Emerging technology continues to bring the real estate industry to new heights. The expanding use of drones, also known as an Unmanned Aerial System (UAS), is one example. Today, there are over 866,000 drones registered with the Federal Aviation Administration (FAA). Drones have permitted real estate professionals to expand their ability to better inventory larger land parcels as well as commercial properties that were at one time more difficult to capture with traditional photography methods. UAS technology is not just for imaging. Other UAS applications include insurance inspections, appraisals, building management and heat-loss imaging. Real estate professionals see benefits in cost efficiency, and exceptional quality of images, video and expanded digital information usage.

The use of drones does come with some limitations, however. When incorporating UAS technology into operations, real estate professionals must contemplate the expenses associated with UAS technology as well as understanding compliance requirements with federal and state regulations regarding licensure and use restrictions.

What is an Unmanned Aerial System (UAS)?

By now, most of us have heard of drones. We may recognize the term from news reports about military operations. We may also have seen smaller drones used by hobbyists.
There are, of course, many differences between the different types of drones. What makes a drone?

A **UAS** is “a powered aircraft and all the associated support equipment, control station, data links, telemetry, communications, and navigation equipment necessary to operate it. It does not have a human pilot onboard.” A small UAS is “a small version of an unmanned aircraft system weighing less than 55 pounds (including the onboard systems).”

**Permission to Fly a Drone**

Getting your UAS off the ground and in the air is not without restrictions. The **Federal Aviation Administration (FAA)** promulgates the regulations relating to the use of UAS in the United States for both recreational and commercial purposes. The FAA rules to follow depend on what the purpose for using the drone is. Importantly, using a UAS in your real estate business is considered commercial use, bringing into play considerations that go beyond the level of requirements for recreational or hobby use.

The FAA designates drone operators in different manners. Hobby or recreational operators do not need FAA permission to fly, but they must fly safely at all times. To fly a drone for recreational purposes, the user must pass the Recreational UAS Safety Test (TRUST), register their drone on the FAA's DroneZone if it weighs less than 55 lbs., and follow the safety guidelines on the FAA website or of an existing aeromodelling organization. Recreational operators must avoid manned aircraft, maintain visual line-of-sight, and fly only for hobby/recreation purposes.

It is important to remember that “the exception for recreational flyers only applies to flights that are purely for fun or personal enjoyment.” The FAA notes that “financial compensation, or the lack of it, is not what determines if the flight is recreational or commercial.” A “non-recreational purpose” would include purposes such as taking photos to sell a property, or roof or general property inspections. Goodwill or other non-monetary value may also be considered indirect compensation. “Recreational” flight is flying only for fun or personal enjoyment.

Within the context of the FAA regulations, real estate professionals would fall into the category of “Certificated Remote Pilots including Commercial Operators.” Flying a UAS for “business, a commercial enterprise, or non-profit work" would make the operations subject to **14 CFR Part 107 Small Unmanned Aircraft Systems** regulations (usually referred to simply as “Part 107”). In order to use a UAS for real estate purposes, the UAS operator must obtain a [Remote Pilot Certificate](#) from the FAA. The basic steps in order to obtain that certification are:

- Learning the FAA UAS rules;
- Passing a knowledge test; and
- Registering the drone with the FAA.
Who Can Obtain Remote Pilot Certification?

The FAA requires applicants for a license to operate a drone for commercial purposes (“Remote Pilot Certification”) to be at least 16 years old, able to read, write, speak, and understand English, be in a physical and mental condition to fly a UAS safely, and pass the initial aeronautical knowledge exam. Remote Pilot Certificate holders must complete an online recurrent training every 24 calendar months to maintain their aeronautical knowledge.

Obtaining the appropriate certification can be a bit daunting, but fortunately, the FAA offers business or commercial operators free helpful online study guides and materials to prepare for the UAS knowledge exam. The resources available include a UAS Study Guide, Aeronautical Knowledge Handbook, and practice exams. In addition, the FAA has recently updated and expanded their free Part 107 required recurrent online training which offers three courses, depending on the status of certification.

Most drone pilots seeking certification for use in their real estate business will qualify under the Part 107 rules for their commercial drone flight usage. However, there are still drone operations that could fall beyond the scope of these rules. In such cases, the drone may have to be granted an airworthiness certificate before it is allowed to fly. Some of the situations where certification may be needed is when a drone weighs more than 55 pounds, when automated fleet operations are contemplated, when a drone will be flown beyond the range of visual line of sight or when engaging in sustained flight over people. Should there be the need to obtain FAA airworthiness certification, the FAA provides guidelines for obtaining the documentation.

