



Statement
of the
National Association of Mutual Insurance Companies
to the
United States House of Representatives
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Property, and the Internet
Hearing on
Unmanned Aerial Vehicles: Commercial Applications and Public Policy
Implications
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Introduction

The National Association of Mutual Insurance Companies (NAMIC) is pleased to provide testimony on the impact of public policy on the commercial potential and insurability of unmanned aircraft systems (UAS).

NAMIC is the largest and most diverse property/casualty trade association in the country, with 1,300 member companies including regional and local mutual insurance companies on main streets across America and many of the country's largest national insurers. NAMIC members serve more than 135 million auto, home and business policyholders, with more than \$208 billion in premiums accounting for 48 percent of the automobile/homeowners market and 33 percent of the business insurance market.

The development of commercial uses for unmanned aircraft systems is accelerating. More and more sectors are contemplating the use of UASs, but regulations and laws in the U.S. have not kept up with that development. NAMIC believes that a more reasonable, effective, and efficient regulation of the commercial use of UASs is not only possible, but should be a primary goal of policymakers at all levels of government.

Insurance companies are also a great example of how this innovation can benefit an industry as they explore how UASs can help better appraise property, evaluate risk levels, and assess damage more quickly and accurately for policyholders. A number of property/casualty insurance companies already have been granted Federal Aviation Administration (FAA) Section 333 exemptions, which provide companies the opportunity to better determine how UASs can serve policyholders in the normal course of business, or in disaster situations. Important tasks that formerly required employees to put themselves in precarious positions - such as roof inspection, damage assessment, and disaster recovery - can now be accomplished using UASs to significantly reduce, if not eliminate, dangers to individuals and property.

The Role of Insurance in the Commercial Use of UAS

Understanding how insurance will facilitate the expansion of the use of UASs begins with the concept of risk. The effective response to risk combines two elements: efforts or expenditures to lessen the risk, and the purchase of insurance against whatever risk remains. Proactive risk management involves carefully analyzing a situation to determine the major risks and then taking steps to minimize potential damage. Currently, the FAA is attempting to minimize the potential risks and subsequent damage to the national airspace and other aircraft – which is the FAA's primary role – and secondarily, to minimize risk and damage as well as to protect individuals and property on the ground.

Once reasonable FAA rules mitigating the potential risk of a multitude of aircraft and UASs occupying common airspace are defined, insurance coverage can be used to manage the residual risk. It is important to understand that successful risk management through insurance depends to

a great degree on whether laws and regulations clearly operate to establish liability, including liability for damage by UASs, by UAS pilots and facilities operators, or by people who hijack UASs or interfere with UAS controls under defined tort standards, including product liability and negligence. Until standards of UAS liability are better defined, it will be extremely difficult for insurance companies to understand and provide coverage for UAS risks and liability.

There are fundamental questions that must be resolved for insurers to properly understand potential risks, underwrite coverages, and properly price policies for those coverages. Consider that the FAA says that the national airspace extends to the ground, even on private property, and that the FAA has set no minimum height at which that a UAS must fly. Can a UAS fly in national airspace 400 feet, 100 feet, 25 feet, or two feet over private property without trespassing? Can states preclude UAS flights on state roads, or is that national airspace? The FAA has also said that it "understands and accepts" that a person flying a UAS "may lose sight of the unmanned aircraft for brief moments of the operation." If that UAS hits a person in that brief moment, is this assault, negligence, or merely conduct that the FAA has deemed "understandable and acceptable?"

The questions do not stop at those of simple safety, but also extend into the critical realm of privacy. This fact was clearly recognized in President Obama's February 2015 executive order directing the Department of Commerce through the National Telecommunications and Information Administration, in consultation with other interested agencies and private sector stakeholders, to develop a framework regarding privacy, accountability, and transparency for commercial and private UAS use. Insurance should certainly be included in any such endeavor and NAMIC is pleased to be participating in these discussions.

