Statement of Brian Whiteside
Committee on Transportation and Infrastructure
Aviation Subcommittee Building a 21st Century Infrastructure for America: Enabling Innovation in the National Airspace

Mr. Chairman, Members of the Committee thank you for allowing me to present today,

My name is Brian Whiteside and I am the COO of Complier Enterprise a company based in Corvallis Oregon. We consist of three divisions, VDOS Global a company I founded which provides Drone Operations as a service, Training for enterprise clients who want to certify their drone operations, and Drone Complier our safety and enterprise management software that enables companies to comply with federal and corporate polices in a simple safety management system. We have 23 employees split between the United States and Australia. Some recent milestones include being selected as the official compliance app for the sub 2kg class of Drones by CASA (the Australian version of the FAA), certifying over 1000 drone operators, receiving the nation's first commercial Section 333 waiver for refinery inspections and being the first company to legally fly commercial drone operations in the Gulf of Mexico. We perform operations as far north as inside the Arctic Circle and have performed operations throughout the US and Australia. Our clients range from environmental groups such as the World Wildlife Fund to large energy producers such as Shell Oil and Exxon Mobil. Users of our software include numerous Universities and large companies to small start-up operations.

I support the Drone community in various means, I am the President Emeritus of the Cascade Chapter of AUVSI (Association of Unmanned Vehicle Systems International), I was appointed by our Governor last year to our State Aviation Board, and I am a member of the Helicopter Association International UAS Committee.

I started flying before I could drive, at age 15. I used to bike to the airport and finished my manned aviation carrier after serving in the Navy as an F/A-18 pilot. My first job as a civilian was as the Director of Operations for the Naval Unmanned Systems Integration Activity at the Naval Weapons Station China Lake. I helped the Navy stand up flight operations for numerous UAVs and wrote the safety plans and airspace integration plans for unmanned aircraft. I was tasked with coming up with the method of how to integrate

slow moving unmanned aircraft with tactical aircraft using the same runways. The reason I bring this up is that I have some unique experience in airspace integration with proven success. In 2009, I started working at Evergreen Aviation as the Executive VP of Evergreen Unmanned Systems. We were the nation's first commercial UAV company and flew the Insitu Scan Eagle as our workhorse platform. Our first commercial flights were in the Arctic performing research on how to study cetaceans using unmanned aircraft. In 2011, I started my company VDOS and have remained focused on the commercial application of unmanned systems. Last year in 2016 we merged with RPAS training out of Australia and formed Complier Enterprise the company we are today. The reason I chose to get into unmanned systems after the Navy was because of some of the work I did as an operational test pilot. We were tasked with helping the navy understand the world of 2025 and beyond. This forecast would help the Navy develop the acquisition cycles to counter the future threats. Based upon what I learned, the future was clear and I had to find a job that was a part of this new developing technology.

Our world is changing rapidly. The technology that we forecast is coming to fruition close to what was anticipated with the caveat that it often happens faster than predicted. This pace of change is the same challenge that you as legislators have to face with regard to drafting policies and that applies to technology changing faster than legislation can be enacted. I know I am here to speak to the use of Drones and what we are doing in the employment of the technology but I feel it is important to set a foundation of where we are in the timeline of change. This applies to drones because the future of this technology is one where the physical hardware will cross domains in ways we don't use today. The drone of the future will be more of a robot that can drive, walk, and fly. When considering the FAA re-authorization act we need to understand that this technology has broad reaching implications not only in how we live but who we are and what we will become as a species. To get far enough ahead of the technologic curve to draft legislation we must know where we are going. The airport of the future will not be what we think of today, it will be your backyard.

