

# Up in the Air

## The Legal Status of Drones

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By Joshua D. Beard



The CBS News website has an entire section dedicated to recent stories involving drones,<sup>1</sup> and for good reason. Drones have recently crashed in dense, public areas including a college football stadium<sup>2</sup> and the stands of the U.S. Open for tennis.<sup>3</sup> But crashes are not the only issue. Drones are interfering with emergency firefighting operations<sup>4</sup> and routine commercial flights<sup>5</sup> and dropping drugs into prison yards.<sup>6</sup> Civilian operators are arming drones,<sup>7</sup> and property owners are shooting them out of the sky to protect their privacy.<sup>8</sup> Rest assured, the drones will continue to come in droves, and they will bring with them a host of opportunities for specialized and general practitioners to assist and protect their clients.

The full introduction of drones<sup>9</sup> into the national airspace system has the potential to launch significant dollars into the Michigan economy. The Association for Unmanned

Vehicle Systems International forecasts that in the first three years after Federal Aviation Administration (FAA) clearance for commercial operation of drones in the national airspace system, the economic impact of drone integration in Michigan will be \$188 million.<sup>10</sup> Within 10 years, it estimates the economic impact at \$1.128 billion.<sup>11</sup> The commercial applications for drones are indeed broad, and potential uses are seemingly limited only by the imagination. Ready examples include real estate marketing, news coverage, moviemaking, oil and gas exploration, pipeline inspection, freight transport, precision agriculture, aerial photography and mapping, surveillance,

surveying, and forest management. Certainly, there are many more.

The potential legal consequences are equally far reaching and will assuredly affect attorneys' practices in many areas including privacy, criminal, regulatory, personal injury, workers' compensation, insurance defense, and perhaps even real estate. For example, what will be the common law and constitutional implications for privacy for drones equipped with video cameras? How will drones affect standards for due diligence in real estate transactions? Could the proliferation of drones change what is considered "open" in adverse possession law? Will drones affect the duty to inspect, for example, pipelines or even dangerous conditions on land? At this nascent stage, the legal implications are likewise limited only by the imagination.

Unfortunately, the FAA has not kept up with the rapid advancements in aeronautical technology. The lack of a regulatory structure has been a major impediment to the commercial application of drones. That is about to change. General authorization for commercial use of certain small drones is coming soon. Until the FAA issues its final rules, however, the legal status of drone operations will remain somewhat foggy. In the meantime, some historical and statutory background will assist in seeing how clients can be navigated into authorized recreational and commercial operations.

### Unmanned aircraft development and regulations: early 1900s through 2007

The modern age of aviation dates back to Orville Wright's 12-second powered flight in 1903.<sup>12</sup> Manned aviation developed swiftly on its tail, with immediate military applications in World War I and commercial applications in the civil sector, e.g., private air freight services, domestic airmail service through government contracts, and passenger service.<sup>13</sup> Early aviation developments were not limited to manned aircraft.

Military development of unmanned aircraft likewise dates back to the early 1900s. For example, the invention of the automatic gyroscopic stabilizer (which assists in straight and level flight) in 1917 permitted the conversion of a United States Navy Curtiss N-9 trainer aircraft into a radio-controlled drone known as the Sperry Aerial Torpedo.<sup>14</sup> In test flights, the Torpedo carried a 300-pound bomb up to 50 miles.<sup>15</sup>

Similarly, hobbyist use of unmanned, radio-controlled model aircraft has a longstanding history. In 1935, National Aeromodeling Championships were held in Detroit. This gathering of model aviation enthusiasts led to the 1936 establishment of the Academy of Model Aeronautics, a national organization that promotes development of model aviation.<sup>16</sup> The academy now claims a

membership of 175,000 and has chartered more than 2,500 model airplane clubs across the United States.<sup>17</sup>

Federal aviation regulation began with the enactment of the Air Commerce Act in 1926, but did not begin in earnest until the enactment of the Federal Aviation Act in 1958, which established the predecessor of the FAA, the Federal Aviation Agency.<sup>18</sup> That act charged the agency and its successor to "develop plans and policy for the use of the navigable airspace and assign by regulation or order the use of the airspace necessary to ensure the safety of aircraft and the efficient use of airspace."<sup>19</sup> The FAA promulgated generally applicable rules for the operation of aircraft and the use of airspace. These rules, however, were not designed with unmanned aircraft in mind. Generally speaking, unmanned aircraft remained relatively small and were limited to low-level, line-of-sight operations by recreational users. Thus, drones were both literally and figuratively "flying under the radar" of the FAA.

