

Part 107 Regulations in Plain English

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This applies to anyone flying a small Unmanned Aircraft System (sUAS) in a non-recreational environment.

You as the Remote Pilot in Command

You must hold a Remote Pilot Airman Certificate. You are the ultimate authority for the flight.

The person operating the sUAS controls must hold a Remote Pilot certificate, or be under the direct supervision of, and within close proximity to, someone who does. (The certificate holder must be close enough to immediately take over the controls physically or using something like a "buddy box".)

Certificates are given to those who:

- Have passed the aeronautical knowledge test
- Are at least 16 years of age
- Have been vetted by the Transportation Security Administration

Only a Designated Pilot Examiner or Certified Flight Instructor can process the certificate application, if done offline.

A Remote Pilot must have his/her pilot certificate on his/her person or within easy access while acting as Pilot in Command. A Remote Pilot must also be able to show 24-calendar month recurrency.

If you change your permanent address you must notify the FAA Airman Certification branch of the new address within 30 days.

After receiving a Remote Pilot Certificate, you must undergo an FAA recurrency test every 24 calendar months.

Your sUAS that weighs more than .55 pounds must be registered with the FAA. You must be at least 13 years of age to register an sUAS.

State or Federal drug or alcohol convictions are grounds for denial of application for the Remote Pilot certificate for a period of one year after the conviction.

You may choose to use a *Visual Observer* (VO) to supplement situational awareness.

 You must determine a method of effective communication before flight operations begin, and communication assistance devices (such as two-way radios) are encouraged.

Before all flight operations, the Remote Pilot in Command must:

- Conduct a preflight inspection of the UAS to make sure it is in a condition for safe operation
- Check for all *Notices To Airmen* (NOTAMs) to determine if there are any applicable airspace restrictions
- Conduct an assessment of the operating environment
- Obtain local weather information
- Obtain local airspace information and restrictions
- Locate and access persons and property in the area, as well as all other potential ground hazards
- Ensure that all control links between the Control System and the UAS are working properly
- Ensure there is sufficient power to continue flight operations to a normal landing

You must make available to the FAA, upon request, the small UAS for inspection or testing, as well as any associated documents/ records. Failure to do so could result in the revocation of your certificate.

Any falsification of documents or certifications will result in civil sanctions and/or the revocation of a certificate or waiver.

You must report to the FAA within 10 calendar days of any operation that results in serious injury, loss of consciousness, or property damage of \$500 or more.

The Remote Pilot In Command (RPIC) has direct authority, and can deviate from any rules or regulations in the event of an emergency.

All airmen are required to produce their certificates for inspection when requested by the FAA Administrator (or representative), representatives of the NTSB or TSA, or any Federal, state, or local law enforcement officer.

How You Can Fly

While flying, you must keep the UAS within *Visual Line Of Sight* (VLOS). This means you have to be capable of physically seeing your UAS at all times without using any kind of binoculars or first-person camera system.

Even if you are using a Visual Observer, the PIC must still maintain the VLOS requirements. The Visual Observer must be able to relay to the PIC:

- The small UA location, attitude, altitude, and direction of flight
- The position of other aircraft or hazards in the airspace
- The determination that the UA does not endanger the life or property of another

You must give way to any manned aircraft. This includes taxiing manned aircraft. *They're usually bigger than you*. Do not fly under unmanned balloons.

You may only fly one UAS at a time.

You may only fly automated flight plans if the remote PIC has the ability to change routing/altitude, or command the aircraft to land immediately. *This can be done manually or through the use of automation.*

You may not fly faster than 100 mph (87 knots).

You may not operate the UAS from a moving aircraft, but you may operate the UAS from a moving vehicle if you are flying over a sparsely populated area.

You may not fly recklessly or in any way that endangers the life or property of another person.

You may not fly if you are mentally or physically impaired.

You may not fly if you have consumed alcohol within the prior 8 hours, or with a blood alcohol content of .04% or greater.

You may not allow objects to be dropped from your UA if it creates an undue hazard to persons or property below.

Most skeletal structures are supported by guy wires which are very difficult to see. All skeletal structures should be avoided horizontally by at least 2,000 feet.

Where You Can Fly

Part 107 applies to non-recreational, non-public flight. If you are flying as a hobbyist or as part of a public (government) team, Part 107 does not apply. To reiterate, Part 107 applies to civil, non-recreational flights. It does not apply to public flights. ("Public" is a special, governmental designation.)

