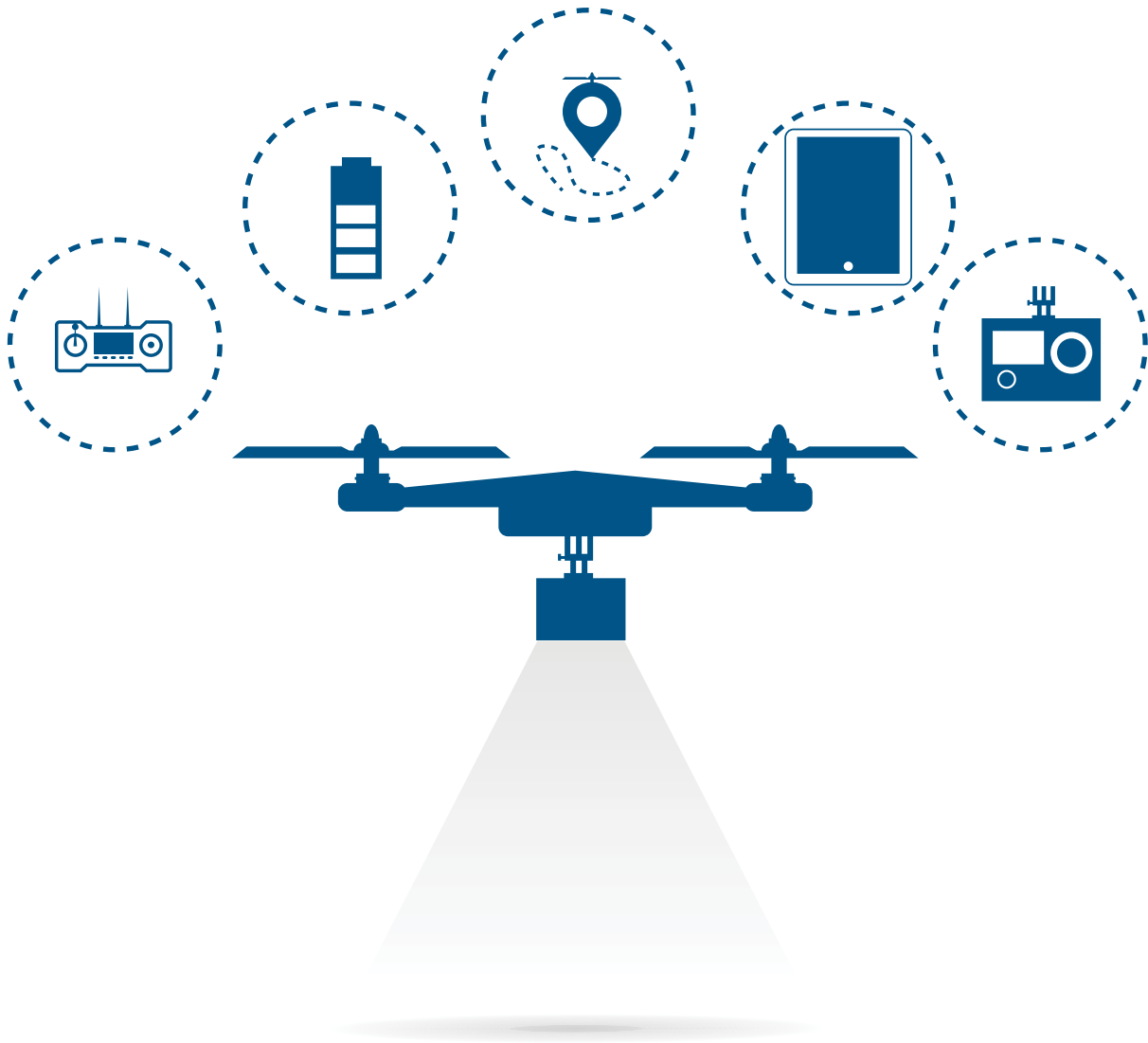




NAMIC'S GUIDE TO USING YOUR DRONE COMMERCIALY



September 2016



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The Federal Aviation Administration’s new comprehensive regulations went into effect on August 29 for routine non-recreational use of small unmanned aircraft systems, or sUAS, more popularly known as “drones.” A small UAS is one that is 55 pounds or less, including any attachments or cargo. The provisions of the new rule – formally known as Part 107 – are designed to minimize risks to other aircraft and people and property on the ground.

