



Feature Article

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Attack of the Drones: Small Unmanned Aircraft Claims Are On Their Way

It seems like you cannot turn on the TV or pick up a newspaper without seeing something about drones. The constant references to them might lead you to believe that they are in the sky everywhere, watching everything from troop movements to the youth soccer game at your local park. Although this remains an exaggeration, there is little question that interest in these devices is on the rise. Under intense pressure to do so, the Federal Aviation Administration (FAA) recently issued a detailed scheme of proposed regulations governing the commercial use of drones. Already, important legal issues are presenting themselves. In coming years, the courts will undoubtedly address questions arising from the interaction of drone use and familiar areas of law running the gamut from federal constitutional jurisprudence to state common law torts for trespass, damage to real and personal property, and personal injury. There is little doubt that the proliferation of drone use, whether commercial, municipal, or recreational, will prove to be interesting for those in the legal profession. This article addresses some history behind these flying machines and some early concerns regarding their commercial and municipal use.

Background

The word “drone” is slang for any type of Unmanned Aircraft System (UAS), whether remotely-piloted or autonomous. *See* 725 ILCS 167/5 (“‘Drone’ means any aerial vehicle that does not carry a human operator.”) They vary greatly in size, sophistication, and intended use, and may take any form ranging from a six-inch quadcopter to a full-sized jet fighter-bomber. The public’s introduction to drones came through news reports of the military’s use of highly sophisticated versions to conduct surveillance and missile attacks against suspected terrorists throughout Africa and the Middle East. So well-known is the Air Force’s “Predator” drone that the term “Predator strike” has become synonymous with any drone-based attack by the United States for well over a decade. *See, e.g.,* CNN Wire Staff, *Second Predator Strike Recorded in Libya*, CNN (Apr. 24, 2011, 12:47 PM), <http://www.cnn.com/2011/WORLD/africa/04/24/libya.predator.strikes/index.html> (last visited Feb. 16, 2015).

More recently, the availability of far simpler drones intended for recreational use has expanded the public’s understanding of these devices. They can now be purchased cheaply at retail outlets such as Wal-Mart, from online retailers such as Amazon, or directly from manufacturers. Recreational drones are often sold with little assembly required; in many cases, consumers can open the box and be flying within minutes. Although infinitely smarter, they typically require less technical know-how than the classic “remote control airplane” found in hobby shops in decades’ past. A few of the most visible global manufacturers are DJI (China), Parrot SA (France), XAircraft (Australia) and 3D Robotics Inc. (U.S.). The FAA permits the recreational use of drones with certain limitations. Among those limitations, recreational drones must weigh less than 55 pounds, not fly higher than 400 feet, remain within the field of vision of the operator at all times, and avoid manned aircraft operations. FAA Modernization and Reform Act of 2012, Pub. L. No. 112-95, § 336,



126 Stat. 77–78 (2012). Even though some of these models easily fit in the palm of one’s hand, all are considered to be “aircraft” under federal aviation regulations. *Huerta v. Pirker*, NTSB Order No. EA-5730 at 5 (2014) (interpreting 14 C.F.R. § 91.13(a)).

