



FAA Issues Small Unmanned Aircraft System (UAS) Regulations While Congress Addresses Further UAS Safety Issues

On June 21, 2016, the FAA released its long-awaited final rule (Final Rule) on the certification and operation of small unmanned aircraft systems (UASs), following the issuance of a Notice of Proposed Rulemaking (Proposed Rule) issued in February 2015 that drew over 4,000 public comments. The Final Rule, which establishes requirements for the safe operation of non-hobbyist, i.e., commercial, UAS in the National Airspace System (NAS), was published in the Federal Register on June 28, 2016 (81 Fed. Reg. 42064) and is codified at new 14 C.F.R. part 107. These requirements take effect on August 29, 2016. Significantly, and less than one month following the FAA's release of the Final Rule, Congress passed additional UAS legislation, which President Obama signed into law on July 15, 2016.

Integration Framework and Operating Requirements

When Congress passed the FAA Modernization and Reform Act of 2012 (the Act), it required the FAA to establish regulations for the commercial operation of small UAS in the NAS. While the FAA's UAS rulemaking was pending, such commercial operators were permitted to obtain an exemption authorizing their operations under Section 333 of the Act. With the adoption of the Final Rule, most small UAS commercial operators will no longer require an exemption in order to conduct operations in the NAS, provided they adhere to the requirements set forth at Part 107 and other FAA related requirements.

The bulk of the Final Rule focuses on operating requirements for commercial uses of small unmanned aircraft weighing less than 55 pounds, including payload capacity, and largely codifies conditions previously imposed by the FAA on Section 333 exemption holders. The operator of a small UAS must always keep the unmanned aircraft in sight, or use a visual observer to keep the unmanned aircraft in sight. Neither the operator nor the visual observer can operate or be responsible for more than one UAS at a time. The operation may not exceed an altitude of 400 feet above ground level (or higher if within 400 feet of a structure), thereby avoiding manned aircraft, and may only be conducted during daylight or twilight



The firm's practice encompasses virtually every aspect of aviation law, including advising small UAS and other aircraft operators on FAA requirements. For further information regarding the matters identified in this article, please contact:

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FAA Issues Small Unmanned Aircraft System (UAS) Regulations While Congress Addresses Further UAS Safety Issues (July 2016)

Page 2 of 4

(defined as 30 minutes before official sunrise and 30 minutes after official sunset, local time). Operations are restricted to Class G airspace, which is uncontrolled airspace. Operations in other classes of airspace will require Air Traffic Control approval.

For operators wishing to obtain a waiver from certain restrictions in new Part 107, the Final Rule includes a waiver procedure, requiring the applicant to demonstrate that the operation of the small UAS will be conducted in a safe manner. The specific operational requirements for which an operator may obtain a waiver include: the prohibition against operating a small UAS from a moving vehicle; the limitation of operations to daylight hours or twilight; the requirement for a visual line of sight during operation; the requirement for a visual observer; the prohibitions against simultaneous operation of multiple small UAS, operations over people not involved in the operation; operations in certain restricted airspace; and operating limits related to altitude, speed, visibility, and distance from clouds.

The Final Rule left unresolved two issues of potential importance to certain UAS operators. First, the Final Rule only allows the carriage of property for compensation or hire within state boundaries, provided the UAS has a combined weight, including payload and cargo, of less than 55 pounds. Left unaddressed is the interstate carriage of such property using a small UAS; those operations would fall within the scope of "air transportation" under the Federal Aviation Act, typically requiring the entity to obtain more robust operating certification from the FAA and economic authority from the Department of Transportation. Second, although the Final Rule prohibits the operation of small unmanned aircraft over people who are neither participating in the operation, under a covered structure, nor inside a covered stationary vehicle, it does allow for a waiver of that prohibition, but does not specify the circumstances under which the FAA will assess whether the proposed operation ensures for a level of safety meeting or exceeding that established by the regulatory prohibition. The likely explanation is that the FAA is considering whether to eventually issue permanent rules allowing for such operations. Indeed, a Micro UAS Aviation Rulemaking Committee issued recommendations in April 2016 covering performance standards for the operation of small UAS over such people. Using these recommendations, the FAA is tentatively planning to publish Notice of Proposed Rulemaking addressing the operation of small UAS over people in December of 2016.

