

Drones: Moving toward the future of mobility and highways in the sky

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In this hoganlovells.com interview, Hogan Lovells partner Lisa Ellman and senior advisor Gretchen West talk about the role commercial drones and unmanned aircraft systems (UAS) will play in the future of mobility. They also discuss what type of UAS traffic management will be needed for tomorrow's highways in the sky and how the Commercial Drone Alliance is working to reduce barriers and enable this game-changing technology.

How quickly have drones and drone technology evolved?

Ellman: Drone technology has moved forward quickly, both in terms of the vehicle itself and the information technology that's on the vehicle. Once considered a toy, drones mounted with a camera can be used to inspect things, like cell phone towers, pipelines, flare stacks, electrical wires, and bridges. There are huge safety and efficiency benefits to using drones instead of helicopters or people for these types of jobs.

Other use cases for drones include assessing crop health, detecting variations, and mapping terrain; providing high-res digital elevation models of construction sites, mines, and structures; and rapid deployment for search and rescue efforts. Drones have been used in the aftermath of Hurricanes Harvey and Irma to locate missing persons, assess damage, and report the news. Drones are being used in other countries to deliver things like medicine and medical supplies to assist with catastrophe response. This industry is ripe for rapid growth.

While the technology has moved forward quickly, the policy has lagged behind. For the first time, commercial drones were broadly authorized here in the U.S. in August 2016. Under the rules, you can only fly small drones in low-risk ways — within visual line-of-sight (VLOS), during daytime hours, not over people, and up to 400 feet. Over time, once the policy considerations are dealt with, we will see the policies move forward to the point that you can fly drones beyond the visual line-of-sight (BVLOS) and use drones for package and cargo delivery. And eventually, we will get to the point where you can use drones for people delivery. There are some pretty big players getting into the air taxi space. Larger, high-altitude drones could also be used in the future to provide wireless Internet connectivity.

How will drone traffic in this new air space be managed?

Ellman: The key with all of this is having an unmanned aircraft systems traffic management (UTM) system — essentially air traffic control for drones — and highways in the sky that will exist to manage traffic above buildings, below crewed aircraft, in suburban and rural areas. In these corridors or highways in the sky, drones will be communicating with each other, law enforcement and regulators on the ground, as well as other vehicles. You will be able to put your preferred flight path into a computer or an app that will figure it all out for you and de-conflict the airspace with other vehicles in this space.

NASA has been heading the UTM effort, working hand-in-hand with industry partners and the U.S. Federal Aviation Administration (FAA) to design highways in the sky. You have a number of companies that are designing unmanned traffic management systems. The idea on the federal government side is that the UTM won't be "owned" by any one player, it will be interoperable. Delivery of the UTM to the FAA for further testing is planned for 2019.

What role does the U.S. Commercial Drone Alliance play in the industry?

West: A common thread running through all of these new mobility technologies, including drones, is the challenge of selling them to the public. That's the case with all newly introduced technology. In keeping with its role as an industry leader, Hogan Lovells is managing the industry-led nonprofit [Commercial Drone Alliance](#). Members include manufacturers, service providers, software developers, commercial drone end users, and vertical markets — including oil and gas, precision agriculture, construction, security, communications technology, infrastructure, newsgathering, filmmaking, and others.

The Commercial Drone Alliance is dedicated to educating policymakers and the public about the benefits of commercial drone use, collaborating with lawmakers at all levels of government to enhance innovation and economic growth through policy, and creating the value proposition for supporting commercial end users to enable growth.

How does Hogan Lovells work with companies in the drone space?

Ellman: Hogan Lovells serves as a bridge between Silicon Valley and Washington, D.C. We help companies that want to fly outside the scope of current rules and to get waiver approvals. For example, we recently helped [CNN Aerial Imagery and Reporting \(CNN AIR\)](#) to get the first [Part 107 waiver issued by the FAA](#) to allow small UAS operations over people for closed-set motion picture and television filming.

We also help clients who are interested in drone safety and security issues. Companies want to use drones but they are also worried about others using drones over their property, and we advise them on security issues. There are a lot of legal and policy issues around the use of counter-drone technology at this point. But in the future, a facility owner could use counter-drone technology to prevent rogue drones from flying over its property.

We are a one-stop shop for any company in the drone space or that is impacted by drones in any way. We help manufacturers with product liability, IP, or other corporate legal issues. We help clients with export control and legislative issues. And we also help on the business side. For example, Gretchen West, who is based in Silicon Valley, gives companies advice on market strategy.

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About Lisa Ellman

Widely recognized as one of the "world's foremost authorities on drones and law," Hogan Lovells partner Lisa Ellman offers a unique perspective and vast experience to clients, helping them push policy boundaries forward and get ahead in the fast-changing regulatory environment. She counsels businesses and trade groups on UAS issues in industries ranging from newsgathering and television production, to aerial photography and energy, to precision agriculture and insurance, to higher education, drones technology, and construction — and everything in between.

About Gretchen West

Years before the commercial drone industry was taking off, Gretchen West was already at the forefront of the unmanned systems industry, advocating on behalf of the global community to reduce barriers to enable operations and use. As a senior advisor in the Global Unmanned Aircraft Systems (UAS) Practice Group, her focus on innovation and technology has helped clients navigate business and market entry strategies, find value-added capabilities to ensure successful operations, and understand the regulatory environment and associated challenges.

Contacts



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