³¹² But other than the inapplicable instance of the Airline Deregulation Act,³¹³ Congress has purposefully chosen not preempt state laws regarding drones or airspace.

B. IMPLICIT PREEMPTION

1. *Conflict Preemption*

Conflict preemption is found when “it is impossible for a private party to comply with both state and federal requirements, or where state law stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.”³¹⁴

We have already seen that the purpose of the 1958 Act was to promote safety and integration of civil and military aircraft and airspace. And we already know that the 1958 Act used many provisions from its preceding scheme of laws, which expressly allowed states to regulate airspace.³¹⁵ Having found no purpose or objective that belies states’ rights to regulate non-navigable airspace, we turn to whether it would be possible to comply with both state regulation of non-navigable airspace and federal regulation of all aircraft and navigable airspace. By virtue of already-enacted state laws, it is clear that it is possible to so comply; indeed, this is already occurring.³¹⁶

In addition to not making a rule regarding preemption, the FAA has abdicated restricting *how* a UAS is used, stating such laws are up to states.³¹⁷ And none of the at least nine states that have laws restricting *where* an sUAS can operate conflict with

³¹² Cf. *Wyeth v. Levine*, 555 U.S. 555, 574 (2009) (“Congress could have applied the pre-emption clause to the entire FDCA. It did not do so, but instead wrote a pre[]emption clause that applies only to medical devices.” (quoting *Riegel v. Medtronic, Inc.*, 552 U.S. 312, 327 (2008))).

³¹³ There are other inapplicable preemption provisions in Title 49, including 49 U.S.C. § 44921 (federal flight deck officer firearm program), and 49 U.S.C. § 44703(j)(2) (regarding records). But those provisions do not affect aircraft or airspace and are thus irrelevant to this discussion.

³¹⁴ *English v. Gen. Elec. Co.*, 496 U.S. 72, 79 (1990); *Arizona v. United States*, 132 S. Ct. 2492, 2501 (2012).

³¹⁵ See *supra* Part III.B.

³¹⁶ See *supra* text accompanying notes 259–70.

³¹⁷ Operation and Certification of Small Unmanned Aircraft Systems, 81 Fed. Reg. 42,063, 42,194 (June 28, 2016).

part 107 or other federal regulations.³¹⁸ The most apt analogy to describe why state laws do not conflict with sUAS regulations comes from an equivalent type of federal restriction: temporary flight restrictions (TFRs). This designated area of airspace temporarily restricts “certain aircraft from operating within a defined area in order to protect persons or property in the air or on the ground.”³¹⁹ The FAA issues TFRs on a near-daily basis and all pilots are required to check notices to airmen (NOTAMs) before they fly. State laws ought to be viewed similarly, simply as restrictions on where UASs can operate. Practically speaking, the state aviation agencies can simply transmit this data to the FAA or to commercial drone vendors, and the data can be centralized alongside other areas that are already prohibited to all aircraft by federal laws. State UAS laws do not permit anything that the FAA does not, and as they are more restrictive laws—simply restricting operations in more areas—they would only complement federal regulations, not conflict.

Congress has also realized that local restrictions on where UASs can fly would not conflict with federal regulations. In a recent statute, passed in July 2016, Congress directed the FAA to establish a process where it could be petitioned to prohibit or restrict UAS operation around critical infrastructure facilities, amusement parks, or other warranted locations.³²⁰

2. Field Preemption

One of the leading cases on field preemption in aviation was *City of Burbank v. Lockheed Air Terminal Inc.*³²¹ There, the Supreme Court determined that the “pervasive nature of the scheme of federal regulation of aircraft noise” meant that local laws restricting noise and take-offs at certain times of day were preempted.³²² The Court was worried that if municipalities were free to enact these laws, then “fractionalized control of the tim-

³¹⁸ See *supra* text accompanying notes 259–70.

³¹⁹ See *Temporary Flight Restrictions*, FED. AVIATION ADMIN., https://www.faasafety.gov/gslac/ALC/course_content.aspx?cID=42&sID=239&preview=true [<https://perma.cc/K45Y-D3F5>]; see also 14 C.F.R. § 91.139 (2016).

³²⁰ FAA Extension, Safety, and Security Act of 2016, Pub. L. No. 114-190, § 2209, 120 Stat. 615.

³²¹ 411 U.S. 624 (1973).