UAS Pilot Requirements

Prior to the issuance of the Final Rule, small UAS operations conducted under a Section 333 exemption typically required the pilot-in-command to hold either an airline transport, commercial, private, recreational, or sport pilot certificate (i.e., Part 61 certificates). However, under new Part 107, the FAA will permit such operations where the operator obtains a remote pilot airman certificate with a small UAS rating (Remote Certificate), which is a new certificate for the FAA. Eligibility is limited to individuals at least 16 years old who have passed an in-person aeronautical knowledge test. The Final Rule requires the knowledge test to cover several areas including the regulations applicable to UAS, airspace classification, aviation weather sources and the effects of weather on small UAS operations, calculation of the weight and balance of a small unmanned aircraft, and airport operations. A pilot already holding a Part 61 certificate must obtain a temporary Remote Certificate when he or she applies for a permanent Remote Certificate, and will receive a permanent Remote Certificate upon completing an online training course provided by the FAA. Additionally, applicants for Remote Certificates must be vetted by the Transportation Security Administration. The rule gives the FAA the authority to deny, suspend, or revoke a Remote Certificate in the event of a drug or alcohol violation or if the TSA makes a finding that the certificate holder is a security risk.

Before any flight, the pilot must perform a pre-flight inspection of the aircraft. The rule also requires that the pilot follow FAA's accident reporting requirements established under new Part 107. Any accident that causes serious injury, loss of consciousness, or property damage of at least \$500 must be reported to the

FAA Issues Small Unmanned Aircraft System (UAS) Regulations While Congress Addresses Further UAS Safety Issues (July 2016)

Page 3 of 4

FAA. Additionally, new Part 107 establishes certain recordkeeping requirement, to which all pilots must adhere.

Unmanned Aircraft Requirements

The February 2015 Proposed Rule sought comment on potential registration and marking requirements for small UAS. In the fall of 2015, the FAA convened a task force comprised of industry stakeholders to develop a UAS registration and marking system. Based on recommendations of the task force, the FAA issued an interim final rule, Registration and Marking Requirements for Small Unmanned Aircraft, 80 Fed. Reg. 79255 (December 21, 2015), requiring all small UAS (including hobbyist UAS) to be registered with the FAA and marked with registration numbers prior to operation. The Final Rule does not change these requirements, but it does require the pilot-in-command, prior to initiating a flight, to ensure the small UAS is safe for operation. This includes ensuring that for operations scheduled to occur at twilight, the small unmanned aircraft's anti-collision lighting, visible for at least 3 statute miles, is operational. Additionally, the Final Rule requires that operators make their small UAS available to the FAA upon request for inspection or testing.

UAS Outstanding Issues

Although the Proposed Rule acknowledged potential privacy implications of small UAS operations, the FAA avoided adopting specific requirements addressing privacy concerns. Instead, the FAA has participated in a multi-stakeholder process, led by the National Telecommunications and Information Administration (NTIA), to develop guidelines for the operation of UAS, further to a Presidential Memorandum, "Promoting Economic Competitiveness While Safeguarding Privacy, Civil Rights, and Civil Liberties in Domestic Use of Unmanned Aircraft Systems" issued in February 2015. Although a number of commenters urged the FAA to enact measures addressing personal, data and intellectual property privacy, the FAA ultimately declined to do so in the Final Rule, given that the agency's mandate under the Act does not extend to such matters, opting instead to continue engaging in any future multi-stakeholder process. Along these lines, the NTIA working group reached consensus on May 18, 2016 for a best practices document addressing the operation of UAS while respecting privacy. These best practices include: (1) informing others of the use of the UAS; (2) showing care in operating UAS or collecting and storing data; (3) limiting the use and sharing of certain UAS-collected data; (4) securing certain UAS-collected data; and, (5) monitoring and complying with applicable federal, state and local laws.

