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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 very much for the opportunity to participate in today’s hearing on unmanned aircraft systems. I am speaking on behalf of the Association for Unmanned Vehicle Systems International (AUVSI), the world's largest non-profit organization devoted exclusively to advancing the unmanned systems and robotics community. AUVSI has been the voice of unmanned systems for more than 40 years, and currently we have more than 7,500 members, including many small business members that support and supply this high-tech industry.

UAS increase human potential, allowing us to execute dangerous or difficult tasks safely and efficiently. From inspecting pipelines and surveying bridges to filming movies and providing farmers with aerial views of their crops, the applications of UAS are virtually limitless and offer a superior way to see what needs to be seen, in less time and at less expense. It’s no wonder businesses – small and large – are clamoring to use this technology.

For years, AUVSI has been a leading advocate for the safe integration of unmanned aircraft into the U.S. National Airspace System (NAS). We were delighted earlier this year when the Federal Aviation Administration published its long awaited proposed rules for the commercial and civil operations of small UAS (systems that weigh 55 pounds or less).¹ These proposed rules are a critical milestone in the UAS integration process and bring us closer to realizing the tremendous societal and economic benefits this technology offers.

Indeed, as the FAA has worked on these rules, much has already changed in the industry. Since Congress tasked the FAA with creating UAS regulations in 2012, the technology has gone from a specialized tool to a

¹ <https://www.faa.gov/uas/nprm/>

must-have business asset. The flood of commercial exemption requests to the FAA, in particular, shows that a mature UAS commercial market is waiting to be unleashed.

In May 2014, the agency announced it would consider granting exemptions for certain low-risk commercial UAS applications under Section 333 of the FAA Modernization and Reform Act of 2012. Since then, the FAA has received more than 2,000 requests² and granted more than 700³ exemptions to businesses looking to use UAS for precision agriculture; inspecting infrastructure ; mapping and surveying; film, photo and video production; public safety or emergency response; and environmental inspection and regulation.

Many of these exemptions illustrate the sweeping impact the industry is having on small businesses. AUVSI has looked at the first several hundred exemptions that have been granted; and according to our analysis, the vast majority of businesses receiving exemptions are small businesses. Just as smartphones and tablets revolutionized our economy over the past decade, UAS are transforming the way a number of industries operate, and are creating several new ones as well – from startups focused on developing new UAS platforms and components to entrepreneurs creating new business models that offer specific UAS services. Other small businesses are eager to use UAS to improve their existing services and extend their capabilities.

Let me provide just a few examples:

- North Carolina-based PrecisionHawk is a startup that manufactures UAS and cloud-based data collection software. Its UAS platform, the Lancaster, is helping farmers survey crops and assisting insurance companies with claims following natural disasters. The company received a Section 333 exemption to fly its platform commercially in the U.S., and a number of its clients have also received exemptions, including AIG and USAA. PrecisionHawk was also one of three companies selected to kickoff the FAA’s Pathfinder Program.⁴ The company will help the FAA and industry research extended visual line-of-sight operations in rural areas. Founded in 2010, PrecisionHawk started with six employees and has now grown to more than 70 employees, with multiple offices in the U.S. plus offices in Canada, India and the United Kingdom.⁵

² <http://www.regulations.gov/#!searchResults;rpp=25;po=0;s=%2522section%252B333%2522%252BFAA;fp=true;ns=true>

