Advisory

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FAA Testifies to Congress: More UAS Delays

If you are eagerly anticipating receiving a package delivered by Amazon Prime Air or getting a pizza air-dropped from the DomiCopter in the United States, the wait will continue indefinitely. On December 10, 2014, the Subcommittee on Aviation, a part of the U.S. House of Representative's Committee on Transportation and Infrastructure, held a hearing to review the FAA's progress in opening the National Airspace System to Unmanned Aerial Systems ("UAS").

The hearing focused primarily on the FAA's progress in safely integrating UAS into American airspace, which it must do by September 30, 2015 under the FAA Modernization and Reform Act of 2012. The Inspector General for the Department of Transportation ("DOT IG") issued a report in June of 2014, determining that the FAA is behind schedule in virtually all milestones, and finding that the "magnitude of the unresolved safety and privacy issues" makes it unlikely that the FAA will meet the September 30, 2015 deadline. This has left prospective UAS owners to flounder in a world of patchwork regulatory exemptions and deficient legal guidance.

The subcommittee pushed for an estimated timeline and for possible regulatory frameworks, but the FAA was unwilling to provide them. The FAA claims it will be releasing a proposed rule in the "near future," which will be followed by a comment period before it is finalized. One committee member injected some levity by asking the FAA if this was measured in "internet time" or "geological time." Not surprisingly, no one, including the DOT IG, expects the FAA to meet the September 2015 deadline.

The DOT IG and subcommittee addressed three categories of standards that the FAA must develop in order to issue rules. The first category is performance standards, which includes detailed standards for "detect and avoid" capabilities, command and control ("C2") links between the UAV and the controller, and operations above 400 feet. Next, the FAA needs to address standards for the design, manufacture, and certification of civil UAS. Finally, the FAA needs to determine how to properly categorize UAS, as the current regulations' distinction between UAS over and under 55 pounds does not adequately address wide disparities in the performance and complexity of UAS within each size range. The FAA stated that it is leaning toward a "risk-based" approach to certification, but has failed to detail any coherent strategy beyond its current mode of reviewing applications on a case-by-case basis.

The FAA defended its legally-required efforts to set up test sites to explore elements of the upcoming regulations, but the sites appear to be underutilized, lack a defined mission from the FAA, and are behind schedule with results. The DOT IG noted that the first test range was 14 months late in becoming operational, but all are now online. However, it lacks guidance from the FAA. The Representative from Nevada discussed how Las Vegas casinos,

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initially excited about the possible uses for UAS in Las Vegas, have been thoroughly disappointed with the lack of progress at the test site. The FAA claims it cannot directly task the test sites due to the Anti-Deficiency Act, which has the practical effect of turning the test sites into expensive facilities without any defined goals.

The President of the Air Line Pilots Association discussed the dangers of unregulated recreational use of UAS, currently allowed under Model Aircraft guidelines. This year, pilots have reported approximately 25 close calls or near misses with UAS per month. A medical response helicopter recently had to take evasive mid-air maneuvers to avoid a collision with a UAS, fortunately after dropping its patient at the hospital. The National Transportation Safety Board's (NTSB) recent decision in Huerta v. Pirker (December 3rd article) involved UAS operations that violated both the commercial use and safety provisions of the FAA's requirements for model aircraft and was used to illustrate the dangers of untrained recreational use.

The Association's President purchased a UAS in advance of the hearing, and indicated that he could have walked outside and directed the UAS into the flight path for Reagan National Airport from the steps of the Capitol. He also spent some time discussing the risk to an aircraft engine. A UAS with an engine or battery pack that gets sucked into an aircraft engine turbine poses a greater risk than a bird strike. The damage from a UAS collision with a 737 engine or a medevac helicopter could expose a UAS operator to millions of dollars of damages. The other concern he and others addressed was the loss of connectivity between the aircraft and the controller. In many UAS, particularly the ones purchased by recreational users, the aircraft does not have a failsafe mechanism for crash avoidance, thus increasing the risk of personal injury and property damage.

The Representative from Connecticut was concerned about the issues that UAS present to a state as congested as Connecticut. She reported personally witnessing a UAS hovering overhead during an outdoor benediction she had attended, which did not fit with the solemn moment. Others expanded on this point raising privacy concerns. Questions included: what is an appropriate altitude for over flight of private property, what can you record with an onboard camera, and when is a landowner justified in attempting to take down your UAS? All these questions went unanswered, leaving open the possibility that the operator of a $300 UAS could be exposed to liability greatly in excess of cost.

Amazon's attempt to obtain an exemption under Section 333 was discussed at length. In a testy exchange, the FAA said it has offered Amazon a Special Airworthiness Certification for research and development, and blamed Amazon for nonetheless continuing its pursuit of a Section 333 exemption. In a detailed letter to the FAA on December 7, 2014, Amazon expressed concern over the need to obtain a certificate for each individual UAS, a process that takes the FAA longer than it takes Amazon to develop aircraft. Amazon has been testing their UAS indoors in Washington State, but is threatening to move its research overseas. Contemporaneous with the hearing, the FAA granted five additional exemptions for aerial surveying, construction site monitoring, and oil rig flare stack inspection users. As part of these exemptions, the FAA also granted exemption from requirements pertaining to pilots' certification; manual, equipment and maintenance mandates; general flight rules; and FAA Certificates of Airworthiness generally required for operation of aircraft. However, each exemption contained approximately 30 conditions on the use, which illustrate both the onerous nature of the exemption process and the highly controlled and limited applications the FAA will approve.

Amazon is not alone in its struggle to advance the state of the use of UAS in the US. The subcommittee was rightfully concerned about the dangers posed to the domestic UAS industry by the FAA's sluggish response. Germany and France have developed regulations far more advanced than the FAA's. A construction company in Germany used a $50,000 UAS to survey a site and create a three-dimensional image in 30 minutes, a process that formerly required two days of manual surveying to produce a two-dimensional image. Representatives from Texas and the Midwest discussed the desires of many constituents to use UAS for agricultural purposes and to combat wild fires. Most echoed the concern that the FAA's sluggishness is sending UAS research and development to Canada and Australia as well as Europe. The FAA insisted on continuing down a methodical path to avoid substandard regulations that could threaten the safety of American airspace. Yet the FAA said it did not feel Germany and France were acting recklessly by issuing their regulations.

Based on testimony at the subcommittee hearing, the UAS situation will not be clarified soon. This article is intended to summarize the subcommittee's hearing and is not intended as legal advice. Whether you are seeking an exemption from the FAA, want to learn how to comment on proposed FAA rules, or desire guidance on how to minimize the risk associated with operating your UAS, seek legal advice before taking to the air.