As indicated above, the Final Rule does not address the interstate operation of small UAS to transport property for compensation or hire, the operation of small UAS over people, or the operation of small UAS beyond the visual line of sight of the operator. These aspects of small UAS operation are critical to several proponents of commercial UAS operations and it is expected that either the FAA or DOT will address these issues in future rulemakings or guidance documents, or that Congress will address these issues through legislation. Indeed, legislation containing provisions related to the carriage of property by UASs for compensation or hire and requiring the FAA to develop standards for the operation of small UAS beyond the visual line of sight of the operator, was introduced in Congress earlier this year, however, such provisions has not remained in any final bills signed into law by the president.

Further Congressional Action on UAS

On July 15, 2016, President Obama signed the FAA Extension, Safety, and Security Act of 2016 (the 2016 Act), which was a compromise Bill extending funding for the FAA through September 2017. Early versions of the Bill included provisions addressing UAS operations for compensation or hire, however, the final Bill signed into law by the President focused on safety aspects of UAS operations.

FAA Issues Small Unmanned Aircraft System (UAS) Regulations While Congress Addresses Further UAS Safety Issues (July 2016)

Page 4 of 4

Among other things, the 2016 Act directs the FAA, along with other UAS stakeholders, to convene a committee to develop standards for the remote identification of UAS and UAS operators. Further to ongoing efforts, the 2016 Act establishes deadlines for the FAA and NASA to continue research into UAS traffic management and UAS collisions, and directs the FAA to issue guidance, no later than July 2017, to UAS manufacturers addressing a “safety statement” such manufacturers will be required to provide to UAS users at the time of UAS delivery. The “safety statement” will cover operational requirements under FAA regulations.

The 2016 Act also includes several provisions related to UAS operation and emergency response, including provisions (i) facilitating interagency cooperation for using UAS in emergency situations such as firefighting operations and utility restoration, and (ii) prohibiting private UAS operators from interfering with wildfire suppression, law enforcement, or emergency response, and increasing the civil penalties for such interference to \$20,000. The 2016 Act also requires the FAA to establish an emergency exemption process for civil and public agencies intending to use UAS in emergency response. Further to operations of UAS, the 2016 Act requires the FAA to establish a process to allow certain “fixed site facilities” to petition the FAA to prohibit UAS operation in close proximity to the facilities. Such fixed site facilities are those comprising critical infrastructure (energy production, transmission, and distribution facilities and related equipment), oil refineries and production, amusement parks, and other facilities that “warrant such restrictions” due to various factors including aviation safety, safety of persons on the ground, national security, and homeland security. Finally, the 2016 Act also requires the FAA to establish a process to allow certain UAS operations related to utilities, pipelines, and oil and gas production to be conducted beyond the visual line of sight of the operator and either in the daytime or nighttime.

The safe integration of UAS into the NAS is an ongoing process, with regulators attempting to anticipate and keep pace with rapidly evolving technologies, Congress mandating additional FAA actions and deadlines, and various stakeholders advocating for more robust (or less restrictive) regulatory requirements. It remains to be seen whether, over the long-term, the U.S. will be maintain a competitive position in a global UAS industry with a current estimated market value of \$2 billion, particularly as other countries move to more rapidly permit commercial UAS operations. Certainly, the United States is home to one of the most crowded and complex airspace systems in the world, and all stakeholders have a shared interest in ensuring UAS integration is executed in a manner that ensures for the highest degree of safety, particularly with respect to other airspace users as well as persons and property on the ground. The Final Rule achieves that objective, and will no doubt serve as a roadmap for ongoing and future FAA efforts to integrate additional types of UAS operations into US airspace.

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