

Performance-based standards are what's needed to keep micro drones safe, Skyward CEO says

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The Federal Aviation Administration is set to receive recommendations on Friday from its most recent aviation rulemaking committee, this one addressing what rules should be put in place for micro drones (drones weighing under 4.4 pounds) flying over groups of people not directly involved in the operation of the aircraft.



Jonathan Evans

In an interview with FierceMobileIT, Jonathan Evans, founder and CEO of commercial drone information management provider Skyward, discussed the issues raised by micro drones and the possible rules coming out of the committee's work. Skyward was not a member of this committee, but it was an adviser to the FAA task force that recommended registration requirements for drone pilots.

Evans explained that commercial drones can be broken down into two categories: those that move atoms and those that collect bits.

Smaller drones are more often used for collecting bits. These drones have sensors that take in information. Evans explained that such drones could be used to inspect infrastructure like bridges or buildings, for aerial videography or in real estate marketing, among other uses. Drones in the "move atoms" category are those drones that are larger, and used for things like delivery service. This is the type of drone made popular by Amazon's Prime Air service.

The regulations being considered by the FAA would provide the micro drone users with a set of standards that protect not only the uninvolved individuals and properties nearby a drone in flight, but also the companies responsible for putting them in the air.

"Ultimately what keeps the aviation system safe is not only a set of standards to the machines that are flying up there and the engineering that characterizes them but really the operational processes that they follow," Evans said.

Evans' background in aviation has given him insight regarding the "rules of the road" for pilots, and the production and safety standards of the aircraft they fly. Drones and drone pilots require standards just as traditional aviation does, taking into account the differences between the two.

"What's interesting about a ground-based, unmanned aircraft is that there's no risk to life onboard the aircraft," Evans explained. "How do we maintain the same standards of safety to protecting persons and property ... when there's nobody in the vehicles? So you have to look at what is the risk to persons and property underneath those vehicles and around those vehicles."

That's what the FAA's current aviation rulemaking committee has been looking at, starting with smaller drones that are less dangerous from the get-go.

What Evans feels is most needed right now for drone technology are performance-based standards that will allow users and companies to start using this technology more freely. To get to those standards. Evans said this committee is "turning the engineering inside out and saying 'let's start with a class of vehicle that has a low kinetic energy, below 4.4 lbs, that already poses less of a risk to the persons and properties around it,'" and then asking what procedures it takes to uphold what he called a "social contract of safety" with them.

Some system of accountability must be in place to aid in upholding standards, which is something the FAA's drone registration system works toward. Skyward also offers a way for drone pilots to have a record of upholding safety during flight.

"What we do at Skyward is we provide a set of tools to those operators to not only make sure they are conforming to them as they go to do the site operations but also maintain a system of record that can prove that they did," Evans explained.

Having a set of standards and ways to uphold them should, in turn, offer some sort of peace of mind to individuals uninvolved with the drones' operations.

Take for example a father walking his child to the bus stop in the morning, seeing a drone affixed with a camera floating above. "If it's an enterprise, if it's a professional operation that's operating that drone ... he should feel relatively guaranteed like you would with a professional helicopter or airplane flying overhead, that they are conforming to these sets of standards that we all agreed to honestly and the social contract of managing the commons that is the airspace overhead," Evans explained.

"That's what we're going to have when these rules come out, helping commercial drone operators conform to the performance-based standards of safety and prove that they did," Evans said.