

**New Part 107 Waiver Report —
Analysis of Advanced Operations
Granted by the FAA**

Waivers over time, entities granted waivers and the path ahead.

Overview

On August 29, 2016, the Federal Aviation Administration implemented Part 107 of Title 14 of the Code of Federal Regulations, also known as the small unmanned aircraft systems (UAS) rule. It created a regulatory framework that enabled civil and commercial operations of UAS weighing 55 pounds or less. Generally, Part 107 requires operators to fly under 400 feet above ground level (AGL), within visual line of sight and only during daylight hours. UAS operators who want to fly outside the requirements of Part 107, such as to conduct beyond line of sight or nighttime operations, may request a waiver from the FAA. The FAA began issuing waivers the same day Part 107 took effect.



Waivers Over Time

Figure 1: Part 107 waivers approved per quarter



Almost four years later, more than 4,000 waivers have been issued to operators in all 50 states, as well as the District of Columbia and Puerto Rico. AUVSI has captured information on these waivers to uncover trends and assess the continued progress of these more advanced UAS operations. The number of waivers granted per quarter reached an initial peak in the beginning of 2017 as pilots vied to be the first to fly under these new regulations. However, as the FAA worked through the backlog, the approval rate rapidly declined by the end of the year. Since then, the number of waivers issued per quarter has steadily increased with a historical peak in the first quarter of 2020.



Waivers Over Time (cont'd)

Figure 2: Active Part 107 waivers by section being waived

DAYLIGHT OPERATIONS	3,810
OVER PEOPLE	125
OPERATING LIMITATIONS	69
VLOS OPERATIONS	53
MULTIPLE UAS	53
VISUAL OBSERVER	39
MOVING VEHICLE OR AIRCRAFT	4



Almost 95% of currently active waivers enable UAS flights at night. The other 5% allow more advanced flight profiles like those over people, in excess of 100 mph, beyond line of sight of the operator, higher than 400 feet AGL, under limited flight visibility, or with decreased distance relative to clouds. Waivers can also modify the ground control requirements, thus enabling an operator to concurrently control multiple UAS, to fly without the required visual observer, or to control the aircraft from a moving vehicle.

Figure 3: Part 107 waivers granted for advanced flight profiles (excluding waivers to daylight operations)



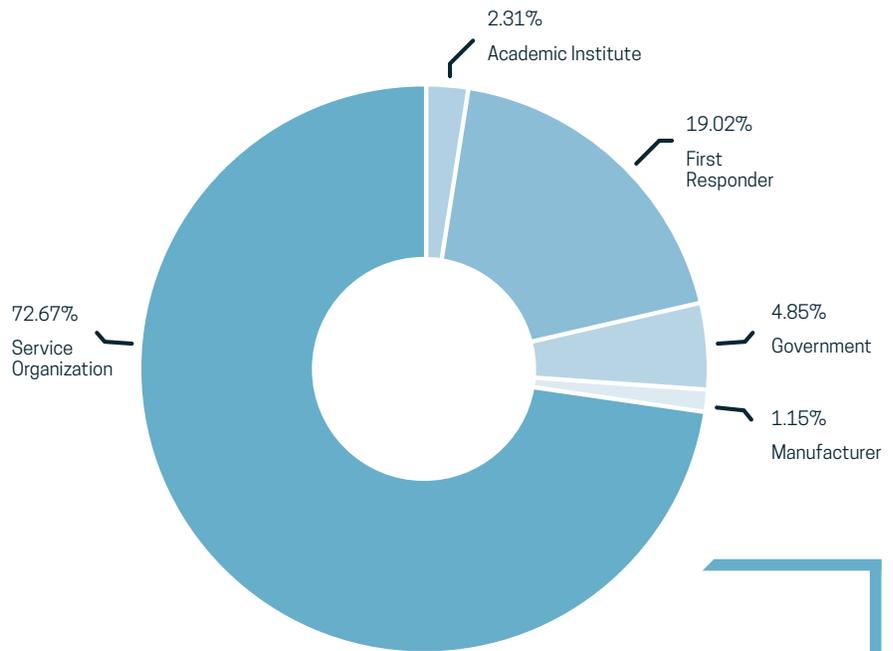
The timeline in Figure 3 displays waivers granted historically for these more advanced operations (waivers other than nighttime flights) and it is evident that the recent approval rate has increased significantly. The last year accounts for over half of the waivers granted for these advanced operations and further supports the need to develop rulemaking for operations beyond the imposed limits of Part 107.