What are the Restrictions of UAS Use in Real Estate?

Although UAS use has grown substantially within the real estate industry, a UAS cannot be operated without restriction. Limitations include geographic restrictions in terms of air space zones as well as usage type limitations. The sky does have its limits. Geographically, commercial drone operators must follow Part 107 requirements which impose a 400-feet height limit and registration and marking requirements. This limitation can affect plans to use drones for taller office buildings, other large structures or higher views of larger properties. Besides the requirement that a commercial drone operator obtain a FAA-certified remote pilot certificate, all drone operators must be mindful that it is the policy of the federal government that “operation of any unmanned aircraft or unmanned aircraft system shall be carried out in a manner that respects and protects personal privacy consistent with the United States Constitution and Federal, State, and local law.”

Remote Pilot Certificate for commercial operators has other UAS flight limitations. Recently, effective April 21, 2021, the FAA amended parts of rule 107 by permitting routine operations of small unmanned aircraft over people, moving vehicles, and at night under certain conditions. Prior to the amendment, the FAA had allowed commercial UAS flights only over people on the ground who were participants in the operation itself. Under
the updated rule, flight restrictions over people or crowds will depend on a UAS Category type and certain types of UAS will now be able “to fly over crowds regardless of their knowledge or participation in the operations,” while “others will have more restricted abilities.”

Some operations that may be contemplated by real estate professionals, however, will still require the certified remote pilot to obtain a waiver. These flight conditions might be, among others:

- Flying a small UAS during periods of civil twilight without anti-collision lighting;
- Flying a small UAS beyond your ability to clearly determine its orientation with unaided vision;
- Using a visual observer without following all visual observer requirements; and
- Flying multiple small UASs with only one remote pilot.

Operating a UAS under one of the above designated limited conditions would require an FAA waiver. A waiver is an official document issued by the FAA which approves certain operations of aircraft outside the limitations of the part 107 regulation. An operator may make a request to fly specific drone operations not permitted under his or her certification by requesting an operational waiver. These waivers permit certified part 107 remote pilots to deviate from certain rules by demonstrating they can still fly safely using alternative methods.

State, Local or Regional Limitations on UAS Usage

There are a multitude of other laws that affect many aspects of drone use. In effect, real estate professionals must contemplate why and where they are planning to fly their UAS as many of the enacted laws pertain to areas where drones may not be operated or where individual privacy is a potential issue. In 2015, California adopted Section 1708.08 of the Civil Code, a law that prevents the use of drones to collect “any type of visual image, sound recording, or other physical impression of the plaintiff engaging in a private, personal, or familial activity [if] the invasion occurs in a manner that is offensive to a reasonable person.” California also adopted Section 647(j)(1) of the Penal Code which prohibits the use of an UAS to view or record “the interior of a bedroom, bathroom, changing room, fitting room, dressing room, or tanning booth, or the interior of any other area in which the occupant has a reasonable expectation of privacy, with the intent to invade the privacy of a person or persons inside.”

In Florida, the law forbids a person or state agency from equipping drones with imaging devices to record privately owned real property to conduct surveillance in violation of a person’s reasonable expectation of privacy. Arkansas law prohibits the use of drones for surveillance and/or the gathering of information on "critical infrastructure" (such as, an oil refinery, chemical manufacturing facility, power plant, etc.) without written consent. This
law could prohibit even uses that are not done with any ill intent, such as doing an aerial survey to see how close an oil refinery is to a residential neighborhood and how that neighborhood might be impacted. Tennessee law provides an extensive listing of the authorized purposes for capturing images from UAS devices. One of the listed purposes is “the marketing, sale, or financing of real property” by a “Tennessee licensed real estate broker.” Note that the capture of an image by a real estate broker is lawful only if no individual is identifiable in the image.

Texas law has specific authorizations within the statute that relate to the real estate profession. The Texas unmanned aircraft statute authorizes drone usage “if the image is captured by a Texas licensed real estate broker in connection with the marketing, sale, or financing of real property, provided that no individual is identifiable in the image.” In addition, the law permits drone usage by licensed land surveyors “if the image is captured by a registered professional land surveyor in connection with the practice of professional surveying.” Also, like Arkansas and other states, Texas prohibits the use of drones over a "critical infrastructure facility," such as a chemical plant, power plant or dam.

