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New Era of Commercial Drone Operations Cleared for Takeoff

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The Federal Aviation Administration (FAA) released its highly anticipated and long-awaited final rules for commercial operation of small unmanned aircraft systems (sUAS), or “drones,” on June 21, 2016.¹ The new rules represent a significant milestone for unmanned aircraft systems and are the FAA’s first comprehensive regulations for unmanned aircraft operations. Our Unmanned Aircraft Systems Team and the authors of this alert are available to answer any specific questions you may have about the final rules.

The new rules are expected to make it easier for American businesses, farmers, nonprofits, and government agencies to use drones for mapping, building and site inspections, agricultural surveys, commercial TV and film production, search-and-rescue operations, academic study, and countless other uses — many of which may have yet to be imagined.

However, the relatively limited scope of the FAA’s final rules means that more work remains to realize the potential that unmanned aircraft hold for a variety of innovative applications, like beyond-visual-line-of-sight operations and urban package delivery. The new rules also intersect with an evolving policy debate in Congress, addressing many topics that are also the subject of provisions in the current House and Senate FAA reauthorization bills.²

The final rules will be codified in various parts of the Federal Aviation Regulations, but are referred to collectively as “Part 107,” the new part of the Federal Aviation Regulations specifically reserved for commercial sUAS activities. Part 107 provides clarity and a streamlined operational pathway for operators seeking to use unmanned aircraft commercially by (1) defining the class of unmanned aircraft subject to the new rules, (2) creating a new category of airman certification for remote pilots in command, and (3) establishing the basic operating procedures for commercial sUAS operations. However, Part 107 does not permit several types of eagerly anticipated operations, such as sUAS flights over uninvolved people.

To bridge the gap, the new rules provide flexibility for innovative operations in two ways. First, they preserve the current Section 333 exemption process to allow operators with authority that is broader than Part 107 to continue operations until the expiration of the applicable exemption. Second, the final rules include a new waiver process for operators to seek clearance for operations outside some of the parameters of Part 107 “if the applicant

¹ Operation and Certification of Small Unmanned Aircraft Systems, ___ Fed. Reg. ___ (June 2, 2016) (to be codified at 14 C.F.R. pts. 21, 43, 61, 91, 101, 107, 119, 133, 183), http://www.faa.gov/uas/media/RIN_2120-AJ60_Clean_Signed.pdf (June 21, 2016). Part 107 is the culmination of the rulemaking process first proposed in February 2015. See Operation and Certification of Small Unmanned Aircraft Systems, 80 Fed. Reg. 9544 (proposed Feb. 23, 2015) (to be codified at 14 C.F.R. pts. 21, 43, 61, 91, 101, 107, 119, 133, 183).

² K&L Gates Alert, Two Visions for UAS Policy, Two Opportunities to Shape the Future Regulatory Landscape (June 1, 2016), <http://www.klgates.com/two-visions-for-uas-policy-two-opportunities-to-shape-the-future-regulatory-landscape-06-01-2016/>.

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demonstrates that his or her operation can safely be conducted under the terms of a certificate of waiver.”

The final rules will become effective 60 days after their publication in the Federal Register, which is expected to occur Tuesday, June 28, 2016, putting the effective date at Saturday, August 27, 2016. In order to assist businesses planning to operate sUAS under Part 107, the FAA also released an [advisory circular](#) providing guidance for operating sUAS under the rule.

sUAS Rule Summary

Aircraft Requirements:

- sUAS weighing less than 55 pounds must be registered with the FAA and properly marked with the registration number.
- Unlike traditional aircraft, Part 107 does not require that each airframe have a certificate of airworthiness. The pilot in command must inspect the sUAS to determine that it is in a safe condition before each flight.
- The new rules apply only to U.S.-registered aircraft operated within the United States. The U.S. citizenship requirements for registration of manned aircraft will apply similarly to sUAS, requiring careful compliance analysis.

Pilot Requirements:

- Creation of a new category of airman certification for remote pilots in command (“Remote PICs”), along with an sUAS rating.
- A Remote PIC certificate with a sUAS rating will be required in order to fly a sUAS, except an uncertificated person may fly an aircraft under the direct supervision of a Remote PIC where the Remote PIC can take over control of the unmanned aircraft.
- Consistent with other FAA airman certification requirements, candidates for Remote PIC certificates must be at least 16 years of age, English proficient, obtain Transportation Security Administration clearance, and pass an aeronautical knowledge test.
- Like other airman certificates, the unmanned pilot certificate will never expire, though an airman must pass a biannual written exam to exercise the privileges of the certificate.
- Unlike the requirements for manned aircraft certification, the FAA will not require actual flight training, practical examinations, or separate medical certification.

Operational Limitations:

- Permits the commercial use of sUAS during daylight, or twilight (within 30 minutes of sunrise or sunset) with appropriate lighting, and on days with at least three miles visibility.
- All operations must be conducted within the Remote PIC’s or a visual observer’s unassisted visual line of sight. Although visual observers are permitted, they are not required unless the Remote PIC is unable to continually observe the sUAS during its flight (if, for instance, the Remote PIC is using first-person-view technology or also looking at data collected on a computer screen). Even if a visual observer is utilized, the Remote

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PIC must remain close enough to the aircraft so that he or she is capable of seeing it at any time.

- Limits maximum altitude to 400 feet above ground level (“AGL”), or, if higher than 400 feet AGL, the aircraft must remain within 400 feet of a structure, such as an antenna tower or building.
- Limits maximum groundspeed to 100 mph (87 knots).
- Permits sUAS to be operated near structures, although not over individuals uninvolved with the flight unless they are under a covered structure or stationary vehicle.
- Operations from a moving land-based or water-borne vehicle (but not aircraft) are permitted but only in a sparsely populated area.
- Mindful of the 400 feet AGL upper-altitude limitation, Part 107 permits flight in Class G airspace (generally airspace away from airports) without permission and flight in Class B, C, D, and E airspace (generally airspace close to airports or heavily populated areas) with permission from the controlling air traffic control authority.
- Eliminates the burdensome requirement to obtain a Certificate of Waiver or Authorization for sUAS flights operated within the parameters of Part 107.
- Remote PICs must report any serious incidents (i.e., resulting in serious injury, loss of consciousness, or at least \$500 in property damage excluding damage to the sUAS itself) to the FAA within 10 days.

How Do the Final Rules Differ from the Proposed Rules?

Generally, the final rules track the proposed rules rather closely, with a few notable exceptions. Among the most significant differences are the following:

- The final rules set the maximum altitude for sUAS flights at 400 feet AGL, rather than the 500 feet AGL forecast in the proposed rulemaking.
- The final rules allow operations from a moving ground vehicle if the flight occurs in a sparsely populated area. The proposed rules restricted all flights from moving vehicles except boats for flights over water. This change could be significant for long-distance flights in rural areas such as pipeline rights of way.
- Operations are permitted during twilight (i.e., within 30 minutes before or after sunrise or sunset) with appropriate lighting, as opposed to allowing flights during daylight only.
- The addition of the waiver process for operations not addressed by Part 107, as described above.

Important Links

A copy of the final rules, an FAA summary and fact sheet on the final rules, a White House fact sheet, and a White House summary are available at the following links:

- [Final sUAS Rule](#)
- [FAA sUAS Rule Summary](#)
- [FAA sUAS Rule Fact Sheet](#)

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- [White House sUAS Fact Sheet](#)
- [White House sUAS Summary](#)

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