

Small-Unmanned Aircraft Systems (UAS) Use Policy

General Statement of Policy

The Division of Agriculture of the University of Arkansas System recognizes the research and educational opportunities provided by collection of aerial data from unmanned aircraft systems (UAS). These UASs, unmanned aerial vehicles (UAVs) or “drones” operate in airspace controlled by the Federal Aviation Administration (FAA). Therefore, all Division of Agriculture personnel shall abide by FAA regulations for responsible and safe operations at all times. Further, Division of Agriculture personnel will exactly follow the procedures outlined in this policy.

Procedures

Purchase. Approval of purchase must be approved by the Unit Head and respective Associate Vice-President by submitting a *University of Arkansas Division of Agriculture UAS Purchase Approval Form*. The Associate Vice-President may delegate approval to the Associate Director or other employee. A business reason must accompany the proposal to purchase including grants and projects. UASs purchased by the Division of Agriculture must be used only for teaching, research and Extension purposes in full compliance with FAA. Personal UASs may be used but are subject to the same restrictions as Division-owned UASs if they are used for research or extension functions.

Alternatives to purchase should be investigated before applying for approval. There are several contractors that can for a fee acquire data using UASs. These services are cost effective and should be investigated before deciding to purchase a UAS.

Research Use

Registration. Unmanned aircraft systems owned by the Division of Agriculture must be registered with the FAA using the Small Unmanned Aircraft System Registration Service

<https://registermyuas.faa.gov/>.

After registration, the designated “N-number” must be prominently displayed on the aircraft at all times.

Certification. The FAA offers three means of certification for faculty and staff of public institutions.

- Certificate of Authorization (COA)
https://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/systemops/aaim/organizations/uas/coa/

- FAA Memorandum for Educational Use of Unmanned Aircraft Systems (May 4, 2016)(UAS) https://www.faa.gov/uas/resources/uas_regulations_policy/media/interpretation-educational-use-of-uas.pdf
- 14 CFR Part 107 https://www.faa.gov/uas/getting_started/fly_for_work_business/

Operations of small UAS by Division of Agriculture personnel will only be allowed by completion of Remote Pilot Certification according to FAA 14 CFR Part 107 at this time.

Approval. Operation of unmanned aircraft systems by Division personnel will not occur without prior approval. Approval may only be granted by the designated approving authority for the Division by submission of the *University of Arkansas System Division of Agriculture Small UAS Operations Approval Form* located on page 3 of this document. Approval will not be granted without prior approval of the appropriate location contact, farm manager, or Station Director. Repetitive flights will be approved for a 12-month period but the location contact, farm manager, or Station Director will be contacted before each individual flight. The unit head and appropriate Associate Director will be notified by email that a flight occurred.

Operation. Small UAS operation by Division personnel shall follow regulations of 14 CFR Part 107 at all times (unless a waiver has been granted by the FAA).

The rules to follow, in part, are listed below:

- Operation in Class G airspace. Class G airspace extends from the surface to the base of the overlying Class E airspace.
- Must keep the aircraft in sight (visual line-of-sight).
- Must fly under 400 feet AGL.
- Must fly during the daylight.
- Must fly at or below 100 mph.
- Must yield right of way to other aircraft.
- Must NOT fly over persons not directly participating in the operation.
- Must NOT fly from a moving vehicle.

Although waivers may be granted by the FAA for the above rules of operation, prior approval by the Division is required for operations under a waiver. Please see information for acquiring waivers at https://www.faa.gov/uas/beyond_the_basics/.

Restricted areas for UASs by the FAA are found on the following at https://www.faa.gov/uas/where_to_fly/.

Responsible Use. Unmanned aerial systems and components owned by the Division of Agriculture shall be used for official business only. Operations with Division owned UASs best described as hobby or those for personal financial gain are prohibited. Operations of a reckless nature or those that compromise the safety and privacy of the general public will not be tolerated. The failure of Division personnel to comply will likely result in disciplinary action or could result in personal liability. Therefore, it is strongly encouraged that all Division personnel review the document at the following link prior to operation.

Voluntary Best Practices for UAS Privacy, Transparency, and Accountability

https://www.ntia.doc.gov/files/ntia/publications/voluntary_best_practices_for_uas_privacy_transparency_and_accountability_0.pdf

Classroom Use

As a part of this coursework, the FAA also indicated that faculty may provide limited assistance to students including 4-H operating unmanned aircraft under the hobbyist exception, but only if UAS operation is a secondary component of the curriculum. A student must maintain operational control of the unmanned aircraft, although the faculty member is allowed to help regain control or to terminate the flight.

The FAA also said that a faculty member conducting research may not rely on Section 336's concept of "hobby or recreational use" to operate a UAS or direct student UAS operations in connection with research. A student operating UAS for research on behalf of a faculty member is associated with that faculty member's professional duties and compensation, and, thus, the activity is not hobby or recreational use by the student pursuant to Section 336. Student operation of the UAS for the professional research objectives of faculty renders the operation non-hobby or non-recreational.

UAS's are limited to not more than 55 pounds. The UAS must be operated in a manner that does not interfere with and gives way to any manned aircraft. If flown within 5 miles of an airport, the operator of the aircraft provides the airport operator and the airport air traffic control tower (when an air traffic control facility is located at the airport) with prior notice of the operations (model aircraft operators flying from a permanent location within 5 miles of an airport should establish a mutually-agreed upon operating procedure with the airport operator and the airport air traffic control tower).

Incidents and Liability

If the UAS's are used for approved purposes and the UAS use falls within the scope of the faculty's duties, then the Division and the faculty would have sovereign immunity, and any claims for liability by others would have to be brought before the Arkansas State Claims Commission. If, however, a faculty member was outside the scope of his/her duties in operating a UAS, he/she could be held personally liable for any damages or injuries resulting. As long as the faculty have appropriate authority to operate a UAS, do so for approved purposes, and the operation of a UAS is within the scope of their job duties, then this sovereign immunity covers the operation.

Division personnel are required to report an accident to the FAA within 10 days, and to the Unit Head, and appropriate Associate Director immediately if the incident results in at least serious injury to any person or any loss of consciousness, or if it causes damage to any property (other than the UAS) in excess of \$500 to repair or replace the property (whichever is lower). However, **ANY** incident resulting in Division property damage or loss or injury should be reported to the appropriate unit head immediately.

Incidents that occur during operations that are deemed “outside or beyond scope” could result in the remote pilot being held personally liable for damages. No Division employee shall operate outside of the approved location or objective for any reason.

Recordkeeping. Detailed flight records including applicable flight and weather information, objectives, sensor payloads, and locations should be kept for each approved operation. Records should be in an electronic form with the ability to be made available to appropriate unit heads immediately upon request.