**Drones**

**Drones – Unmanned Aerial Vehicles (UAV)**

Effective December 21, 2015, anyone who owns a small-unmanned aircraft of a certain weight (more than 0.55 lbs. and less than 55 lbs.) must register with the Federal Aviation Administration's Unmanned Aircraft System (UAS) registry [FAA online system](https://registermyuas.faa.gov/)

before they fly outdoors. People who previously operated their UAS must register by February 19, 2016. People who do not register could face civil and criminal penalties.

**Formal definition**

Drones are more formally known as Unmanned Aerial Vehicles (UAV). Essentially, a drone is a flying robot. (Under the 2012 FAA Modernization & Reform Act, drones are defined as “**aircraft**”). These aircraft may be remotely controlled or can fly autonomously through software-controlled flight plans in their embedded systems working in conjunction with GPS.

UAV’s have most often been associated with the military but they are also used for search and rescue, surveillance, traffic monitoring, weather monitoring and firefighting, among other things.

Drones/Unmanned Aerial Vehicles (UAVs), Unmanned Aircraft Systems (UASs) are more frequently being used by the general population for recreational use. Drones are also being implemented into everyday operations of businesses as well as police, fire, and rescue agencies.

**Drone Classifications**

1. Navigational methods include:
* Piloted devices under human control via sophisticated ground control system
* Unpiloted (autonomous) devices that utilize sensing hardware and Global Positioning Systems (GPS)
1. Types of operation, which the FAA describes as:
* Public use – performed by governmental agencies (Schools, Colleges and Universities)
* Civil use – performed by non-governmental entities that must obtain special airworthiness certificates
* Recreational use – restricts use limited to 400 feet above ground level and barred from certain populated areas
1. Physical characteristics categorized as:
* Micro/small multi-rotor drones
* Large multi-rotor/helicopter drones
* Small fixed wing drones
* Large fixed wing drones

**Educational Uses**

* Emergency Preparedness (i.e. develop evacuation routes)
* Capture angles in sporting events
* Monitor construction projects
* Enhance field projects, such as studying plants and wildlife from a distance
* Class pictures featuring the entire student body
* Provide band directors and football coaches with a bird’s-eye view of formations
* Science class, students write programs to steer miniature drones through obstacle courses.

**Educational Use Clarification**

In May 2016, the FAA provided a new interpretation for institutional use of drones. The clarification states that:

* People operating drones at educational institutions will be considered hobbyists if they are not compensated directly or indirectly for operating the aircraft. Faculty members are generally considered compensated, except for the example below.
* Students conducting model aircraft operations to further their education at accredited educational institutions, such as using a drone as part of the curricula for a principles of flight or television and film production course, will be classified as hobbyists.
* Faculty teaching aviation-related courses at accredited institutions may assist students operating model aircraft for the course if the student maintains operational control of the aircraft; for example, a faculty member may take control to prevent a crash while a student maintains operational control.

Faculty member drone operations outside of the exception above are considered commercial use and are subject to Part 107.   [FAA Part 107 Summary](https://www.faa.gov/uas/media/Part_107_Summary.pdf)

**Safe Practices and Security Measures for Educational Institutions**

* Prior to using a drone, identify a specific need for use.
* Be sure that drones are operated by individuals who have been trained in the safe operation of drones, have prior experience and who can demonstrate the safe operation of the drone in a practice situation prior to being authorized to do so for official purposes.
* Operators should always refrain from flying drones directly over or close to crowds.
* Schools should be very cautious in the operation of drones at sporting events to avoid liability injuries to players, coaches, spectators, and other third parties that might result from a drone crashing into a crowd. Potential operators should be trained and required to practice extensively to ensure proficiency in using the technology.

**Potential Liability**

* Physical injury to persons and property resulting from the unsafe operation of a drone
* Third party exposures such as bodily injury, property damage and personal injury arising from invasion of privacy or trespassing
* Property damage due to mechanical operator error
* The invasion of the personal privacy of the occupants of private residences in the vicinity of a school vicinity, or the personal privacy of students or school staff in a restroom or locker room;
* The failure of an operator to comply with local operational standards, regulations, and laws, such as notifying an airport control tower of drone operations within 5 miles of the airport;
* The violation of the National Air System regulations by operating a drone above authorized altitudes;
* Maintenance and storage of data and information, including images, captured via drone use
* Unauthorized breach of drone technology systems, including data and information storage and control systems;
* Cyber risk, terrorism, and workers’ compensation
* Converting instructional or educational uses of drones into a “business” by offering drone services for compensation.
* Interfering or colliding with other aircraft
* Invasion of privacy
	+ - * Some believe that unlike traditional fixed-in-place surveillance systems, drones with its expanded range of sight, can greatly compromise the privacy of individuals.
			* Other reasons that drones are no more intrusive than traditional aircraft.

**What You Need to Know Before Operating a Drone**

If your district decides there is a specific purpose to use drones, there are steps needed in order to be in compliance with the Federal Aviation Administration (FAA).