The FAA remained silent on unmanned aircraft until 1981, when it issued Advisory Circular 91-57 (AC 91-57), a one-page document setting forth voluntary standards for hobbyist use of model aircraft. It recommends that model aircraft operators fly a "sufficient distance from populated areas" and "away from noise sensitive areas such as parks, schools, hospitals, churches, etc.," and further suggests that model aircraft not be flown higher than 400 feet, near full-scale aircraft, or within three miles of an airport unless the airport operator is notified.<sup>20</sup> For nearly 25 years, this was the only FAA guidance on unmanned aircraft.

Technological advances in navigation and communications during the '80s, '90s, and early 2000s propelled commercial interest in unmanned aircraft. Congress took notice, and in 2003 enacted Vision 100—The Century of Aviation Reauthorization Act,<sup>21</sup> which provided that the Next Generation Air Transportation System (NextGen)

## Fast Facts

**General authorization for the commercial use of small drones is on the horizon.**

**Specialized and general practitioners alike should expect the proliferation of drones to affect their practices in many areas.**

**While the parameters of general authorization for commercial drone use are not yet finalized, clients can still be navigated into authorized recreational and commercial operations.**

currently under development by the FAA to handle air traffic control must “accommodate a wide range of aircraft operations, including airlines, air taxis, helicopters, general aviation, and *unmanned aerial vehicles*....”<sup>22</sup> Although only mentioned in passing, the requirement that drones be accommodated in the development of NextGen signaled Congress’s recognition of the important role drones will fulfill in the future of aviation and commerce.

With the increased availability of drones and little guidance from the FAA, people and companies relied on AC 91-57 to operate drones for business purposes. In 2007, the FAA issued a policy notice to warn those who believed it was legal under the authority of AC 91-57 to operate a drone for business purposes that they were “mistaken.”<sup>23</sup> The notice clarified that AC 91-57 “only applies to modelers, and thus specifically *excludes* [drone] use by persons or companies for business purposes”<sup>24</sup> and further provided that, subject to the recreational use exception, “no person may operate a [drone] in the National Airspace without specific authority.”<sup>25</sup> For commercial use, it explained that the only available route for authorization is to obtain an FAA airworthiness certificate in the experimental category.

### Unmanned aircraft development and regulations: the shifting landscape

In enacting the FAA Modernization and Reform Act of 2012 (FMRA),<sup>26</sup> Congress reauthorized funding and set policy priorities for the FAA. Prominent among the FMRA’s policy priorities was the integration of civilian unmanned aircraft into the national airspace system. With respect to drones, the FMRA, among other things, mandated that the FAA develop an integration plan, a roadmap for achieving integration, and a final rule for civil operation of small drones.<sup>27</sup> The FMRA also created a safe harbor for hobbyist use of model aircraft<sup>28</sup> and simplified the exemption process for commercial use of drones.<sup>29</sup>

#### The FMRA safe harbor for model aircraft

Section 336 of the FMRA prohibits the FAA from promulgating rules and regulations for “model aircraft.” Subject to certain conditions, this prohibition applies to unmanned aircraft flown within the line of sight of the operator and used solely for hobby or recreational purposes.<sup>30</sup> To qualify, the model aircraft must weigh less than 55 pounds, not interfere with manned aircraft, and be flown in accordance with a community-based set of safety guidelines.<sup>31</sup> Furthermore, if the model aircraft is flown within five miles of an airport, the operator must give prior notice to the airport operator and the air traffic control tower (if the airport has one).<sup>32</sup> While the FMRA



