COMMERCIAL USE OF UNMANNED AERIAL SYSTEMS

Hobbyists have been flying small remote controlled aircraft for years. Remote controlled aircraft for recreation are a subclass of what military, industry and regulators now refer to as unmanned aerial systems (UAS). Depending on the context or audience, UAS are sometimes referred to as drones, small unmanned aerial systems (sUAS), unmanned aerial vehicles (UAV), or remotely piloted vehicles (RPV).

Today’s lightweight electronic cameras and imaging equipment combined with enhanced flight performance of UAS has vastly expanded the potential uses of UAS beyond mere recreation. Commercial uses of UAS will eventually predominate.

Today, for under $100, you can buy a small radio controlled quad-copter equipped with a digital camera. In addition to the challenge of piloting your UAS, users now can use it as a quick, easy and inexpensive way to get a personal bird’s eye view of anything in the neighborhood. Inspect your roof after a storm, show off aerial pictures of a backyard garden, or capture a creative video of your kid’s soccer game. In the United States, an individual can legally use his/her UAS in these ways as long as it’s for recreation and not for pay or in furtherance of a commercial enterprise.

The commercial roofer, photographer or film/television company will want to use UAS for identical applications. While the FAA currently allows recreational uses such as those described above for individuals, it currently prohibits any commercial or business use of UAS in the United States.

The distinction between recreational and commercial use of UAS is an arbitrary one that causes consternation among companies clamoring to be able to take advantage of this readily available technology. The operation of the UAS and the attendant safety issues are identical whether the UAS is being used for a recreational or commercial use. Relative low cost, mobility, ease of use and safety of personnel are among the chief reasons companies now demand the ability to use UAS commercially. In addition to these practical considerations, exciting new technology for imaging and processing data captured from above and payload delivery are driving the call to accelerate approval of commercial UAS use. For example, applications are now available for use in precision agriculture which has been cited to be one of the largest sectors to benefit from commercial UAS use.

Safety and privacy issues are chief among the concerns in arguments against unregulated commercial UAS. Airlines have reported near misses with UAS near airports. Out of control UAS have injured people at sporting events. States are now passing laws criminalizing civilian use of UAS for surveillance of persons or property.

Currently, hobbyists may use model aircraft, a type of UAS, for “recreational” purposes without any real regulation by the FAA. A model aircraft is defined by statute as and “unmanned aircraft” that is “(1) capable of sustained flight in the atmosphere; (2) flown within visual line of sight of the person operating the aircraft; and (3) flown for hobby or recreational purposes.” P.L. 112-95, section 336(c). Current statutory law, Section 336 of the FAA Modernization and Reform Act of 2012, prohibits the FAA from promulgating any rule or regulation regarding model aircraft if:

- the aircraft is flown strictly for hobby or recreational use;
- the aircraft is operated in accordance with a community-based set of safety guidelines and within the programming of a nationwide community-based organization;
• the aircraft is limited to not more than 55 pounds unless otherwise certified through a design, construction, inspection, flight test, and operational safety program administered by a community-based organization;
• the aircraft is operated in a manner that does not interfere with and gives way to any manned aircraft; and
• when flown within 5 miles of an airport, the operator of the aircraft provides the airport operator and the airport air traffic control tower ... with prior notice of the operation....

P.L. 112-95, section 336(a)(1)-(5).

The FAA has taken a very strict position however that UAS used for commercial use can never be considered model aircraft due to the explicit requirement that such aircraft be strictly for hobby or recreational use.

FAA v. Pirker

In March 2014, an administrative law judge (ALJ) ruled against the FAA in an enforcement action it brought relating to use of a UAS for commercial purposes. The FAA had levied a $10,000 fine against an individual who had used a UAS for the commercial purpose of taking aerial photographs over the campus of the University of Virginia. The UAS fit all elements of the definition of model aircraft and the exemption from FAA regulation of same except for its use for commercial purposes. The FAA claimed jurisdiction over the operation of such an aircraft and claimed such use of the UAS could not be accomplished without its approval; it also claimed jurisdiction because it asserted the user was flying the aircraft in an unsafe manner.

