UNMANNED AIRCRAFT SYSTEMS

Once upon a time... unmanned aircraft flew only in the skies of science-fiction books and movies. What once seemed farfetched may soon become commonplace as we are on the cusp of seeing unmanned vehicles deliver mail and packages to our doorstep.

Unmanned aircraft systems (UAS) – also known as “drones” - have been used by individuals for recreational entertainment for years. Imminent changes to the Federal Aviation Regulations (FARs) are anticipated to allow UAS to be used for commercial operations in the United States, such as aerial inspections of oil and gas pipelines, crop surveys, filming and photography. Universities and flight schools are already offering courses in the operation of drones. As some companies are currently exploring the use of drones as part of their distribution systems (i.e., traditional users of ground delivery systems), the probability exists for a significant increase in commercial UAS activity. Insurance companies have even expressed interest in using drones as part of their claims investigation process – to fly over and photograph affected areas in the aftermath of a natural disaster, for example, where access is either restricted or considered too hazardous.

What does this mean for General Aviation?

Federal Aviation Regulations

The Federal Aviation Administration (FAA) recently issued a Notice of Proposed Rulemaking (NPRM) to amend regulations to include specific rules for the operation of small unmanned aircraft systems (Small UAS Rule) in the National Airspace System (NAS). The proposed amendments address the certification of UAS operators, registration of UAS vehicles, display of registration markings, and the limitation of recreational model aircraft activity so as not to endanger the safety of the NAS.

Currently, any aircraft operated within the NAS must be registered and certificated, be operated by a licensed pilot and obtain operational approval. The FAA Modernization and Reform Act of 2012 (FMRA), Section 333, grants the Secretary of Transportation the authority to determine whether an airworthiness certificate is required for a UAS to operate within the NAS. The NPRM requires that the pilot/operator obtain an operator certificate with a small UAS rating and pass an aeronautical knowledge test at an FAA-approved testing center. Recurrent training would be required every 24 months.

Until the Small UAS Rule is finalized, companies or operators may apply for an exemption—given on a case-by-case basis—to conduct commercial operations of unmanned aircraft.

Proposed Rules for Small UAS Operations include:

- UAS must weigh less than 55 lbs.
- UAS must remain within visual line of sight of the operator or visual observer.
- UAS must yield right-of-way to other aircraft - manned or unmanned.
- UAS may not operate over any persons not directly involved in the operation.
- UAS must operate:
  - In daylight only (official sunrise to official sunset, local time).
  - At a maximum airspeed of 100 mph.
  - At a maximum altitude of 500 feet above ground level.
  - Within a minimum weather visibility of 3 miles from control station.
Insurance Implications

With this new and evolving aviation exposure, many markets are still finding their foothold. Certain carriers have created standalone UAS policies, while others have scripted endorsements that will attach to their manned aircraft policies. Some markets have taken the “wait and see” approach and are declining to offer coverage terms until historic data is available.

The unique capabilities of UAS, which have the potential for more intrusive operations than traditional manned aircraft, have sparked privacy concerns. In response, some UAS policies may exclude liability arising from actual or alleged invasion of privacy, trespass or data misuse. Coverage may also be void if the proper exemption hasn’t been granted by the FAA. Hull coverage may exclude scratching or marring of camera lenses unless caused by an accident to the unmanned vehicle.

US markets readily offer liability limits ranging from $1 million to $10 million; however, higher limits are available, but require more stringent underwriting information. At this time, only a few US markets are offering hull coverage. Deductibles are applicable and range between 5% and 10% of the hull value but may be removed for an additional cost.

Key UAS Underwriting Information:

Make & Model of UAS – Is the vehicle relatively easy to fly? Is it a tried and tested airframe? Home-built, experimental vehicles with custom-made parts would challenge the claims process.

Use of UAS – How and where will the unmanned vehicle be flown? (i.e., the exposure when operating a UAS to inspect crops high above an open field would be less than when operating above spectators at a sporting event).

Pilot/Operator Training – What kind of training has the pilot/operator received? How many flight hours has the pilot operated the particular UAS make and model?

The FAA projects that 30,000 UAS will be in operation by 2020 with, according to the Association for Unmanned Vehicle Systems International, an expected economic impact of $82 billion. As unmanned aircraft systems continue to evolve, the laws regulating their use will be challenged and forced to evolve with them. Although the information provided in this update is current as of this writing, we are certain to see changes in UAS insurance policies to reflect new developments in the vehicles, their uses and technology.

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