In addition to the statutory laws, UAS operators could face liability relating to their use of a drone under common law theories. Although the laws are somewhat muddled when it comes to privacy or air rights above properties, another claim that could be made against drone operators could be a private nuisance claim based on the noise made by a drone as it flies overhead. In addition, at least one court has found that unauthorized photography from a drone violated a landowner’s right to privacy (Glaser v. Mitchel, No. A155815 (Cal. App. 1st Dist. Nov. 07, 2019)). The National Conference of Commissioners on Uniform State Laws has proposed its own draft of a “Tort Law Relating to Drones Act.” The proposed Act would, among other things, impose civil liability for aerial trespass on a person who “intentionally and without the consent of the land possessor operates an unmanned aircraft in the airspace over the land possessor’s real property and causes substantial interference with the use and enjoyment of the property.” The proposed Act has not been adopted by any state yet; however, it can be anticipated that the Act will guide legislatures and courts when looking at privacy issues relating to drone use.

Using Drones in Real Estate

UAS technology has allowed Realtors to bring new perspectives when featuring properties. REALTORS® are no longer limited to traditional photographic images. Drone camera technology continues to advance and is capable of capturing still images, high definition video, multiple overhead map images, and even 360 degree panoramas. Drones are also useful to show overhead site maps of a property with imaging looking straight down. Some drones are capable of autonomously flying straight lines between waypoints using special mapping software to automate picture taking and provide large, detailed images.

A huge benefit of using drones in real estate is the ability to view the location of a property in relation to nearby business districts, attractions, amenities, parks, rail systems,
transportation, airports, etc. An aerial perspective is undoubtedly the most ideal way to capture the entirety of this layout. Also, by utilizing drones for aerial photography in real estate, clients can be shown a more accurate and intriguing depiction of what a property is actually like. Drones can also provide aerial views to help show clients the condition of otherwise inaccessible areas of properties such as newly installed roofs, HVAC systems, vents and other remote installations.

Drones may also be used to survey the land itself. This is useful for checking topographic features, boundaries, and flood zones.

**The NAR Policy on Drones?**

NAR supports efforts to create new federal regulations to allow for the future commercial use of unmanned aerial vehicle technology by the real estate industry. NAR is committed to continue working with the Federal Aviation Administration, and any other relevant federal agencies, during the regulatory approval process. The National Association of REALTORS® will continue its ongoing efforts to educate REALTORS® about the current and future regulatory structure for the safe and responsible operation of unmanned aerial vehicles.

**What is the Future of UAS Legislation?**

State legislatures continue to debate if and how drone technology should be regulated. Since 2013, at least 44 states have enacted laws addressing drones and an additional three states have adopted resolutions. Legislatures grapple with issues including refining the definition of what a UAS is, law enforcement or other state agency use, general public use and regulations for their use in other areas such as hunting game. The recent FAA Part 107 changes “highlight that the FAA is willing to adapt its UAS regulatory framework. However, the agency aims to codify new rules only when the relevant technologies and industry best practices have matured sufficiently.” However, “[t]his incremental approach is effective at promoting safety, but technological, social, and economic forces in the UAS industry continue to outpace the regulations that oversee them.”

We may also expect that with the increase of enacted state data privacy laws and the ongoing discussion of the adoption of a potential federal data privacy law, UAS laws and regulations will continue to focus on individual privacy and data protection of captured information.

**What are some other UAS Organizational Resources?**

Although the FAA is the principal authority over and regulator of UAS devices in the United States, there are many organizations that provide additional resources to help educate and advance UAS technology. The Association of Unmanned Vehicle Systems International (AUVSI) is a non-profit organization that advocates for the robotics and unmanned systems community. The group “is committed to advocating globally for public policy that encourages the advancement and deployment of unmanned technology.”
Another non-profit dedicated to the advancement of drone technology is the Commercial Drone Alliance. The alliance is an “advocate for the commercial use of drones by reducing barriers to enable this game-changing technology.” They pride themselves in their quest to “educate on the benefits of drone technology for various end user communities.”

Within the aviation industry, the Aircraft Owners and Pilots Association (AOPA) provides guidance, training, and support” to “ensure that new remote pilots can enjoy their aircraft, use them effectively for their missions, and operate safely among all other aircraft.” These organizations provide additional training, the latest industry news and networking opportunities for all UAS operators, including commercial users.

**Conclusion**

Advances in drone technology have brought real estate productivity and marketing to new heights. Although regulated, the use of drones has become an integral part of the real estate professional’s toolkit. Putting in the extra effort to understand the requisite UAS federal and applicable state regulations, as well as training, obtaining and maintaining the necessary drone commercial operator’s license will pay dividends in expanding real estate business offerings. NAR continues to monitor FAA public comment periods to ensure the real estate industry is well represented as this policy issue area continues to evolve.
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