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Big Week for Drones

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Not surprisingly, the political conventions held the spotlight over the past few weeks and dominated the news cycles. But there were developments on some other fronts that are worth noting. One in particular turned what was once the stuff of science fiction into reality. It had to do with drones.

July was actually a big month for drones. Not all of the news was good. In Los Angeles, a fire firefighting helicopter was prevented from dropping water on a brush fire as it attempted to avoid a collision with a drone. This is the kind of activity that regulators fear and explains in part why, in mid July, the US Congress passed legislation that requires the Federal Aviation Administration (FAA) to establish guidelines that restrict the operations of drones near “critical infrastructure” including chemical plants. This comes on the heels of the FAA’s issuance of final regulations in June limiting the use of drones to the visual line of sight of the operator and prohibiting flights over people not involved in the drone operation itself.

But as is the case with many new technologies, policies and regulations can only play catch-up to innovators in the private sector. Another major event occurred in July when 7-Eleven made the first autonomous commercial drone delivery to a customer’s home. Partnering with a drone delivery company (who knew they already existed?) a store in Reno delivered two packages containing among other things Slurpees, coffee and a chicken sandwich to a resident’s backyard. The delivery was able to comply with existing FAA guidelines.

Amazon, which has been on the forefront of the commercial drone debate, has struggled with the FAA regulations, particularly those that pertain to line of site operations in urbanized areas and limitations on night time deliveries. As a result, the company – which has stated its interest in using drones to guarantee 30-minute deliveries - has announced a partnership with the British government to conduct drone testing there. The range of experiments includes technologies not yet permitted in the US. Other tests are being conducted in Canada.

Given the potential collision with the helicopter in Los Angeles (and numerous other close calls), the concerns of regulators are legitimate. The question is to what extent federal, state and local agencies can help themselves by engaging companies like Amazon and 7-Eleven in the R&D process here in this country as a way of directing the use of the technology and better anticipating the impacts of its use.

To a certain extent, the horse is already out of the gate, particularly when it comes to the use of drones in the supply chain. Airborne drones are already in use. Germany has approved use of a Parcelcopter delivering drugs and other supplies to offshore locations in the North Sea. Companies such as DHL and Google - in addition to Amazon - have all made investments in unmanned aerial vehicle (UAV)-related R&D. We should also expect to see drones used within the distribution center where they have the potential to be more flexible than forklifts and conveyer systems. The technology has been tested and used for palletizing, sorting, loading, and unloading containers.

Other applications are also on the way. Rolls Royce is developing drone cargo ships under a project called Blue Ocean. A fully autonomous cargo ship without a human crew potentially means no living quarters, air conditioning, water or sewage, thus leaving more room for cargo space. For its part, Mercedes-Benz is developing a self-driving semi-truck designed to reduce both costs and human error behind the wheel.

There are risks of course, and the wide ranging use of unmanned vehicles of whatever type will have tremendous implications for society as a whole. The technology can help supply chains be more customer-driven, but the customer has to be comfortable with the technology in the first place.

And if we're not quite there yet, it's impossible to deny that we're in a period of rapid change. Regulators, hesitant perhaps to make it easier to get Slurpees-on-demand, are rightly cautious; but technologies tested elsewhere will no doubt find their way into use on our shores. New approaches to regulation will be required to match new approaches to innovation.

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