Designers Utilizing Drones in Development Requires Plans for 14 CFR 107 Compliance and Risk Management

Increasingly, designers, contractors, developers and other construction and design professionals are using Unmanned Aerial Systems (UAS or “drones”) in construction projects. These lightweight, remotely-controlled vehicles allow the user to capture images and videos that are typically difficult to obtain. UAS facilitate reduction of waste and human errors. They are cheaper and faster than human surveyors, collect data more comprehensively and reduce the risk of bodily injury to humans when obtaining such information.

UAS, however, are not without risk, or legislation. Any party utilizing UAS should have an in-house plan for (1) statutory compliance; and (2) risk management.

Statutory Compliance

The default operating rules governing the operation of UAS are governed by Title 14 Code of Federal Regulations part 107. Although a small UAS (sUAS) is different from manned aircraft, the operation of a sUAS still falls within the U.S. Federal Aviation Authority’s (FAA) definition of “aircraft.” An “aircraft” is defined as “any contrivance invented, used, or designed to navigate, or fly in, the air”.

The FAA Modernization and Reform Act of 2012 (Public Law 112-95) defines “Unmanned Aircraft” as “an aircraft that is operated without the possibility of direct human intervention from within or on the aircraft,” thus classifying a UAS as an aircraft for statutory and regulatory purposes. Consequently, any party utilizing a small UAS must comply with FAA registration and certification requirements or potentially face substantial penalties.

To comply with the regulations, one planning to use a UAS should consult with a specialist because that use is restricted. For example, sUAS must weigh less than 55 lbs, must operate only in daylight or civil twilight, must be flown below an altitude of 400 feet, and may not exceed 100 mph. The UAS may not operate over any person directly participating in its operation, under a covered structure or inside a covered stationary vehicle. Commercial operators must (1) properly register the sUAS with FAA; (2) obtain operator certification; and (3) assess whether regulatory waivers are necessary.
“Model Aircraft,” defined in 14 CFR 107, are exempt from regulatory restrictions under 107, but are subject to “Special Rule for Model Aircraft” which defines it as an unmanned aircraft (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.\(^3\) Despite the 2017 U.S. Court of Appeals in District of Columbia Taylor v. Huerta ruling that the FAA could not require owners of UAS to register their model aircrafts, as such rule or regulation would directly conflict with the Modernization and Reform Act of 2012 directives,\(^4\) the newly-enacted National Defense Authorization Act (NDAA) confirms that Model Aircraft still must be registered with the FAA, are subject to FAA restrictions on use, and are subject to community-based guidelines.\(^5\)

On October 5, 2018, the FAA Reauthorization Act of 2018 was implemented and establishes new conditions for recreational use of drones; it also immediately repeals the Special Rule for Model Aircraft.\(^6\) The agency is evaluating the impacts of this change in the law and how implementation will proceed. In the interim, one should continue to follow all current policies and guidance with respect to recreational use of drones.

**UAS Registration**

Because sUAS involve the operation of an “aircraft”, commercial use of a sUAS triggers FAA registration and certification statutory requirements.\(^7\) The FAA regulates such operation through exemptions, special airworthiness certificates and certificates of waiver or authorization (COAs). A sUAS may be registered online through the FAA website, as well as in paper form.

**Operator Certification**

Users must also be properly certified to operate a UAS. Once operating a sUAS must hold either a remote pilot certificate with a small UAS rating or be directly supervised by one who holds that certificate. To qualify for a remote pilot certificate, one must either: (1) satisfactorily pass an initial aeronautical test at an FAA-approved knowledge testing center; or (2) hold a part 61 pilot certificate, have completed a flight review within the previous twenty-four months, and completed an FAA-sponsored sUAS online course.

