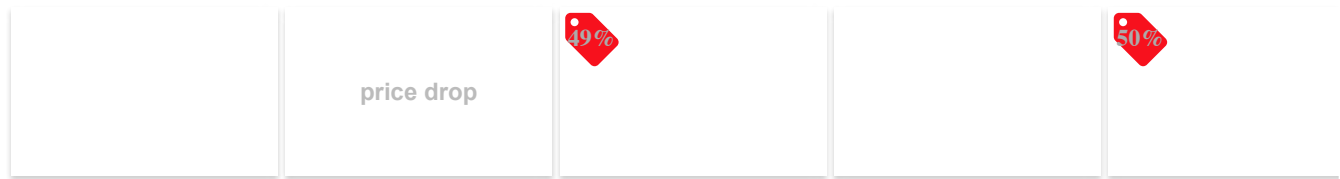


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TECH

So Your Neighbor Got a Drone for Christmas

Can you stop them from flying it over your house? No one knows, and that is a big problem for the drone industry

By Annie Sneed on December 22, 2015



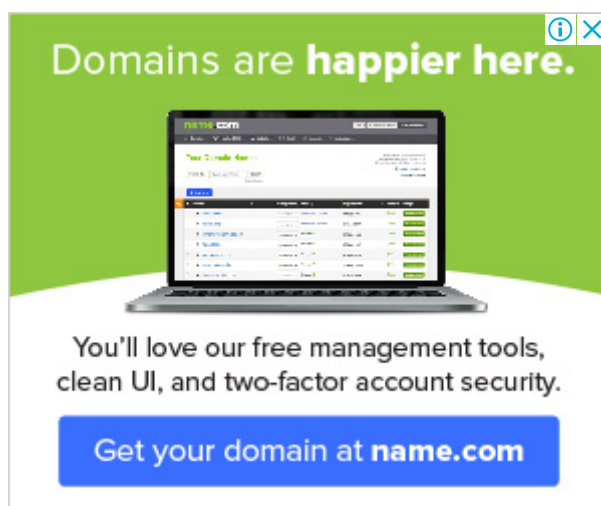
Today thousands of people and businesses across the country fly drones, and that number is set to explode. *Credit: Gregory_DUBUS via @iStock*

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On the evening of July 26th, in Bullitt County, Ky., William Merideth's daughter came in from the backyard and told her father that she'd just seen a drone fly over their neighborhood. Merideth, 47, walked outside and watched a Phantom quadcopter glide down their street, then grabbed his shotgun. When the drone flew over his property, he blasted it down.

Soon, four men drove up to Merideth's home. One of the men, David Boggs, had just bought the drone and says he was demonstrating it to his friends and family. Merideth told local TV news station WDRB that when Boggs and his friends arrived at his place, he warned them, "If you cross my sidewalk, there's going to be another shooting." Boggs called 911 and 30 minutes later, police arrested Merideth.

The two men disagree how low Boggs flew his drone above Merideth's home—Merideth estimates about 100 feet or less, while Boggs has data that places it above 200 feet. The drone's exact altitude may not seem crucial, but it is unclear if landowners get to *decide* who can fly a drone over their property at 100 or even 300 feet, because no one has actually decided yet who owns this slice of airspace (whether you're allowed to shoot down a drone hovering over your property is an even more complicated question).



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Today thousands of people and businesses across the country fly drones, and that number is set to explode: The Federal Aviation Administration (FAA) anticipates that this holiday season people will purchase as many as one million drones. In an effort to control this flood of flying machines the FAA announced this week that it would require recreational drone users to register their aircraft. But a big question with major implications for the drone industry is far from being resolved: Who owns the airspace above private property? As Stuart Banner, a University of California, Los Angeles, law professor, puts it, “Drones are forcing people to think about this issue for the first time since airplanes were invented a century ago.”

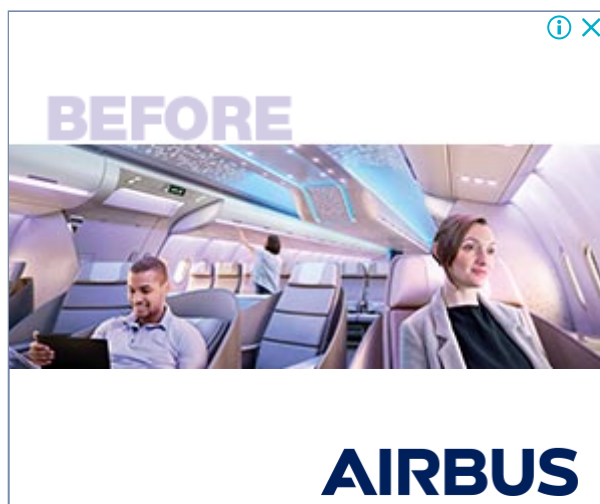
“To the heavens and down to hell”

Before airplanes and drones existed, people owned everything above and below their land—according to the law, their rights extended “to the heavens and down to hell.” But modern aviation changed this definition in a big way. In the early 20th century Congress declared the air a public highway, which limited land rights so that people were not trespassing every time they flew. That public highway has generally been considered 500 feet and above.

But airspace from the ground up to 500 feet is a gray area—no one’s ever had to fully settle who owns this airspace. Ask someone at the FAA and they’ll tell you that the agency controls (but does not *own*) airspace down to the ground. Yet it’s clear that landowners have some claim to the air. “Everyone agrees that the owner of land also owns the airspace above the land,” Banner says.

