

UNMANNED AERIAL SYSTEMS

According to the Teal Group, the global unmanned aerial systems (UAS) market is predicted to be a \$94 billion industry over the next decade, and the rapid progress for Oklahoma's UAS sector is attracting international interest. The applications for UAS are broad. The remotely piloted aircraft can carry cameras, sensors, communications equipment or other items and are most widely known for uses in military operations.

The OSU University Multispectral Laboratories operates one of the only UAS airfields in the U.S. where no FAA Certificate of Authorization is required – the result of an agreement between the University Multispectral Laboratories and the Fort Sill Army post in Lawton. This gives Oklahoma a competitive edge in the industry and is one of the reasons Oklahoma is attracting attention from all over the globe.

Oklahoma is also involved in the development of UAS, especially the new fields of small UAS called micro air vehicles (or MAVs). One example is Norman-based Design Intelligence Incorporated LLC who in 2007 won an SBIR Phase I award for \$100,000 from the Air Force Research Laboratory allowing the company to begin development of energy harvesting and power management technology for MAV applications to enable extended mission duration and range. The Phase I award led to a follow-on Phase II award from the Air Force and then additional UAS and MAV related SBIR projects including projects for MAV development.

“The stakes were high for a Phase II award and the gap of time in funding, about four months in our case, can be a killer for small startups – you literally run out of cash and you want to retain your best employees and capabilities,” said James Grimsley, president and CEO of Design Intelligence Incorporated LLC and president of the Unmanned Systems Alliance of Oklahoma. “There is so much to prepare, and you have to hire highly-qualified people and get them on board. OCAST gave us bridge funding to help with the transition. Without that support from OCAST, our transition to the Phase II would not have been as successful.”

“Every bit as important as their bridge funding, OCAST helps with connections, information and resources. They coached us through putting together successful proposals to get investment and interest from outside the state. Now we're being awarded contracts, attracting new work, bringing in jobs and weaning ourselves from dependence on SBIR awards. We've quickly moved from a startup to a profitable business.”

Grimsley estimates there are as many as 12 companies in Oklahoma that focus on UAS. However, he predicts that number to grow as industry experts learn more about the capabilities of current Oklahoma companies and Oklahoma's pro-business environment and support. He also expects more startup companies and other companies to relocate to Oklahoma due to the state's unique aerospace and UAS assets and resources.

“There are about five states that are actively working to develop a strong unmanned systems industry, but Oklahoma is recognized as a state where the entire unmanned systems industry, the universities and state government representatives, are all working together toward one goal – to promote the growth of the unmanned systems industry sector in the state,” Grimsley said. “It is rare to see all stakeholders work together so well and create an industry as quickly as we have.”



Governor Mary Fallin has demonstrated her commitment to that common goal with the recent creation of the Governor's Unmanned Aerial Systems Council chaired by Dr. Stephen McKeever, secretary of science and technology.

"Our emerging UAS industry is fast becoming a model of successful collaboration between industry, universities and state government all working together towards a common vision and goal to advance the state's UAS and aerospace vision and mission," said Oklahoma Governor Mary Fallin. "Aerospace is one of the leading industries in the state and a major contributor to our economy's health and vitality. One of the goals of my administration is to continue to build on Oklahoma's long legacy of innovation and success in aerospace and to help the state move forward into the exciting new frontiers of aerospace such as UAS."

[Report of the Governor's Oklahoma Unmanned Aerial Systems Council](#)

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