³ https://www.faa.gov/uas/legislative_programs/section_333/

⁴ http://www.faa.gov/news/press_releases/news_story.cfm?newsId=18756

⁵ <http://www.precisionhawk.com/>

- Another example is Southern California-based Aerial Mob. The company was one of the first to receive a commercial exemption from the FAA.⁶ An innovator in UAS cinematography and technology, Aerial Mob is considered a pioneer in the development of UAS safety standards by the Motion Picture Association of America and the FAA. It performed the first ever FAA approved film production project with a major studio, Warner Brothers, on the set of the CBS TV show “The Mentalist.”⁷ The company has since filmed Super Bowl promos for NBC, a promo for a new show on Amazon Prime, and even helped Apple film a commercial.
- Then there is Douglas Trudeau. Based in Tucson, Arizona, Mr. Trudeau was the first Realtor to apply for, and receive, a Section 333 waiver from the FAA to use UAS in his real estate business.⁸ A Realtor for 15 years, Mr. Trudeau saw an opportunity to capture unique aerial perspectives for his listings – images that he couldn’t obtain from the ground. Mr. Trudeau now offers a how-to guide on his website for other real estate agents interested in applying for exemptions, and he is also a sought-after speaker.⁹ Since Mr. Trudeau received his exemption in January this year, the FAA has issued waivers to more than 200 real estate-related companies, according to the National Association of Realtors.¹⁰

These are just a few examples of the real-world, small business applications of UAS. And there are many, many more.

The FAA continues to approve about 50 new commercial operations a week, a process that has been recently streamlined and expedited. However, this current system of case-by-case approvals – whether streamlined or not – isn’t a long-term solution for the many small businesses wanting to fly. In addition, the requirements for UAS operators are generally more onerous under the section 333 exemption process than the operator requirements contemplated in the draft UAS rules. It’s our view that a Realtor or a wedding photographer who wants to fly a lightweight platform for aerial photography shouldn’t have to master stalls in a manned aircraft or learn how to land a 2,000 pound Cessna.

⁶ http://www.faa.gov/news/press_releases/news_story.cfm?cid=TW251&newsId=17194

⁷ <http://finance.yahoo.com/news/warner-bros-uses-drone-on--the-mentalist--set--a-hollywood-first-144435648.html>

⁸ http://www.nwintimes.com/lifestyles/home-and-garden/drones-the-next-frontier-in-real-estate-marketing/article_829bd032-10cb-518f-aeef-ff092e519a82.html

⁹ Ibid.

¹⁰ <http://www.realtor.org/articles/updated-list-of-faa-approved-drone-operators-available-on-realtororg>

As an industry, we want to see the integration of UAS proceed and without any further delays. Once this happens, we will have an established framework for UAS operations that will allow anyone who follows the rules to fly. It will do away with the case-by-case system of approvals that currently exists, reducing the barriers to UAS operations. And importantly, the integration will establish rules for the commercial use of UAS so that small businesses from every industry sector can take advantage of this innovative technology.

Given the technology's potential, it is important that the FAA finalize the small UAS rules as quickly as possible. Moreover, Congress needs to pass – and the President needs to sign into law – an FAA reauthorization measure before the current authorization expires on September 30, 2015.

This measure is critical for accelerating and expanding the commercial use of UAS and the most immediate way to encourage additional collaborative innovation between the numerous governmental and private sector stakeholders. AUVSI has been engaged with the committees and staffs leading the FAA reauthorization efforts in both chambers of Congress to address specific recommendations on how this can be accomplished.

Equally as important, government and industry need to work together to permit expanded uses of UAS technology that pose no additional risk to the airspace system. For example, whether within the context of the rule, through the FAA reauthorization measure or by other means, we need to allow for beyond-visual-line-of-sight, nighttime operations and operations over heavily populated areas. Otherwise we risk stunting a still-nascent industry, and restricting the many beneficial uses of this technology.

It's not just the many uses of this technology that are at stake, but also the 100,000 jobs and \$82 billion in economic impact that the UAS industry is expected to create in its first decade following integration.¹¹ With the right regulatory environment, there's no question these numbers could go higher. The benefits of this technology are broad, and we need to make sure we are doing all we can to support its growth and development. But the longer we take, the more our nation risks losing its innovation edge along with billions in economic impact.

UAS technology is at an exciting and pivotal stage. The technology is developing rapidly, with new

¹¹ <http://www.auvsi.org/econreport>

applications being highlighted nearly every day, much faster than our country's capacity to develop the necessary regulations. We need to make sure that the FAA adopts the proper framework to keep up with this technology and is sufficiently resourced to work with industry stakeholders to perform essential research ensuring the safety of our airspace.

Thank you again for the opportunity to speak today. I look forward to answering any questions the committee might have.