

Drones: The Risk Exposures to Your Business

While the military and hobbyists have been using unmanned aerial systems (UAS), better known as drones, for some time now, businesses are just starting to adapt the technology for their own uses. UAS are creating new opportunities—and new risks—for businesses to evaluate, and regulators and insurance carriers are scrambling to keep pace.

Regulation

UAS are still considered aircraft, and must be registered with the FAA unless a recreational UAS meets **all** of the FAA's requirements to fall under the agency's [special rule for model aircraft](#). Here are the basic guidelines for registering UAS:

- UAS that don't fall under the FAA's special rule for model aircraft and weigh between 0.55 pounds and 55 pounds must be registered [online](#). Commercial UAS that weigh more than 55 pounds must be registered [by paper](#).
- Once registered, the UAS operator will receive a registration number that must be placed on all applicable drones.
- Registration is valid for three years. Failing to register may result in regulatory and criminal sanctions.

The FAA has separate regulations for recreational and commercial UAS, although some of the regulations are similar. The following is a list of key FAA requirements for recreational drones:

- Operators must maintain a visual line of sight with their drones, and keep them below a height of 400 feet above ground level.
- Drones cannot fly within 5 miles of an airport without the operator first notifying the airport and air traffic control tower. Operators must also yield the right of way to manned aircraft at all times.
- Drones cannot be flown over stadiums, sporting events or people who aren't directly participating in the flight's operation.
- Operators must follow all local UAS safety guidelines and keep their drones away from emergency

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Here is a partial list of key FAA requirements for commercial drones:

- Commercial drone operators need a remote pilot airman certificate with a small UAS rating, or be under the direct supervision of a person who holds such a certificate.

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- UAS must be inspected by the remote pilot before every flight.
- Operators must maintain a visual line of sight with their drones, and keep them below a height of 400 feet above ground level.
- Operators cannot fly the drone over anyone who is not directly participating in the drone's operation.
- Drones may carry an external load if it's securely attached and doesn't adversely affect the controllability of the aircraft.

For more details on the FAA rules regarding the commercial use of drones, visit [the FAA's website](#).

Physical Loss: Beyond the Aircraft

With UAS, it's often the loss of the payload—not the aircraft itself—that can be the most costly. One of the most widespread applications to date has been in unmanned aerial photography. Businesses in real estate, agriculture, filmmaking and insurance all have interests in surveying and photographing land, and the cameras used to do so can get expensive.

Because of the increasing affordability of drones, the payload often has a higher intrinsic value than the aircraft itself. Additionally, cameras and other payloads are usually slung below the aircraft, meaning that in the event of a hard or emergency landing, damage to the payload is almost certain.

Planning for Obsolescence

Technology itself could prove to be especially costly in the event of a UAS loss. The production of UAS is neither regulated nor standardized, which means there are a number of manufacturers in the market, each adhering to different standards. Many haven't diversified, and should some technological advancement prove to be too costly for certain smaller companies to adopt, those companies could potentially go out of business.

Bankrupt or defunct manufacturers, coupled with a lack of industry standards for design, could mean that the loss of a relatively inexpensive motor today would instead be

a total financial loss on the aircraft five years from now, when replacement parts are completely unavailable.

Casualty and Liability

As with conventional aircraft, a UAS crash could mean a hefty casualty claim. While the crash rate is actually relatively low with conventional aircraft, UAS are not subject to the tight maintenance requirements or the stringent operator regulations that make conventional commercial aircraft crashes so rare.

Eventually, mechanical failures and operator errors will likely result in crashes. Businesses, especially those that operate UAS in populated areas, should make sure they are adequately covered in the event of property damage or injury to a third party.

Theft and Fraud

A couple of benefits of UAS—their portability and advanced technology—can also prove to be great liabilities. Small UAS make easy and attractive targets to thieves, and the industry hasn't developed many internal safeguards against stolen drones.

Broad Use

Another benefit that could become a potential liability is the flexibility of the technology—that is, a drone's potential as a broad-use aircraft. In theory, the same UAS that photographs a parcel of land for a realtor on one day could be used to survey a hazardous chemical spill the following day.

This kind of flexibility offers a broad number of business opportunities, but each new opportunity brings with it attendant exposures that compound upon one another. Businesses will have to think through how they plan on using their UAS in order to make sure that their FAA authorization and their insurance cover each arena of commercial use.

Who Watches the Watchers?

Privacy represents one of the largest exposures with regard to drones. A highly maneuverable technology that gives remotely operated cameras virtually unfettered access to any location is bound to result in claims of privacy breach. What's unclear, however, is how both the

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legal system and insurers plan to address these new exposures.

Currently, carriers exclude all privacy-related claims, but the increased exposure means that there's a potential market for such protection. However, without some kind of precedent, it's unclear how, if at all, the insurance industry will respond.

Understanding the Risks

As with all new technology, UAS create new opportunities and risks for businesses. Perhaps the greatest potential liability comes from the cyber risks posed by UAS. As technology advances, UAS will be able to remotely hack into computer systems and steal data. For more information on the technological risks of drones, contact us at 559-733-1181, and ask to see our additional Risk Insights article, "Drones: The Unconsidered Cyber Exposures."