³²² *Id.* at 633. Note also that the Court relied on the erroneous versions of the laws on external sovereignty and the administrator’s authority. Compare *id.* at 626–27 (citing the provision on sovereignty and the FAA administrator’s authority), with *supra* text accompanying notes 205–19 (explaining how the provisions referenced are not the law).

ing of take[-]offs and landings would severely limit the flexibility of FAA in controlling air traffic flow” (among commercial airlines in the navigable airspace).³²³ The Court even imported a famous line by Justice Jackson in a 1948 concurring opinion, stating: “Federal control is intensive and exclusive. Planes do not wander about in the sky like vagrant clouds. They move only by federal permission . . . and under an intricate system of federal commands.”³²⁴ But both Justice Jackson and the majority in *City of Burbank* were referring to a scheme of commercial aircraft and airports all exclusively within the navigable airspace.³²⁵ Neither opinion considered preemption for non-commercial traffic or non-navigable airspace. However, the case is still useful as a roadmap to analyzing field preemption generally.

Congress legislated here in a field which the States have traditionally occupied. . . . So we start with the assumption that the historic police powers of the States were not to be superseded by the Federal Act unless that was the clear and manifest purpose of Congress. . . . Such a purpose may be evidenced in several ways. . . . Or the Act of Congress may touch a field in which the federal interest is so dominant that the federal system will be assumed to preclude enforcement of state laws on the same subject. . . . Likewise, the object sought to be obtained by the federal law and the character of obligations imposed by it may reveal the same purpose.³²⁶

Taking *City of Burbank*'s condensed template, we may apply the information learned in earlier parts of this article: that no federal declaration of exclusive sovereignty against states exists; that Congress's easement and grant of authority to the FAA was only to navigable airspace; that Congress purposefully legislated airspace in a way that would avoid states' rights implications; that traditionally, most states asserted sovereignty and laws over their own low-lying airspace; that states had rights to restrict airspace, as recognized by federal law; and that courts have recognized federal takings in non-navigable airspace. It can then only

³²³ *City of Burbank*, 411 U.S. at 639.

³²⁴ *Id.* at 633–34 (quoting *Nw. Airlines v. State of Minnesota*, 322 U.S. 292, 303 (1944) (Jackson, J., concurring)).

³²⁵ The next part of that same line reveals as much, as does the temporal context and the entirety of his opinion, “[A plane] takes off only by instruction from the control tower, it travels on prescribed beams, it may be diverted from its intended landing, and it obeys signals and orders.” *Nw. Airlines v. State of Minnesota*, 322 U.S. 292, 303 (1944) (Jackson, J., concurring).

³²⁶ *City of Burbank*, 411 U.S. at 633 (quoting *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 (1947)).

be concluded that, at least for the non-navigable airspace, Congress never intended to foreclose any state regulation in the area. Indeed, until the FAA's sUAS regulations, the federal government had *never* regulated exclusively in the non-navigable airspace. Recall that Congress's instruction to the FAA was to integrate UASs in the national airspace system, not in newly authorized airspace.³²⁷ Congress knew how to expressly grant preemption, and considered doing so for sUASs, but ultimately decided not to.³²⁸ Moreover, Congress is presumed to be aware of the nineteen states that retained laws on aeronautics from the Uniform Law of the early 20th century.³²⁹ And it is also presumed to know of the current state laws on drones specifically.³³⁰ Yet Congress has never expanded its grant of authority to the FAA outside of navigable airspace, and it has never expressed a dominant interest in or purpose for a federal system solely within the nonnavigable airspace. Even the FAA, in its rulemaking, did not advocate a preemption clause.³³¹ Simply put, the federal interest in, and object sought in, an area never before legislated upon, or regulated—and for the most part avoided to forestall such a debate about states' rights—is nearly null. And it falls well short of upsetting and overruling the delicate federal–state system of laws, especially in areas that have historically been reserved to the states.

Other cases that have found field preemption would not contradict this article's analysis and conclusion because they all assessed navigable airspace.³³² For instance, in *Abdullah v. American*

³²⁷ See *supra* text accompanying notes 187–93, explaining how “national airspace system” likely means “navigable airspace.”

³²⁸ See *Wyeth v. Levine*, 555 U.S. 555, 575 (2009) (“As Justice O’Connor explained in her opinion for a unanimous Court: ‘The case for federal pre-emption is particularly weak where Congress has indicated its awareness of the operation of state law in a field of federal interest, and has nonetheless decided to stand by both concepts and to tolerate whatever tension there [is] between them.’” (quoting *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 166–167 (1989))).

