



POLICY STATEMENT

Unmanned Aircraft Systems Policy

SU Policy Number: 601-016.2

ORIGINATING OFFICE

Technology Services

PURPOSE

Unmanned aircraft systems (UAS, and sometimes called 'drones') are important tools used to support many types of work, including: scientific mapping missions, archeological and geological field studies, precision agriculture, aerial photography and cinematography, and journalism. Given the inherent risks associated with unmanned flight, especially to other air traffic and to non-participating persons, it is necessary to formalize processes to manage University-related UAS operations, to protect people and property near UAS operations, and to ensure full compliance with all State and Federal laws and regulations.

The University recognizes that the Federal Aviation Administration (FAA) has jurisdiction over our national airspace system and that UAS are subject to regulation by the FAA. Federal law is clear that the FAA may take enforcement action against operators who operate aircraft in a manner that endangers public safety or the safety of the national airspace system.

The policy described herein ensures that the University has clear lines of authority and well-defined internal processes to identify, manage, and mitigate risk, and thus to ensure safe and legal operation of UAS in furtherance of its institutional goals and objectives. The policy described herein is not unlike other policies used by the Pennsylvania State Game Commission or by Pennsylvania State Parks to address and balance public safety, privacy, or other concerns.

SCOPE

This policy applies to:

1. Shippensburg University employees and students operating unmanned aircraft systems in any location as part of their University employment or as part of University activities;
2. The operation by any person of unmanned aircraft system or model aircraft on or above Shippensburg University property;
3. The purchase of unmanned aircraft systems with funding through Shippensburg University, including university accounts, grants, and;
4. The hiring for or contracting for any unmanned aircraft services by Shippensburg University personnel.

DEFINITIONS:

1. Unmanned Aircraft (UA): an aircraft without a human pilot onboard; instead, the UA is controlled by an operator on the ground. A UA is sometimes called a 'drone.'
2. Small Unmanned Aircraft (small UA): an unmanned aircraft weighing less than 55 pounds (25 kg) on takeoff, including everything this is onboard or otherwise attached to the aircraft.
3. Model Aircraft: a small UA flown strictly for hobby or recreational purposes.
4. Unmanned Aircraft System (UAS): an unmanned aircraft and associated elements, including communication links and components used to control the UA safely and efficiently.
5. Remote Pilot in Command (PIC): a person who holds a remote pilot certificate with a small UA rating and who has the final authority and responsibility for a small UAS operation conducted for work or business (14 CFR Part 107).

The FAA classifies all aircraft into one of two categories: *public* or *civil*. A public aircraft is one that is used only for the United States Government; or owned and operated by the government of a State, the District of Columbia, a territory or possession of the U.S., or a political subdivision of one of those governments. Any aircraft that does not meet the definition of a public aircraft is considered "civil aircraft." Regardless of category, however, all UA weighing more than 0.55 lbs. (250 grams) must be registered with the FAA and labeled clearly before flight (<https://registermyuas.faa.gov/>).

The FAA effectively classifies civil aircraft operations into one of two categories: 1) *flying for fun* (as a hobby or for recreation) or 2) *flying for work* (for commercial or work-related purposes).

Flying for fun

Since 1958, the FAA has allowed small unmanned aircraft operated for enjoyment or recreational purposes to be flown under special rules. Section 336 of the FAA Modernization and Reform Act of 2012 (Public Law 112-95) codified some of these rules. The FAA has since published an interpretation ([Federal Register Notice](#)) of those special rules (see <http://knowbeforeyoufly.org>):

Special rules for safe UAS operations flown for hobby or recreational purposes:

1. Fly at or below 400 feet above ground level;
2. Fly within direct visual line of sight;
3. Never fly near other aircraft, especially near airports;
4. Never fly over groups of people;
5. Never fly over stadiums or sports events;
6. Never fly near emergency response efforts (e.g., accidents or fires);
7. Never fly under the influence; and
8. Be aware of airspace requirements.

Innovation in the UA technology sector occurs rapidly. The newest models are equipped with cameras or other data collection devices, becoming less expensive, and becoming easier to use safely. Flying a UA safely does not also ensure flying with good manners that respect other peoples' rights to privacy or from harassment. Although a balance does exist between a remote pilot's rights as a UA operator and other people's rights, that balance is difficult to find on our small campus where open spaces that might seem like safe spaces to fly are interspersed among residence halls (where privacy is generally expected) and sports fields; or situated over streets, sidewalks, or paths where people walk (and where public safety is generally expected).