NAMIC conducted a webinar on Aug. 29 with FAA officials outlining the rules and answering numerous specific questions asked by NAMIC members. That webcast is available [here](#) for replay.

The new rules lay out what is permitted and prohibited under the new 107 rules, how to get the remote pilot certificate needed to fly under those rules, which rules can be exempted through a waiver, and accident reporting requirements.

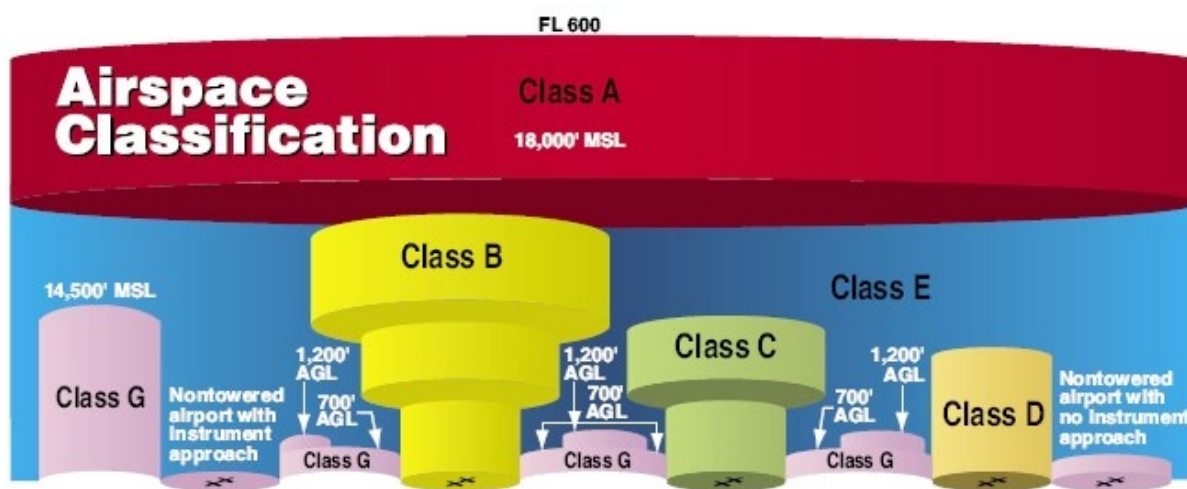


RULES FOR ROUTINE COMMERCIAL DRONE OPERATIONS

The sUAS Rule, known as Part 107, provides rules for routine commercial use for sUAS, those less than 55 pounds, which are now in effect. Under these new rules, commercial drone flights that comply with the rules will not require prior FAA approval. Part 107 Operating Rules will require that the drone be registered¹ with the FAA and adhere to the following conditions:

- The pilot in command must have a Remote Pilot Certificate ([see page 6](#)).
- The pilot in command must maintain visual line-of-sight (VLOS).
- Flights can be conducted only during daylight or civil twilight.
- Flights directly over people are prohibited.
- Flights must yield right-of-way to manned aircraft.
- There is a maximum of one sUAS in operation for each pilot in command.
- Maximum groundspeed cannot exceed 100 mph.
- Maximum altitude cannot exceed 400' or a 400' radius.
- Flights are permitted only in class G airspace, airspace authorization is needed for any flights class B, C, D, and E surface areas.

NAMIC members have indicated that their proposed use of sUAS for property/casualty insurance has been limited by the restrictions of flying beyond visual line of sight and over people.



