



State and Local Regulation of Unmanned Aircraft Systems (UAS) Fact Sheet

Federal Aviation Administration
Office of the Chief Counsel

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Office of the General Counsel

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SUMMARY

The general balance between Federal and state authority in the context of aviation regulation is well established. The Federal Aviation Administration (“FAA”) has the exclusive authority to regulate aviation safety and the efficient use of the airspace by aircraft. Attempts by state and local governments to regulate in those fields are preempted.¹ Outside those fields, the States are generally free to regulate—even by enacting laws that are aimed at or affect aviation—as long as their laws do not conflict with FAA regulations or relate to the prices, routes, or services of commercial air carriers.

Despite important differences between manned aircraft and unmanned aircraft systems (“UAS”), the basic preemption framework described above is fully applicable to UAS. That means:

- *States and local governments may not regulate in the fields of aviation safety or airspace efficiency but generally may regulate outside those fields.* A state or local law is preempted if it is aimed at aviation safety or the efficient use of the airspace. But a law seeking to advance other objectives is generally not covered by field preemption unless it impairs the reasonable use by UAS of the airspace.

¹ Federal preemption refers to the power of Congress, derived from the Supremacy Clause of the United States Constitution, to promulgate laws that are the supreme law of the land. Under Supreme Court precedent, Federal law can preempt state law in two ways: Federal law can either *expressly preempt* state law when a Federal statute or regulation contains explicit preemptive language, or it can *impliedly preempt* state law (through *field* or *conflict* preemption) when its structure and purpose implicitly reflect Congress’ preemptive intent.

- *A state or local law will be preempted if it conflicts with FAA regulations.* A law is preempted if it makes it impossible to comply with FAA regulations or frustrates the purposes and objectives of such regulations.
- *State or local laws affecting commercial UAS operators are more likely to be preempted than laws affecting non-commercial UAS operators.* The Airline Deregulation Act preempts any state or local law that directly references the prices, routes, or services of a UAS operator with economic authority to provide interstate transportation, or that has a significant impact on such prices, routes, or services. Thus, even laws that would be permissible in the context of recreational UAS users may be preempted as applied to commercial UAS operators.

BACKGROUND

This document, which updates and replaces the FAA's *State and Local Regulation of Unmanned Aircraft Systems (UAS) Fact Sheet* (Dec. 17, 2015), is intended to provide essential information about the Federal regulatory framework for use by States and localities when considering enacting laws affecting UAS.² State and local restrictions affecting UAS operations should be consistent with the extensive Federal statutory and regulatory framework pertaining to control of the airspace, air traffic control, aviation safety, navigational facilities, and the regulation of aircraft noise at its source.

Successive FAA reauthorization acts have each emphasized the Congressionally-mandated priority that the FAA integrate UAS into the national airspace.

State and local jurisdictions continue to explore the regulation of UAS. Since 2013, at least 44 States have enacted laws relating to UAS, addressing issues such as privacy, delivery of prison contraband, firefighting, law enforcement use of UAS, and UAS registration. However, some jurisdictions have enacted or are considering laws that raise preemption issues, such as regulation of UAS operations (prohibiting UAS operations over the jurisdiction; addressing flight altitude, safety, and/or maintaining visual line of sight), a law providing for UAS interdiction/neutralization, and a law that would have created trespass liability for anyone operating UAS less than 350 feet above real property without the express permission of the property owner.

Since 2015, the FAA's Office of the Chief Counsel has fielded many questions from state officials and legislators, local jurisdictions (mayors, county executives, police departments, correctional facilities, etc.), industry associations, and private individuals concerning the regulation of UAS.

² While this document only addresses UAS, it is based on principles that apply to airspace and aviation more generally. Accordingly, many of the principles in this fact sheet are likely to ultimately apply to Advanced Air Mobility (AAM) operations and other emerging aviation activities. The FAA and DOT intend to develop a similar fact sheet for AAM operations.

THE FEDERAL FRAMEWORK IN AVIATION

Congress has vested the FAA with the authority to regulate the areas of airspace use, management, and efficiency; air traffic control; safety; navigational facilities; and aircraft noise at its source. Congress directed the FAA to prescribe air traffic regulations (including safe altitudes), and rules for protecting individuals and property on the ground, using the navigable airspace efficiently, and preventing collision between aircraft and other aircraft including airborne objects. A citizen of the United States has a statutory public right of transit through the navigable airspace. To ensure the maintenance of a safe and sound air transportation system, the FAA has exclusive regulatory authority over matters pertaining to aviation safety and the efficient use of the airspace.