³²⁹ See *supra* notes 255–56.

³³⁰ See *supra* notes 259–70 and accompanying text.

³³¹ 81 Fed. Reg. 42,063, 42,194 (June 28, 2016) (“The FAA is not persuaded that including a preemption provision in the final rule is warranted at this time. Preemption issues involving small UAS necessitate a case specific analysis that is not appropriate in a rule of general applicability. Additionally, certain legal aspects concerning small UAS use may be best addressed at the State or local level.”).

³³² *E.g.*, *Gustafson v. City of Lake Angelus*, 76 F.3d 778, 786 (6th Cir.1996) (stating “[federal] regulations preempt local law in regard to aircraft safety, the navigable airspace, and noise control”); *British Airways Bd. v. Port Auth. of N.Y.*,

Airlines, the Third Circuit held that federal law thoroughly occupied the “legislative field” of aviation safety so as to preempt similar state and territorial standards.³³³ But the issue that the *Abdullah* court faced concerned a commercial airliner and preemption of air safety within the “navigable airspace.”³³⁴ And, just as this article has done, to find support for its conclusion, the court looked at the purpose of the act, and also quoted legislative history as evidence of statutory intent.³³⁵ Moreover, many cases that the *Abdullah* court cited relied on terms like “the nation’s airways” and “navigable airspace.”³³⁶ In contrast, as has been exhaustively stated already, this article avers states’ rights to regulate non-navigable airspace.

C. PREEMPTION BY REGULATION

What has just been described was analysis of whether a federal *statute* preempts state law. Similarly, when analyzing federal *regulations* and whether they preempt state law, the inquiry is focused on the intent of the agency and whether it “prescribed the regulations meant to pre[]empt [state] law . . . and, if so, whether that action is within the scope of the [agency’s] delegated authority.”³³⁷ However, in the case of the sUAS regulations, the agency considered the issue but ultimately chose not to assert regulations that would preempt state law.³³⁸ Case law

558 F.2d 75, 84 (2d Cir. 1977) (“[T]he legislative history [of a 1968 act which amended the 1958 Act] clearly states that the statute was merely intended to strengthen the FAA’s regulatory role within the area already totally preempted control of flights through navigable airspace.”). Similarly, in *Skysign International v. City & County of Honolulu*, the Ninth Circuit—which, incidentally, also recognized that § 40103 did not explicitly “exclude the sovereign powers of the states”—went further to say that the “mere volume and complexity; of the FAA’s regulatory scheme do not, without some affirmative accompanying indication, compel a conclusion that the agency has sought to occupy the field to the full.” *Skysign Int’l, Inc. v. City & Cty. of Honolulu*, 276 F.3d 1109, 1116 (9th Cir. 2002).

³³³ *Abdullah v. Am. Airlines, Inc.*, 181 F.3d 363, 364–67, 376 (3d Cir. 1999).

³³⁴ *Id.* at 364.

³³⁵ *Id.* at 368 (quoting S. REP. NO. 85-1811, at 5 (1958)).

³³⁶ *Id.* at 370–71.

³³⁷ *Fid. Fed. Sav. & Loan Ass’n v. de la Cuesta*, 458 U.S. 141, 153–54 (1982); *Drake v. Lab. Corp. of Am. Holdings*, 458 F.3d 48, 56 (2d Cir. 2006).

³³⁸ 81 Fed. Reg. 42,063, 42,194 (June 28, 2016) (“The FAA is not persuaded that including a preemption provision in the final rule is warranted at this time. Preemption issues involving small UAS necessitate a case-specific analysis that is not appropriate in a rule of general applicability. Additionally, certain legal aspects concerning small UAS use may be best addressed at the State or local level.”); *id.* at 42,189 (“[T]his rule does not address preemption issues because those issues necessitate a case-specific analysis that is not appropriate in a rule of

teaches that in such a case, the “‘mere volume and complexity’ of the FAA’s regulatory scheme do not, without some affirmative accompanying indication, compel a conclusion that the agency has sought to occupy the field to the full.”³³⁹ In fact, for regulatory field preemption, the Supreme Court has stated:

We are even more reluctant to infer pre[]emption from the comprehensiveness of regulations than from the comprehensiveness of statutes. As a result of their specialized functions, agencies normally deal with problems in far more detail than does Congress. To infer pre[]emption whenever an agency deals with a problem comprehensively is virtually tantamount to saying that whenever a federal agency decides to step into a field, its regulations will be exclusive. Such a rule, of course, would be inconsistent with the federal-state balance embodied in our Supremacy Clause jurisprudence. Moreover, because agencies normally address problems in a detailed manner and can speak through a variety of means, including regulations, preambles, interpretive statements, and responses to comments, we can expect that they will make their intentions clear if they intend for their regulations to be exclusive. Thus, if an agency does not speak to the question of pre[]emption, we will pause before saying that the mere volume and complexity of its regulations indicate that the agency did in fact intend to pre[]empt.³⁴⁰

In some cases, agencies have spoken later to assert regulatory preemption. But should the FAA so assert in the future, it would not be determinative either. Although federal agencies receive deference in other types of analyses, courts do not defer “to an agency’s *conclusion* that state law is pre[]empted. Rather [courts attend] to an agency’s explanation of how state law affects the regulatory scheme.”³⁴¹ “The weight we accord the agency’s ex-

general applicability. The FAA notes, however, that state governments have historically been able to regulate the takeoffs and landings of aircraft within their state boundaries. The FAA anticipates that the Tribes would be able to exercise similar internal sovereignty with regard to the takeoffs and landings of small UAS within their territories.”).

³³⁹ *Skysign Int’l, Inc. v. City & Cty. of Honolulu*, 276 F.3d 1109, 1116–17 (9th Cir. 2002) (quoting *Hillsborough County v. Automated Med. Labs.*, 471 U.S. 707, 717, 718 (1985); *see also Geier v. Am. Honda Motor Co.*, 529 U.S. 861, 884 (2000) (stating that the “[Supreme] Court has looked for a specific statement of pre-emptive intent” by the agency when looking at regulatory field preemption); *see also California Coastal Comm’n v. Granite Rock Co.*, 480 U.S. 572, 583 (1987) (“[I]t is appropriate to expect an administrative regulation to declare any intention to pre-empt state law with some specificity.”).

³⁴⁰ *Hillsborough Cty., Fla. v. Automated Med. Labs., Inc.*, 471 U.S. 707, 717–18 (1985) (internal citations omitted).

³⁴¹ *Wyeth v. Levine*, 555 U.S. 555, 576–77 (2009).

planation of state law's impact on the federal scheme depends on its thoroughness, consistency, and persuasiveness."³⁴²

Regardless of an agency's assertion and explanation, courts would also be required to look at whether the agency had delegated authority to make such preemptive regulations.³⁴³ Taking into account the history, context, and intent explored in the parts above, courts would also look to see whether the FAA's sUAS regulations are within the scope of the agency's delegated authority. In the FAA's notice of proposed rulemaking (NPRM) for sUASs, and in its final rule on sUASs, the agency listed § 333 of the FAA Modernization and Reform Act of 2012 as its authority for rulemaking.³⁴⁴ In § 333, and § 332, to which it refers, Congress's direction was clear, each time limiting FAA's rulemaking to the "national airspace system."³⁴⁵ Given the understanding of the term "national airspace system" as only applying to the navigable airspace,³⁴⁶ and given that for ninety years Congress has never explicitly authorized federal agencies to issue regulations outside of the navigable airspace,³⁴⁷ no specific delegated authority was found for the FAA to issue rules outside of that traditional and limited authority. The other authorities that FAA lists were similarly limited to regulating the navigable airspace or activities that could affect the navigable airspace.³⁴⁸

And finally, there is simply a fundamental concern over the FAA regulating an area that implicates property, privacy, trespass, nuisance, zoning and air rights, and other traditionally

³⁴² *Id.* at 577.

³⁴³ *See* *Fid. Fed. Sav. & Loan Ass'n v. de la Cuesta*, 458 U.S. 141, 153–54 (1982); *Drake v. Lab. Corp. of Am. Holdings*, 458 F.3d 48, 56 (2d Cir. 2006).

³⁴⁴ Operation and Certification of Small Unmanned Aircraft Systems, 80 Fed. Reg. 9543, 9544 (Feb. 23, 2015); Operation and Certification of Small Unmanned Aircraft Systems, 81 Fed. Reg. 42,063, 42,067 (June 28, 2016).

