# insights



A Newsletter from Shumaker, Loop & Kendrick, LLP

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### **Regulation of Drones**

hese days, it is difficult to read or watch the news without seeing or hearing about unmanned aircraft systems, more commonly known as drones. Drones first crept into the national

consciousness as military tactical devices, but now may be purchased easily at the store or online in various shapes and sizes. Although it may be easy to acquire a drone, there are rules about how, where and for what purpose a drone may be flown, and the Federal Aviation Administration ("FAA") and Department of Transportation ("DOT") are in the process of safely integrating drones into U.S. airspace. Currently, there are three different types of



permissible drone operations: model aircraft (hobby or recreational), public (governmental) and civil (nongovernmental).

### Model Aircraft Operations

by Barbara G. Rivas

Model aircraft operations are for hobby or

recreational purposes only. The FAA has partnered with several industry associations to promote drone safety

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through a campaign known as "Know Before You Fly." Model aircraft safety guidelines include:

- Fly below 400 feet and stay clear of obstacles
- Maintain a visual on the drone
- Keep away from and do not interfere with manned aircraft operations
- Do not fly within five miles of an airport without contacting the airport and control tower before flying
- Do not fly near people or stadiums
- Do not fly a drone weighing more than 55 pounds unless it has been certified

by an aeromodeling community-based organization

• Do not be careless or reckless

Flying within the above parameters does not presently require any permission from the FAA, but any flight falling outside the above parameters (including non-hobby or non-recreational operation) requires FAA authorization. For example, using a drone to take pictures for your personal use is recreational and does not presently require FAA authorization, but using that same drone to take pictures to sell to a third party would be considered neither a hobby nor

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recreational, and is not allowed without FAA authorization.

Recently, much of the news on drones relates to violations of the above guidelines. Earlier this year, a drone crashed into empty seats at the U.S. Open during a match. Its operator was found at a marina on the opposite side of the stadium after the incident and charged with reckless endangerment and operating a drone in a New York City public park outside of a prescribed area. Drones have also caused disruptions in air travel. Pilots reported nearly 700 close calls with drones through August of 2015, which is roughly triple the number recorded for all of 2014. One of these instances occurred in restricted airspace over Washington, D.C., and the U.S. military scrambled fighter jets as a precaution. Unauthorized drone operators may be subject to fines of up to \$25,000 and up to 20 years in jail.

### **Public Operations**

Public operations are limited by federal statute to certain governmental operations. Whether a drone operation qualifies as "public" is determined on a flight-by-flight basis based on drone ownership, the operator and the purpose of the flight. For public operations, the FAA issues a Certificate of Waiver or Authorization ("COA") allowing certain public agencies and organizations to operate a particular drone for a particular purpose in a particular area. COAs are issued for a specific period of time, often up to two years. Once a COA is issued, the FAA will work with the operating organization to ensure that operation of the drone does not interfere with other aviation operations, and often these drones are not permitted in populated areas and the operator must maintain a visual to ensure separation from other aircraft. Common public operations uses to date include firefighting, law

enforcement, border patrol, disaster relief, military training and search and rescue.

### **Civil Operations**

If an operation is not for recreational purposes and does not meet the statutory requirements of a public operation, it is considered a civil operation and requires FAA authorization. There are two methods of authorization: (1) Section 333 exemption and (2) a Special Airworthiness Certificate ("SAC").

Section 333 exemptions require the filing of a petition and the obtainment of a civil COA and may be used to perform commercial operations in controlled, low-risk environments. As of July 2015, the FAA had granted 823 such exemptions, with permitted uses ranging from aerial photography to agricultural assessment. While the FAA reviews each petition on a caseby-case basis, it is authorized to issue a summary grant if it has previously granted an exemption for a similar request. For example, petitions focused on film and television production are likely to be analyzed through a summary grant. Operation under Section 333 exemptions also requires a recreational or sport pilot license and a driver's license. Most commercial users will look to the Section 333 exemption.

Obtaining a SAC is a more detailed process, and requires disclosure of how the drone is designed, constructed and manufactured, including engineering processes, software, configuration and quality assurance, as well as the reason and location of proposed drone flights. SACs can fall into the experimental category, which allows for research and development, crew training and market surveys, or the restricted category, which allows for special class drones and production flight testing of new drones.

### The Future

The FAA and DOT expect to finalize specialized rules governing drones by the end of 2015, including drone registration requirements, although certain states and municipalities have already enacted laws governing drones, which are beyond the scope of this article. Until the federal rules are released, we can expect an increase in the use of drones.

There are proponents and opponents of drones in general, but there is a specific group seeing a potentially dangerous outcome of the proliferation of drones. An open letter initiated by Elon Musk and Stephen Hawking has circulated on the Internet on behalf of Artificial Intelligence and robotics researchers which urges a ban on "offensive autonomous weapons beyond meaningful human control," essentially fearing that drones could combine with self-detonating weapons and lead to this century's nuclear arms race. Hopefully that fear does not come to fruition. Developments in drone technology allowing sandwiches to be delivered in a fast and efficient manner, however, would be nice.

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