POLICY

Operating a UAS for hobby or recreational purposes on or over property owned, managed, or leased by Shippensburg University is prohibited. Any employee, student, or visitor wanting to fly UA for hobby or recreational purposes is encouraged to consult the local chapter of the Academy of Model Aeronautics (AMA) to find an AMA-sanctioned location where such use is approved.

Flying for work

In 2016, the FAA created new opportunities for businesses and government to use small UA. Remote pilots working for either a private businesses or a public entity may now operate a UAS in accordance with the rules in 14 CFR Part 107 ([Summary of Small Unmanned Aircraft Rule \(Part 107\)](#)):

Part 107 rules for remote pilots in command (PIC):

1. Must hold a remote pilot airman certificate with a small UAS rating, which requires:
 - a. being at least 16 years old;
 - b. passing an initial aeronautical knowledge test at an FAA-approved knowledge testing center;
 - c. vetting by the Transportation Safety Administration (TSA); and
 - d. passing a recurrent aeronautical knowledge test every 24 months.
2. Must conduct a preflight check of the small UAS (aircraft, control station, and crew) to ensure that it is in a condition for safe operation.
3. Must not operate a small unmanned aircraft if he or she knows or has reason to know of any physical or mental condition that would interfere with the safe operation of a small UAS.
4. Make available to the FAA, upon request, the small UAS for inspection or testing, and any associated documents/records required to be kept under the rule.
5. Must report to the FAA within 10 days of any operation that results in at least serious injury, loss of consciousness, or property damage of at least \$500.
6. Must NOT act as a remote pilot in command or VO for more than one unmanned aircraft operation at one time.

Part 107 rules for small UA operations:

1. Operations in Class B, C, or D airspaces are allowed with ATC permission.
2. Operations in G and some E airspaces are allowed without ATC permission.
3. Operations must yield right of way to all other aircraft.
4. The aircraft must NOT be flown recklessly or carry hazardous materials.
5. Flight must occur during daylight (or during civil twilight with anti-collision lighting).
6. Flight must occur within visual line-of-sight.
7. Flight must occur while atmospheric conditions allow at least 3 miles of weather visibility from the control station.
8. Flight must occur no higher than 400 feet AGL, or no higher than 400 feet above a structure if the aircraft is within 400 feet of the structure.
9. Flight must NOT occur at speeds faster than 100 mph (87 knots).
10. Flight must NOT occur over people not under a covered structure.
11. Flight must NOT be controlled from a moving vehicle.

Part 107 rules for small UA:

1. The aircraft must weigh less than 55 lbs. (25 kg). *
2. The aircraft must be registered with the FAA (<https://registermyuas.faa.gov/>) if it weighs more than 0.55 lbs. (250 grams).

3. The aircraft must be in a condition for safe operation before each flight.

Remote pilots in command (PIC) who are Shippensburg University employees (including student workers) or hired by University employees will comply with all FAA rules and regulations, and take great care to avoid violating the rights of others to privacy and from harassment. In operating a UAS for purposes of recording or transmitting audio or visual images, operators must take all reasonable measures to avoid violations of areas normally considered private. These areas include but are not limited to restrooms, locker rooms, individual residential rooms, changing or dressing rooms, and health treatment rooms. Pennsylvania state laws relating to the invasion of privacy and wiretapping prohibit the interception of wire, electronic or oral communications. If working abroad, the PIC will comply with the rules and regulations of the country in which they are working.

Any University employee interested in operating a UAS or hiring a third party to operate a UAS to support the University's institutional goals or objectives should contact the Department of Public Safety. Faculty involved in a research grant or directing a student research project involving UAS should contact the Director of Sponsored Programs. Students doing a class project or involved in student-faculty research must identify and work with a Remote PIC and the faculty member.

The university employee will notify the Department of Public Safety about the location, date, time, and duration of any UAS operation on or over property owned, managed, or leased by Shippensburg University no later than 72 hours prior to the start of the operation. See the attached form.

Any third-party planning to use a UAS or model aircraft over University property must first receive approval (see attached form). Third parties planning to use UAS must also provide proof of FAA approval. In addition, operation of a UAS by a third party over University property must be under a contract which holds the University harmless from any resulting claims or harm to individuals and damage to University property.

Use of UAS must comply with any other applicable University policies.

PROCEDURES

1. UAS Advisory Committee

The Director of Sponsored Programs will co-chair a UAS Advisory Committee to assist in the development of University operating policies and procedures regarding UAS. Membership will include, at a minimum, individuals from the following offices/organizations: Sponsored Programs, Technology and Library Services, Safety, Department of Geography-Earth Science (where internal expertise with UAS currently resides), and Student Government Association (SGA). The Committee will meet as needed, but at least once per year, and it will be responsible for:

- a. Creating, reviewing, or rescinding policies, procedures, and standards for University-related UAS operations and making recommendations to the Director of Sponsored Programs;
- b. Reviewing applications for a public Certificate of Waiver or Authorization (COA) and making recommendations (to approve or not approve them) to the Director of Sponsored Programs;
- c. Reviewing acquisition plans for unmanned aircraft systems (UAS) and making recommendations (to approve or not approve them).

