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Drone Prone: Use of UAVs in Construction Brings Safety, Surveys…and Lawyers

The advent of unmanned aircraft systems—or drones—has not been without turbulence. Despite the numerous advantages drones offer commercial industries, the U.S. has been hesitant to fully-embrace these airborne, eight-engine, multirotor spiders. Instead, the public has been quick to highlight the potential insidious uses of drones, ranging from breaches of privacy to national security threats. But the cost-saving benefits of drone technology in conjunction with the fast-changing regulatory framework of the Federal Aviation Administration (FAA) serve to offset the risks associated with drones in the commercial space.

> *"Drones can reduce the labor and time required to produce accurate site surveys…"*

Of course, the risks associated with drone technology are highly plausible and should be appreciated. Drones are a new and novel technology. As such, the risk of liability is often difficult to assess as the relevant rules and regulations are constantly being updated. Moreover, drones may come with a hefty price tag; The price of a single drone unit itself is in the thousands and that is not including the additional cost of insuring the device in case of a crash, strong weather blowing it off course, or human interference. More importantly, the American public has expressed privacy and safety concerns since the inception of drone technology.

But the benefits drones provide are remarkable. Particularly in construction, drones can reduce the labor and time required to produce accurate site surveys, as well as eliminate the human error that can be involved in the surveying process by flying over the site and taking aerial photos. Moreover, thanks to the drones' ability to safely enter spaces or equipment that humans cannot, the use of drones can provide real-time updates on safety violations or identify equipment deficiencies that would otherwise go undetected. Further yet, drones can

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deliver goods to a site aerially, which minimizes time spent on transportation and increases the accuracy of records regarding what has entered the site.

Even if one is unpersuaded that the benefits of drone technology outweigh its risks, the FAA has been quick to adapt and change its rules to curb the concerns surrounding drones while simultaneously giving drone technology great opportunities to enter commercial industries. Historically, the FAA burdened drone operators with a slew of highly restrictive regulations. Until 2016, the use of drones was banned for commercial use, except that the FAA would grant exceptions on a case-by-

case basis through a rigorous application process. In 2016, the FAA passed regulations that allowed commercial use with restrictions such as requiring a certified operator who passed a written test, limiting commercial operation to daylight hours, within the operator's line-of-sight, at speeds under 100 mph and altitude under 400 feet, and forbiding operators from flying over people and in certain restricted areas.

Today, in 2018, the FAA has become more lenient with unmanned air systems by allowing owners of certain smaller drone models to forego registration. Additionally, the agency is poised to announce a new rule that would clear the way for drones flying over people and remove the line-of-sight requirement after drone operators adopt "remote ID" technology which will allow authorities to remotely identify airborne drones to curb the public's privacy concerns. These new regulations will open the door for the much-discussed package delivery drone operations.

With the benefits of drone technology quickly gaining recognition and the regulatory framework beginning to strike the proper balance between safety concerns and greater drone implementation, many start-ups are positioning themselves to satisfy the future demand for drone technology that will naturally follow from lowering their barriers to entry. Most recently, Deere & Co. and Kespry (a drone-tech start-up) have joined forces to offer their customers a more seamless process for using drones in construction. Deere will offer its customers Kespry Aerial Intelligence Systems for use on jobs across the globe. These drone systems aim to produce topographic analyses of potential construction sites to highlight potential problem areas and improve asset and material management with better monitoring.

As regulations continue to evolve, we can expect to see the use of drones on construction sites to increase, eventually leading toward drones taking over site management, diagnostics and contemporaneous project modeling—and even performing erection work.

We can also expect to see increased risk on construction sites that utilize drones. Additional insurance coverage will be inevitable—covering a host of risks such as a drone running out of battery and crashing, a drone operator losing control, sudden strong weather blowing a drone off course, human interference or drones colliding with other aircraft. The FAA will be watching companies' use of drones and assessing fines for failure of regulatory compliance. For example, the FAA fined a company called SkyPan, which provides aerial photography for architects, for using drones too close to high-rises in Chicago and New York City. Lawsuits are also arising about the privacy concerns of a drone flying over personal property.

As the commercial use of drones begin to lift off, the public sentiment will inevitably shape the FAA's approach towards regulating drones and the cost of drones may likely fluctuate in its earlier implementation stages. But the FAA's trend toward leniency and the advancements made in drone technology will inevitably provide the opportunity drones need to demonstrate their growing value as a tool for productivity. ■

> *"Additional insurance coverage will be inevitable – covering a host of risk..."*