Engineering Alumnus Pioneers New UAV Paradigm

Published in Utah State Engineer— Oct. 25 2018 — We live in an on-demand society. At the push of a button, we have access to entertainment, technology and information. Now, an aerospace engineer trained at USU is pioneering the next generation of unmanned aerial systems that can be deployed at a moment’s notice. The new platform could revolutionize airborne military tactics.

Quick Facts: Area-I

• Business Focus: Unmanned Aerial Systems

• Known For: Air-Launched, Tube-Integrated, Unmanned Aircraft

• Headquarters: Kennesaw (Atlanta-Metro), Georgia

• Incorporated: 2009

• Number of Employees: 40

• Principal Customers: NASA, U.S. Army, Air Force Research Lab, Office of Naval Research

Nick Alley is the CEO and founder of Area-I — a company that’s rewriting the textbook on small unmanned aerial vehicles. The company is just nine years old and already has 40 employees and multi-million dollar contracts with the U.S. Army and NASA, among others.

“I knew in November 2011 when we got our first air-launched unmanned-aerial-system contract that it was going to be a big deal,” said Alley from his office in Kennesaw, Ga., about 30 miles northwest of Atlanta.

Nick Alley: Founder and CEO of Area-I, received his bachelor’s, master’s and PhD in mechanical engineering and is a die-hard Aggie basketball fan.
Area-I is known as a leader in tube-launched unmanned aerial systems. Alley says the tube concept is one of the most effective methods for deploying UAVs on the battlefield or for use in tactical surveillance.

PTERA (Prototype-technology Evaluations Research Aircraft)

- First flight in 2012
- Primarily used for aeronautics research
- Eleven-foot wingspan
- Modeled off Boeing’s 737
- Used by NASA for researching adaptive wing technologies

“The tube-launched concept offers UAS on demand,” he said. “They can be stored for long periods of time, and then deployed from a manned aircraft. They offer a much-needed supporting role. Before our company came along, there were no good tube-launched aircraft that had any decent amount of endurance. When we started, our nearest competitor could carry a pound or two of payload for 45 minutes. We carry five pounds of payload for up to four hours. We’re out-flying multi-billion dollar companies.”

Alley credits parts of his success to his USU experience.

“Utah State has the best engineering program in the state,” he added. “I built this company based largely on what I learned at USU. I think that says a lot about the education I got at USU.”

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Media Contact: Matt Jensen – Utah State University, College of Engineering | matthew.jensen@usu.edu | office: 435-797-8170 |