**NO DRONE ZONE**



Federal Aviation Administration

prohibits the FAA from regulating the use of qualifying model aircraft, it permits the FAA to pursue enforcement action “against persons operating model aircraft who endanger the safety of the national airspace system.”<sup>33</sup>

Despite the safe harbor, the U.S. Department of Transportation announced on October 19, 2015, that due to the proliferation of unsafe operations, it has reconsidered the past practice of allowing the operation of unmanned aircraft without registration.<sup>34</sup> The department now intends to impose minor regulations on unmanned aircraft by requiring registration and marking of all unmanned aircraft, including model aircraft.<sup>35</sup> To accomplish this, the department directed the FAA to establish a task force to provide recommendations for a streamlined (and potentially electronic) registration process for model aircraft by November 20, 2015.<sup>36</sup> The parameters of the new registration requirement are not yet known; certain model aircraft such as toys with short ranges may remain exempt from regulation.

#### Exemptions under § 333 of the FMRA

Until the small-drone rule discussed later in this article becomes finalized, authorization for commercial use of drones is somewhat limited and considered by the FAA on a case-by-case basis. Section 333 of the FMRA grants the secretary of transportation the authority to determine whether a certificate of waiver, certification of authorization, or airworthiness certificate is required for a drone to operate safely in the national airspace system. To obtain a § 333 exemption, the applicant must demonstrate to the FAA that the proposed operation of the drone will be at least as safe as if a promulgated rule were in effect.

The first § 333 exemption was granted in September 2014. Initially, § 333 exemptions were granted for operations generally, and an exemption holder had to apply

for a discrete certificate of waiver or authorization for each individual operation. Early approvals also required that the pilot in command of the drone hold a private pilot's license and a third-class medical certificate.

To bridge the gap between the process of evaluating every drone operation individually and future drone operations under the forthcoming final small-drone rule, the FAA has established an interim policy to streamline airspace authorizations for § 333 exemption holders. Under this interim policy, the FAA will now grant a blanket certificate of waiver for drone flights at or below 200 feet to any operator holding a § 333 exemption for a drone weighing less than 55 pounds operating during daytime visual flight rules conditions, within visual line of sight of the pilots, and certain distances away from airports or heliports.<sup>37</sup> If a particular operation does not meet this requirement, a discrete certificate of waiver for that operation is still necessary.

The FAA has also eased the licensing requirements for drone operators for the interim period before the final small-drone rule goes into effect. A drone operator is no longer required to hold a private pilot's license or third-class medical certificate. A recreational or sport pilot license and valid driver's license are now sufficient. The FAA also instituted a "summary grant" process under which the FAA will grant certain § 333 exemptions at once if "it finds it has already granted a previous exemption similar to the new request."<sup>38</sup>

The FAA's bright line between recreational and commercial use

In June 2014, the FAA issued its interpretation of the § 336 safe harbor.<sup>39</sup> Interpretive rules of agencies "do not have the force and effect of law," but they do "advise the public of the agency's construction of the statutes and rules which it administers,"<sup>40</sup> and courts give deference to agency interpretations unless they are "arbitrary, capricious, or manifestly contrary to the statute."<sup>41</sup> The FAA's interpretation of § 336 essentially declared a bright-line rule between recreational and commercial use: if compensation is received in connection with the operation of the drone or there is a nexus between the operator's business and the operation, the § 336 safe harbor does not apply. To provide guidance on its interpretation, the FAA issued some examples (see table at right) to delineate between recreational and commercial use.<sup>42</sup>

The near future: the FAA's notice of public rulemaking for small drones

On February 15, 2015, the FAA released its notice of public rulemaking for small drones. The rule is expected