In 2012, Congress provided the FAA with a statutory mandate to develop a comprehensive plan to safely accelerate the integration of UAS into the national airspace. In subsequent legislation, Congress directed the FAA to develop a means for remote identification of UAS and mitigation of threats posed by errant or hostile UAS, to continue development with the National Aeronautics and Space Administration (“NASA”) of a UAS traffic management system, and to address other UAS-related matters.³

In response to Congress’ direction, the FAA has promulgated several UAS-related rules and is developing additional rulemakings.⁴ Congress created a statutory *Exception for Limited Recreational Operations of Unmanned Aircraft* to allow those flying UAS purely for personal enjoyment to operate without having to comply with 14 CFR part 107. People flying under this statutory exception are required to comply with all rules for recreational flyers.

Presented below are general principles of Federal law as they relate to aviation safety and the efficiency of the airspace, and examples of state and local laws that would most likely raise preemption issues, and those that would most likely not.⁵ The FAA’s Office of the Chief Counsel is available to discuss specific questions.

³ See, e.g., 49 U.S.C. § 46320 (prohibiting interference with wildfire suppression, law enforcement, or emergency response efforts by operation of unmanned aircraft); FAA Reauthorization Act of 2018, Pub. L. 115-254, § 363, 132 Stat. 3186, 3308 (prohibiting a person from operating a UAS that is equipped or armed with a dangerous weapon).

⁴ See 14 C.F.R. part 107 (*Small Unmanned Aircraft Systems*); 14 C.F.R. part 89 (*Remote Identification of Unmanned Aircraft*), see also 87 Fed. Reg. 55,685 (Sept. 12, 2022), *Notification of Enforcement Policy Regarding Production Requirements for Standard Remote Identification Unmanned Aircraft*; 14 C.F.R. part 48 (*Registration and Marking Requirements for Small Unmanned Aircraft*); and 14 C.F.R. § 107.39 and subpart D (*Operations Over Human Beings*), and 86 Fed. Reg. 4,314 (Jan. 15, 2021), *Final Rule, Operation of Small Unmanned Aircraft Systems Over People*.

⁵ Congress has exclusively authorized the Departments of Defense, Energy, Justice, and Homeland Security to engage in limited UAS detection and mitigation activities to counter UAS presenting a credible threat to covered facilities or assets. Because no other entities have been granted that authority, it is important that state, local, tribal and territorial (SLTT) and private sector entities without such statutory authority (including SLTT law enforcement organizations, SLTT governments, and owners and operators

FIELD PREEMPTION – BASIC PRINCIPLES

- Federal statutes give the FAA comprehensive and exclusive authority to regulate aviation safety and the efficient use of the airspace, and the FAA has issued a complex set of regulations in these areas. States may not regulate in those fields.
- State and local governments may not adopt FAA regulatory requirements and then enforce them as state or local regulations. The courts have held that where Congress occupies an entire field, even complementary state regulation is impermissible. Field preemption reflects a congressional decision to foreclose any state regulation in the area, even if it is parallel to Federal standards.
- The FAA has exclusive authority to regulate aviation safety and airspace efficiency with respect to UAS operations at any altitude. Field preemption does not depend on the altitude of the operations affected by a state law.
- The FAA has exclusive authority to regulate airspace efficiency for UAS at low altitudes as it does for manned aircraft at higher altitudes. The FAA has not set minimum altitudes for UAS and in fact, requires UAS to operate only at low altitudes (generally not to exceed 400 feet above ground level).
- The FAA has exclusive jurisdiction over certain regulatory fields, not over certain airspace. Thus, while the “navigable airspace” extends to the ground, that does not mean that States are powerless to regulate UAS operations if they are not acting to regulate aviation safety or airspace efficiency. It is well established in the context of manned aircraft that Federal law does not preempt altogether any state regulation purporting to reach into the navigable airspace; the same is true with respect to UAS.

CONFLICT PREEMPTION – BASIC PRINCIPLES

- State laws are subject to conflict preemption when compliance with both Federal and state regulations is impossible, or when the state law stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.
- Even if a state law regulates outside the fields of aviation safety and airspace efficiency and is therefore not covered by field preemption, it may still be preempted if it conflicts with one or more FAA regulations.
- Note that field preemption analysis and conflict preemption analysis may often lead to the same result. For example, a ban on UAS operations above an entire city or over a broad swath of facilities would very likely be preempted not only as an intrusion into the field of airspace efficiency (*i.e.*, field preemption), but also as an obstacle to the FAA’s exercise of its airspace authority (*i.e.*, conflict preemption).

of critical infrastructure, stadiums, outdoor entertainment venues, airports, and other key sites) understand that federal laws may prevent, limit, or penalize the sale, possession, or use of UAS detection and mitigation capabilities. *See* https://www.faa.gov/uas/resources/c_uas.

