

# In the skies, under the radar

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Paul Doersch sells commercial drones, and he is relentlessly bullish on his product. Drone technology is “here to stay,” and unmanned aerial vehicles – UAVs – will eventually become must-haves for endeavors ranging from building inspection to land mapping, says Doersch, president of California-based drone manufacturer Kespry.

Perhaps; but in the here and now, some of Kespry’s customers have been caught in an odd legal limbo, freelance correspondent Craig Guillot wrote in SAGE Business Researcher. The Federal Aviation Administration, which regulates private drone use in the U.S., has been slow to release clear regulations for commercial operators. As a result, up until now a business that wanted to fly a UAV legally was required to obtain what’s called a Section 333 exemption, which entails wading through voluminous paperwork – and holding a commercial pilot’s license.

The situation will ease somewhat in August when new FAA rules take effect that allow operators to obtain a “remote pilot certificate” by passing an aeronautical knowledge test. The rules will generally restrict drone operation to daylight or twilight hours and require operators to keep UAVs in their direct line of sight.

Even as it requires licensing for commercial operations, the FAA says it’s perfectly OK for an individual to operate a drone as a “hobbyist.” The result, Guillot wrote, has been that a teenager can legally use a drone to take personal photos of his house, but a real estate agent who does the same thing for a client could be breaking the law.

This is not a legal environment designed to make businesses happy. After the FAA last year missed a congressionally mandated deadline to integrate drones into the regulated airspace that includes airports, flight paths and flight control, two industry groups called on the agency to get on the stick, as it were. Brian Wynne, the president of one of the groups, the Association for Unmanned Vehicle Systems International, said then that allowing commercial use through exemptions is “no way to regulate” and that the industry is in an “undesirable position right now.”

Undesirable or not, drones are taking to the skies in ever-increasing numbers. Construction companies and architectural firms use them to create 3-D renderings and shoot aerial progress photography. Farmers use them to observe and manage fields and crops. Law enforcement agencies and infrastructure engineers are using the

technology to obtain detailed surveys of terrain and buildings. Farther afield, UAVs have been used for conducting search-and-rescue missions, fighting animal poachers in Africa, monitoring whaling ships in Japan and surveying coastal erosion in Australia.

The FAA has a history of significantly underestimating the popularity of drones. In 2010, it said there would be 15,000 in U.S. skies by 2020. Monthly drone sales already exceed that amount, and annual sales are likely to top 1 million units. Drones have gone from niche products sold by online retailers to the shelves of big-box stores; sales of private UAVs are expected to reach \$4.5 billion in 2020, up from \$720 million in 2014, according to Mike Blades, a Texas-based senior analyst for the consulting firm Frost & Sullivan. “The market is exploding because drones are now affordable,” he told SAGE Business Researcher.

How affordable? A DJI Phantom, one of the most popular drones on the market, retails for about \$700. On DJI’s company website, one model is currently being discounted at \$499 with free shipping (Go-Pro camera not included).

As the drones proliferate, so do the risks. UAVs have crashed at national parks, in sports stadiums, on Manhattan streets, even on the White House lawn in January 2015. Federal officials worry that terrorists could use drones to launch attacks. Since 2011, authorities in the United States, Germany, Egypt and Spain reportedly have foiled at least six potential attacks by terrorists using drones. “The distressing truth is that even consumer-grade drones can be rigged to carry out potent attacks,” said Todd Humphreys, a drone expert and engineer at the University of Texas in Austin.

If more proof of the potential danger was needed, it came last year when someone —authorities think it was an 18-year-old Connecticut student — outfitted a drone with a handgun, fired away remotely, and posted a video of the fusillade on YouTube. That got the attention of law enforcement, as well as the FAA. Some officials argue that there is too little regulation of drones, not too much. Drone use has been banned or restricted over national parks, ski resorts, large entertainment events and outdoor festivals. Concerns have also been raised about the potential for drones to violate personal privacy.

The uncertain legal and regulatory environment has spawned a large black market of commercial drone operators who don’t bother to seek a Section 333 exemption to function legally, Jonathan Rupprecht, a Florida-based lawyer who specializes in drone law, told Guillot. After the FAA announced the new regulations, officially dubbed Part 107, Rupprecht said they will still require special waivers for operations at night, directly over people, beyond the pilot’s line of sight or weighing more than 55 pounds.

And therein lies opportunity, Rupprecht wrote in a post on his law firm’s website: “When the competition floods into the market after Part 107 becomes final, these areas will be more profitable.”

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*Notes:*

- *This post is based on the [report](#), SAGE [Business Researcher](#), by Craig Guillot.*
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