## THE BUZZ ABOUT DRONES

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Commercial and personal use of drones, also known as UAVs (unmanned aerial vehicles) or UASs (unmanned aircraft systems), is rising in popularity. A number of businesses have announced their plans for drones, including Amazon for package delivery. It is estimated that by 2020 there will be 30,000 drones in use for all types of business operations, and spending on drones will exceed \$89 billion in the next 10 years. Insurance companies are looking at drones from a number of angles, including for underwriting and claims operations, as well as the hazards and risks involved with clients' use of drones in their businesses. State Farm and USAA have both petitioned the Federal Aviation Administration (FAA) to allow them to employ drones for such things as roof inspections and catastrophe response. The FAA has allocated more than \$63 billion to upgrade its tracking systems to handle drones.

The first known use of drones dates back to the mid 1800s, when Austrians equipped balloons with bombs to attack Venice. During the Spanish-American War, in 1898, the United States attached cameras to kites for surveillance. The United States also used surveillance drones during the Vietnam War. The use of drones by the military is common with drones consistently being deployed for surveillance and air strikes in war zones.

Now that non-military use is growing, the FAA has become central to their future. Historically, the FAA has been responsible for regulating the use of aircraft that fly higher than 400 feet in the air. Typically, unmanned model airplanes, or hobby craft, have flown below that height and as a result were exempt from FAA regulation. In 2014, the FAA fined an operator who was using a drone in a reckless manner at the University of Virginia while taking aerial photographs for an advertisement. The case was FAA vs Pirker. Originally, a judge ruled that the FAA did not have authority to levy the fine. However, the decision was subsequently overturned by the National Transportation Safety Bureau (NTSB). The federal agency categorized drones as aircraft subject to the authority



of the FAA, and the case was returned to be reviewed by the judge.

One of the areas of rapid growth in drone usage is farming, where two acres of land can be sprayed in six minutes. As mentioned earlier, Amazon is looking to employ drones to deliver packages. The Motion Picture Association of America and the National Football League have both lobbied to have access to the money-saving technology. In September the issued 2014, FAA approvals for six filmmakers to use drones on set. Four other companies were approved to conduct aerial surveys, monitor construction sites and inspect oil flare stacks in





December 2014. The approvals came with strict requirements, including licensed operators, keeping the drones in sight at all times, and limiting the areas of the set where the drones can be operated. Flying a drone with a camera on it is much less expensive than renting cranes and helicopters to get the shot. Oil companies use drones to find leaks in pipelines in remote areas of the Arctic. In Africa, drones protect wildlife from poachers. Drones have also been used to fight fires.







In the United States, there are not many regulations specific to drones. In February 2015 the FAA released its long-awaited proposed rules. The guidance will keep the more advanced drone (such applications as package delivery) on standby as there is a lineof-sight provision that requires the operator to be able to view the drone at all times without binoculars. Other key elements of the proposal include operator certification and limiting flying to daylight hours. A proposal for commercial use of drones up to 55 pounds is expected by House 2017. The of Representatives is also holding hearings on

drones. The FAA receives an average of 25 reports per month from conventional airplane pilots complaining about drones being operated too close to their airspace.

Numerous states have introduced legislation related to drones, but only four have enacted laws. In New York, drone operators can be subject to charges of reckless endangerment if the drone crashes or flies too close to a government building. Unlawful surveillance could be the charge if the drone takes unauthorized photos. The story is different in other countries, as commercial use of drones is a booming industry.

There are a number of considerations for insurers when contemplating coverage for drones. Standard insurance policies exclude property and liability coverage for aircraft. Therefore, if the drones are in fact considered "aircraft," coverage for damage to the drones themselves, or for damage done by the drones, would need to be incorporated into the forms or added as an optional coverage endorsement. Coverage requirements

are similar to those for aircraft—property coverage for the unit itself (hull insurance) and liability insurance for damage or injury caused to others. The nature of drones makes them a candidate for inland marine type coverage.

A recent case in New York highlights the potential for disaster. A news team was covering a story where a restaurant was using a drone "kiss-cam" to deliver mistletoe and encourage patrons to kiss. The drone operator tried to land the drone on the reporter's hand. The reporter flinched and the drone flew into the face of the photographer, becoming entangled in her hair, cutting off part of her nose and lacerating her chin. Fortunately, the drone did not injure her eye. The sharp blades did not have guards on them to protect people from injury.

One major concern about the use of drones is privacy. UAVs can carry intrusive technology including license plate readers, facial recognition software and infrared cameras. Another question is about the ownership of the air space. Is flying a drone over your neighbor's yard trespassing? The issue goes back to 1926, when a man sued the government because military airplanes were flying too close to his property, scaring his chickens and causing them to fly into the walls of their coops and die. The U.S. Supreme Court ruled that the air up to at least 83 feet was owned by the landowner, and air above 500 feet was public domain. The FAA was created at that time to control airspace above 500 feet. Ownership of airspace from 83–500 feet is a gray area.

Drones have the potential to perform a multitude of tasks, significantly reducing the danger and cost in firefighting and military operations, as well as facilitating claims handling and underwriting. They can also be valuable in search and rescue situations for people and livestock. Drones are able to reach areas that may be otherwise inaccessible, including remote forests or victims of natural disasters. They present challenges to insurers due mainly to their potential liability and privacy concerns, compounded by the lack of coherent regulations. The rapid growth of drone usage represents an emerging market for insurers as well as an exposure that must be addressed in coverage forms.

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