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Insights

NEW REGULATION FOR SMALL UNMANNED AIRCRAFT—PART 107

Contents

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The FAA will soon release new rules to the Federal Aviation Regulations Handbook related to small-sized unmanned aircraft systems (UAS), commonly known as drones, that weigh less than 55 pounds and are used by non-hobbyists. While the regulation is geared toward commercial use, it will affect public entities as well as both public and private educational institutions. The regulation is called Part 107 and will take effect August 29, 2016. All current requirements are in effect until then.

Regulation Changes

Part 107 will keep some of the same requirements that are currently in effect (see box below). However, there are many notable amendments that are ***different*** from current requirements. They include:

> The person flying a UAS must be at least 16 years old.

> Instead of a pilot's license, a person flying the UAS will only be required to have a remote pilot certificate with a rating for flying a small UAS, or required to be directly supervised by someone with that certificate.

  – This certification will be issued under the new UAS Operator Certification guidelines, after the applicant passes a written test similar to the one required for a driver's license. The TSA will also check the applicant's background.

> While Part 107 still requires that commercial UAS remain below 400 feet above ground level, a provision allows them to operate higher than 400 feet above ground level when operating within 400 feet of a structure.

> An airworthiness certificate is no longer required.

> For operations not falling within conditions outlined by Part 107, a waiver will be required.

  – Examples of operations that may require a waiver include: operations from a moving vehicle, non-daylight operations, operation of multiple UAS, operations near other aircraft, operations directly over non-participating people, minimum visibility and distance from clouds, etc.

> Although the new rule does not specifically deal with privacy issues pertaining to the use of UAS, for the first time ever, the FAA is acting to address privacy considerations in this area.

  – As part of a privacy education campaign, the agency will provide all UAS users with recommended privacy guidelines as part of the UAS registration process as well as through their B4UFly mobile app. The FAA will also educate all commercial UAS pilots on privacy during their pilot certification process and they will issue new guidance to local and state governments on these issues. The FAA's effort builds on the privacy "best practices" that the National Telecommunications and Information Administration published last month.

> Part 107 acknowledges that certain legal aspects concerning UAS are best addressed at state and local levels.

  – For example, the final rule recognizes the authority of states and municipalities to regulate UAS take-off and landing. The rules also recognize that other local statutes may apply to UAS operation, such as privacy issues.

  – It is important to check the following website for updates to state regulations: www.ncsl.org/research/transportation/current-unmanned-aircraft-state-law-landscape.

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Part 107 Requirements Staying the Same:

> The UAS must weigh no more than 55 pounds.

> Commercial UAS operation must take place within visual line of sight (VLOS) of the operator.

> Air Traffic Control approval is required before flying in controlled airspace.

> Operations must take place during daylight hours or within the hours of civil twilight (30 minutes before sunrise and after sunset).

> The maximum groundspeed a UAS can travel is 100 mph.

> Flight is not permitted directly over non-participating people.

> UAS must be registered with the FAA.

FAA Summary of Small Unmanned Aircraft Rule (Part 107)