Determine which of the two FAA UAS categories your district would fall under:

1. Public Operations (Governmental) - (Schools, Colleges and Universities)
* Any agency that operates a public aircraft is by definition a Public Operation. If you receive funding from the federal government at some level, you are probably a Public Operation.

If your organization is deemed a Public Operation, you must file a Certificate of Authorization [(COA)](http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/systemops/aaim/organizations/uas/coa/) with the FAA before operating a drone.

1. Civil Operations (Non-Governmental)
* Any operation that does not meet the statutory criteria for a public aircraft operation is considered a civil aircraft operation and must be conducted in accordance with all FAA regulations in accordance with all FAA regulations applicable to the operation.
* Should your organization fall under the Civil Operations category, you will need to complete a Section 333 Exemption.

**Basic Rules:**

February 2015 – The FAA released an “Overview of Small UAS Proposed Rulemaking Notice” outlining proposed guidelines for commercial drone use:

These basic rules are:

* Fly below 400 feet and remain clear of surrounding obstacles and structures.
* Keep the aircraft within visual line of sight at all times.
* Remain well clear of and do not interfere with manned aircraft operations.
* Don’t fly within five (5) miles of an airport unless you contact the airport and control tower before flying.
* Don’t fly near people or stadiums.
* Don’t fly an aircraft that weighs more than 55 lbs.
* Don’t be careless or reckless with your unmanned aircraft. You could be fined for endangering people or other aircraft.

Schools can operate drones. **Ultimately it is the school’s responsibility** to verify with the FAA which category it would fall under and any certificate, waiver, or exemption it would need to apply for.

Due to the number of potential situations and users, there is currently no blanket answer to the question of which category your organization would be classified under.

**Which unmanned aircraft do I have to register?**

Owners must register their UAS **online** if it meets the following guidelines:

Weighs more than 0.55 lbs. (250 g) and less than 55 lbs. (25 kg).

Unmanned Aircraft weighing more than 55 lbs. **cannot** use this registration process and must register using the [Aircraft Registry process](http://www.faa.gov/licenses_certificates/aircraft_certification/aircraft_registry/).

Owners must register their UAS [by paper](http://www.faa.gov/licenses_certificates/aircraft_certification/aircraft_registry/UA/) if it meets the following guidelines:

* Your aircraft is used for commercial purposes.
* Your aircraft is used for other than hobby and recreation.
* Your aircraft is greater than 55 lbs.
* You intend to operate your aircraft outside of the United States.

**Definitions:**

***Certificate of Authorization or Waiver (COA):*** According to the FAA, the COA is an authorization issued by the Air Traffic Organization to a public operator for a specific UAS activity. After a complete application is submitted, FAA conducts a comprehensive operational and technical review. If necessary, provisions or limitations may be imposed as part of the approval to ensure the UAS can operate safely with other airspace users. In most cases, FAA will provide a formal response within 60 days from the time a completed application is submitted.

**Model Aircraft:** Model aircraft are considered UAS and viewed differently by the FAA than other UAS and have different regulations. Model aircraft operations are for hobby or recreational purposes only and are not for business purposes. Model Aircraft should be flown only in designated areas, fly no higher than 400 feet, be within eyesight of the operator at all times, not intentionally flown over unprotected persons or moving vehicles and remain at least 25 feet from individuals and vulnerable property. Statutory parameters of a model aircraft operation are outlined in Section 336 of Public Law 112-95

([**http://www.faa.gov/uas/media/Sec\_331\_336\_UAS.pdf**](http://www.faa.gov/uas/media/Sec_331_336_UAS.pdf) ). Use of a UAS related to Public Operations does not qualify as model aircraft.

***Unmanned Aircraft Systems (UAS)*:** A UAS is the unmanned aircraft and all of the associated support equipment, control station, data links, telemetry, communications and navigation equipment, etc., necessary to operate the unmanned aircraft.  A UAS may have a variety of names including drone, unmanned aircraft vehicle, unmanned aircraft, quadcopter, quadrotor, etc. **FAA regulation applies to UAS regardless of size or weight.**

**References:**

<http://www.faa.gov/uas/>

<http://www.faa.gov/uas/public_operations/>

<http://www.faa.gov/uas/registration/>

<http://www.faa.gov/uas/faq/>

**Know Before You Fly – (Public Entities):**

<http://knowbeforeyoufly.org/for-public-entities/>

<http://knowbeforeyoufly.org/wp-content/uploads/2015/01/KBYF_Brochure.pdf>

**FAA – Drones (UAS):** <https://www.faa.gov/uas/>

* **Certificates of Authorization:** <http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/systemops/aaim/organizations/uas/coa/>
* **Email Questions to:** 9-AFS-UAS-Inquiries@faa.gov

## COA: Frequently Asked Questions

**What are the pertinent regulations and documents for operating an Unmanned Aircraft System (UAS)?**
There are several regulations and documents that can help you with operating UAS:

* [FAA UAPO Interim Operational Approval Guidance 08-01](http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/systemops/aaim/organizations/uas/coa/faq/media/uas_guidance08-01.pdf) (PDF, 1.47 MB)
* [Federal Registry Entry “FAA-2006-25714”](http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/systemops/aaim/organizations/uas/coa/faq/media/frnotice_uas.pdf) (PDF, 20 KB)
* [FAA Order 8130.34](http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/systemops/aaim/organizations/uas/coa/faq/media/Order_8130.34.pdf) (PDF, 214 KB)

**What is the difference between an Unmanned Aircraft (UA), a Remotely Operated Aircraft (ROA), and an Unmanned Aerial Vehicle (UAV)?**
ROA and UAV were terms previously used to identify unmanned aircraft. Currently the FAA and most of the international community uses the term “UAS.

**Can a civilian company operate an UAS as part of a business?**
Currently, civilian companies may not operate a UAS as part of a business without obtaining a Special Airworthiness Certificate - Experimental Category (SAC-EC). However, this SAC-EC is very limited in scope of operational use. Contact FAA for details or see FAA Order 8130.34.

**Who can receive a COA to fly a UA in the National Airspace System (NAS)?**
Only public agencies operating an unmanned aircraft.

**What is a “Public Agency?”**
Any agency that operates a public aircraft (14 CFR Part 1.1), if you receive funding from the federal government at some level, you are probably a “Public Agency.” a public agency can never operate under the guidelines of Advisory Circular 91-57 (Model Aircraft Operating Standards).

**Sample School Policy on Unmanned Aircraft Systems (UAS)**

1. **PURPOSE**

The purpose of this policy is to provide guidelines for the use of Unmanned Aircraft Systems (UAS), also known as drones for any purpose and by any person at any the school district. For purposes of this policy, an UAS is any aircraft without a human pilot aboard the device. This policy will also be used to assist the district in promoting safety, reducing injuries, and complying with federal, state, state league, local laws, regulations, and policies. In addition, the district recognizes its responsibility in regard to the protection of the privacy rights of students as provided in federal law and state statutes.

1. **GENERAL STATEMENT OF POLICY**

It is the policy of this school district that the use of unmanned aerial vehicles, also known as drones, is limited while on school district property.

1. **DEFINITION**

For the purpose of this policy, a UAS is any aircraft without a human pilot aboard the device. This applies to all fields of play, courts, arenas, mats, gymnasiums, pools, or any other school district facility or property, including spectator areas and parking areas. This also includes all buildings and grounds used, and not owned by the district for school sponsored events and activities, instructional or otherwise.

1. **IMPLEMENTATION**

UAS may be used during classroom instruction while school is in session. Representatives of the school district shall refuse admission or entry to anyone attempting to use a UAS without permission; and if necessary, shall remove anyone attempting to use a UAS and/or confiscate the UAS.

1. **EXCEPTIONS**

The use of an unmanned aircraft system on school grounds for school district purposes that is owned and operated by a contractor must be approved by the Board of Education. Such request must include at minimal: the pilot’s certificate, aircraft registration, proof of insurance and supporting documents of the contractor’s compliance with all applicable Federal Aviation Administration regulations and any State and local laws for the operation of an unmanned aircraft system for the specific use as required by the Board of Education. The minimum insurance coverage shall be determined by the Board after consultation with the Board’s insurance company and Board Attorney.

The use of an unmanned aircraft system on school grounds for school district purposes that is owned and operated by the Board of Education or owned and operated by a student and used in an approved school district program must be operated under the supervision of a school district staff member(s).

The unmanned aircraft system shall only be operated on school grounds and the unmanned aircraft shall only be launched or landed on school grounds or flown over school grounds. The Superintendent or designee shall approve the specific activity(ies) or event(s) in which an unmanned aircraft system may be used. The Superintendent or designee shall ensure the use of a school district-owned or student-owned unmanned aircraft system is in compliance with all applicable Federal Aviation Administration regulations and State and local laws for the operation of an unmanned aircraft system. In addition, the Superintendent or designee shall ensure the Board of Education has insurance coverage for the use or operation of an unmanned aircraft system. The insurance coverage shall be determined by the Board after consultation with the Board’s insurance company and Board Attorney.

The Board of Education may post signage on school grounds indicating the operation of an unmanned aircraft system or flying an unmanned aircraft over school grounds without Board of Education approval is prohibited at all times.

The Board of Education will take appropriate action in accordance with Federal Aviation Administration regulations and/or any State and local laws against any violations of the provisions of this Policy.

*Policy Disclaimer: This policy is provided solely as a sample. Any board of education adopting such a policy should use this sample as a framework or starting point and, after carefully reviewing the applicable laws, regulations and state rules, modify the policy as appropriate to meet the needs of the local school system. Any policy should be carefully reviewed by the board of education’s legal counsel.*