

BUSINESS LAW TODAY

Seeking Law Abiding Drones: What to Tell Clients that Want to Use Drones in Their Business

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The proliferation of microdrones priced around \$1,000 confronts many businesses with difficult legal choices. These little aircraft have phenomenal aerial photography capabilities and obviously can be useful in supporting photojournalism, aerial photography for real estate sales promotion, aerial surveying, pipeline and powerline patrol, law-enforcement, and other public safety activities. They cannot carry much more than a good camera or laser or infrared sensor – delivery of Amazon packages or pizzas will come later. (The price escalates rapidly for professional grade aircraft, cameras, gimbals, and high quality video streaming.)

The term “drone” and its politically correct alternative “unmanned aircraft system” (sUAS) span a wide range of air vehicles, from rotary-wing toys that fit in the palm of one’s hand, priced at less than \$100 and intended to be flown inside, to fixed-wing configurations the size of a Cessna 172 or a fighter jet derived from battlefield weapons. (We call these “machodrones.”) The most interesting ones in the context of this article are ones between these extremes, such as the DJI Phantom 2, often seen in news reports and on web pages. It costs about \$1,000, has endurance of about a half-hour, and can carry a GoPro camera.

The law right now is confused. Congress obligated the FAA to integrate drones into the National Airspace System, beginning with microdrones, which were supposed to be operable under an FAA regulation to be in place in 2014. Such a regulation is not in place, and a notice of proposed rulemaking has not even been issued, although the FAA promises one before the end of the year. For now, operation of one of these microdrones is illegal unless one does it purely for fun. The same vehicle’s bona fides depend on whether it is flown for hobbyist or recreational purposes (legal and unregulated) or whether it is flown for commercial purposes (illegal).

The FAA is losing more enforcement cases than it is winning. An administrative law judge at the NTSB, in the *Pirker* case, held that the FAA cannot impose penalties for violating rules that do not exist. There is no rule that prohibits commercial microdrone flight, only an FAA *position*. A Texas organization flying drones for search and rescue support challenged a cease-and-desist letter received from the FAA. The D.C. Circuit dismissed the challenge on subject matter jurisdiction grounds, holding that it was not final agency action eligible for judicial review because the FAA had fol-

lowed no procedures allowing notice and an opportunity to be heard before issuing it. The journalism community raised First Amendment arguments in an amicus brief filed with the NTSB, arguing that the FAA’s prohibition of news collection by drones is unconstitutional. Virtually every significant aviation industry trade association signed an April 2014 letter to the FAA Administrator urging him to expedite regulatory accommodation of microdrones.

Exceptions to the prohibition are available through three procedures. First, a would-be commercial operator can petition for an exemption from specific FARs – like the one requiring display of a registration certificate in the aircraft. There is no one aboard a microdrone to see the certificate. Second, a private sector operator can obtain a Special Airworthiness Certificate/Experimental (SACE), which allows it to fly a drone for research, demonstration, and training purposes only in a defined geographic area approved by the FAA.

Application for a SACE requires submission of 20 pages of details about drone design, flight characteristics, and the behavior of its electronic systems. The application process obviously was designed for manned homebuilt and experimental aircraft. Rela-

tively few SACEs have been granted, mostly limited to collaborators in six test sites that the FAA selected in early 2014 to conduct research into various aspects of drone integration. A handful of others allow larger fixed-wing drones derived from military designs to be flown in conjunction with oil and gas exploration in Alaska.

The third route to obtain permission is to apply for a Certificate of Waiver and Authorization (COWA), a process still formally available only to governmental entities like the armed services and state and local law-enforcement agencies. Several hundred COWAs have been granted, predominantly to the Armed Forces, but also to some law-enforcement agencies.

The FAA apparently is willing to relax some of the specific requirements on a case-by-case basis, but its formal position is that drones may be operated only under an exemption, under a SACE or COWA, that they only may be operated by persons holding pilot licenses, that drones must be certificated and registered as aircraft, and that they must comply with the operating rules contained in part 91 of the FARs. Compliance with all of these requirements is ill-suited to the nature of microdrones like the Phantom and entirely disproportionate to the risks they present. It is as though the national Highway Traffic Safety Administration extended rules designed for over-the-road trucks to bicycles.

Even if one meets all these requirements, there is no clear pathway to get approval for the full range of commercial drone activities.

Apparently the FAA wants to relieve some of the dammed up pressure for action in a case-by-case exemption process. The exemption process is more flexible than the SACE or COWA processes. It just approved eight Hollywood petitions to allow microdrone support of movie shooting at defined locations in California. Still, what Hollywood proposes to do hardly can be said to involve integration of drones into the National Airspace System. It's more like enforced segregation.

The FAA has some 40 other petitions for exemption under consideration, including one filed by co-author Perritt on

behalf of Colin Hinkle, a Chicago news photographer.