Intelligent technology allows many affordable drones to autonomously return to a designated point of origin should it fly beyond the range of its radio control or if the operator otherwise loses contact with it. Michael S. Rosenwald, *A Drone of Your Very Own: These Aren’t Your Average Remote-Controlled Aircraft*, THE WASHINGTON POST (Aug. 17, 2013), http://www.washingtonpost.com/local/personal-drones-delivering-wedding-rings-instead-of-issiles/2013/08/17/75ed2092-ff7e-11e2-9711-3708310f6f4d_story.html (last visited Feb. 20, 2015). This capability is designed to mitigate the possibility of uncontrolled “fly-aways,” potentially expensive and even dangerous mishaps that are becoming commonplace. Another GPS-based software feature, known as “geofencing,” can prevent drones from approaching certain no-fly zones, such as airports. Kevin Poulsen, *Why the US Government Is Terrified of Hobbyist Drones*, WIRED (Feb. 5, 2015 5:15 AM), <http://www.wired.com/2015/02/white-house-drone/> (last visited Feb. 15, 2015). In light of a recent sharp increase in the number of reports to the FAA of drones flying in and around airport traffic patterns, this technology is likely to become far more common. Dow Jones Business News, *FAA Reports More Aircraft-Drone Near Misses*, NASDAQ (Nov. 26, 2014 1:35 PM), <http://www.nasdaq.com/article/faa-reports-more-aircraftdrone-near-misses-20141126-00536> (last visited Feb. 16, 2015). The accidental crash landing of a federal employee’s small recreational drone onto the White House lawn in January 2015 focused intense media coverage on the importance of protected airspace. Michael S. Schmidt and Michael D. Shear, *A Drone, Too Small for Radar to Detect, Rattles the White House*, N.Y. TIMES, Jan. 27, 2015, at A1. Within days, the drone’s manufacturer pledged to force a software update to prevent its drones from flying anywhere over a 15.5-mile radius spanning downtown Washington, D.C. Kurtis Lee, *Maker of Drone that Crashed on White House Grounds to Stop Flights Over D.C.*, LOS ANGELES TIMES (Jan. 28, 2015 7:59 AM), http://www.latimes.com/nation/nationnow/la-na-nn-white-house-drone-company-20150128_story.html (last visited Feb. 16, 2015).

Although permissive of recreational drones, the FAA generally prohibits the use of drones for commercial and local governmental purposes. Because there need not be any technical difference between drones used by hobbyists and those used by police agencies or private companies, the status quo has been inequitable: any recreational user can buy a 54-pound drone and fly it with no training or experience, while a trained drone expert with thousands of hours of flight experience is not allowed to fly that very same drone over a farm field to take thermal images of crops to detect infestations. Mary “Missy” Cummings, *What To Do About Drones*, CNN (Jan. 29, 2015 11:52 AM), <http://www.cnn.com/2015/01/29/opinion/cummings-drone-policies/index.html> (last visited Feb. 15, 2015).

A special regulatory exemption referred to as a “Certificate of Waiver or Authorization” (COA) may be requested pursuant to Section 333 of the FAA Modernization and Reform Act, but the process is difficult and time consuming. Pub. L. No. 112-95, § 333, 126 Stat. 75–76 (2012). As of February 2015, the FAA was in receipt of 342 requests for exemptions and granted only 24, mostly to film and television production companies employing drone operators who were also licensed pilots. *FAA Grants Eight More UAS Exemptions*, FEDERAL AVIATION ADMINISTRATION (Feb. 3, 2015 11:55 AM), <http://www.faa.gov/news/updates/?newsId=81565> (last visited Feb. 15, 2015).



Proposed FAA Regulations

The FAA Modernization and Reform Act of 2012 directed the Secretary of Transportation to prepare a comprehensive plan and proposed regulations for governing the non-recreational use of drones within the national airspace system. Pub. L. No. 112-95, § 332, 126 Stat. 73-74 (2012). On February 15, 2015, long-overdue proposed rules addressing small commercial drones weighing less than 55 pounds were announced by the FAA. The proposed rules would require that commercial drone operators be at least 17 years old, undergo vetting by the Transportation Security Administration, pass an aeronautical knowledge test every two years, and obtain an unmanned aircraft operator certificate. The proposed rules limit flights to daylight hours within the line of sight of the operator, at altitudes below 500 feet, and at speeds below 100 miles per hour. Federal Aviation Administration, Operation and Certification of Small Unmanned Aircraft Systems, 80 Fed. Reg. 9544 9586–89 (Feb. 23, 2015) (to be codified at 14 CFR pt. 107). The proposed rules further prohibit commercial drone operators from flying over people not involved in the drone’s flight, from carrying cargo for a fee, and from dropping objects from drones. *Id.*; see also Katherine Skiba, *FAA Proposes Rules for Commercial Drones*, CHICAGO TRIBUNE (Feb. 15, 2015 6:00 PM), <http://www.chicagotribune.com/business/breaking/chi-faa-commercial-drone-rules-20150215-story.html> (last visited Feb. 17, 2015).