Reprinted from faa.gov

OPERATIONAL LIMITATIONS

- Unmanned aircraft must weigh less than 55 lbs. (25 kg).
- Visual line-of-sight (VLOS) only; the unmanned aircraft must remain within VLOS of the remote pilot in command and the person manipulating the flight controls of the small UAS. Alternatively, the unmanned aircraft must remain within VLOS of the visual observer.
- At all times the small unmanned aircraft must remain close enough to the remote pilot in command and the person manipulating the flight controls of the small UAS for those people to be capable of seeing the aircraft with vision unaided by any device other than corrective lenses.
- Small unmanned aircraft may not operate over any persons not directly participating in the operation, not under a covered structure, and not inside a covered stationary vehicle.
- Daylight-only operations, or civil twilight (30 minutes before official sunrise to 30 minutes after official sunset, local time) with appropriate anti-collision lighting.
- Must yield right of way to other aircraft.
- May use visual observer (VO) but not required.
- First-person view camera cannot satisfy "see-and-avoid" requirement but can be used as long as requirement is satisfied in other ways.
- Maximum groundspeed of 100 mph (87 knots).
- Maximum altitude of 400 feet above ground level (AGL) or, if higher than 400 feet AGL, remain within 400 feet of a structure.
- Minimum weather visibility of 3 miles from control station.
- Operations in Class B, C, D and E airspace are allowed with the required ATC permission.
- Operations in Class G airspace are allowed without ATC permission.
- No person may act as a remote pilot in command or VO for more than one unmanned aircraft operation at one time.
- No operations from a moving aircraft.
- No operations from a moving vehicle unless the operation is over a sparsely populated area.
- No careless or reckless operations.
- No carriage of hazardous materials.
- Requires preflight inspection by the remote pilot in command.
- A person may not operate a small unmanned aircraft if he or she knows or has reason to know of any physical or mental condition that would interfere with the safe operation of a small UAS.
- Foreign-registered small unmanned aircraft are allowed to operate under part 107 if they satisfy the requirements of part 375.
- External load operations are allowed if the object being carried by the unmanned aircraft is securely attached and does not adversely affect the flight characteristics or controllability of the aircraft.
- Transportation of property for compensation or hire allowed provided that-
  - The aircraft, including its attached systems, payload and cargo weigh less than 55 pounds total;
  - The flight is conducted within visual line of sight and not from a moving vehicle or aircraft; and
  - The flight occurs wholly within the bounds of a state and does not involve transport between (1) Hawaii and another place in Hawaii through airspace outside Hawaii; (2) the District of Columbia and another place in the District of Columbia; or (3) a territory or possession of the United States and another place in the same territory or possession.
- Most of the restrictions discussed above are waivable if the applicant demonstrates that his or her operation can safely be conducted under the terms of a certificate of waiver.

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FAA Summary *(continued)*

REMOTE PILOT IN COMMAND CERTIFICATION AND RESPONSIBILITIES

> Establishes a remote pilot in command position.

> A person operating a small UAS must either hold a remote pilot airman certificate with a small UAS rating or be under the direct supervision of a person who does hold a remote pilot certificate (remote pilot in command).

> To qualify for a remote pilot certificate, a person must:

– Demonstrate aeronautical knowledge by either:

- Passing an initial aeronautical knowledge test at an FAA-approved knowledge testing center; or
- Hold a part 61 pilot certificate other than student pilot, complete a flight review within the previous 24 months, and complete a small UAS online training course provided by the FAA.

– Be vetted by the Transportation Security Administration.

– Be at least 16 years old.

> Part 61 pilot certificate holders may obtain a temporary remote pilot certificate immediately upon submission of their application for a permanent certificate. Other applicants will obtain a temporary remote pilot certificate upon successful completion of TSA security vetting. The FAA anticipates that it will be able to issue a temporary remote pilot certificate within 10 business days after receiving a completed remote pilot certificate application.

> Until international standards are developed, foreign-certificated UAS pilots will be required to obtain an FAA-issued remote pilot certificate with a small UAS rating.

A remote pilot in command must:

> Make available to the FAA, upon request, the small UAS for inspection or testing, and any associated documents/records required to be kept under the rule.

> Report to the FAA within 10 days of any operation that results in at least serious injury, loss of consciousness, or property damage of at least $500.

> Conduct a preflight inspection, to include specific aircraft and control station systems checks, to ensure the small UAS is in a condition for safe operation.

> Ensure that the small unmanned aircraft complies with the existing registration requirements specified in § 91.203(a)(2).

A remote pilot in command may deviate from the requirements of this rule in response to an in-flight emergency.

AIRCRAFT REQUIREMENTS

> FAA airworthiness certification is not required. However, the remote pilot in command must conduct a preflight check of the small UAS to ensure that it is in a condition for safe operation.

MODEL AIRCRAFT

> Part 107 does not apply to model aircraft that satisfy all of the criteria specified in section 336 of Public Law 112-95.