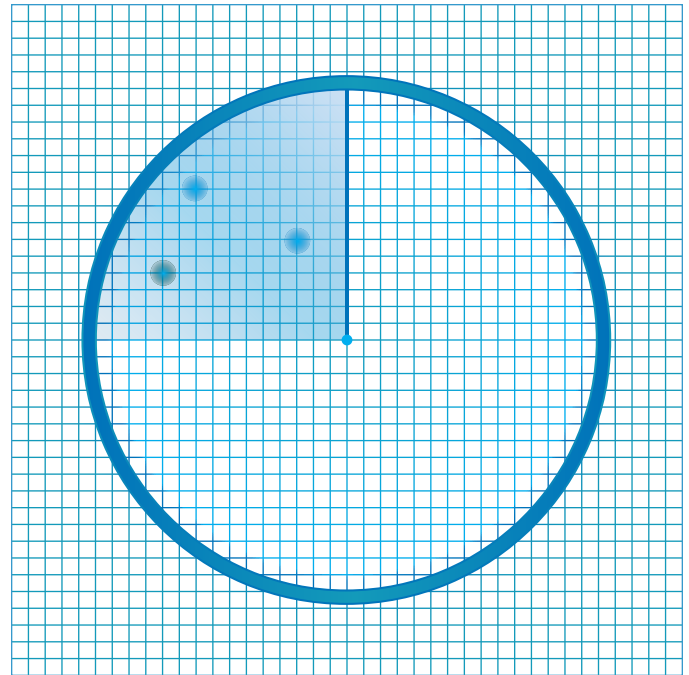
Source: FAA

¹ A drone must be registered with the FAA prior to operating under part 107 unless the drone weighs less than 0.55lbs. The online registration Web address is <http://www.faa.gov/uas/registration/>. Guidance regarding drone registration and marking may be found at <http://www.faa.gov/uas/faqs/>. Aircraft registrations issued on or after October 1, 2010, will be good for three years with the expiration date clearly shown Registration information related to buying or selling a drone is at https://www.faa.gov/licenses_certificates/aircraft_certification/aircraft_registry/UA/#SmallUA.

The FAA takes the position that the remote pilot in command and the person manipulating the controls must be able to see the drone at all times during flight. Therefore, the sUAS must be operated closely enough to the drone controls to ensure visibility requirements are met during operations.

The FAA guidance provides that:

- The person maintaining VLOS may have brief moments in which he or she is not looking directly at or cannot see the sUAS, but still retains the capability to see the sUAS or quickly maneuver it back to VLOS. The VLOS requirement would not prohibit actions such as scanning the airspace or briefly looking down at the sUAS controls.
- The FAA provides that “[if an] operational necessity, the remote pilot in command or person manipulating the controls may intentionally maneuver the sUAS so that he or she loses sight of it for brief periods of time.”
 - Should the remote pilot in command or person manipulating the controls lose VLOS of the sUAS, they must regain VLOS “as soon as practicable.”
 - The FAA provides the example of a remote pilot in command stationed on the ground utilizing a sUAS to inspect a rooftop who may lose sight of the aircraft for brief periods while inspecting the farthest point of the roof.
 - The FAA does emphasize that even though the remote pilot in command may briefly lose sight of the sUAS, they always have the see-and-avoid responsibilities.
- While the circumstances of what would prevent a remote pilot in command from fulfilling those responsibilities will vary, depending on factors such as the type of sUAS, the operational environment, and distance between the remote pilot in command and the sUAS, the FAA does not set a specific time interval that interruption of VLOS is permissible.
- If VLOS cannot be regained, the remote pilot in command or person manipulating the controls should end the operation and follow pre-determined procedures for a loss of VLOS.





OPERATING OVER PEOPLE

Part 107 prohibits a person from flying a sUAS directly over a person not involved with the flight operations and who is not under a safe cover, such as a protective structure or a stationary vehicle. A sUAS may be flown over a person who is directly participating in the operation of the sUAS, such as the remote pilot in command, other person manipulating the controls, a visual observer, or crewmembers if it is necessary for the safety of the sUAS operation, and the person has been assigned and briefed by the remote pilot in control.