Under Part 107, you may not fly within Class B, C, D and E surface area airspace unless you have an Airspace Authorization (or less commonly, a Waiver) from Air Traffic Control (ATC). Authorizations are generally obtained using a third-party LAANC provider. Authorization is not necessary for Class G or for Class E that starts at either 700 or 1200 feet AGL.

Authorization is required fly in Class E when it touches the surface and surrounds an airport. If the Class E does NOT touch the surface, no authorization is needed. §107.41

You may fly during civil twilight or night with appropriate anti-collision lighting, visible for at least 3 statute miles. Lights may be momentarily dimmed if necessary for safety of flight.

Night flight has the additional requirement of passing a Part 107 knowledge test (initial or recurrent) after April 5, 2021.

Civil twilight is defined as 30 minutes before official sunrise and 30 minutes after official sunset. Night is defined as the period between the end of evening civil twilight and beginning of morning civil twilight.

You must have 3 statute miles (as opposed to nautical miles) of visibility.

You must remain at least 500 feet below and 2,000 feet horizontally from clouds.

You may not fly higher than 400 feet above the ground unless you are within 400 feet of a structure. If you are already higher than 400 feet *(on top of a building for example)*, you must remain within 400 feet of the structure in any direction.

You may not fly anywhere that may interfere with the operations of an airport. This includes, but is not limited to, approach corridors, traffic patterns, taxiways, runways, and helipads.

Flight Over Humans

You may not fly over any person (not involved with the operation) that is not covered by a structure, or inside a stationary vehicle unless your sUAS is operated under Category 1, 2, 3, or 4. Additional requirements exist for operation in these four categories. For Category 1, 2, and 3, propellers must shielded so as not to be capable of lacerating human skin.

- Category 1 aircraft weighs .55 pounds or less
- Category 2 transfers no more than 11 foot-pounds of force in a crash
- Category 3 transfers no more than 25 fool-pounds of force in a crash
- Category 4 aircraft has an FAA Airworthiness Certificate

Waivers and Authorizations

Waivers are authorizations for a Pilot to deviate from regulations. Certificates of Waiver can be applied for by filling out an FAA application online at faadronezone.faa.gov.

Authorizations for normal flight operations in Class B, C, D, or the surface area of Class E are not waivers. They are authorizations to operate within the regulations. Authorizations are applied for by filling out an FAA application online at faadronezone.faa.gov or through a third-party LAANC provider (the most common method).

The waivable sections are:

- Operations from a moving vehicle or aircraft, so long as property is not being carried by the other aircraft for compensation.
- Visual line of sight aircraft operations. So long as property is not being transported for hire.
- Visual Observer
- Operation of multiple UAS at one time
- Yielding the right of way
- Operation in certain airspace
- Operating limitations for small unmanned aircraft

The FAA encourages pilots to apply for these waivers not less than 90 days before the planned operations.

Prior to April 2021, night flight and flight over people were waivable. They are now allowed subject to regulations.

Carrying Cargo

You may carry or transport objects for compensation as long as they are securely attached and do not adversely affect the flight characteristics or controllability of the aircraft.

The unmanned aircraft plus additional cargo may not weigh 55 pounds or more.

You may not transport the cargo across state lines, within the District of Columbia, through Hawaiian airspace, or within a separate US territory. You may, however, obtain a special certificate of waiver to circumvent these rules.

The UAS

Must weigh less than 55 lbs. (25 kg.).

Does not need an FAA airworthiness certification unless operated under Category 4.

The UAS must be registered in compliance with the existing Part 91.203(A)(2) regulations.

- Unmanned aircraft operated under Part 107 must be registered if they weigh more than .55 pounds.
- A small unmanned aircraft owner is not permitted to register the UA unless they are over the age of 13. They must have someone else register it.
- A UAS that is registered in another country must be deregistered in that country prior to registering it in the United States.

Scheduled maintenance, as required by the manufacturer, must be adhered to and documented.

If there are no scheduled maintenance instructions provided by the sUAS manufacturer or component manufacturer, the owner or operator should establish a scheduled maintenance protocol.

Animal Strikes

You must report to the FAA any aircraft strikes with birds, bats, and terrestrial mammals and reptiles greater than 1 kg (2.2 pounds) in weight.