As noted above, the FAA regulation incorporates a waiver option which allows sUAS operation to deviate from certain operating rules if the FAA finds the proposed operation can be performed safely. Any business operating UAS must assess if it needs either a “Part 107 Waiver” or an “Airspace Waiver.” For operation in controlled airspace one may obtain Airspace Authorizations through the FAA website which are granted by local Air Traffic Control; they are for short term use (six months) in a particular location and are relatively easy to obtain. Another waiver is the FAA Piloting Low Altitude Authorization and Notification Capability Program. Longer term Airspace Waivers can take up to ninety days to process, and are appropriate for longer-term uses of six months to two years. For users of commercial or “non-modeler” UAS which do not fall within part 107 requirements, the FAA grants Section 333 Exemptions for operation.\(^8\)

Recent cases have determined that FAA regulations will dominate and control UAS use. For example, SkyPan International (“Skypan”) is an aerial photography company that conducts aerial panoramic photography operations above private property. It held a Section 333 Exemption for commercial drone use when the FAA filed a complaint alleging that Skypan flew sixty-five unauthorized drone flights over locations in New York City and Chicago between March 2012 and December 2014, forty-three of which were in highly congested and restricted New York airspace. The 2017 settlement between the FAA and SkyPan resolved these enforcement claims.\(^9\) In doing so, FAA imposed a $1.9 million civil penalty which was settled for $200,000; additional penalties of $15,000 and $150,000 would be prospectively imposed if Skypan violated FAA rules in the following year, and for failure to comply with the terms of the agreement, respectively. This $1.9 million civil penalty is one of the largest penalties for a drone regulation infraction.

The FAA has exclusive jurisdiction over regulatory authority for registration of pilotless aircraft as determined in a Massachusetts case challenging portions of an ordinance passed by the City of Newton relating to ownership, registration and other operation requirements. The District judge found that certain provisions in the municipal ordinances conflicted with FAA requirements.
Insuring Your UAS

As commercial UAS usage increases, the insurance industry will have to adapt to meet the needs of UAS users to manage the liability risks arising from such use. These risks include: (1) failure to obtain all permits or exemptions required to operate the sUAS; (2) information gathered by the UAS indicating a project is not being constructed in accordance with the contract documents, or indicating other issues implicating project cost or potential liability which is not brought to the owner’s attention; (3) the design professional disposes of information which was not requested, which disposition could have consequences; (4) the information/images are used inappropriately; (5) the mechanics of Unmanned Aerial Vehicle (“UAV”) usage cause damage; and (6) third-party cyberhacking/hijacking of a UAV.

Although the FAA does not currently require insurance for commercial drone operators, one can mitigate risk by obtaining UAV insurance. Since typical Commercial General Liability policies exclude aviation, it is critical to obtain the appropriate UAV insurance. Liability insurance for UAVs/UAS will cover damages caused to a third party by UAS operation, including bodily injury and property damage. Owners should also consider including a Commercial General Liability policy rider to cover UAS liabilities. In some circumstances, business owners could explore hull insurance options to cover damage to the drone itself. Insurance packages will generally vary depending on the industry, service and risk potential. Though UAV insurance can range from $1,000 to $100,000, the cost is substantially less than for potential liability claims.

Indemnity

Another way to protect your business from risks associated with UAS operations is to include language in professional services agreements to address risks designers face in using UAS in development. For example, a design professional could broadly disclaim: (1) liability for first party loss (damage to a client’s property or persons); (2) liability for third party liability (injury to another’s property or person, invasion of property); and (3) liability for first or third party loss due to mechanical failure.

The contract language should avoid making affirmative representations as to insurances coverage of damages, claims, liabilities, or expenses resulting from UAS use; or the design professional’s compliance with current rules and regulations, including the FAA, regarding UAS use.

Ensuring Specialists’ Statutory Compliance

Design professionals may choose to hire pre-trained/pre-certified UAS operators to conduct services, but should make sure that specialists operating UAS agree to fully comply with laws such as 14 C.F.R Part 107. To ensure such compliance, a design professional can include language in the subconsultant agreement in which the specialist warrants that it has obtained all permits, exemptions, licenses, and training required by law to operate the UAS and can, at the design professional’s request, provide all such documentation.
Jennifer Lincoln is an Associate at the law firm of Donovan Hatem in the Professional Practices Group concentrating primarily on representing design professionals, owners, and developers. Jennifer’s expertise includes composition and negotiation of DB and Designer-led DB, EPC contracts and EPCM agreements, RFPs, intellectual property, transfer and assignment agreements, project finance, FAR, and termination and indemnity arrangements. Jennifer also focuses her practice on managing claims by developing litigation and resolution strategies, projecting defense costs, reviewing discovered materials, analyzing expert witness reports, composing memoranda, and evaluating damages sought.

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