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PERSPECTIVE

New rules are monumental for commercial drones

By Jared Greenberg

he commercial drone industry will climb to new heights on August 29, when the long-awaited comprehensive regulations for Small Unmanned Aircraft Systems (sUAS) become law under part 107 to Title 14 of the Code of Federal Regulations. These regulations are monumental for commercial drone operations because they provide the regulatory foundation for the burgeoning industry.

Prior to part 107, commercial drone operations were prohibited unless an operator obtained a Section 333 exemption from the Federal Aviation Administration (FAA). The exemptions took months to obtain and included cumbersome restrictions, such as the requirement of a manned pilot's license. Part 107 permits commercial operations within certain parameters and eliminates the need for an exemption, unless one wants to operate outside of those parameters. The new regulations lower the barrier to entry and expand the number of businesses using drones from 5,526 companies with exemptions to potentially almost every business in the United States.

Drone technology is rapidly improving and has become reasonably affordable for businesses. Current drone applications include sensory data collection, agriculture monitoring and treatment, building inspections, utility inspections, search and rescue missions, disaster response support, anti-poaching efforts, railway inspections, pipeline inspections, mapping of mines, film production, journalism, and photography. New applications are being created on a regular basis, such as reseeding logged forests, delivering vaccines to endangered ferrets, and expanding data networks at large scale events. Part 107 allows all businesses to use drone technology, which ensures continued innovation of commercial applications.

Regulatory Highlights

To the excitement of many, part 107 removes the time consuming

and expensive process of obtaining a recreational or sport pilot license to operate a commercial drone. Under the new regulations, commercial drone pilots must obtain the newly created remote pilot certificate with a sUAS rating, or be under the direct supervision of such a person. To obtain the certificate, a person must pass an aeronautical knowledge test at an approved FAA center, be vetted by the Transportation Security Administration, speak English, and be at least 16 years old. Individuals with an existing pilot license need only take an online sUAS training course to obtain a remote pilot certificate.

Additional key requirements of part 107 are described below:

- 1. The maximum weight is 55 pounds;
- 2. The maximum groundspeed is 100 mph (87 knots);
- 3. The maximum altitude is 400 feet above ground level, or within 400 feet of a structure:
- 4. All flights must be within daylight hours, or civil twilight if the drone utilizes anti-collision lighting;
- 5. The drone must remain within visual line of sight of the remote pilot or an optional visual observer, and the weather must allow at least three miles of visibility (the rules allow a remote pilot to transfer control to another pilot in a different location, which can greatly extend the range);
- 6. Drones may not operate over persons not directly participating in the operation;
- 7. Drones must yield the right of way to other aircraft;
- 8. Operations in Class B, C, D and E airspace are allowed with the required Air Traffic Control ("ATC") permission, while operations in Class G airspace are allowed without ATC permission;
- 9. Remote pilots cannot operate drones from a moving vehicle unless the flight is over a sparsely populated area; and
- 10. A remote pilot cannot operate more than one drone at a time (i.e., no swarming).



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Waivers Support Innovation

The most promising aspect of part 107 is its waiver system, which permits a pilot to deviate from certain provisions such as daylight operations, operations within a pilot's visual line of sight, operations from a moving vehicle, operations of multiple drones, and operations directly over people. Although some in the industry are upset the rules contain these restrictions, the FAA's willingness to provide waivers is a positive development for innovation. Applications for a Certificate of Waiver will be completed online, and it will allow deviations on a case-by-case basis.

In addition to the waiver process, companies can still request Section 333 exemptions for non-waivable provisions, such as operations of drones over 55 pounds. Assuming the FAA regularly grants waivers and exemptions, it will allow companies to experiment with new technology and usher in the next phase of commercial drone operations.

On the Horizon

Part 107 is the beginning, not the end, of drone regulations. The FAA is currently reviewing recommendations for rules related to micro drones — drones below a specific weight or impact energy threshold. The FAA may release a Notice of Proposed Rule Making for micro drones as early as the end of 2016. These regulations would provide a more

lenient set of rules and likely allow certain operations directly over people. In addition, proposed rules for drones heavier than 55 pounds will likely be released within the next few years.

Another vital issue in the industry is state and municipal drone laws overlapping with federal rules. Over the next few years, courts will likely address issues of preemption surrounding state and local laws, as well as bring clarity to where the National Airspace and the FAA's authority begins. The FAA boldly claims to have authority over every inch of airspace, but on July 18, a federal judge in Huerta v. Haughwout, 16-358 (D. Conn.), acknowledged that "[n]o clause in the Constitution vests the federal government with a general police power over all of the air or all objects that leave the ground." Although many issues relating to drone law are still up in the air, part 107 finally brings a comprehensive set of clear regulations that allow businesses to enter the drone revolution.

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