Statement by Marty Rogers

Deputy Director, Alliance for System Safety of UAS through Research Excellence Before the U.S. Senate Appropriations Subcommittee on Transportation, Housing and Urban Development, and Related Agencies

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Chairman Collins, Ranking Member Reed, and members of the Subcommittee, thank you for the opportunity to address you today on this important topic. I represent the FAA's Center of Excellence, the Mississippi State University led Alliance for System Safety of UAS through Research Excellence (ASSURE), which is comprised of twenty two highly qualified universities throughout the U.S. as well as strategic international research institutions, along with well over one hundred industry partners. Additionally, I represent the University of Alaska Fairbanks' Unmanned Aircraft Systems program, its FAA test site and by virtue of the regular collaboration and cooperation among us, all six test sites. Our team and many of those mentioned have been working to integrate UAS into the national airspace system for many years. Much progress has been made in the time since the passage of the FAA Modernization and Reform Act in January 2012. Others can cover the specifics of the Act far better than I can, so I would like to offer my thoughts on the key issues that remain within our community and some suggestions on how we, who are partners with the FAA, can be used to advance the cause of safe integration of UAS more effectively and more rapidly.

First, however, I would like to remind the Committee of the importance of UAS technology. While it has applicability in almost all areas which require the collection of data, I believe there are three areas which justify special mention, specifically these are support for critical transportation and logistics infrastructure; emergency response, such as search and rescue and wildfires; and finally one area which is already showing some of the greatest potential, precision agriculture. These are the applications, but the use of the technology within these applications is staggering, and each should be a reminder to us

that the safe integration of UAS into the national airspace (NAS) should be our highest priority.

The ASSURE UAS Center of Excellence and the six UAS test sites have been accorded a level of trust and access to some of the FAA's thinking and priorities as well as approvals that were previously not available. We have also developed rigorous processes, procedures, standards, and checklists that the FAA has inspected and approved, and to which we are required to adhere for all operations. We are proud of the discipline we bring to the table, and as a result are convinced that due to that rigor we attain a level of safety in operations not equaled by many others. We expected that this would earn us easier access to the NAS, in the form of more autonomy in some fairly known or routine areas and more rapid approvals of those areas that expand the exploration of integration into new areas. In fact, we do have more autonomy in that the FAA has granted us National Certificates of Authority (COAs) that allow us to operate nationwide up to the limits of the proposed small UAS rule. However, gaining even seemingly minor expansion of those permissions remains slow and very burdensome, despite our adherence to those rigorous processes. For example, the FAA in granting the National COA expected to speed up the processing of applications since small UAS are now covered by the National COA. However, stakeholders continue to see applications sit for months.

By virtue of the competitive selection process, we believe that the FAA has clear authority to provide ASSURE and the test sites greater authority to support the goal of rapid but safe integration of UAS into the national airspace. Examples of this include making use of the rigorous safety processes we have developed to relieve them of some of their review burden. For example, we have developed an airworthiness process that, we believe, is substantially more rigorous than what the FAA is using to approve Section 333 exemptions. Review of the exemption applications could be conducted by the test sites, with oversight initially by the FAA reviewers, resulting in both speeding the review process and increasing the level of scrutiny of each application. Safety is our number one consideration. The recent issues related to UAS being operated near airports, and most recently interfering in wildfire aviation missions by forcing the grounding of manned aircraft, are of major concern to our community. I would love to be able to say that these are not significant issues, but the reality of a collision between a manned and unmanned system is inevitable, and it is not a question of if, but when. Our ability to continue "contemplating the problem" is at an end, and while funding has just been provided for the ASSURE team to support research into both mitigating this event, but to also better understand the consequences of such an event.

The ASSURE team is truly the "best and brightest" of the UAS community, and the UAS test sites have, on their own, committed large amounts of resources to support test and evaluation of UAS technology, much of which will now be flowing from research the ASSURE team is developing. It is not possible to overstate the combined value the combination the ASSURE team and the test sites bring to the goal of safe integration of UAS into the national airspace.

To conclude, thank you again for your time and consideration, and I would like to finish by saying the FAA has had a daunting task, and unfortunately they hear very little of the good news, but we in the community recognize their efforts to date and very much would like to be part of the long-term solution. Thank you.