There’s also the U.S. Supreme Court case involving a chicken farmer, *United States v. Causby*. During World War II, the army took over a municipal airport and started flying noisy aircraft over Thomas Causby’s land as low as 83 feet, which scared the hell out of his chickens—150 of them flew into the wall of their coop and died. He sued the government, and the court decided in his favor, so the government had to reimburse Causby for a “taking” of his property. “The Supreme Court said that landowners have as much airspace as can be used in connection with the enjoyment and use of the land,” says Greg McNeal, a professor of law and public policy at Pepperdine University, “In Causby, it was 83 feet. But it’s an open question above that.”

Until recently, people have had little reason to care what happens in the air above their property: there hasn’t been enough going on at low altitudes for them to notice. Over the past couple of years, though, that has changed. The FAA has already granted more than two thousand exemptions to businesses for commercial drone use. Amazon, Google and Walmart are among the companies that want to use the flying machines for home delivery. Plenty of Americans dislike the idea of drones flying over their backyards. But is there anything they can do about it?



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Because there are no rules to say whether piloting a quadcopter over someone's property is trespassing, state and local governments have started making their own. In 2013 Oregon passed a law that lets a landowner sue someone if the person flies a drone below 400 feet over her land more than once without permission. California lawmakers approved a bill this summer for a drone no-fly zone up to 350 feet above private property (Gov. Jerry Brown vetoed the bill). The city of Saint Bonifacius, Minn., has banned drones from flying in city airspace below 400 feet (with a few exceptions), and many other cities and town have passed or are considering restrictions. "The advent of drones may make the FAA more inclined to press for low-altitude regulations," says California State Sen. Hannah-Beth Jackson (D–Santa Barbara), who introduced the now-vetoed drone bill, "But historically, state and localities have mainly regulated activities taking place closer to the ground."

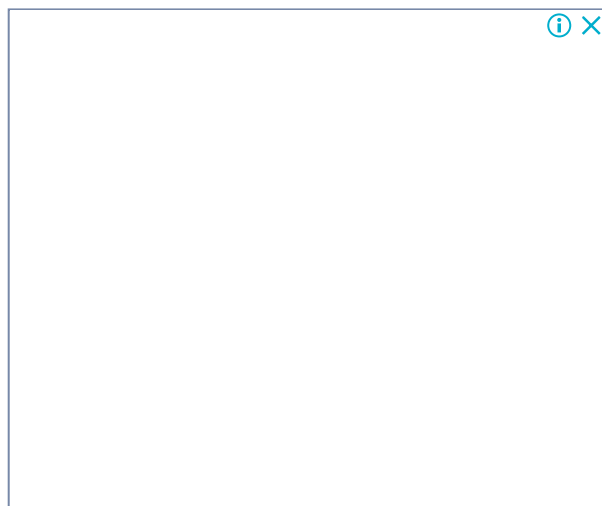
Yet the FAA says it controls airspace down to the soil, and that its authority generally trumps state or local laws. The FAA just released a fact sheet of its views on state and local drone regulations, in which it stated, "A navigable airspace free from inconsistent state and local restrictions is essential to the maintenance of a safe-and-sound air transportation system." The agency recommended that any state or cities considering laws on restricting drone flight altitude consult with it first.

The FAA hasn't blocked any of the private property restrictions yet, but if it did, state and local government would probably push back, especially because state law—not federal—determines property rights. “Are all those cities and counties just going to roll over and let the FAA do what it wants?” says Troy Rule ([pdf](#)), an associate professor of law at Arizona State University, “Oh no—they’re anticipating they have some rights.” Rule and McNeal say it is not obvious that the FAA’s authority overrides everyone else’s in this scenario. “Anyone who says there are clear answers to how these questions will be resolved is advocating more than they are informing,” McNeal says.

Gray skies

This issue could turn into a major headache for the drone industry. It will be more difficult for companies to deliver packages to your doorstep with drones if they have to comply with a mishmash of standards that change from state to state and town to town. Plus, what if you live in an apartment and you give Amazon permission to deliver a package but your upstairs neighbor won't permit it? “If you're Google and Amazon, think about the advantages of just the FAA having authority over all the airspace down to the ground,” Rule says, “They can fly their drone anywhere they want, as long the FAA gives them permission.” (Amazon did not respond to requests for a comment and Google declined to comment).

State and local laws that ban drones from flying over property also create problems for everyone else who wants to use them, like realtors who want to take aerial photos or journalists who need to cover breaking news from the air or activists capturing a protest on video.



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For now, businesses, landowners and everyone else is stuck waiting for a verdict on who owns the airspace below 500 feet, and what exactly that ownership entails. But in Merideth's case, he and Boggs got a definite answer to their dispute. A Bullitt County judge cleared Merideth of all charges in October, saying Boggs's drone had invaded his privacy. The judge, as quoted by the local news outlet WDRB, put it bluntly: "He had the right to shoot this drone."

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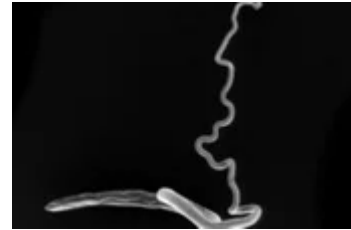
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