



MANAGING THE AIRSPACE

Maximizing the easement opportunities as drones proliferate

BY MAX PEDOWICZ

These days, the air is full of flying things. News helicopters, small private planes, commercial passenger jets, and more recently, drones. These different types of aircraft have to share a sky that is increasingly crowded. And with each new use of the air, the law has to adjust.

The proliferation of drones for both commercial and private purposes has made access to the sky easier than ever. As applications of this technology are integrated into existing industries, new ideas are surfacing every day. However, this has also sparked a conflict between landowners and the drone industry. The topic of airspace property law is once again up in the air, but the existing legal principle of avigation easements may help settle some of these conflicts.

Respecting Boundaries

When it comes to understanding avigation easements, it can be useful to compare property rights to a bundle of sticks. One stick can be sold to another party, and the rest of the bundle can be retained. Easements are a common example of this. At its most basic level, an easement is the conveyance of certain property rights, but not ownership. An



avigation easement grants the right to fly over an owner's land. They are commonly used around airports in order to ensure that the airspace remains clear for takeoff and landing zones. Just like any other type of easement agreement, an avigation easement contains the details of the rights being conveyed. Common language found within avigation easements includes appurtenant uses, rights and restrictions, and metes and bounds descriptions of the easement parcel.

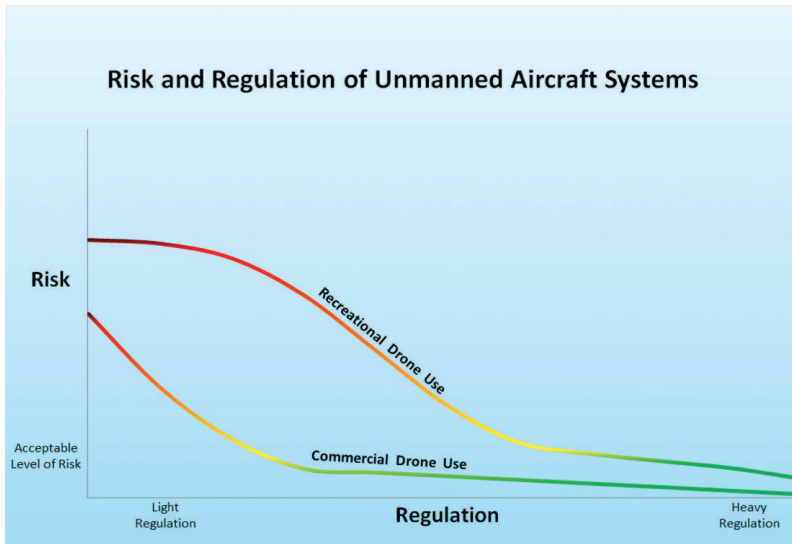
The Federal Aviation Administration (FAA) has the power and responsibility to regulate the safety of the United States' navigable airspace. Typically, navigable airspace includes all airspace above 500 feet, and also the airspace necessary for the takeoff and landing of aircraft. However, the FAA is not responsible for regulating the property laws that can vary state to state.

Seventy years ago, a Supreme Court decision in *U.S. v. Causby* first defined the landowner's right to own airspace. In this case, the property actually taken was an easement of flight through the airspace stretching from 83 feet to 365 feet in altitude, those being the lowest and highest points at which planes crossed above Causby's land. In the 1946 decision, Justice William Douglas concluded, "The landowner owns at least as much of the space above the ground as he can occupy or use in connection with the land... invasions of it affect the use of the surface of the land itself...and are in the same category as invasions of the surface." With this judgement, it was resolved that the lower airspace was capable of being owned by the landowner beneath.

Sixteen years later in 1962, the Supreme Court reinforced this definition of property. In *Griggs v. County of Allegheny*, the Court declared once again that, "the use of land presupposes the use of some of the airspace above it." Flights occurring within federally-defined navigable airspace were still considered takings if they crossed low enough over a landowner's property to interfere with the use or enjoyment of the property, thereby entitling the landowner to receive just compensation for the taking. These cases clearly determined that some airspace is considered property, and set the stage for the possibility that a drone operator could be accused of performing a trespass or nuisance.

Fast-forward to the present, and drones are popping up everywhere. In 2015, a Kentucky resident used a shotgun to take down a drone that was flying above his yard. The landowner was sued by the drone pilot for damages to the drone, and initially faced criminal charges (*Meredith v. Boggs*). A state court judge eventually dismissed those charges. The pilot admitted to flying 200 feet above the property at the time, and the sharpshooter was determined by the judge to have "had a right to shoot" at the unmanned aircraft. After the trial, the pilot's legal counsel stated, "The tension between private

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The FAA subjects commercial drone users to strict regulations arising from traditional “aircraft used in commerce” standards while applying the more liberal “model aircraft” standards to recreational drone users. Studies have shown that heavier regulation on both types would greatly reduce the possibility of accidents and collisions with other aircraft.

property rights and the freedom to use the national airspace is important to both the drone industry and the general public. Property owners deserve to be free from harassment and invasion of their privacy. Likewise, aircraft operators need to know the boundaries in which they can legally operate without risk of being shot down. This lawsuit will give clarity to everyone.” The pilot is hoping for more clarification and has since filed the suit in the U.S. District Court of Western Kentucky.

