

Law Bulletin



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The New FAA Rule for Using Drones on the Farm

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The Federal Aviation Administration's (FAA) final rule for the *Operation and Certification of Small Unmanned Aircraft Systems* is effective on August 29, 2016. The new rule creates a regulatory program for commercial operation in the national airspace of small unmanned aircraft systems (sUAS) or "drones" weighing less than 55 pounds. Farmers and others utilizing sUAS for agricultural purposes must comply with the rule, as the FAA considers the use of sUAS in farm and ranch operations to be a commercial use that falls under the new regulations. A sUAS operator who fails to comply with the rule could be subject to civil penalties of up to \$27,500.

An important first step toward compliance is to obtain the proper license to operate a sUAS, referred to as "remote pilot certification." A second step is to understand the rule's operational requirements and limitations. This bulletin summarizes each of these areas of the new sUAS rule and also explains a provision that allows an applicant to seek a waiver from some of the rule's requirements.

The Remote Pilot Certification Requirement

The Remote Pilot in Command (Remote PIC) is the person directly responsible for the sUAS operation. The new rule requires the Remote PIC to obtain a remote pilot certificate with a small UAS rating, which requires: 1) meeting eligibility requirements, 2) passing the FAA's knowledge test and 3) completing the application process.

1. *Eligibility requirements.* An applicant must be at least 16 years old, proficient in the English language, and in a physical and mental

condition that would not interfere with safe operation of a sUAS.

2. *Knowledge test.* An applicant must pass the unmanned aircraft general (UAG) knowledge test before applying for the remote pilot certificate. The UAG knowledge test contains 60 multiple choice questions on:

- Federal regulations for sUAS
- Airspace classification and operating requirements
- Weather sources and effects of weather on sUAS
- Loading and performance of sUAS.
- Emergency procedures
- Crew resource management
- Radio communication procedures
- Determining performance of sUAS.
- Effects of drugs and alcohol
- Aeronautical decision-making
- Airport operations and maintenance
- Preflight inspection procedures

The FAA provides a free online learning course and sample exam questions for knowledge test preparation, which are available online at www.faasafety.gov. Applicants must take the knowledge test at an FAA approved Knowledge Testing Center. A list of the 23 testing centers in Ohio is available online at www.faa.gov/training_testing. Passing the test requires a score over 70%. An applicant who fails may retake the test after 14 days. Applicants already holding a pilot certificate, other than student pilots, may follow a less difficult process that requires completing a two-hour online course. The course, which includes an exam, is available on www.faasafety.gov.

3. *Application.* An applicant who passes the UAG knowledge test must complete the application for a remote pilot certificate, FAA Form 8710-13. The form is available online through the FAA's Integrated Airmen Certificate Rating

Application System at <https://iacra.faa.gov>. Upon receiving an application, the Transportation Security Administration (TSA) will conduct a background security screening to determine if the applicant represents a security threat. An unsuccessful security screening will disqualify the applicant, who has a right to appeal the security screening decision. If the screening is successful, an applicant will receive the remote pilot certificate. The FAA will issue a temporary remote pilot certificate that is immediately available online, followed by a physical certificate issued through U.S. mail within six months.

What happens after certification?

A person who successfully completes the remote pilot certification process may act as a Remote PIC and operate a sUAS. A Remote PIC may also directly supervise a person who does not hold a remote pilot certificate if the Remote PIC maintains the ability to take control of the sUAS. A Remote PIC must take a recurrent knowledge test within 24 months to retain the certification.

Operating Requirements for sUAS

A Remote PIC must operate a sUAS in accordance with the operating requirements and limitations in the rule.

1. Pre-flight requirements

- *Registration.* A person may not operate a sUAS until it is registered with the FAA. The FAA provides an online registration process at <https://registermyuas.faa.gov/>.
- *Pre-flight inspection.* The Remote PIC must inspect the sUAS prior to a flight to ensure that it is in a condition for safe operation, which includes inspecting for equipment damage and malfunctions. The FAA recommends conducting the pre-flight inspection in accordance with the sUAS manufacturer's inspection procedures but also provides a list of the elements to address in a pre-flight inspection in section 7.3.4 of the FAA's Advisory Circular 107-2, available online at <http://www.faa.gov/uas>.
- *Pre-flight information.* The Remote PIC must make sure that all persons directly involved in the sUAS flight are informed about roles and

responsibilities, operating conditions, emergency and contingency procedures and potential hazards.

