

| FEATURED ARTICLE

A white and blue quadcopter drone is shown in flight, viewed from a low angle. The drone has four arms with black propellers and a white body with blue accents. It is flying over a city street with buildings and cars in the background, which are blurred. The text 'Drone Regulations' is overlaid on the image in a large, white, sans-serif font.

# Drone Regulations

By Steve Bergsman



When *SIOR Report* magazine caught up with Allan Goldstein of Aerial Images Photography in Elk Grove Village, Ill., he was returning from the airport after just completing a photo shoot of a building where the roof was being erected.

Goldstein is a pilot with his own plane and this shoot involved flying over the structure. However, in January, Goldstein acquired a drone after years of resisting such a purchase. The problem for Goldstein, a professional photographer, was that the quality of pictures from a drone weren't good enough for him. When he flies, he uses a \$10,000 camera. A moderately priced drone can be bought for just under \$1,500 so the

camera quality is not going to be nearly as good.

Still in January he made the move. "People are in love with drones," he says. "You can fly them and they are not at all that expensive. Most are just toys, but you do have a group of them that are platforms for the serious photographers. I jumped on this because I saw recent improvements in photographic quality. What is really very good are the videos you get with a drone. I was quite impressed by it."

The shoot that Goldstein was returning from cost the client around \$700. Had Goldstein been able to take a drone over the site, the charge would have been

somewhat less, although Goldstein emphasizes that the quality of the photography would not have been as good.

Down in Miami, Edward Redlich, SIOR, vice president of ComReal Miami, began using drones for aerial photography about three years ago.

"I'm your typical industrial real estate broker," he says. "I sell properties or look for warehouses to sell or rent. In my marketing, I have always done aerial photography and videos as it is another tool to tell the story of the property. We would hire a photographer who would go up in an airplane or helicopter, which was expensive and dangerous – the pilot had to watch out for other aircrafts or power lines."

Redlich tried drones instead, and over the past two years, aerial photography from drones has become the standard operating procedure for his company. "It's not for every property and not for every situation," he says. "However, if you have a significant property and you are trying to get a scenic shot of the property, it is definitely worth considering."

The problem in the past for drones has been the heavy hand of the Federal Aviation Administration, which had

"There is a huge difference in [drone photography] companies. This is a new technology, a new industry, and you really have to choose the right drone photography business."

imposed some very severe restrictions on drone operators, especially those using drones for commercial purposes. The biggest limitation was that one needed a pilot's license to pilot a drone for commercial usage.

As of June 2016 that all changed. The U.S. Department of Transportation's FAA announced it had finalized regulations for commercial use of drones, or what it calls sUAS, the acronym for small unmanned aircraft systems. The newly introduced Part 107 of FAA Modernization and Reform Act eliminates commercial drone users need to get an exemption from the FAA and have a traditional pilot's license, which was an endless process. In regard to the latter issue, drone pilots will still need a get a remote pilot airman certificate from the FAA, which requires that you be at least 16 years of age and pass an aeronautical knowledge test.

The FAA was so inundated with drones that it got scared, says Goldstein. "It felt these drones were aircrafts and since they shared air space, they needed to put restrictions on them. If you were going to use your drone for making money you had to follow a lot of rules and the FAA was slow to give approvals."

Indeed, according to the *Wall Street Journal*, on some days the FAA received about 4,000 registration applications for small drones, primarily from hobbyists, and as an interim measure the agency issued more than 5,000 exemptions for small drone commercial operations.

Even with the new FAA guidelines, restrictions include: weight of 55 pounds or less, must be registered with FAA, line-of-sight flying only, maximum height of 400 feet, and no flying over people or under a covered structure.

The last restriction affects modernization of industrial space as companies with huge warehouses, like Wal-Mart, envisioned using drones in distribution plants. Also, put on hold is drone deliveries. The FAA set limits on a drone's speed, altitude, and weight, but the key provision hampering, for example, FedEx making drone deliveries, is the one that any unmanned aircraft be within sight of the operator.

Drones are useful in a number of real-estate related applications, including marketing properties, assisting with appraisals, facilitating insurance claims, and overseeing utility work, reports the National Association of REALTORS®, which is calling for eased restrictions on a "micro" category of drones (less than four pounds). NAR also believes there is an on-going need for a drone strategy that allows for "beyond visual line-of-sight" flights, or those where the operator cannot physically see the drone throughout the entire operation. These flights are particularly important for aerial photography across large buildings or tracts of land.

"Technology outpaces the government regulations," Redlich observes. "The drone technology came on board before the FAA could get a handle on positions and regulations."

However, the recent regulation changes do make it easier for big commercial real estate companies to have a drone pilot in-house.

"We outsource," Redlich continues. "There is a huge difference in companies. This is a new technology, a new industry, and you really have to choose the right drone photography business."

According to Redlich, the company he uses follows the rules, which is very important, and the drone pilots are

licensed and insured. The company notifies occupants when the drone will be in the area, it tries to fly when there are less people on premises and it doesn't fly over an airport or people – individuals tend to get spooked when they see a drone come overhead.

"There are a lot of amateurs who will charge less money to do the work, but it is not even worth it – you would have just wasted several hundred dollars because you don't have anything worth presenting," says Redlich. "It almost does more harm than good."

"Flying a drone  
and getting  
good photography  
is an art form."

Flying a drone and getting good photography is an artform. The pilot has to get the drone in the sky and then find the proper angle for the shot. Not always easy as wind is a factor, and more often than not you want to see blue skies, maybe a few puffy white clouds. As with all outdoor photography, you need the right time of day. Often times, the pilot will actually create a flight path ahead of the drone flight.

For commercial real estate companies, the aerial photographs (and videos) are for sales purposes, so, in general, the pictures show the site and the wider location. If it's a business park, for example, you may want the aerial photo to show where the key roads, the

highways, the residential areas, and schools are located.

“The main strength of aerial photography is that it can show a very large area,” says Goldstein. “As an example, I recently shot a hotel near O’Hare Airport and one of the requirements was to include downtown Chicago in an image. The client also wanted a photograph that included O’Hare Airport.”

Those FAA imposed limitations can affect more than those who can fly, Goldstein cautions. “You can legally fly the drone up to 400 feet. For a huge facility, such as a 1-million-square-foot distribution center, this can take quite a bit of flying time. Since the battery power on a drone is only about 18 minutes, we need to keep bringing the drone down, replacing the battery and then go back up.”

There are other limitations as well. “With a drone, to show all directions could take a while,” says Goldstein. “When we shoot from an airplane, we typically fly around a building from 1,000 feet, so we can easily see the entire property and shoot it from all directions. Often there is a point where the drone is not practical.”

He adds, “lots of clients have come to me and asked, ‘Could you take a picture of my warehouse with your drone?’ After looking it over, I tell them straight out, it would be better for them if we did it with the airplane because it is a large site and we can deal with a much higher quality camera. Very often they end up opting for the airplane.” ▼

## CONTRIBUTING SIOR



**Edward Redlich,**  
SIOR, CCIM



SPONSORED BY

**SIOR** | FOUNDATION

Promoting and sponsoring initiatives that educate, enhance, and expand the commercial real estate community. The SIOR Foundation is a 501 (c)(3) not-for-profit organization. All contributions are tax deductible to the extent of the law.