Entities Granted Waivers

Waivers are granted to a “responsible individual” who may or may not be linked to an associated organization on the waiver permit. Nearly 57% of waivers are granted to an individual with an associated organization which we have further identified by organization type as displayed in Figure 4.

Figure 4: Organization types associated with operators that have received waivers



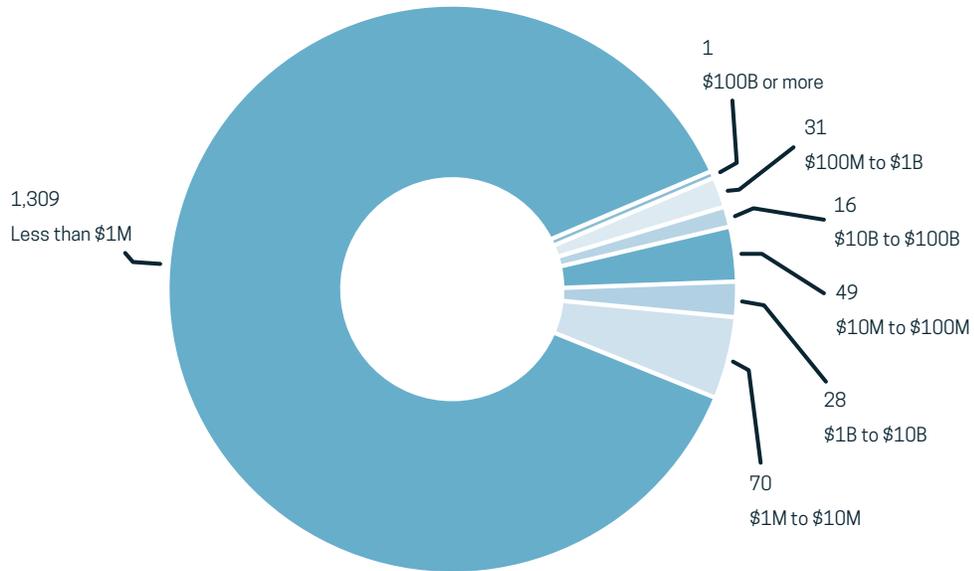
Businesses that operate UAS for financial gain are categorized as service organizations and account for over 72% of waivers granted to individuals associated with an organization. Many of these businesses offer aerial imaging solutions for a range of applications including real estate/landscape photography, infrastructure inspections, and agricultural/ environmental surveys. First responders comprise 19% of the organizations granted waivers most of which enable nighttime operations for search and rescue or firefighting. A handful of first responders have also been granted the ability to fly over people opening the possibility of event security, among other uses.





The final graphic from Figure 5 further analyzes the financials of service organizations that have been granted waivers. More than 87% of these entities generate less than \$1 million in annual revenue. As such, it is important that the waiver process be standardized and easy to navigate to ensure that small businesses with minimal resources are able to take advantage of the benefits enabled by advanced operations.

Figure 5: Annual revenue of service organizations granted waivers



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The Path Ahead

The Part 107 waiver application process is known in the UAS community as being cumbersome, inconsistent, and nonconforming to the evolving nature of waiver requests. Long term solutions to these challenges involve further rulemaking. In the meantime, it is important that the current process continue to be improved. To accomplish this goal, the Drone Advisory Committee (DAC) formed a tasking group last year chaired by AUVSI President and CEO Brian Wynne to review the waiver framework, which included a survey of individuals who applied for waivers.

The FAA responded to the study with several initiatives to improve the waiver application process.

The FAA's plans include expediting the waiver renewal application process, particularly in instances where there hasn't been many changes since the original application; enabling quick administrative changes to previously granted waivers; providing more responsive feedback to applications that were not approved; streamlining the applications; implementing new regulations to obviate the need for waivers; and increasing transparency and accountability to provide support for waiver applications, disapprovals, and general UAS questions.

The FAA says waiver analysts are certified and duly accredited Aviation Safety Inspectors who are specifically trained in waiver processing.





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The waivers that have been granted so far demonstrate that operators are safely able to conduct expanded operations, such as flights over people and beyond visual line of sight...

While improvements to the waiver process are needed and welcomed, we urge the FAA to move forward rapidly with rulemakings that would widely enable these operations and provide the economic and societal benefits they offer.

— Brian Wynne, President and CEO, AUVSI

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The Association for Unmanned Vehicle Systems International
2700 S. Quincy Street, Suite 400 | Arlington VA | 22206 | United States

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