Hobby or Recreational	Commercial
Flying a model aircraft at the local model aircraft club.	Receiving money for demonstrating aerobatics with a model aircraft.
Taking photographs with a model aircraft for personal use.	A real estate agent using a model aircraft to photograph a property he or she is trying to sell and using the photos in the property's real estate listing.  A person photographing a property or event and selling the photos to someone else.
Using a model aircraft to move a box from point to point without any kind of compensation.	Delivering packages to people for a fee. (If an individual offers free shipping in association with a purchase or other offer, the FAA would construe the shipping to be in furtherance of a business purpose and, therefore, the operation would not fall within the statutory requirement of a recreational or a hobby purpose.)
Viewing a field to determine whether crops need water when they are grown for personal enjoyment.	Determining whether crops grown as part of a commercial farming operation need watering.

to take some time to finalize, but a general sense of the near future is discernible. The proposed rule would create a new Part 107 to Title 14 of the Code of Federal Regulations.<sup>43</sup> As proposed, Part 107 would authorize commercial flights for small drones without airworthiness certification subject to certain operation and operator limits.

Under proposed Part 107, the small drone, including everything on board, must weigh less than 55 pounds.<sup>44</sup> It would be permitted to operate at a maximum airspeed of 100 mph (87 knots) up to 500 feet above ground level during daylight hours only.<sup>45</sup> The small drone would need to be registered with the FAA and display its registration

number.<sup>46</sup> Absent prior authorization from air traffic control, the operation of small drones would be limited to areas outside airport flight paths and restricted airspace<sup>47</sup> and within the visual line-of-sight of the operator, unaided by any device other than corrective lenses.<sup>48</sup> Apart from watercraft, moving vehicles or aircraft could not be used to assist in maintaining the visual line-of-sight.<sup>49</sup> To mitigate the risk of loss of positive control—i.e., the loss of the data link between the control station and the small drone—operations would be prohibited from occurring over persons not involved in the operation unless those individuals are within enclosed structures.<sup>50</sup>

Proposed Part 107 would eliminate the requirement that an operator must hold a pilot's license. Instead, a small-drone operator would only be required to pass an initial aeronautical knowledge test and obtain a small-drone operator certificate.<sup>51</sup> To obtain the certification, an operator must be at least 17 years old and obtain approval from the Transportation Security Administration.<sup>52</sup> To continue authorized operations of a small drone, an operator would also be required to pass an aeronautical knowledge test every two years.<sup>53</sup>

If finalized, proposed Part 107 would certainly eliminate many of the barriers to entry for small drones in the § 333 exemption process. Irrespective of revisions before the FAA issues its final rule, however, drones are on the horizon. Expect client calls. ■



