



U.S. DEPARTMENT OF
ENERGY

Savannah River Operations Office

Unmanned Aircraft Systems (UAS) Overview

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What is an Unmanned Aircraft System (UAS)

An unmanned aircraft system (UAS), sometimes called a drone, is an aircraft without a human pilot onboard – instead, the UAS is controlled from an operator on the ground.

(Public Law 112-95, Section 331(8)):

- An unmanned aircraft system is an unmanned aircraft and the equipment necessary for the safe and efficient operation of that aircraft. An unmanned aircraft is a component of a UAS. It is defined by statute as an aircraft that is operated without the possibility of direct human intervention from within or on the aircraft

14 CFR, Part 107:

- This rule defines small UAS as UAS that use unmanned aircraft weighing less than 55 pounds.



Rules for operating UAS in national airspace system?

- **Title 14 Code of Federal Regulations, Part 107** (14 CFR, Part 107) allows for routine civil operation of small UAS in the national airspace system and provides safety rules for those operations.

Planning Considerations:

- The operation must not create a hazard to users of the national airspace system or the public;
- The operation must not pose a threat to national security.



Flying for Work/Business (Non-recreational)

Basic flight operations under the small UAS rule (14 CFR part 107):

Pilot Requirements:

- Must be at least 16 years old
- Must pass an aeronautical knowledge test at an FAA-approved knowledge testing center
- Must be vetted by the Transportation Safety Administration (TSA)

Aircraft Requirements:

- Less than 55 lbs.
- Must be registered with FAA

Operating Rules:

- Must keep the aircraft in sight (unassisted visual line-of-sight)*
- Must fly under 400 feet*
- Must fly during the day*
- Must fly at or below 100 mph*
- Must yield right of way to manned aircraft*
- Must NOT fly over people*
- Must NOT fly from a moving vehicle*

* Denotes rule subject to waiver



Flying for Fun (Recreational or Hobby)

The FAA relied on the dictionary definition of these terms. UAS use for hobby is a "pursuit outside one's regular occupation engaged in especially for relaxation." UAS use for recreation is "refreshment of strength and spirits after work; a means of refreshment or diversion."

Option #1. Fly in accordance with the Special Rule for Model Aircraft (Public Law 112-95 Section 336). Under this rule, operators must:

- Fly for hobby or recreational purposes only
- Follow a community-based set of safety guidelines
- Fly the UAS within visual line-of-sight
- Give way to manned aircraft
- Provide prior notification to the airport and air traffic control tower, if one is present, when flying within 5 miles of an airport
- Fly UAS that weigh no more than 55 lbs. unless certified by a community-based organization
- Register the aircraft

Option #2. Fly in accordance with the FAA's Small UAS Rule (Part 107).



SRS UAS Sightings

June 19 to July 22, 2016

The Savannah River Site experienced 12 reported sightings of possible UAS flying over the site. Based on the details obtained during the response and assessment of those 12 reported sightings, eight UAS sightings were reported to the appropriate authorities for determination if further action was necessary and four of the reported sightings resulted in no confirmation of UAS operations.

July 22, 2016 to present

Eight preliminary reports of UAS sightings have been received. Based on the follow-up assessments and inquiries no UASs were located or confirmed.



Regulating SRS Airspace

Current Status of SRS Airspace

FAA lists SRS airspace in the national airspace system (NAS) and establishes it as a national security area (NSA) -- This consists of a Notice to Airmen to voluntarily avoid the SRS airspace and not fly below 2,000 feet.

Future of SRS Airspace

Senior officials from the Department of Energy, specifically the National Nuclear Security Administration, and the FAA are discussing options to regulate UAS operations over sensitive DOE facilities including the Savannah River Site.



Questions?