Issuance of the proposed regulations was to be followed by a 60-day public comment period. Federal Aviation Administration, Operation and Certification of Small Unmanned Aircraft Systems, 80 Fed. Reg. 9544, 9544 (Feb. 23, 2015). The FAA seems to be somewhat flexible as to whether eventual beyond line-of-sight flying, flights over people not directly involved with drone operations, and transportation of cargo may be possible, as it specifically requested public comment on these subjects. The FAA also solicited opinions as to whether these rules should even apply to so-called “micro” drones weighing up to 4.4 pounds. *Id.*

Significant Business Opportunities

The proposed regulations were greeted with a mixture of relief and frustration by the business community. In their current form, it appears that certain industries are well-positioned for drone use in the near future. It seems apparent that photographers, surveyors, realtors, safety inspectors, insurers, and farmers will be able to establish drone operations within the confines of the proposed rules. Each has a unique interest in capturing footage from the vantage point afforded by the skies.

Farmers, in particular, have much to gain. Instead of tromping through (and potentially damaging) rows of crops, drones will enable them to employ photography, video, or even infrared sensors to diagnose and assess treatments for crop stress from pests, disease or nutrient deficiencies. Sharita Forrest, *Drones Give Farmers Eyes in the Sky to Check on Crop Progress*, NEW BUREAU ILLINOIS (June 4, 2014), http://www.news.illinois.edu/news/14/0604drones_DennisBowman.html (last visited Dec. 4, 2014). Realtors will be able to capture dramatic aerial views of properties for sale. Inspectors of bridges, smokestacks, and communications towers may be able to do so from the safety of the ground. Assuming they are able to place an operator within the line-of-sight of a disaster, insurers may gain the ability to more quickly analyze the causes and extent of the resulting damage. All of these uses appear not only possible, but a near certainty, should these regulations survive the review process.

Other proposed uses appear to be off the table, at least for now. One somewhat fantastical idea—the remote delivery of products—is clearly incompatible with the FAA’s recommendations to outlaw flights beyond the line-of-sight of the



operator, at night, and with fee-generating cargo. Companies such as Amazon, which are touting drone-based delivery systems, are lobbying for reconsideration of these restrictions. Bart Jansen, *Drone Industry Likes FAA Plan; Amazon Left Out*, USA TODAY (Feb. 15, 2015 7:46 PM), <http://www.usatoday.com/story/news/nation/2015/02/15/faa-drone-reax-auvsi-ama-aopa/23456673/> (last visited Feb. 16, 2015). Anticipating this roadblock, Amazon sent a letter to the FAA in December 2014 warning that it would be forced to move its commercial drone research outside the United States unless liberal regulations were adopted. Maya Kosoff, *Amazon Won't Be Able to Fly its Delivery Drones under the FAA's Proposed Drone Rules*, BUSINESS INSIDER (Feb. 15, 2015 1:10 PM), <http://www.businessinsider.com/amazon-faa-drone-regulations-2015-2> (last visited Feb. 20, 2015). Inspections of miles-long sections of pipeline or railroad track through rugged terrain, although seemingly perfect jobs for small camera-equipped drones, cannot happen so long as the line-of-sight limitation survives the rule-making process.

It can reasonably be anticipated that plenty of dissatisfied business owners will voice their opinions in the coming months. As a result, the proposed rules may change significantly. Until the process is completed, the effective ban on the commercial use of drones will remain in effect. Do not look for drone-based pizza delivery any time soon.