> The rule codifies the FAA's enforcement authority in part 101 by prohibiting model aircraft operators from endangering the safety of the NAS. ■

Reprinted from faa.gov. https://www.faa.gov/uas/media/Part_107_Summary.pdf, FAA News, *June 21, 2016*

Implications for Public Entities

How does Part 107 affect public entities, including public educational institutions? Not significantly is the short answer. Essentially, if an entity meets the requirements of Part 107, it can opt in and operate under those rules. If it does not meet the requirements and still wants to use a UAS less than 55 pounds, the entity would continue what they currently do and apply for a Certification of Authorization (COA).

While Part 107 is in some ways more lenient than what is currently required for UAS use—as it no longer requires an airworthiness certificate, has more relaxed pilot requirements, and offers the waiver opportunities—the reality is that many uses of UAS by public entities would fall outside parts of Part 107, and, thus, still require a COA.

A few examples include:

- If law enforcement wants to use UAS outside daylight or civil twilight hours (30 minutes before official sunrise to 30 minutes after official sunset), it needs a COA, as flying outside these parameters falls outside Part 107.
- If a public entity wants to go above 400 feet, or 400 feet above the highest structure it wants to fly over, it needs a COA, as flying this high falls outside Part 107.
- If a public entity wants to fly over non-participating people, it needs a COA, as flying over them falls outside Part 107.

Implications for Private Colleges and Universities

As mentioned earlier, public educational institutions, which include colleges and universities, go through the same process in obtaining permission for UAS use as public entities do. Private colleges and universities, however, have a slightly different process. Because they are treated like commercial UAS users, like them, in order to get permission to use UAS, they must currently obtain a Section 333 Exemption and then a COA. Once Part 107 goes into effect in August, however, and the private colleges and universities UAS usage falls outside the regulation, Part 107 will require the entity to obtain a waiver instead of the Section 333 Exemption.

While there isn't much more information available about the waiver process as of yet, the FAA is anticipating the process to be easier than the Section 333 Exemption process. For one, the FAA is expecting less waiver requests period because most UAS uses will fall within Part 107.

Right now, the issue is the gap that exists for private educational institutions if they haven't already applied for a Section 333 Exemption. Because Section 333 Exemptions take 120 days to process, one would not get issued until after Part 107 goes into effect. So, if a private college or university currently has a valid Section 333, they can still operate under it, but if they currently do not have an exemption, they legally cannot operate UAS until Part 107 goes into effect in August.

Conclusion

The regulations surrounding UAS usage for all, including public entities and colleges and universities, are a work in progress. It has been a challenge for the FAA to manage the increase in UAS usage; however, Part 107 is a huge step in the right direction. Because of the ever-changing landscape that exists, it is important to continually stay abreast of all federal, state and local laws. Unless an entity is confident they meet the requirements of Part 107, they should continue to obtain COA's or waivers.

From a risk management perspective it may be more practicable to manage how one can specifically operate a UAS through a COA rather than making

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Voluntary Best Practices

The National Telecommunications and Information Administration (NTIA) recommends the following best practices—which are voluntary—regarding privacy for both commercial and private entities:

> Inform others of your use of UAS.

> Show care when operating UAS or collecting and storing covered data.

> Limit the use and sharing of covered data.

> Secure covered data.

> Monitor and comply with evolving federal, state, and local UAS laws.

Read more in the NTIA's "Voluntary Best Practices for UAS Privacy, Transparency, and Accountability" publication, published May 2016: https://www.ntia.doc.gov/files/ntia/publications/voluntary_best_practices_for_uas_privacy_transparency_and_accountability_0.pdf.

sure one is operating within Part 107. Unfortunately, for private colleges and universities, unless they currently have a valid Section 333 Exemption, they cannot legally operate UAS until Part 107 goes into effect in August. ■

More Regulation Reading

Learn more about drones at www.knowbeforeyoufly.org.

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https://www.airmap.com/10-things-to-know-about-part-107

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