³⁴⁵ FAA Modernization and Reform Act of 2012, Pub. L. No. 112-95, § 332(a), 126 Stat. 11, 73 ("the Secretary of Transportation, . . . shall develop a comprehensive plan to safely accelerate the integration of civil unmanned aircraft systems into the national airspace system."); *id.* § 332(b), 126 Stat. 11, 74 ("[T]he Secretary shall publish in the Federal Register—(1) a final rule on small unmanned aircraft systems that will allow for civil operation of such systems in the national airspace system. . . ."); *id.* § 333(a), 126 Stat. 11, 75 ("[T]he Secretary of Transportation shall determine if certain unmanned aircraft systems may operate safely in the national airspace system before completion of the plan and rulemaking required by section 332 of this Act . . .").

³⁴⁶ *See supra* text accompanying notes 187–93.

³⁴⁷ *See supra* text accompanying notes 203–19.

³⁴⁸ *See supra* text accompanying notes 203–19.

state reserved powers.³⁴⁹ Even if the FAA were to be granted authority to regulate low-lying airspace, there would lie a serious question of the constitutional validity of such delegated authority. As the Supreme Court warned in *Causby*, it might eventually be called upon to answer a “question of the validity of the regulation.”³⁵⁰ And recent history shows that the Supreme Court has not hesitated to put limits on the expansive reaches of the Commerce Clause.³⁵¹ At bottom, it seems that if Congress would step in to give the FAA authority to regulate the airspace just outside our bedroom windows, to the exclusion of the states, not only would it present a challenge under the Commerce Clause, it would highlight an ignominious imbalance in our federal–state system.

V. CONCLUSION: THE FAA HAS SOME LIMITED POWER TO REGULATE IN NON-NAVIGABLE AIRSPACE

After detailed analyses, this article concludes that states have the right to regulate their own low-lying, non-navigable airspace. At the same time, it must be noted that the FAA also has some limited authority to regulate in that same space, but those powers are mostly limited to when activities or aircraft in non-navigable airspace have the potential to interfere with those in navigable airspace.³⁵²

The Commerce Clause allows Congress to regulate, among other things, “those activities that substantially affect interstate commerce.”³⁵³ Indeed, a similar rationale was presented by the 1926 Congress and made the first ACRs applicable to all aircraft, regardless of whether they were flying interstate or intrastate

³⁴⁹ *E.g.*, Operation and Certification of Small Unmanned Aircraft Systems, 81 Fed. Reg. 42,063, 42,194 (“The [FAA’s] Fact Sheet also notes that laws traditionally related to State and local police power—including land use, zoning, privacy, trespass, and law enforcement operations—generally are not subject to Federal regulation.”).

³⁵⁰ *United States v. Causby*, 328 U.S. 256, 263 (1946).

³⁵¹ *See, e.g.*, *Nat’l Fed’n of Indep. Bus. v. Sebelius*, 132 S. Ct. 2566 (2012); *United States v. Lopez*, 514 U.S. 549, 567 (1995).

³⁵² *Accord The Air Commerce Act of 1926*, 27 COL. L. REV. 989, 990 (1927) (“The close relation of intrastate and interstate commerce would seem also to warrant federal supervision of the former to some extent on the theory that the federal government may regulate intrastate commerce where such regulation is incidental to the control of interstate commerce. But jurisdiction over those matters on which the federal act is silent must remain vested in the states.”).

³⁵³ *Sebelius*, 132 S. Ct. at 2578.

and not affecting commerce.³⁵⁴ Because other aircraft at that time were not prohibited from going into navigable airspace and possibly imposing dangers, they were properly regulated by federal rules. The 1958 Act, and still the U.S. Code today, similarly keeps the same principle. The definition of “air commerce” includes “the operation of aircraft that directly affects, or may endanger safety in, foreign or interstate air commerce.”³⁵⁵ Again, aircraft that could enter navigable airspace could certainly directly affect or endanger aircraft.³⁵⁶

Clearly, the safety of aircraft in navigable airspace could have a substantial effect on interstate commerce. Thus, this article does not take issue with regulating drones that could be allowed into and out of navigable airspace. In that respect, FAA regulation does not differ in principle from existing controls over helicopters, crop dusters, or the like. Those aircraft and the way the FAA regulates them, however, differ from what the FAA is doing with sUASs.