The ALJ reviewed the history of the FAA’s involvement with model aircraft and found it had, in fact, never issued any regulations or rules governing same and had only issued requests for voluntary compliance with guidelines for hobbyists. Basically, the ALJ found that the FAA had no authority or jurisdiction to prohibit the use of model aircraft for commercial use.

On November 18, 2014, the NTSB reversed the decision of the ALJ. Its decision hinged on the definition of “aircraft.” Title 49 U.S.C. § 40102(a) (6) defines “aircraft” as “any contrivance invented, used, or designed to navigate, or fly in, the air.” Similarly, 14 C.F.R. § 1.1 defines “aircraft” for purposes of the FARs, including 14 C.F.R. § 91.13, as “a device that is used or intended to be used for flight in the air.” The NTSB held Pirker’s UAS clearly fit within the statutory and regulatory definitions. It thus found the FAA had the authority to enforce § 91.13(a) which prohibits any “person” from “operat[ing] an aircraft in a careless or reckless manner so as to endanger the life or property of another.” The NTSB did not discuss the commercial nature of Pirker’s UAS operations. It remanded the matter back to the ALJ for the sole purpose of determining if the UAS was used in a “careless or reckless manner.” While the commercial nature of the subject UAS operations appeared to play a featured role in the initiation of the enforcement action and the proceedings on Pirker’s motion to dismiss, it remains to be seen if that factor will have any bearing on the case’s final resolution.

FAA Modernization and Reform Act of 2012

In this legislation, congress directed the FAA to promulgate rules and regulations to integrate UAS into the national airspace. The legislation imposed a 2015 deadline, but industry insiders are suggesting the FAA will not meet this deadline and that final formal rules to follow for industrial/commercial use of UAS are perhaps years away. However, some expect the FAA to issue proposed rules this year which would at least provide commercial users of UAS some guidance.

Current Status

Commercial enterprises, small and large, need the ability to use UAS now. With the pendency of Pirker and the FAA’s final rules integrating UAS into the national airspace far down the road, there is uncertainty and frustration as the technology is now readily
available to use on a wide variety of applications.

The FAA currently allows public use of UAS by government entities who seek a Certificate of Authority (COA) from the FAA. The recipients of such COA’s thus far have been law enforcement and public universities.

Another option the FAA recognizes is to obtain a special Airworthiness Certification for the specific aircraft sought to be used. This is an avenue for manufacturers, not end users. Even then, a COA would be required by the FAA for the end user.

Again, COA’s have only been granted to government agencies such as law enforcement and public universities with two unique exceptions.

A final avenue for obtaining authority for UAS is to seek an exemption from the rules that the FAA claims apply to the use of UAS for commercial purposes. In the wake of Pirker and perhaps recognizing the frustration of industry over the perceived delay in promulgating rules to follow for commercial use of UAS, the FAA suggested in spring of 2014 that it would consider such petitions for exemption on a case by case basis to help it develop its own rules for general applicability as it goes about its rulemaking process under Sec. 333 of the FAA Modernization and Reform Act of 2012.

On September 25, 2014 the FAA granted the first round of exemptions for commercial UAS use. Prior to these exemptions, the FAA had approved the use of UAS in several unique instances outside the public agency arena, but the September 25 exemptions for the film industry petitioners are believed to be the first exemptions granted under Sec. 333 for pure commercial use. The exemptions were for UAS use in the film industry on “closed sets.” In addition to conditions tailored for UAS use in making movies, the FAA imposed conditions that it will likely impose in future grants of exemption for commercial use of UAS. These include requirements for operations manuals and safety policies and that the UAS will need to be operated by a pilot in command with a private pilot license with a third class medical certificate. The exemptions also specified training requirements and other operating parameters.

Many companies and other potential operators of UAS are eager to take advantage of the tremendous potential for commercial UAS. Monitoring developments as the FAA undertakes this regulation by “exemption” regimen will be important in order to prepare and submit petitions for exemption under Sec. 333 of the FAA Modernization and Reform Act of 2012.

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