There FAA suggests several ways that the remote pilot in command can comply with these requirements:

- If operating at a site that is populated/inhabited, have a plan of action which ensures persons remain clear of the operating area, remain indoors, or remain under safe cover until such time that the sUAS flight has ended. Safe cover is a structure or stationary vehicle that would protect a person from harm if the sUAS were to crash into that structure or vehicle;
- Establishing an operational area in which the remote pilot in command has taken reasonable precautions to keep free of persons not directly participating in the operation of the drone;
- Having a plan of action that ensures the sUAS remains clear of persons who may enter the operating area, or keep an appropriate operating distance from persons not directly participating in the operation of the sUAS.



A person acting as a remote pilot in command of a sUAS in the National Airspace System under part 107 must obtain a “remote pilot certificate with a small unmanned aircraft system rating issued by the FAA prior to sUAS operation. The remote pilot in command of a sUAS must have this certificate easily accessible during flight operations. The remote pilot in command of a sUAS is directly responsible for, and is the final authority as to, the operation of that drone. The remote pilot in command has final authority over the flight.

A person manipulating the flight controls does not have to hold a remote pilot certificate as long as he or she is directly supervised by a remote pilot in command and the remote pilot in command has the ability to immediately take direct control of the sUAS.

A person applying for remote pilot certificate with a sUAS rating must pass an initial aeronautical knowledge test given by an FAA-approved knowledge test center. The initial knowledge test will cover the following aeronautical knowledge areas:

- Applicable regulations relating to sUAS rating privileges, limitations, and flight operation;
- Airspace classification and operating requirements, and flight restrictions affecting small UA operation;
- Aviation weather sources and effects of weather on small UA performance;
- Small UA loading and performance;
- Emergency procedures;
- Crew Resource Management;
- Radio communication procedures;
- Determining the performance of small UA;
- Physiological effects of drugs and alcohol;
- Aeronautical decision-making and judgment;
- Airport operations; and
- Maintenance and preflight inspection procedures.





OBTAINING A REMOTE PILOT CERTIFICATE

There are **686 test centers** throughout the United States, but you must call, email or submit an online request form to one of the two companies administering the test -- not the test center -- in order to schedule a test. The two companies are **Computer Assisted Testing Service** and **PSI / LaserGrade Computer Testing**. The test consists of 60 multiple-choice questions that must be answered within two hours. A passing grade is 70% or at least 42 correct answers. The test can be retaken if not passed after a 14-day waiting period.

After a person receives a remote pilot certificate with an sUAS rating, that person must retain and periodically update the required aeronautical knowledge to continue to operate a sUAS in the NAS. To continue exercising the privileges of a remote pilot certificate, the certificate holder must pass a recurrent aeronautical knowledge test within 24 calendar-months of passing either an initial or recurrent aeronautical knowledge test.

The FAA provides a Remote Pilot – Small Unmanned Aircraft Systems **Study Guide** and a **training course** to persons who first register with **FAASafety.gov**.

Upon passing the test, applicants can apply for the Remote Pilot Certificate using the **Integrated Airman Certification and Rating Application**, a web-based certification/rating application that guides the user through the FAA's airman application process. IACRA helps ensure applicants meet regulatory and policy requirements through the use of extensive data validation. It also uses electronic signatures to protect the information's integrity, eliminates paper forms, and prints temporary certificates. The entire application process takes place on the website, including electronic signing of applications, and at the end of the process all the necessary documents will be sent electronically to the Airman Registry.

Applicants need to create an IACRA account, before creating a Remote Pilot application. Applicants must answer the English Language and Drug Conviction questions and upload their Training Course Completion Certificate. Applicants must then meet with a Submitting Official, either a Certified Flight Instructor or a Certifying Officer who will verify English Language Proficiency and completion of Training Course Completion Certificate, and have the applicant review and sign a Pilot's Bill of Rights.