Local Government Uses

From the municipal perspective, drones also afford increased capabilities to first responders. Public safety functions, such as search and rescue missions or other scenarios that present unreasonable dangers to people, may be greatly aided through the aerial views even very small drones can provide. The use of drones for run-of-the-mill police functions, on the other hand, raises a number of civil liberty concerns.

In Illinois, the General Assembly has already addressed the topic of drone-based police surveillance through passage of the Freedom from Drone Surveillance Act, 725 ILCS 167/1 *et seq.* The Act, which went into effect on January 1, 2014, bans the use of drones by state and local police agencies to “gather information,” with certain significant exceptions. 725 ILCS 167/10, 15. For example, the law does not bar police agencies from using drones to search for missing persons (not associated with a criminal investigation), to conduct crime scene and traffic crash photography, and to address “a high risk of terrorist attack” or a “disaster or public health emergency.” 725 ILCS 167/15. The police may also employ a drone pursuant to a search warrant supported by probable cause and issued pursuant to section 108-3 of the Code of Criminal Procedure. *See* 725 ILCS 5/108-3.

The FAA seems to be under the impression that its proposed rules will have little effect on municipalities’ planned drone use. Interestingly, an FAA press release issued with the proposed rules predicted that, “[g]enerally speaking, the new rules would not apply to government aircraft operations, because we expect that these government operations will typically continue to actively operate under the Certificate of Waiver or Authorization (COA) process unless the operator opts to comply with and fly under the new small UAS regulations.” *Press Release – DOT and FAA Propose New Rules for Small Unmanned Aircraft Systems*, FEDERAL AVIATION ADMINISTRATION (Feb. 15, 2015), http://www.faa.gov/news/press_releases/news_story.cfm?newsId=18295 (last visited Feb. 15, 2015). Upon the eventual passage of some variant of the proposed rules, it seems that unless its requirements extend beyond the confines of the proposed rules, it will be easier for a local governmental entity to skip the complicated COA process.



Legal Challenges Ahead

It seems clear that litigation involving drones will expand rapidly over the next five years. Although the commercial use of drones will be highly regulated, the recreational use of these devices is pretty much “the wild west” to the extent operators need not receive training of any kind. Injuries of all sorts resulting from careless flying are, unfortunately, coming soon. Personal injury and property damage actions and related insurance coverage disputes seem inevitable. Trespass claims flow naturally from unwelcome flyovers or unintended landings. As police agencies nationwide begin utilizing drones, there will be instances of warrantless viewing over fences and through upstairs windows. Plaintiffs will no-doubt file civil rights actions alleging unlawful searches in violation of the Fourteenth Amendment. In short, there will be plenty of litigation to defend.

Although the varieties of claims will likely be familiar to the established practitioner, the technical aspects of drone operations will not. Concepts relating to aerodynamics, thrust, flight control software, radio frequency interference, and wind velocity could be crucial in determining whether a drone-related incident was proximately caused by operator error or an unforeseeable occurrence. For example, did the drone slam into the windshield of the plaintiff’s car as she traveled down the interstate as a result of the inattention of its 17-year-old operator, a sudden and unexpected gust of wind, or some undetermined interference with the drone’s remote control? These and other issues—sandwiched into familiar causes of action—are what lie ahead for the legal profession.

About the Author

John P. Heil, Jr. is a partner in the Peoria office of *Heyl, Royster, Voelker & Allen, P.C.*, where he chairs the firm’s drone law practice group and is vice-chair of the business and commercial litigation practice group. He also regularly defends complex civil rights cases, *qui tam* actions and catastrophic tort suits in state and federal court. Prior to joining *Heyl Royster* in 2007, Mr. Heil was an Assistant State’s Attorney in Cook County for eleven years. He received his undergraduate degree from Bradley University in 1993 and his law degree from Chicago-Kent College of Law, with honors, in 1996. He is a member of the Illinois Association of Defense Trial Counsel, the Federal Bar Association, the Illinois State Bar Association, the Peoria County Bar Association, and the Abraham Lincoln American Inn of Court.

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