Benefits of Avigation Easements

Airspace property boundaries, although impossible to see, must nevertheless be respected. The rights to a landowner’s airspace are just as real as any other rights, such as mineral or water. Air rights are commonly required for electric transmission infrastructure. When power lines cross over a person’s land, an aerial easement is conveyed. Air rights are even bought and sold

in central business districts of urban areas, allowing developers to build over existing infrastructure or buildings.

In the right of way industry, many companies hope to use drones for automated beyond visual line of sight (BVLOS) flights along pipelines or other forms of infrastructure largely for monitoring and inspection purposes. From both a safety and a property rights perspective, establishing avigation easements appears to be a logical step. This will create safe and well-maintained flight corridors dedicated to long-range unmanned operations.

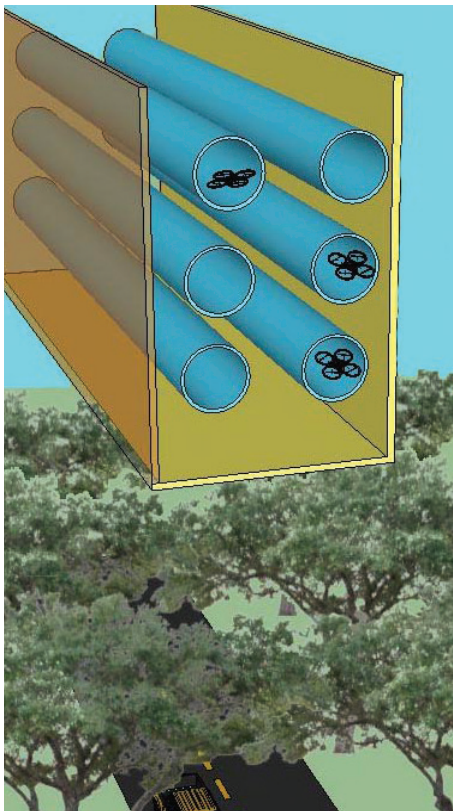
Currently, the FAA requires both hobby and commercial drone pilots to keep their aircraft within eyesight of the drone operator. However, for right of way corridor flights to be economical, operating BVLOS is a necessity. BVLOS drone operations will be most beneficial when a drone is able to perform a routine schedule of automatic flights along predetermined routes. It is considered the “holy grail” of regulations, and when finally legalized, will impact many industries overnight.

The technology to enable automated computer piloting is a major area of research these days. In early 2016, the National Highway Traffic Safety Administration determined that a computer could legally be considered the driver of a car. It is likely that at some point this stance will be adopted for drones as well. However, as the technology is still being developed, it is not ready to be implemented by the FAA. Even when the technology is deemed safe enough that drones can operate autonomously beyond line of sight, there will still be the issue of aerial trespass if they fly below 500 feet. Unless these drones operate in the current navigable airspace of the United States along with other larger aircraft, they will need to fly through the lower airspace, requiring an avigation easement in order to prevent trespass on the property rights of the landowner below.

Uses Continue to Grow

Another impact this technology could have on the right of way industry is the possibility of drone deliveries. Many companies have been researching technology to make delivering goods by drones possible. It is very likely that these companies will be interested in making use of existing right of way corridors. This could be a great opportunity to construct a system similar to what is being done by the railroad companies. A certain number of line rights, or in this case “flying lanes,” could be licensed out to the delivery companies.

Amazon is one company that is actively pursuing drone deliveries. Unfortunately, the air



This illustrates an avigation easement dedicated to automated unmanned aircraft. This easement contains six individual flight lanes (shown in blue).

traffic management system that they recommended in 2015 as part of this plan did not consider a landowner’s property rights to airspace. They proposed taking all of the airspace under 400 feet and splitting it into two zones. Low-speed transit would occur below 200 feet, and high-speed transit would occur between 200 and 400 feet. However, a major flaw with this concept is that it ignores all property legislation that has been previously enacted. No doubt this policy would result in many people accusing Amazon drones of aerial trespass (and possibly an increase in shotgun sales). Their proposal would require no less than a Supreme Court decision to be considered legal. Otherwise it suggests a massive taking of intangible property.

For unmanned drone operations that are conducted by a human pilot instead of a computer, the current process to fly legally through someone’s private airspace is as simple as getting consent of the landowner. Property rights and aerial trespass/nuisance claims are a matter of state tort law. These laws can vary state-to-state, and sometimes even city-to-city. As a result, it is the responsibility of the drone operator to be knowledgeable about the local rules and regulations.

A True New Frontier

IRWA is uniquely positioned to be a potential professional development partner for the drone industry. With the largest network of right of way professionals in the world, there is no better organization to provide education and training for what could become a growing demand to acquire avigation easements. By applying a little innovation to the existing set of property laws, the automated drone industry will no doubt find what it needs to launch itself into the future. 🚀

To view the latest rule making information from the FAA, visit <http://knowbeforeyoufly.org>



Max is a GIS Analyst/ Developer for Percheron LLC and has been in the right of way industry for three years.