

Chairman Wicker, Ranking Member Cantwell, members of the committee, thank you for the opportunity to testify before you today.

After 35 years in aviation, and 15 years working exclusively in unmanned systems, it seems a bit strange to be classified as a new entrant. But one of the amazing things about this technology is that it is ever innovative, ever evolving, and always new. It is also, I'm very glad to tell you today, rapidly maturing.

Over these past 15 years, I've been blessed with an amazingly broad and diverse experience in unmanned systems. I've had the privilege of leading incredibly talented people in America's armed forces, in commercial industry, and at two of the nation's top universities for unmanned systems research. I've spent two years embedded in the FAA, and I have seen first-hand the challenges that our regulators face in deciding how safe is safe enough. But most of all, I've seen what works, and just as importantly, what does not.

First, what works is blending innovative unmanned technologies with proven aviation practices and a culture of safety. At Mississippi State's Rasper Flight Research Laboratory, we have proven that. We operate the newest, largest, and most technically-advanced fleet of unmanned aircraft in academic use today. Our pilots and maintainers are fully qualified and FAA-licensed to fly

and maintain both manned and unmanned aircraft. We hold FAA approvals to fly in over 6,000 square miles of national airspace, and we routinely fly in the same traffic patterns, using the same procedures, with manned aircraft. We get to do this because we demand the same level of competence, the same level of professionalism, and the same level of safety as any manned aviation organization in the country.

Second, what works are government and academic partnerships. At Rasmussen Flight Research Laboratory, we lead the Department of Homeland Security's Common UAS Test Site, an expansive facility where we evaluate both established and emerging unmanned technologies to better support the brave and talented people who patrol our coasts, protect our borders and respond to our national emergencies. Mississippi State University also leads the FAA's UAS Center of Excellence, comprised of 23 of the world's top unmanned systems research universities who are dedicated to solving the FAA's highest-priority challenges in UAS safety and integration. To date, the results from over 20 of our research projects are directly informing and improving FAA policy, guidance and rulemaking. No other organization has done more, and in less time, to advance unmanned systems integration than ASSURE Center of Excellence.

Third, what works is interagency collaboration. For many years, I've had the privilege of co-chairing the UAS Science and Research Panel, which coordinates and conducts UAS research across 8 Federal agencies. The SARP, as it is known, brings together the technical, policy and operations experts from these organizations to focus on one key problem at a time—and to resolve it in a year or less. Recently, the SARP defined what may be the most important number in all of unmanned aviation – the minimum safe distance at which UAS may operate in proximity to other aircraft. Today, the SARP is tackling how UAS operations can be safely enabled at or near our nation's airports—and we'll be sharing those answers shortly.

And finally, what works is industry engagement. Both the ASSURE UAS Center of Excellence and the SARP routinely collaborate with industry to exchange ideas, explore emerging technologies and to ensure that our research results are relevant and current. Industry is where the innovation happens, and we in government should never forget that.

Now throughout my testimony, you may have noticed a common thread—that focus breeds success. Focused organizations such as the UAS Center of Excellence and the SARP have produced the most relevant, most effective, and

most substantiated body of evidence to support key decisions by both industry and government alike. By following our model of scoping and prioritizing key problems, selecting team members for expertise and effectiveness, and putting strong, accountable leadership in place, our nation's government can achieve more, in less time, and more safely, than ever before.

Members of this Committee, as I close my testimony, I'll leave you with some specific points where your leadership can make a difference.

First, support what works—and question what doesn't. Success in UAS integration has come in bites, not in meals. Those who 15 years ago were trying to solve all of our problems at once are still trying. Meanwhile, those teams that have focused their energies on specific problems have succeeded.

Second, set deadlines—and enforce them. Some of the most significant advances in UAS integration have come, not coincidentally, following mandates from Congress—mandates that were tied to specific, short-term deadlines. The key is in scoping legislation to ensure the goals that you set are aggressive yet fair, and that they are achievable safely.

Third, and most specifically, I ask for your support in removing unnecessary layers of review from our nation's unmanned systems research programs. Due to

a recent policy change mandating Department-level review, it now takes up to six times longer to approve UAS Center of Excellence research. Such reviews add no discernable value, nor perceivable effect other than slowing a once-efficient process from a few weeks to many months.

Chairman Wicker, Ranking Member Cantwell and members of the committee, I thank you again for the opportunity to testify before you today. Should you need further details on these or other unmanned systems issues, Mississippi State University and the Rasper Flight Research Laboratory stand ready to support you.