We've argued in other articles and in a petition for rulemaking filed with the FAA that the agency is thinking about the problem in the wrong way. Microdrones cannot be regulated as manned aircraft have traditionally been regulated, by trying to specify the details of drone operation and operator qualifications; they must be regulated like the consumer products they are – like lawnmowers – by prohibiting their sale unless they have built in safety features that cannot be overridden by the DRone OPERator (DROP). This may help reduce the chance for midair collisions by reducing temptation to go higher and further.

The FAA should embrace drones' ability to hold themselves accountable – to make them law abiding right out of the box. The FAA should require them to have built-in systems to prevent them from violating fewer than a half-dozen key safety principles. These principles, widely agreed on as best practices for model aircraft flight:

- restrict flights to the airspace at or below 400 feet above ground level;
- allow flight only within line of sight;
- exclude the drone from those classes of airspace already defined as controlled and congested; and
- require the drone automatically to return to the launching point if something goes wrong, such as a control-link failure or operator incapacitation or inattentiveness.

Autonomously implementing these limitations is well within the capability of even the lowest cost microdrones. Most of them already have these features, but their activation is optional with the operator. Additional government regulation is not popular, but government intervention is the only means to keep air traffic safely separated. Our proposed approach is far less intrusive than detailed DROP licensing requirements, aircraft certification, and prescribing and enforcing flight profiles. It is quite clear that the status quo is not sustainable. The FAA will never have sufficient enforcement resources to detect even a fraction of the violations of its

outright ban, let alone to prove those flights that it detects were for commercial purposes. The thousands of people who think that flying a Phantom right out-of-the-box from Amazon would be fun or would be an asset to their business activities are not going to wait around for the FAA to navigate its way out of its regulatory jungle. Unlike traditional manned aircraft pilots and operators, they have no particular ties to the FAA, have not been trained in a culture that has the Federal Aviation Regulations at its core, and the FAA lacks the leverage over them that it has over pilots commercial aircraft operators, who must have and maintain some kind of FAA license or certificate to keep their jobs and businesses.

The result is that the FAA pretends that commercial drone flight is illegal while thousands of people do it anyway, presenting mushrooming hazards to manned aircraft and to persons or property on the ground because the operators have not thought through what the risks are and how to avoid them.

The regulatory climate is in a state of flux – to understate the obvious. It will change week-by-week and month-by-month, and it will surely open up the possibilities for much useful commercial drone activity. Exactly how it will change and what kinds of trade-off among vehicle design, operator qualification, and detailed flight rules will result is difficult to predict.

But many of your clients want to want to fly them now. Other clients wish drones could be exterminated.

What do you do?

First, explain to your client the current distinction between hobbyist and recreational flight on the one hand, and commercial flight on the other. Your client can do almost anything that qualifies as hobbyist and recreational and, without special permission, can do almost nothing that involves commercial flight.

Second, make sure your client understands that even small drones can be dangerous. They can collide with manned aircraft, especially if they are flown above 400 feet. (Most manned airplanes and helicop-

ters stay above 500 feet, most of the time, except when they are landing or taking off.) They can injure persons or property on the ground if they fly or crash into them. It is relatively easy for an operator to lose control of them, especially if they fly too far away from him or her. The client must understand, moreover, that it is liable for damage caused by its drone operations. The general rule is that standards for common-law negligence must be based only on FAA regulations. While state law may provide remedies for violating the standards; it may not substitute or supplement the federal standard of care. But if the FAA has not promulgated regulations for drone operations, the likelihood of federal preemption is much less.

Third, help your client work through the risks and rewards of alternative courses of action. Some clients do not want to be pioneers, testing legal limits. Others are eager to act, less concerned about legal consequences. The following alternative approaches can be useful to discuss with clients.

A. *Become a test case.* Imagine a construction contractor who controls a construction site, secured from public access. The contractor himself, or through a drone subcontractor, buys a Phantom microdrone to obtain overhead photography useful for surveying the site and monitoring activities to improve it. It sets the parameters on the Phantom so that it cannot fly higher than 400 feet above the ground, so that it cannot fly outside the boundaries of the construction site, and so that it returns to home if the control link is lost. This hypothetical client seeks no advance approval from FAA; it simply flies its drone to meet its needs, making sure that all of its employees and contractors comply with the limitations described.

A similar approach might be suitable for powerline and pipeline patrol operators and real estate agents who fly only over property they have legal access to and a measure of control over.

Bold television stations also can take advantage of the current legal cloudiness. They have available to them a va-

riety of legal theories that support what they want to do to distinguish them from other stations in their markets. They would go ahead and fly microdrones for newsgathering, or at least buy newsworthy imagery already collected by somebody else.

This is not as stark a defiance of law as it might seem. Substantial uncertainty exists about the validity of the FAA's prohibition on commercial drone flight. The *Pirker* decision has not been reversed by the NTSB, and it plainly holds the FAA ban on commercial flight invalid. The *Equusearch* decision makes clear that the FAA must follow due process in drone enforcement proceedings. And, of course, a client cited for violating a rule can defend on the grounds that the rule is ultra vires or arbitrary and capricious. The client's drone activities may go undetected by the FAA, and, even if they are detected, the FAA may not devote the resources to an enforcement action.