EXPRESS PREEMPTION UNDER THE AIRLINE DEREGULATION ACT OF 1978 – BASIC PRINCIPLES CONCERNING AIR CARRIERS

- State laws are subject to express preemption under the Airline Deregulation Act of 1978 (“ADA”) if they “relate to” the prices, routes, and services of an air carrier that has been given economic authority by the Department of Transportation (“DOT”) to provide interstate or foreign air transportation.
- A state law is “related to” air carrier prices, routes, and services—and therefore preempted—when it directly references such prices, routes, or services or has a “significant impact” on such prices, routes, or services.
- State laws may be preempted as applied to certain commercial UAS operators even if they would not be preempted as applied to other UAS operators.

EXAMPLES OF STATE AND LOCAL LAWS ADDRESSING UAS THAT WOULD BE SUBJECT TO FEDERAL PREEMPTION⁶

- State laws aimed at regulating aviation safety or airspace efficiency. For example, laws:
 - Regulating UAS operations or restricting flight altitude or flight paths in order to protect the safety of individuals and property on the ground or aircraft passengers, or in order to ensure the efficient use of the airspace by UAS and/or other aircraft;
 - Implementing UAS traffic control systems;
 - Designating “highways” or “routes” for UAS;
 - Selling or leasing UAS-related air rights above roadways;
 - Regulating UAS markings;
 - Establishing a licensing scheme for UAS pilots;
 - Requiring air safety education or training;
 - Imposing requirements for the safe manufacturing of UAS; or
 - Mandating safety-related equipment such as geo-fencing. Courts have found that state regulation pertaining to mandatory training and equipment requirements related to aviation safety is not consistent with the Federal regulatory framework.
- Certain state or local laws aimed at other objectives that impair the reasonable use by UAS of the airspace.
 - If a law seeks to advance non-safety or efficiency objectives but affects where UAS may operate in the air, the question of whether the law is preempted will depend primarily on whether the law negatively impacts safety and on how much of an impact the law has on the ability of UAS to use or traverse the airspace.

⁶ The 2015 Fact Sheet listed examples of laws “for which consultation with the FAA is recommended.” Some have interpreted this language as suggesting that the FAA did not believe that state and local UAS laws were subject to field preemption. That is not the case: as noted above, state and local governments are barred from regulating in the fields of aviation safety and airspace efficiency. The FAA remains open to consulting with state and local governments that are trying to determine whether particular laws fall within the preempted fields, but any such consultations will not modify the scope of preemption and do not contemplate “co-regulation” of UAS safety or airspace matters with the States.

- For example, a privacy-related ban on UAS operations over an entire city would very likely be preempted because it would completely prohibit UAS from using or traversing the airspace above the city and impede the FAA’s and Congress’s ability to safely and effectively integrate UAS into the national airspace.⁷ In contrast, a privacy-related restriction applied to the lower altitudes over facilities where people could likely have an expectation of privacy—such as parks or schools—would more likely be permissible because of its lesser impact. Similarly, tailored security-related restrictions over open-air water treatment facilities or certain types of critical infrastructure would more likely be permissible where the restrictions were limited to the lower altitudes and still permitted UAS overflight (*e.g.*, by commercial package delivery UAS) at higher altitudes.⁸

EXAMPLES OF STATE AND LOCAL LAWS ADDRESSING UAS THAT WOULD LIKELY NOT BE SUBJECT TO FIELD OR CONFLICT PREEMPTION⁹

- Laws aimed at objectives other than aviation safety or airspace efficiency that do not impair the reasonable use by UAS of the airspace.
 - Such laws could include those concerning land use or zoning; harassment of individuals or groups; privacy; voyeurism; trespass on property; the exercise of other police powers; reckless endangerment; emergency medical services; search and rescue; law enforcement use of facial recognition; delivery of prison contraband; wildfire suppression;¹⁰ criminal mischief; transfer or delivery of controlled substances; taking photographs or videos with respect to particular facilities (*e.g.*, water treatment facilities; prisons; oil refineries; chemical facilities; railroad facilities; amusement parks; energy production, transmission, and distribution facilities; and any system or asset described by title 42 of the United States Code, § 5195c(e)); requirements for police to obtain a warrant prior to using a UAS for surveillance; protection of wildlife; using UAS for hunting or fishing, or to interfere with or harass an individual who is hunting or fishing; and law enforcement operations.

