

**Testimony of
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**Before the United States House of Representatives
Committee on Small Business
“Taking Flight: Small Business Utilization of Unmanned Aircraft”
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Chairman Chabot, ranking member Velazquez and members of the committee – thank you for having me here today and for holding this critical hearing – it is my honor to be here before you.

My name is Brian Stroom and I am the co-founder and CEO of AeroCine, a drone company that uses Unmanned Aerial Vehicles (UAVs) to fly Hollywood cameras for movies, television, advertising and real estate among other things.

I wish I could tell you that I am one of the world’s foremost roboticists or rocket scientists but for a hearing such as this, my experience as an artist and NYU Film School graduate is the real story. It just so happens, I might humbly add, I am building my own drones and consider this part of the new American Dream.

The Unmanned Aerial Systems (UAS) industry worldwide has created a new generation of entrepreneurs who are innovating with small businesses that will reshape the global economy. Safe and responsible use of UAS will be ubiquitous across every sector of the economy. Unfortunately, this worldwide phenomenon is in jeopardy here at home in the United States due to the current state of regulation that prohibits commercial operations absent an exception. I consider myself lucky as AeroCine was among the very first U.S. companies to receive an FAA exception to operate commercially but we continue to have to seek

permission to adapt and change to what clients need. It is expensive, time-consuming and frustrating.

And yet, my passion for this industry has not waned.

Three years ago witnessing a quadcopter flying a miniature camera capturing breathtaking videography, I was astonished and realized that this new technology would introduce the world to a new creative frontier, in addition to hundreds, if not thousands, of additional efficient and paradigm shifting innovations. The implications for filmmaking were readily apparent. I thought, if someone could put a small camera on a small multirotor, why could I not put a thirty-pound, high-quality cinema camera on a twenty-five pound multirotor?

Film producers make extensive use of cranes, camera cars, and helicopters, all in an elaborate effort to get the best shot. This is sufficient and still viable in some cases, but drones are more cost effective and when operated responsibly can greatly reduce potential risks to human lives. A drone has the capability to replace all of these on film sets while reducing the risk to human life and enhancing the artistic pursuit. UAVs excel at showing us our world in new, fascinating and beautiful ways. What excited me about drones three years ago is the same thing that excites me today—at their very core, drones present a way to easily place a sensor anywhere in three dimensional space. What could once only be dreamed can now be produced.

What began as an idea for my business partner Jeff Brink and me to turn a quick profit in the world of ultra high-end production grew quickly and far exceeds what we had initially conceived. When we started the company we planned to simply purchase a drone to carry large cinema cameras. Finding no suitable system on the market, we drew from academic and aerospace circles to build a team of

engineers and set out to create an aerial robotic system of our own. Today our work ranges from designing custom UAVs to operating UAVs for big budget films, television shows, live programs, and special events. We are proud to be bringing to consumers images and video that has never been imagined.

The FAA's efforts to integrate UAVs into the national airspace (NAS) are commendable in the face of extraordinary challenges. One notable step is the increased speed with which the FAA is awarding Section 333 Exemptions. The publication of a proposed rule for small drones is also promising, but we understand we may be a year or more away from a final rule, and even so, the proposed rule is in many respects too restrictive. We recognize the FAA prefers the incremental approach of crawl -- walk -- run. But right now regulation in the United States is sorely lagging behind the technology, which is sprinting. The industry in United States has been quick to create innovative hardware and software solutions ranging from auto-deploying parachutes to designing automated air traffic control (ATC) schemes. This technology exists to protect people and property in the NAS and on the ground and as a nation, we must be able to rapidly adopt these solutions.

UAV operators in America are subject to the onerous task of satisfying bureaucratic hurdles which do little to enhance safety, such as securing certificates of authorization (COAs) for flights under 400' above ground level (AGL). Securing a COA can take anywhere from hours to weeks for a routine series of flights.

A commercial UAV operator must also employ an FAA licensed ATP, Private Pilot or Recreational or Sport Pilot to fly their unmanned vehicles. The skills of piloting a passenger plane versus an unmanned vehicle are worlds apart -- as the

FAA acknowledges in its proposed rule – and this requirement does little to enhance public safety.

Evidenced by many companies move to test in Canada and elsewhere, if we do not scramble to bring our regulations up to speed quickly our innovators will be eclipsed by entrepreneurs in other countries that have an established legal framework.

We would like to see FAA expand its Section 333 Exemption authority to include flights over persons not involved with the particular UAS operation, flights closer than 500 feet from such persons, and operations beyond the visual line of sight (VLOS). These various operations can be conducted safely because of the technological capabilities of the drone and because of operational limitations the FAA can impose.

Even after the FAA issues its final rule for small drones, we believe the FAA should use its discretion to authorize operations beyond what the rules allow, provided the safety case can be made. This can be done through the Section 333 Exemption process, or some other process that avoids both another rulemaking or protracted type and airworthiness certification.

AeroCine stands ready to assist this committee and the U.S. Congress in bringing this exciting technology to consumers and we thank you for your leadership in holding this hearing.

Mr. Chairman, ranking member Velazquez and members of the committee, this concludes my opening statement. I look forward to answering any questions from the Committee.