



Unmanned aircraft systems (UAS), also known as unmanned aerial vehicles (UAV) or drones, are aircraft without a human pilot onboard that are controlled by an operator remotely or programmed to fly autonomously.

While UAS in and of themselves are benign, negligent, reckless, wantonly dangerous, or nefarious use can seriously threaten the personal safety of emergency services personnel and the public, as well as obstruct law enforcement operations.

When law enforcement action is taken against UAS and their operators, state, local, tribal, and territorial law enforcement personnel need to be aware of several Federal statutes that can affect their engagement, in addition to being familiar with the technical nature of UAS.

Background

UAS can be in both fixed-wing and rotary-wing configurations with one or multiple propellers or jet motors to provide propulsion. UAS are either electrically powered with an onboard battery or contain a small internal combustion engine. They can range in weight from a few ounces to over 50 pounds, and range in size from a few inches to several feet across. The operational ceiling for UAS varies between a few feet to over a thousand feet, and have a flight time from only a few minutes to over 30 minutes for electrically powered models and over an hour for internal combustion-powered models. Many UAS are available with an integrated camera and the ability to stream live video and audio via Bluetooth.

Today, the U.S. Department of Defense currently operates more than 11,000 UAS,¹ and the Federal Aviation Administration (FAA) estimated 2.5 million private UAS sales in the U.S. in 2016 with that number expected to rise to 7 million by 2020.²



FAA No Drone Zone (Source: FAA)

Legal Considerations

Prior to taking action against either a UAS, whether in flight or not, or a possible operator of a UAS, it is recommended that every law enforcement agency develop plans and procedures detailing the actions of their personnel and consult legal counsel to verify the legality of those actions. Some specific Federal statutes to consider include:

- Sovereignty and Use of Airspace³
- Aircraft Piracy⁴
- Destruction of Aircraft or Aircraft Facilities⁵
- Aiming a Laser Pointer at an Aircraft⁶
- Interception and Disclosure of Wire, Oral, or Electronic Communications Prohibited⁷
- General Prohibition on Pen Register and Trap and Trace Device Use⁸
- Emergency Pen Register and Trap and Trace Device Installation⁹

¹ <https://www.defense.gov/UAS>

² <https://www.faa.gov/news/updates/?newsId=85227>

³ U.S. Code Title 49 > Subtitle VII > Part A > Subpart I > Chapter 401 > § 40103

⁴ U.S. Code Title 49 > Subtitle VII > Part A > Subpart iv > Chapter 465 > § 46502 (a)(1)(A)

⁵ U.S. Code Title 18 > Part I > Chapter 2 > § 32 (a)(1), (2), (4), (5)

⁶ U.S. Code Title 18 > Part I > Chapter 2 > § 39A (a)

⁷ U.S. Code Title 18 > Part I > Chapter 119 > § 2511 (1)(a), (b)

⁸ U.S. Code Title 18 > Part II > Chapter 206 > § 3121 (a)

⁹ U.S. Code Title 18 > Part II > Chapter 206 > § 3125 (a)(1)(A), (a)(2)

Operational Considerations

Operation of UAS includes several aspects that are necessary to fly and land the aircraft that may not be readily apparent to law enforcement personnel responding to an incident. Law enforcement personnel must:

- Have a thorough knowledge of the specific UAS model and its controller. Although many UAS are ready to fly right out of the box, UAS capabilities can vary greatly between models and have differing default controller configurations.
- Have a thorough knowledge of the control setup of that specific UAS as many UAS have the ability to alter the flight control configuration based on individual preference.
- Have a thorough knowledge of the programming of that specific UAS because various UAS have different capabilities that can be programmed into them. For example, if a UAS loses contact with the controller, the UAS can be programmed to perform a controlled descent straight down at its current location or it can be programmed to follow a routine based on location and altitude, such as following a predesignated route or going to a specific location (possibly the operator's location or location of a target) and land.
- Consider whether or not to treat a recovered UAS as an unattended or suspicious item requiring explosive/hazardous material screening based on an assessment of the totality of circumstances. Factors to consider include:
 - Has the operator been identified and verified and can they provide a reasonable explanation for the location of the UAS?
 - Is there a valid FAA registration for the UAS, and is it readily visible?

- Is the recovery location at or near a possible or likely target?
- Have there been recent threats or intelligence concerning threats to the recovery location?
- Are there any apparent modifications to the UAS?
- Is there a payload that can be identified?

Resources

The Federal Aviation Administration (FAA) provides many resources for pilots who wish to fly for fun or fly for work, as well as for law enforcement agencies who may interact with UAS or their operators. Visit their Unmanned Aircraft Systems page at www.faa.gov/uas/ for more information.

The FAA released a fact sheet on State and Local Regulation of Unmanned Aircraft Systems (UAS) which can be found at www.faa.gov/uas/resources/uas_regulations_policy/media/uas_fact_sheet_final.pdf.

The FAA also released their Law Enforcement Guidance for Suspected Unauthorized UAS Operations and their Law Enforcement Reference Guide, both of which can be found at www.faa.gov/uas/resources/law_enforcement/.

The Department of Homeland Security (DHS) Office of Infrastructure Protection developed a UAS webpage at www.dhs.gov/uas-ci, or contact IP-UAS@hq.dhs.gov for additional resources.

The National Conference of State Legislatures has information on current UAS state laws at www.ncsl.org/research/transportation/current-unmanned-aircraft-state-law-landscape.aspx.

Contact Information

For more information on the Emergency Services Sector, visit the DHS Emergency Services Sector website at www.dhs.gov/emergency-services-sector or email essteam@hq.dhs.gov.