This is certainly a positive step, but the combined efforts of the FAA and Commerce Department will not be able to address all of the necessary regulatory and enforcement questions. Specific standards for privacy, trespass, negligence, and recklessness may be the province of state and local law and judicial interpretations. Numerous and unpredictable questions that will result from commercial UAS operations will probably come before state or local government authorities and courts, particularly when it comes to liability and insurance coverage. A jurisdictional system of authority must be established to ensure that federal, state and local authorities are properly recognized and that the rules they establish for UAS use are not in conflict.

Underwriting UAS Policies

There are inherent risks in the operation of UASs, which will be amplified and exacerbated by the proliferation of their numbers, uses, and capabilities. The requisite combination of an aircraft, control hardware, control software, and a communication link – in addition to potentially hazardous payloads – makes risk assessment, management, and coverage extremely complex.

UAS insurance policies will contractually specify the extent and limitations of coverage, as well as exclusions, restrictions, and prohibitions. For most commercial coverage, policy terms are based on the work of underwriters evaluating the range of risks – their likelihood and severity – to adequately price and offer liability insurance. This information, however, does not exist for UASs. A November 2014 study of UAS liability and insurance in Europe – where commercial UAS use has been permitted for years – concluded that there is insufficient reliable data on UAS incidents or accidents available either in public form or from commercial sources, and that the lack of this information impedes the assessment of damage caused by UASs.

The existence and extent of insurance coverage for recreational and commercial use of UASs in the United States are not very clear. While various internet sites purport to be, or link to, insurance companies that offer UAS insurance in various capacities, the actual coverage available is uncertain. It has been estimated that underwriters now insure only three percent of UAS applicants.

The standard commercial general liability policy that most businesses purchase covers bodily injury and property damage caused by an “occurrence,” which it defines as “an accident, including continuous or repeated exposure to the same generally harmful conditions.” As a rule, however, most, if not all, such commercial general liability policies have exclusions for damage caused by the operation of aircraft. Commercial property insurance policies also have various forms of aircraft exclusions, including policies that may specifically exclude coverage while a UAS is off the ground.

Most homeowners’ insurance policies also exclude coverage for aircraft, with the exception of “model or hobby aircraft not used or designed to carry people or cargo.” If a UAS has an attached camera or other equipment/payload, it may not be covered because the attachment may be considered cargo.

The only currently available insurance for UAS commercial operators may be specialized liability policies too complex or expensive for general use. Such coverage, if available, is generally written on an aircraft liability form meant to insure small piloted planes.

Legal and Operational Questions Surrounding Insurance Coverage for UAS

While it remains to be seen if any of these coverage options will prove viable as UAS use expands, another fundamental complication has been created by the lag between innovation and regulation which could undermine virtually any UAS insurance policy. The FAA currently restricts the commercial use of UASs, but the breadth of the interpretation of the term “commercial” is very broad. The FAA position is that a farmer using a UAS to look at his own garden is a recreational user, but that same farmer using a UAS to view crops he intends to sell is a commercial user.

The FAA has also taken the position that reckless recreational UAS use is a violation of FAA rules. Property/casualty insurance policies – commercial or otherwise –often include a criminal act exclusion that excludes coverage for bodily injury caused by, or reasonably expected to result from, a criminal act or omission of the insured. The criminal act exclusion generally applies regardless of whether the insured person is actually charged with or convicted of a crime, and may include a criminal act committed by or at the direction of any insured. There are also state statutes that prohibit insurance payment for illegal activities. As such, until regulations have been established, any commercial use by any company that has not received an exemption from FAA may, in theory, be uninsurable.

1. Damage to or by the UAS

In making decisions concerning underwriting UAS risks and paying claims related to UASs, it will be critical to understand the application of the specific torts, as well as state and federal laws that could permit UAS use and/or generate lawsuits or fines against a UAS operator. To illustrate the complexity of insuring a UAS, consider automotive insurance coverage. Insurers consider the manufacturer, model, and value of the vehicle as well as the operator's gender, age, driving record, and other factors. Accepted underwriting standards are considered, with relevant minimum and state regulatory coverage requirements, to determine how to price and provide a policy. With UASs, the relevant pools are too small, and the actuarial classes and policyholder risk matrices are not particularly relevant.