⁷ See, *e.g.*, *Singer v. City of Newton*, 284 F. Supp. 3d 125, 131-132 (D. Mass. 2017) (holding that the city’s prohibition of UAS operations below 400 feet (1) over any private property without the express permission of the property owner, and (2) over public property without prior permission from the city worked in tandem to “create an essential ban on drone use within the limits of Newton ... thwart[ing] not only the FAA’s objectives, but also those of Congress for the FAA to integrate drones into the national airspace.”).

⁸ Under 14 C.F.R. § 107.51, *Operating limitations for small unmanned aircraft*, the altitude of UAS cannot be higher than 400 feet above ground level, unless the UAS is (1) flown within a 400-foot radius of a structure; and (2) does not fly higher than 400 feet above the structure’s immediate uppermost limit.

⁹ As noted above, the ADA may preempt certain state or local laws as applied to air carriers—*i.e.*, commercial UAS operators with economic authorization to provide interstate transportation—even if they would not be preempted with respect to other UAS users.

¹⁰ States and localities are encouraged to coordinate with their Law Enforcement Assistance Program (“LEAP”) agent.

- Such laws are not covered by field preemption even if they have some effect on where UAS may operate in the air, as long as they do not impair the reasonable use by UAS of the airspace.
- Many of these state and local concerns are already addressed by laws that regulate ground-based conduct not involving UAS, and such laws often can be applied to UAS. Restrictions on *how* UAS are utilized (*i.e.*, conduct) instead of *where* they may operate in the airspace would more likely be consistent with Federal preemption principles.
- Laws regulating the location of UAS takeoff and landing areas. It is well established that States have a valid interest in choosing where aircraft may operate on the ground. Laws designating takeoff and landing locations have no direct effect on where UAS may operate in the air.
- Laws that prohibit, restrict, or sanction operations by UAS in the immediate reaches of property to the extent that such operations substantially interfere with the property owner's actual use and enjoyment of the property.
- State and local policies concerning where a UAS operator can be located while conducting operations.
- UAS registration requirements that are ministerial and do not directly or indirectly regulate aviation safety or the efficient use of the airspace.

ENFORCEMENT MATTERS

- Federal aviation statutes authorize the FAA to initiate legal enforcement action, including certificate actions and imposing civil penalties, for violations of FAA statutory or regulatory requirements. Federal aviation statutes do not authorize the FAA to delegate its formal enforcement functions to state or local governments.
- The FAA has continuously conducted outreach efforts with Federal, state, and local law enforcement on UAS operations. Additionally, the FAA has the Law Enforcement Assistance Program ("LEAP"), which provides, as appropriate, aviation-related support and education to law enforcement agencies.
- The FAA realizes that public safety agencies, such as law enforcement, are well-positioned to deter, detect, and investigate unauthorized or unsafe UAS operations. These also have an important role in protecting the public from unsafe and unauthorized UAS operations.
https://www.faa.gov/uas/public_safety_gov
- Unauthorized operations can cause potential hazards to people and property both in the air and on the ground. The FAA's *Drone Response Playbook for Public Safety* (Sept. 2020) is a resource for public safety officials who conduct investigations into drone operations. The *Playbook* can help determine the difference between authorized and unauthorized drone operations and what actions public safety agencies may take. The *Playbook* is available at https://www.faa.gov/sites/faa.gov/files/uas/public_safety_gov/public_safety_toolkit/Public_Safety_Drone_Playbook.pdf.

CONTACT INFORMATION FOR QUESTIONS

The FAA's Office of the Chief Counsel, Aviation Litigation Division (AGC-300), is available to answer questions about the principles set forth in this fact sheet and to discuss with you the intersection of Federal, state, and local regulation of aviation, generally, and UAS operations, specifically. You may contact the Aviation Litigation Division at [9-AGC300-Preemptionquestions@faa.gov](tel:9-AGC300-Preemptionquestions@faa.gov) or by mail addressed to: Federal Aviation Administration, Aviation Litigation Division (AGC-300), Office of the Chief Counsel, Ninth Floor, 800 Independence Avenue, S.W., Washington, D.C. 20591.