

Things to Know

Description

The Department of Environmental Health and Safety is available to assist those persons or departments desiring to use UAS in support of their educational, research, or operational missions. Please contact the Office of UAS /Drone Operations at 352-392-1591 for assistance. The FAA Part 107 small UAS rule greatly simplifies the process for operating small UAS under many conditions, however, there are numerous FAA requirements that must be complied with to operate legally under the rule. Project personnel must be cognizant of these requirements and must comply with all rules. Below is additional information that may be helpful.



le=" Aircraft Registration "]

The FAA requires that each aircraft be registered and that

the registration number be marked on the aircraft. The FAA has implemented a greatly simplified process to register unmanned aircraft online. This process takes only a few minutes and a registration number will be provided immediately. The make, model, and serial number information are all that is needed to complete this process. After the registration number is obtained the aircraft must be marked. Figure 1 below describes the FAA's instructions for marking the unmanned aircraft. The registration information must be provided to the UF UAS Coordinator during initial EH&S registration.

[/su_spoiler] [su_spoiler style="fancy" icon="chevron" title=" Flight Crew Requirements and Qualifications "] A remote Pilot in Command (PIC) must possess an FAA issued remote pilot certificate for flight operations under the Part 107 UAS rule. Typically, the PIC would be the person operating the aircraft, but the Part 107 rule does allow for operations by someone who would be under the direct supervision of a person that holds a remote pilot certificate. "Direct Supervision" requires that the PIC is able to immediately take direct control of the UAS to quickly address a hazardous situation. This would generally require the PIC to be in close proximity to the person operating the aircraft.

Additionally:

- A mission commander is not required
- A Visual Observer may be used, but is not required
- A medical certificate is not required for a remote pilot certificate. A person may not, however, participate in the operation of a UAS if they know or have reason to know that they have a

physical or mental condition that could interfere with the safe operation of the UAS.

An FAA issued remote pilot certificate can be obtained in one of two ways:

No Prior Certifications

- Take the Airmen Information Knowledge Test
- Acquire the necessary knowledge to pass the test either by self-study or by taking a course (in-person or online) to prepare.
- Take the test at an official FAA testing center. In Gainesville, tests are given at the University Air Center. There is a \$150 fee for taking the test.
- If the test is passed, complete an application for a remote pilot certificate (FAA Form 8710-13). The online process (<https://iacra.faa.gov/iacra>) is highly recommended (see appendix B for details), however, a paper application process is also available.
- After the online application is submitted there is a Transportation Security Administration (TSA) vetting process to complete a background security check of the applicant. Once the TSA vetting process is completed, the applicant will receive an email notifying them that a temporary certificate can be printed. This is valid for up to 120 calendar days.
- After other FAA processing is complete, a permanent certificate will be issued to the applicant. • The aeronautical knowledge test must be completed once every 24 calendar-months for the certificate to continue being valid.
- If a person fails the aeronautical knowledge test, they must wait at least 14 calendar days before applying to retake the test.

Prior Pilot Certifications

If a person holds a part 61 pilot certificate (a student pilot certificate does not qualify), and has completed a flight review within the previous 24 calendar-months they may use the following process in-lieu of taking the Airmen Information Knowledge Test:

- Complete the online course (Part 107 small UAS) located within the FAA Safety Team web site (www.faasafety.gov) and receive a completion certificate
- Complete an application for a remote pilot certificate (FAA Form 8710-13). The online process is highly recommended and be found at <https://iacra.faa.gov/iacra/> , however, a paper application process is available.
- Contact a FSDO (Flight Standards District Office) to make an appointment to validate the applicant's identification. The applicant must present the completed 8710-13 form, the online course completion certificate, and proof of a current flight review.
- After verifying the application, the FSDO representative will issue a temporary remote pilot certificate.
- After other FAA processing is complete, a permanent remote pilot certificate will be issued to the applicant.
- There is a \$50 fee for the application process.

Note: As an alternative to contacting the FSDO, a Designated Pilot Examiner (DPE), an Airman Certification Representative (ACR), or a Certified Flight Instructor (CFI) may also validate the applicant's identification, however a CFI will not be able to issue a temporary remote pilot certificate. [su_spoiler] [su_spoiler style="fancy" icon="chevron" title=" Flight Plan Review "] A Flight Plan form will be filled out for each project that will utilize UAS and is to be submitted to the UAS Coordinator. The

form will be reviewed to ensure the necessary information has been supplied and that the proposed flights meet the criteria for the small UAS rule. The form should be updated and resubmitted if there are substantial changes during the project. Examples would include a different pilot, different aircraft, or different locations for the flights. Multiple or reoccurring flights for a single project may be permitted for the entire project provided flight records are maintained and submitted upon request to Environmental Health and Safety.

[/su_spoiler] [su_spoiler style="fancy" icon="chevron" title=" Accident Reporting "] The remote PIC of the sUAS is required to report an accident to the FAA within 10 days if it meets any of the following thresholds:

- Serious injury to any person or any loss of consciousness. A serious injury is an injury that qualifies as Level 3 or higher on the Abbreviated Injury Scale.
- Damage to any property, other than the small unmanned aircraft, if the cost is greater than \$500 to repair or replace the property (whichever is lower).

The report is submitted to the FAA Regional Operations Center either electronically (www.faa.gov/uas/) or by phone (817-222-5006).

An incident report must be submitted to the Environmental Health and Safety Office and is also to be provided to the UF UAS Coordinator.

[/su_spoiler] [su_spoiler style="fancy" icon="chevron" title=" Pre-Flight Check "] Prior to every flight, the remote Pilot in Command is responsible for conducting a check of the sUAS and verifying that it is in a condition for safe operation. A preflight checklist for each specific aircraft type should be developed if not already provided by the manufacturer. Guidance for the preflight check is found in FAA Advisory Circular: AC 107-2 section 7.3.4

Preflight Checklist Items

1. Visual condition inspection of the UAS components;
2. Airframe structure (including undercarriage), all flight control surfaces, and linkages;
3. Registration markings, for proper display and legibility;
4. Moveable control surface(s), including airframe attachment point(s);
5. Servo motor(s), including attachment point(s);
6. Propulsion system, including powerplant(s), propeller(s), rotor(s), ducted fan(s), etc.;
7. Verify all systems (e.g., aircraft and control unit) have an adequate energy supply for the intended operation and are functioning properly;
8. Avionics, including control link transceiver, communication/navigation equipment, and antenna(s);
9. Calibrate UAS compass prior to any flight;
10. Control link transceiver, communication/navigation data link transceiver, and antenna(s);
11. Display panel, if used, is functioning properly;
12. Check ground support equipment, including takeoff and landing systems, for proper operation;
13. Check that control link correct functionality is established between the aircraft and the Control System / Remote;
14. Check for correct movement of control surfaces using the CS;
15. Check onboard navigation and communication data links;
16. Check flight termination system, if installed;
17. Check fuel for correct type and quantity;
18. Check battery levels for the aircraft and CS;
19. Check that any equipment, such as a camera, is securely attached;

20. Verify communication with UAS and that the UAS has acquired GPS location from at least four satellites;
21. Start the UAS propellers to inspect for any imbalance or irregular operation;
22. Verify all controller operation for heading and altitude;
23. If required by flight path walk through, verify any noted obstructions that may interfere with the UAS; and
24. At a controlled low altitude, fly within range of any interference and recheck all controls and stability
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