UAS insurance contracts may specify matters as simple as whether the UAS is insured both in the air and on the ground, and as complex as defining the permissible operations of the UAS covered under the policy. It has been said that UASs exist for missions that are too "dull, dirty, or dangerous." Insuring a UAS includes understanding just how dirty and dangerous is the work for which the UAS will be used and how the operations will be conducted to minimize unknown and unacceptable risk. For example, the price of a policy covering an FAA-certified pilot taking pictures with a UAS over a wheat field would likely be different than one insuring Uncle Ernie spotting bluefish at a populated ocean resort.

When a UAS crashes or is lost, any responsibility for the loss by the manufacturer or software provider will be more difficult, if not impossible, to establish. The legal and practical ability of an insurer to pursue reimbursements for UAS manufacturer defects or product liability is murky. It can be complicated by the possibility of damage to the system resulting from a failure.

In considering UAS coverage, there is also an interesting and unresolved question of UASs and local rights of land owners to prevent or impede UASs from being on, over, or near their property. Deer Trail, Colo., decided not to offer hunting licenses for shooting down UASs that might fly into the hamlet's airspace, but local interpretations of the extent of property owners' rights to take action against UAS operators for trespass, invasion of privacy, and nuisance may impact the physical risk to UAS loss or damage and insurance risk.

2. Regulatory Liability

With respect to recreational UAS use, the FAA's authority to "take enforcement action against anyone who operates a UAS or model aircraft in a careless or reckless manner" was affirmed in November 2014 by the National Transportation Safety Board. The NTSB directed an administrative law judge to decide whether the aircraft was operated carelessly or recklessly, but confirmed the authority of the FAA to issue an assessment order and fine the operator \$10,000 for reckless operation of an unmanned aircraft.

The FAA has proposed regulations for small UASs, but it maintains that all other commercial UAS operations are not in a regulatory "gray area" and that the FAA "is responsible for the safety of U.S. airspace from the ground up." The FAA asserts that it has a number of enforcement tools available, including a verbal warning, a warning letter, and an order to stop the operation. The FAA has reportedly looked for companies offering commercial UAS services and warned them to stop doing so, in some cases threatening "enforcement action."

Recall, however, that the FAA determination and definition of commercial vs. hobby UAS use are through a Notice of Interpretation with Request for Comment, rather than statute or regulations that the FAA is still drafting. There are many issues concerning UAS use and FAA authority that have not been codified in law or promulgated in federal regulations, raising numerous questions of the enforcement authority of the FAA in this regard and the impact of the notice on insurance coverage provisions.

3. Trespass and Privacy Liability Considerations

The Congressional Research Service has deemed privacy the most contentious UAS issue. Property/casualty insurance policies, particularly for commercial UASs, may include, or specifically exclude, coverage for and indemnification of tortious liability, including civil actions for trespass and privacy violations. Property lines are not always clear, and a shift of wind could inadvertently blow a UAS over a property line. These issues and the attendant liability and coverage depend highly on legal concepts of property and airspace that are evolving with UAS use.

Trespass in airspace requires the property owner to have possessory rights to the airspace allegedly violated by the UAS. To constitute an actionable trespass, an intrusion has to subtract from the owners use of the airspace above his property that he can actually use. With respect to privacy, there is no right to be alone in public nor is there any privacy invasion if a photograph is taken in a public place.

In 1587, matters were simple and clear under the common law – the owner of a piece of land also owned everything above and beneath it, *Cujus solum ejus est usque ad coelom* – from heaven to hell. Modern law has greatly muddied these legal waters. In 1946, the U.S. Supreme Court determined that Congress had declared a public right of transit in navigable airspace and national

sovereignty in that airspace. The court declined, however, to draw a clear line as to where that airspace began over a property. In the almost 70 years that have passed since that decision, that clear line remains undrawn.