- *Flight operators.* Only a Remote PIC or someone under the direct supervision of a Remote PIC may fly the sUAS. A Remote PIC may only operate or observe one sUAS at a time.
- *Airspace.* Flights of sUAS are allowed in Class G airspace, the airspace that is not controlled by Air Traffic Control (ATC) communications, which encompasses a majority of agricultural lands. A flight in Class, B, C, D and E controlled airspace requires permission from the appropriate ATC prior to flight.

2. Operating rules during flight

- *Visual line of sight.* The Remote PIC or the person operating the sUAS under the supervision of the Remote PIC must be able to maintain a visual line of sight, which requires the ability to see the sUAS throughout its entire flight without the aid of a device other than glasses or contact lenses. The sUAS operator may use a visual observer to help maintain the line of sight, but using an observer cannot extend the line of sight and operator must have direct communication with the visual observer.
- *Time of day.* An sUAS flight may occur only during daylight hours or, if the sUAS has anti-collision lighting, no more than 30 minutes before official sunrise or 30 minutes after official sunset.
- *Weather visibility.* There must be a minimum visibility of three miles from the sUAS control station, and a sUAS must be no less than 500 feet below and 2,000 feet horizontally from clouds.
- *Height.* The sUAS may not fly more than 400 feet above ground level.
- *Speed.* The sUAS speed may not exceed 100 miles per hour.
- *See and avoid.* The operator must yield the right of way and avoid collision with another use of the national air space.
- *People.* A flight may not occur over persons who are not involved in the flight or are not under a covered structure or inside a covered stationary vehicle.
- *Base of operation.* Operation of the sUAS may not occur from a moving aircraft. Operation from a moving land or water vehicle is

permissible if in a sparsely populated area and not transporting property for hire.

- *External load and towing.* A sUAS may carry or tow an external load if the load is securely attached, does not affect control of the aircraft, is not a hazardous substance and the total weight of the sUAS does not exceed the 55 pound weight limit.
- *Aerial applications.* Use of a sUAS for dispensing herbicides, pesticides and similar substances must also comply with the “agricultural aircraft operation” regulations in 14 CFR 137.3.
- *Dropping objects.* An operator may not create an undue hazard that poses a risk of injury to persons or property when dropping an object from a sUAS.
- *Careless or reckless operation.* A person must not operate a sUAS carelessly or recklessly. The FAA provides the example of failing to consider weather conditions when flying near structures or trees in a densely populated area as an example of careless or reckless operation.

3. Post-flight requirements

- *Production of records and vehicle.* If requested by FAA, a person must make the sUAS or its records available for testing or inspection.
- *Accident reporting.* Within 10 days of occurrence, a Remote PIC must report to the FAA a flight operation that results in loss of consciousness or serious injury to a person or creates property damage of at least \$500. Reporting can occur online at www.faa.gov/uas or by telephone to the appropriate FAA field office or regional center.

Bending the Rules: the Waiver Process

The FAA provided a waiver process in the rule to allow a sUAS flight operation to deviate from some of the operational requirements in the rule if the FAA determines that the proposed operation would be safe. A Remote PIC may request a waiver from the provisions for visual line of sight, visual observer, operation from a moving aircraft or vehicle, daylight operation, operation of multiple aircraft, yielding the right of way, operation over people, operation in airspace other than Class G

airspace, and limitations on speed, altitude, visibility and cloud distance.

The Remote PIC must submit an application that describes the proposed operation and justifies that the operation can be safely conducted under the terms of the waiver. The FAA may place additional restrictions in the waiver. If the FAA issues a certificate of waiver, the operator may deviate from the rules as stated in the waiver certificate.

A waiver must be in place prior to the proposed flight operation, so the applicant should file the waiver request about 90 days in advance of the proposed flight. The FAA waiver applications are available at <http://www.faa.gov/uas/>.

The Importance of Compliance

The FAA will have enforcement authority over the new sUAS regulations. Depending upon the type of violation, civil penalties could be up to \$27,500. An operator could also be subject to criminal penalties for violations that are reckless, destroy property or threaten public safety; those penalties could be up to \$250,000. Farmers and others utilizing sUAS for agricultural purposes must take care to understand the new rule and comply with its provisions.

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