After the FAA receives the application, the Transportation Safety Administration will automatically conduct a background security screening of the applicant prior to issuance of a remote pilot certificate. If the security screening is successful, the FAA will issue a permanent remote pilot certificate. If the security screening is not successful, the applicant will be disqualified and a temporary pilot certificate will not be issued. Individuals who believe that they improperly failed may appeal the decision to the TSA.

Part 107 includes the option to apply for a Certificate of Waiver, which will allow a commercial sUAS operation to deviate from certain requirements if the FAA determines that the proposed operation can be safely conducted under the terms of that Certificate of Waiver. Waivers may be approved for a period of up to four years.

A list of the waivable sections of part 107 can be found in § 107.205 and are listed below:

- Section 107.25, Operation from a moving vehicle or aircraft. However, no waiver of this provision will be issued to allow the carriage of property of another by aircraft for compensation or hire.
- Section 107.29, Daylight operation.
- Section 107.31, Visual line of sight aircraft operation. However, no waiver of this provision will be issued to allow the carriage of property of another by aircraft for compensation or hire.
- Section 107.33, Visual observer.
- Section 107.35, Operation of multiple small unmanned aircraft systems.
- Section 107.37(a), Yielding the right of way.
- Section 107.39, Operation over people.
- Section 107.41, Operation in certain airspace.
- Section 107.51, Operating limitations for small unmanned aircraft.

The application for a Certificate of Waiver must include a complete description of the proposed operation and a justification, including supporting data and documentation to establish that the proposed operation can be safely conducted under the terms of a for a Certificate of Waiver. The FAA maintains that the amount of data and analysis required as part of the application will be proportional to the specific relief that is requested. Any Certificate of Waiver that is granted may include “specific special provisions designed to ensure that the sUAS operation may be conducted as safely as one conducted under the provisions of part 107.”

The FAA has documented **Small UAS Waiver Applications Instructions**. For each of the 107 provisions that can be waived, the FAA has identified specific performance-based standards that must be justified before a Certificate of Waiver will be granted. These Performance Based Standards can be found [here](#). The FAA will also list Waiver Approvals and Denials on their [website](#) to assist applicants on what has and has not been waived and under what conditions. The FAA says it is already planning on issuing more than 70 based on petitions for Section 333 exemptions. The majority of these approved waivers, which will be posted on the FAA website in September, are for night operations under Part 107. The FAA has already begun issuing waivers based on petitions for Section 333 exemptions. Themajority of these approved waivers, which are posted on the FAA website, are for night operations under Part 107.



NEW ACCIDENT REPORTING REQUIREMENTS

The remote pilot in command of the sUAS is required to report an accident to the FAA within 10 days if:

- There is serious injury to any person or any loss of consciousness. It would be considered a “serious injury” if a person requires hospitalization, but the injury is fully reversible (including, but not limited to, head trauma, broken bone(s), or laceration(s) to the skin that requires suturing).
- There is damage to any property, other than the sUAS, if the cost is greater than \$500 to repair or replace the property (whichever is lower). For example, a small UA damages a property whose fair market value is \$200, and it would cost \$600 to repair the damage. Because the fair market value is below \$500, this accident is not required to be reported. Similarly, if the aircraft causes \$200 worth of damage to property whose fair market value is \$600, that accident is also not required to be reported because the repair cost is below \$500.

The accident report must be made within 10 calendar-days of the operation that created the injury or damage. The report may be submitted to the appropriate FAA Regional Operations Center electronically or by telephone. Electronic reporting can be with the FAA **online** and telephone reports can be made to the FAA **regional offices**. The report should include the following information: the sUAS pilot in command’s name, contact information and FAA airman certificate number; the sUAS FAA registration number; the location, date, time of the accident; any person(s) injured and extent of injury; any property damage; and. a description of what happened.



NAMIC is the largest property/casualty insurance trade association in the country, with more than 1,400 member companies. NAMIC supports regional and local mutual insurance companies on main streets across America and many of the country's largest national insurers. NAMIC members represent 39 percent of the total property/casualty insurance market, serve more than 170 million policyholders, and write more than \$230 billion in annual premiums.



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