Congress did declare a public right through “navigable airspace” and defined that space as the minimum safe operating altitude including airspace needed for takeoffs and landings. Now that many readily available UASs can take off and land on coffee tables, the forthcoming UAS regulations will require some official determination that FAA jurisdiction is either from the ground up or from some point in the air. This determination will not only be critical to define federal and state UAS jurisdictions, as well as personal rights, but will also directly impact liability of UAS operators for trespass, privacy issues, and cybersecurity.

An FAA designation of UAS navigable airspace will generally inhibit, if not preclude, allegations that a UAS in that airspace trespassed on private property or violated privacy. Should the FAA define UAS “navigable airspace” as “from the ground up,” the FAA may practically eliminate private property limits – as well as state jurisdiction – on UASs.

There is a bill proposed in California that would define trespass as the “knowing entry upon the land of another also to include operation of an unmanned aerial vehicle below the navigable airspace overlaying the property.” That means flying a UAS over private property – below what the FAA deems “navigable airspace” – could at some point constitute trespassing in California. The problem is that there may be no airspace below FAA jurisdiction. The FAA has opined that it is not taking specific views on whether or how the federal government should regulate privacy or the scope of data that can be collected by manned or unmanned aircraft. Numerous federal and state legislative proposals regarding UASs and privacy have been made, however. The Preserving American Privacy Act would prohibit UASs from capturing data in undefined “highly offensive” ways; the UAS Aircraft Privacy and Transparency Act would require UAS operators to submit a “data collection statement” to the FAA.

4. Personal Injury/Property Damage

The law – through statute, regulation, or judicial decision – will generally seek to constrain and direct human action and social behavior by considering the risks posed to people and property, and the law has a long history of managing the risks of things falling out of the sky. Statutes and regulations will attempt to provide strict liability standards for certain injuries or damages from a UAS, but with rapidly evolving technology and very limited experience and expertise, there will undoubtedly be a wider range of practical and legal questions that will have to be addressed under common law claims, with judges making decisions on duty, breach, causation, and damages.

Then there is the concept of negligence per se, which results from the violation of a law meant to protect the public, such as a speed limit or building code. Unlike ordinary negligence, a plaintiff alleging negligence per se need not prove that a reasonable person should have acted differently

– the conduct is automatically considered negligent – and the focus of a lawsuit will be whether it proximately caused damage to the plaintiff. Some courts may apply FAA interpretations and state regulations to establish negligence per se and some may not. In the most relevant example, one court may deem commercial UAS operation as negligence per se in violation of the FAA notice, while another court may require plaintiffs to prove duty, breach, causation, and damages.

Conclusion

When damage or injuries result from a UAS, a key question will be who is responsible and liable for damages. NAMIC member companies can provide comprehensive policyholder protection, but many serious questions about UAS regulations and civil liability will impede their ability if gone unanswered. If the regulation of UASs and related civil liability remain unclear and incomplete, it will be very difficult for insurers to meet policyholder needs.

There will always be risks in the commercial use of UASs, and property/casualty insurance will be a critical consideration. The proposed FAA rules eliminate many of the more significant barriers for UAS insurance at the federal level, but practical and commercially viable responsible insurance coverage for this emerging area will require more development of federal, state, and local regulations, as well as related standards of liability, negligence, and property rights.

NAMIC is committed to working with its members and federal, state, and local regulators to promote responsible UAS development that protects aircraft, people, businesses, and property. As UAS regulations and civil liability standards evolve, NAMIC will work to ensure that these regulations provide the necessary clarity and breadth that its members need to provide policyholder protection.

Again, on behalf of myself, NAMIC and our 1,300 member companies, I thank you for the opportunity to testify today and I will be happy to address any question you may have.