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## ENDNOTES

1. CBS News, *Drones take over* <<http://www.cbsnews.com/drones/>>. All websites cited in this article were accessed November 11, 2015.
2. CBS News, *Drone Drama at Sold-Out Kentucky Football Stadium* <<http://www.cbsnews.com/news/drone-crash-university-kentucky-football-game-could-land-student-hot-water/>>.
3. CBS News, *Scare at U.S. Open as Drone Crashes Into Stands* <<http://www.cbsnews.com/news/scare-at-us-open-as-drone-crashes-into-stands/>>.
4. CBS News, *Drones Interfering with Emergency Wildfire Responders* <<http://www.cbsnews.com/news/drones-interfering-with-emergency-wildfire-responders/>>.
5. CBS News, *Pilots Report Drone Encounters Near JFK Airport* <<http://www.cbsnews.com/videos/pilots-report-drone-encounters-near-jfk-airport/>>.
6. CBS News, *Drone Drops Drugs in Ohio Prison Yard, Sparking Inmate Fight* <<http://www.cbsnews.com/news/drone-drops-drugs-in-ohio-prison-yard-sparking-inmate-fight/>>.
7. Martinez, *Handgun-Firing Drone Appears Legal in Video, but FAA, Police Probe Further* <<http://www.cnn.com/2015/07/21/us/gun-drone-connecticut/>>.
8. NPR, *Dispute Emerges Over Drone Shot Down by Kentucky Man* <<http://www.npr.org/sections/thetwo-way/2015/07/31/428156902/dispute-emerges-over-drone-shot-down-by-kentucky-man>>.
9. Technically speaking, drones are referred to as “unmanned aircraft systems” (UASs) or “unmanned aerial vehicles” (UAVs).
10. Jenkins & Vasigh, *The Economic Impact of Unmanned Aircraft System Integration in the United States* (March 2013), p 4 <[http://robobub.org/\\_uploads/AUVSI\\_New\\_Economic\\_Report\\_2013\\_Full.pdf](http://robobub.org/_uploads/AUVSI_New_Economic_Report_2013_Full.pdf)>.
11. *Id.*
12. FAA, *History: A Brief History of the FAA* <[https://www.faa.gov/about/history/brief\\_history/](https://www.faa.gov/about/history/brief_history/)>.
13. *Id.*
14. NOVA, *Timeline of UAVs* <<http://www.pbs.org/wgbh/nova/spiesfly/uavs.html>>.
15. *Id.*
16. See Academy of Model Aeronautics, *History of the Academy of Model Aeronautics, National Model Aviation Museum & Model Aviation Magazine* <<https://www.modelaircraft.org/files/AMANMAMMAhistory.pdf>>.
17. See the Academy of Model Aeronautics <<http://www.modelaircraft.org>>.
18. *History: A Brief History of the FAA*.
19. 49 USC 40103(b)(1).
20. FAA, *Advisory Circular 91-57* (June 9, 1981) <[http://www.faa.gov/documentlibrary/media/advisory\\_circular/91-57.pdf](http://www.faa.gov/documentlibrary/media/advisory_circular/91-57.pdf)>.
21. PL 108-176; 117 Stat 2490.
22. *Id.* at § 709c(6) (emphasis added).
23. 72 Fed Reg 6689 (February 13, 2007).
24. *Id.* (emphasis added).
25. *Id.*
26. PL 112-95; 126 Stat 11.
27. *Id.* at § 332(a) and (b).
28. *Id.* at § 336.
29. *Id.* at § 333.
30. *Id.* at § 336(c).
31. *Id.* at § 336(a).
32. *Id.*
33. *Id.* at § 336(b).
34. 80 Fed Reg 63912-01 (October 22, 2015).
35. *Id.*
36. *Id.*
37. See FAA, *FAA Streamlines UAS COAs for Section 333* <<http://www.faa.gov/news/updates/?newsId=82245>>.
38. *FAA Summary Grants Speed UAS Exemptions* <<https://www.faa.gov/news/updates/?newsId=82485>>.
39. See 79 Fed Reg 36172-01 (June 25, 2014).
40. *Perez v Mtg Bankers Ass'n*, 575 US \_\_\_; 135 S Ct 1199, 1204; 191 L Ed 2d 186 (2015), quoting *Shalala v Guernsey Mem Hosp*, 514 US 87, 99; 115 S Ct 1232; 131 L Ed 2d 106 (1995).
41. *Chevron, USA, Inc v Natural Resources Defense Council, Inc*, 467 US 837, 844; 104 S Ct 2778; 81 L Ed 2d 694 (1984).
42. See 79 Fed Reg 36172-01 (June 25, 2014).
43. See 80 Fed Reg 9544 (February 23, 2015). A summary of the major provisions of proposed Part 107 is provided at p 9546.
44. *Id.* at 9586, proposed § 107.3.
45. *Id.* at 9587 and 9588, proposed §§ 107.29 and 107.51.
46. *Id.* at 9586 and 9589, proposed §§ 107.13 and 107.89.
47. *Id.* at 9587, proposed § 107.41. No permission would be required to operate in Class G airspace, but operations in Class B, C, D, and E airspace would require prior authorization of the air traffic control having jurisdiction over the airspace.
48. *Id.*, proposed § 107.31.
49. *Id.*, proposed § 107.23.
50. *Id.*, proposed § 107.39.
51. *Id.* at 9586 and 9588, proposed §§ 107.13 and 107.61.
52. *Id.* at 9588, proposed § 107.61.
53. *Id.* at 9588, proposed § 107.65.