Small UASs, unlike *any* other aircraft, are prohibited from going above 400 feet, and would, by regulatory definition, be prohibited from ever entering navigable airspace.³⁵⁷ They are even horizontally prohibited from airports, the downward extension of navigable airspace.³⁵⁸ Excluding sUASs from navigable airspace does not mean that there is a comprehensive system envisioned or authorized by Congress to allow the FAA to regulate solely in non-navigable airspace—where it has never exclusively regulated before. So although the FAA can properly exclude

³⁵⁴ HOTCHKISS, *supra* note 62, at 70 (excerpting a statement of the managers of the 1926 Act: “In order to protect and prevent undue burdens upon interstate and foreign air commerce the air traffic rules are to apply whether the aircraft is engaged in commerce or non-commercial or in foreign interstate, or intrastate navigation in the United States, and whether or not the aircraft is registered or is navigating in a civil airway.”).

³⁵⁵ 49 U.S.C. § 40102(3) (2012).

³⁵⁶ *See, e.g.*, *United States v. Red Frame Parasail*, Buckeye Model Eagle 503 (serial number 4159), 160 F. Supp. 2d 1048, 1057 (D. Ariz. 2001) (finding that ultralight vehicles can be regulated, in part, because of the threat they pose to aviation safety and consequently interstate commerce); *United States v. Drumm*, 55 F. Supp. 151, 155 (D. Nev. 1944) (holding that based on the expansive statutory definition of “air commerce,” “. . . either directly affects, or may endanger safety in, interstate . . . commerce,” it was necessary that all pilots and aircraft be certified “for the protection of safety in air commerce”).

³⁵⁷ 14 C.F.R. § 107.51 (2016) (“Operating Limitations of Small Unmanned Aircraft.”).

³⁵⁸ 14 C.F.R. §§ 107.41, 107.43 (“Operation in Certain Airspace” and “Operation in the Vicinity of Airports,” respectively).

sUASs from navigable airspace, and even provide a reasonable 100-foot buffer, there must be a limitation to how much the FAA can regulate in the non-navigable airspace—if it can regulate there at all either because of a lack of clear authority or because it encroaches on the powers reserved to states.³⁵⁹

It remains a constitutional question whether the FAA could even exclusively regulate all airspace, even with a grant of explicit authority by Congress. According to the Supreme Court, courts must make their own independent evaluation of whether an activity “substantially affects” interstate commerce; in so doing, courts can “consider legislative findings, and indeed even congressional committee findings, regarding effect[s] on interstate commerce.”³⁶⁰ But here, there are none. Regulating in non-navigable airspace below minimum altitudes of flight has never been an authority granted to the FAA, nor has it been discussed in bills that were enacted. Even for towers that might affect the navigable airspace, the FAA has no authority to prohibit their construction;³⁶¹ it relies on states to do so.³⁶² Nor should the FAA rely on the provision in 49 U.S.C. § 40103(b)(2) that empowers it to protect “individuals and property on the ground,” because that provision was meant to have a tie to interstate commerce and to regulate aircraft in navigable airspace that might pose such a danger.³⁶³

From true versions law, definitive and limited statutory grants of authority to the navigable airspace, affirming legislative history, historical context, traditional state powers, past and current state laws, and case law, it is clear there is no express or implied preemption of state laws that prohibit where UAS can operate in the nonnavigable airspace. States should continue to pass laws that ensure the safety and privacy of their residents

³⁵⁹ See, e.g., *United States v. Darby*, 312 U.S. 100, 116 (1941) (“[T]he power of Congress under the Commerce Clause is plenary to exclude any article from interstate commerce subject only to the specific prohibitions of the Constitution.”).

³⁶⁰ *United States v. Lopez*, 514 U.S. 549, 562 (1995).

³⁶¹ 14 C.F.R. § 157.7 (2015) (“While determinations consider the effects of the proposed [construction] action on the safe and efficient use of airspace by aircraft and the safety of persons and property on the ground, *the determinations are only advisory.*” (emphasis added)).

³⁶² *Aircraft Owners & Pilots Ass’n v. Fed. Aviation Admin.*, 600 F.2d 965, 966–67 (D.C. Cir. 1979) (“Once issued, a hazard/no-hazard determination has no enforceable legal effect. The FAA is not empowered to prohibit or limit proposed construction it deems dangerous to air navigation. Nevertheless, the ruling has substantial practical impact.”).

³⁶³ See *supra* notes 211–19 and accompanying text.

from drones. To effectuate their compelling interests, states have the freedom to, at a minimum, restrict or prohibit UASs from operating at least up to 500 feet above ground in rural and non-congested areas, and at least 1,000 feet over any cities or other congested areas.