This is not a risk-free approach, but it can be useful in crystallizing the legal framework, if a client is willing to make itself available as a test case. If the FAA commences an enforcement action, its position will be weak, and that of the client strong.

B. *File a petition for exemption.* A more cautious client can file a petition for an exemption, following in the footsteps of the Hollywood success and Hinkle's effort. They might propose limitations similar to those proposed in the *Hinkle* petition or they might come up with their own.

C. *Get ready.* In any event, clients should get ready to fly their first microdrones on the first day that FAA rules allowing commercial use become effective. There will be a reasonably comprehensive framework for legal microdrone ENG flight within the next few years. The pressure to establish a coherent regulatory framework is simply too strong, and the mushrooming noncompliance with the FAA's ban is changing the political dynamics and adding the voices of drone opponents to those of drone proponents

urging the FAA to act soon. Change almost certainly will be in the direction of permitting commercial drone use; the statute commands that, and it also clearly envisions that restrictions will be relaxed for microdrones before the entire integration problem is solved. As the regulations are being finalized, it also is not unreasonable to expect that there will be a relaxation for certain kinds of experimental or demonstration activities in a commercial context through streamlined special approval mechanisms.

Equipment selection, decisions about whether to contract for microdrone support or do it in-house, strategies for deployment and use, development of downlinks for aerial imagery, training of field reporters and ENG photographers, development of legal theories all can be done now. In fact, Modovolate Aviation, LLC ("Movo Aviation") will begin offering packages of ENG microdrones to local TV stations in early 2015, so that they can begin preparing.

D. *Don't get caught up in the frenzy over privacy.* It is important to keep the privacy issues in perspective. Lots of privacy law is on the books already, and privacy advocates are sophisticated and influential. The FAA knows very little about privacy; it is a safety agency. Moreover, it is not clear that the FAA has statutory authority to promulgate limitations on flight solely to deal with privacy concerns.

Privacy law already provides basic protection. If a drone operator causes a microdrone to look through a bedroom window and capture imagery of the people inside, it constitutes common-law invasion of privacy under the intrusion-upon-seclusion variant. If he or she puts the resulting video up on YouTube, the operator is liable under the giving-publicity-to-private facts variant. Little case law exists to support these propositions, because microdrones having this capability are too new, and it would take an extremely reckless helicopter pilot to commit the tort on the hypothetical facts.

Similarly, tort law also provides protection against aircraft, including drones,

flying so low as to constitute a common-law trespass or nuisance.

As frequently happens with new technologies, both the benefits and the dangers of microdrones probably are exaggerated. As more people buy them and fly them for commercial purposes, many will discover that their limited range and endurance and the fact that they must be transported to the site by another vehicle blunt their apparent economic advantages over manned helicopters. Their limitations mean that they will, at most, supplement manned helicopters, not supplant them.

The dangers also are exaggerated. Few of them will crash and hurt people or damage property. Only a few nuts will use them to peer into bedroom windows, and if the occupants of the bedroom care enough, they will have a lawsuit strong enough to attract contingency-fee lawyers.

Meanwhile, the bar should help its clients navigate the regulatory uncertainty, encouraging the bolder ones to galvanize some test cases. More important, clients and the bar alike should help the FAA figure out a viable approach to this new aeronautical opportunity, recognizing the limits of legal compulsion when the law is too far out of step with technological reality, and recognizing that new technologies can make rules self-enforcing.

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Citations

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Additional Materials

The co-authors have written a number of articles published in trade magazines and law reviews and are under contract to write a book about the implications of inexpensive microdrones. See Henry H. Perritt, Jr. & Eliot O. Sprague, *Is there a drone in your future?* HELIWEB, May, 2014 p. 14 (with Henry H. Perritt, Jr. & Eliot O. Sprague); Henry H. Perritt, Jr. & Eliot O. Sprague, *Drone Dread*, ROTOR & WING MAGAZINE, June, 2014, p.34; Henry H. Perritt, Jr. & Eliot O. Sprague, *But Who's Going to Fly Them?* PROFESSIONAL PILOT, June, 2014, p.94; Henry H. Perritt, Jr. & Eliot O. Sprague, *Leashing Drones*, ROTORCRAFT PRO, Aug., 2014; Henry H. Perritt, Jr. & Eliot O. Sprague, *Law and Order in the Skies*, THE TECH (MIT student newspaper), 13 June 2014; Henry H. Perritt, Jr. & Eliot O. Sprague, *Drones*, ___ VANDERBILT J. ENT. & TECH. L. ___ (forthcoming 2014); Henry H. Perritt, Jr. & Eliot O. Sprague, *Ready for the Microdrone Races?*, RADIO AND TELEVISION DIGITAL NEWS ASSOCIATION NEWSLETTER (forthcoming, Oct. 2014); Henry H. Perritt, Jr. & Eliot O. Sprague, *DOMESTICATING DRONES: THE TECHNOLOGY, ECONOMICS, AND LAW OF UNMANNED AIRCRAFT* (Ashgate, forthcoming 2015).