2. Future changes to FAA rules

As the aviation industry, UAS technology, and applications of UAS evolve, the FAA may change the special rules for model aircraft, the rules in Part 107, or other rules. Any such change will supersede the rules listed above and, if needed, prompt a meeting of the UAS Advisory Committee to review, amend, or rescind this policy.

3. Public Certificate of Waiver or Authorization (COA)

Government entities or organizations (e.g. public universities) not wanting to operate a UAS under Part 107 rules may choose to apply for a blanket public Certificate of Waiver or Authorization (Public COA). Public COAs can be granted only for purposes that meet the strict definition of public aircraft operations. Public COAs cannot be granted to public universities for education, training, or other uses because those applications are considered commercial in nature. Note - any such COA would be granted to the University and not to an individual.

4. UAS Acquisitions

The UAS Advisory Committee, or its designee, will review and recommend approval, if appropriate, all university UAS and UAS sensor purchases to avoid duplication of effort within the university and to acquire systems that have broad applicability to the university's research and education functions. The unmanned aircraft must weigh less than 55 pounds (25 kg) and be restricted to traveling less than 100 mph (87 knots). The aircraft must be registered with the FAA if it weighs more than 0.55 lbs. (250 grams) (<https://registermyuas.faa.gov/>).

RESCISSION

Not applicable

APPROVALS

President's Cabinet February 29, 2016

President's Cabinet September 11, 2017 (Revision 16.1)

President's Cabinet November 5, 2018 (Revision 16.2)

FILENAME:

601-016.2 Unmanned Aircraft Systems

DATE:

11/5/2018

DISTRIBUTION:

Public

SHIPPENSBURG UNIVERSITY - UNMANNED AIRCRAFT SYSTEMS

CAMPUS FLIGHT PLAN APPROVAL FORM

Please complete this form and submit with attachments to the Department of Public Safety at least seventy-two (72) hours prior to any flight of an unmanned aircraft system (UAS) over the SU campus. Be sure to draw and annotate your flight plan on the accompanying map. The approved copy of this form and map must be available for presentation during the flight. Any change to any of the information below will void the approval and require resubmission and re-approval.

Notes: This form must be submitted by a Shippensburg University employee. All approved campus flights are considered commercial flights (i.e., not hobby flights for fun), must be conducted within the airspace over the SU campus (i.e., not over our neighbor's properties), and must be supervised by a Pilot-in-Command (PIC) with a valid FAA certificate with a small UAS rating. If the PIC is a third party, then the person submitting the form (or designated employee) must accompany the PIC during flight. By signing this form, the PIC and his or her crew members are responsible for upholding the rules and regulations set forth by the FAA and the SU UAS Policy (available at www.ship.edu).

Flight plan submitted by: (First) _____ (Last) _____

Office or Department: _____

Pilot-in-Command (PIC): (First) _____ (Last) _____

Pilot Certificate #: _____ Expiration Date: _____

Visual Observer (VO) and additional flight crew names (optional):

UAS Make/Model/Registration #: _____ / _____ / _____

Flight Date: _____ Flight Times: (Begin) _____ (End) _____

Purpose of Flight: _____

Flight Location: Draw your flight plan on the accompanying map and provide the GPS coordinates (degrees, minutes, and seconds) of the center of the circle that bounds the flight area.

Center Latitude (D or DD) _____ ° _____ ' _____ " N , Center Longitude (D or DD) _____ ° _____ ' _____ " W

Radius from center point above _____ in feet meters (choose one)

Flight Location Description: _____

Signature of Submitter: _____ Date: _____

Signature of PIC: _____ Date: _____

OFFICIAL USE ONLY

UAS Advisory Committee Review _____ Form version 20181102 _____

APPROVED

DECLINED

Notes: _____

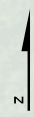
Signature: _____ Date: _____

77°31'30"W

77°31'0"W

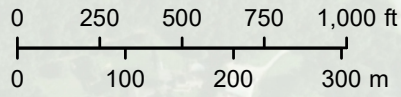
40°4'0"N

40°4'0"N



40°3'30"N

40°3'30"N



Adobe Acrobat Pro users can use the **Comment** tool to draw shapes on, and can use the **Measure** tool to obtain GPS coordinates from, this map.

77°31'30"W

77°31'0"W