We also need to appreciate the transformational shift that is about to occur with the generation growing up. Today's grade schoolers are going to look at technology in a radical new way that none of us in this room can appreciate. This new robotic generation will trust automation over their own skills. Once this trust is accepted we will never go back to the way we

function today. My children are 8 and 10. By the time they turn 16 we will have driverless cars on the road. It will be safer for them to ride in that driverless car than it will be for them to sit behind the wheel. They are going to have a trust in technology that we in this room don't understand. For the first time, we have a generation growing up that will believe that automation is safer than not having it. They will trust automation for their cars, buses, planes, homes etc. This radical shift in mindset is only a few years away from happening. They will expect to have autopilots and automation in all aspects of their lives.

Why is this important to what we are talking about today? It is important because the pace at which we pass laws and regulations is way behind what is happening in the real world. More jobs and research will continue to leave the United States to countries where companies can innovate in a permissive environment. I have a brief from the FAA around 2010 that states that drone airspace integration will be passed within a year. We are still waiting. We are still forced to operate in an environment that makes investment and growth incredibly difficult because of the lack of clearly defined rules and objectives. The FAA has made tremendous progress from where we were in 2009. In one of our early meetings with the FAA we were told we would have to prove that we would not hit a skydiver over the Arctic Ocean. Part 107 was a good first step but it has come late. Many other countries around the world have allowed licensed commercial drone operations for years and the result is a US market that has fallen behind in the development of drone technology and utilization. One aspect of drone operations we are still keen to see happen is the ability to fly beyond line of sight. Many countries around the world allow this and license such operations. In Australia, this has been happening for a few years with great success.

We are currently in the process of two such waiver request one in Oregon and one in Texas. For our client in Oregon we are using the Pendleton Test Site to help develop technology to fight Elephant Poaching. In Texas, our client wants to use drones to detect methane leaks, oil leaks, asses infrastructure and power line stability. This client has a very strong safety case for why drones will improve their operation, and beyond line of sight operations is the key component to contracting this work.

Because of the way, FAA operations are approved innovation and growth is stifled in the US. It is very difficult to invest and commit resources when there is no guarantee or any timeline in which that can be achieved. This has two

significant detrimental effects: first, it takes the innovation out of small businesses and leaves it to large companies that can afford the lengthy timelines required and second, it drive jobs out of America to countries where the technology can be developed. If the reauthorization act is going to be successful it must cut regulations and focus on how it can create jobs. The FAA should also understand not just the safety case but the financial impact of a nebulous regulatory environment. I have a strong understanding of flight safety and the need to ensure that operations are conducted in a compliant and safe manner. Our clients are extremely risk adverse. We constantly find ourselves running in circles with the FAA where we are expected to define a safety case with a standard that cannot be defined, with an approval process that happens behind bureaucratic closed doors. One example of this lengthy process was our offshore Section 333 exemption to fly small multi-rotor drones within the superstructure of production platforms. It took nearly a year of planning and meetings with no guarantee that it would be approved. These are operations that occur well off-shore with no population, no VFR traffic, and a real safety and environmental mission. To this day according to the FAA there is still no clear answer as to whether its legal to operate under a Part 107 license or if we must continue to operate under our Section 333 waiver for these missions. This is not to point fingers at any one person, it is indicative of the process that ties everything together. We have great support from individuals within the FAA but under their legal authorities they have no power to make decisions or recommendations and default back to statutes and sections of the federal regulations.

The FAA makes it clear that when it comes to drone integration, it is up to the operator to prove to the FAA a safety case. That safety case is not defined and nearly impossible to achieve. This has been the cloak behind which decisions get made. We all believe in safety and our clients demand it. But if the rules are written such that innovation is restricted, jobs will be lost and we have only hurt American innovation. Companies will continue to develop overseas at the expense of American Jobs. The FAA Reauthorization act needs to consider its impact on American jobs and allow our incredible innovators to thrive. The world is shifting and the United States needs to be the leader in this technologic revolution. This will only occur when there is a shift in the accountability coupled with a real understanding that the pace of change that is unlike anything the FAA has had to deal with before. Orville and Wilbur created manned flight without the FAA or a pilot's license. Manned aviation will be a chapter in history books, and that chapter is already nearly written.