U.S. AIR FORCE TECHNOLOGY TRANSFER AND TRANSITION PROGRAM

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Bill Loux

Technology Transfer Program Manager
at the AFRL Munitions Directorate at Eglin AFB, FL

Near the center of Florida's Emerald Coast is the world's only museum dedicated to the preservation and display of Air Force armament systems and delivery platforms, the Air Force Armament Museum. With this collection and exhibition of weapon technology located just outside the West Gate of Eglin Air Force Base, it seems fitting that inside the gate would be a collection of scientists and engineers dedicated to technological advances in weaponry beyond the museum's artifacts.

The Air Force Research Laboratory Munitions Directorate, or AFRL/RW, is that collection!

The primary role of the AFRL/RW is to develop, integrate, and transition science and technology for air-launched munitions for defeating ground fixed, mobile, air, and space targets. Mr. Bill Loux, the Technology Transfer Program Manager for the directorate, oversees this transition process to assure the pre-eminence of the United States Air and Space Forces.

Loux is also the head of the Office of Research and Technology Applications at Eglin. ORTAs are responsible for developing collaborative interactions with industry, academia, and other government entities through an Air Force program called Technology Transfer and Transition (T3). There are 39 ORTAs in the United States, located at 18 Air Force bases, the Pentagon, and the United States Air Force Academy. "My primary role as an ORTA," says Loux, "is to help ensure that technologies and patents developed in our lab are finding a path to being used in commercial products."

His lab focuses on areas such as navigation, guidance, energetic materials, unmanned aerial vehicles, and autonomous/swarming weapon systems. "We work to market these technologies to outside companies and universities to develop partnerships for future development," Loux states. "We also work to educate our scientist and engineer (S&E) community about the value of properly protecting Air Force developed intellectual property."

Educating technologists on protecting intellectual property has been Loux's biggest challenge. "Many S&Es are focused only on the military applications of their research," Loux says, "but we have worked hard to help them find new and undiscovered commercial applications for their research."

AFRL/RW recently worked with Florida State University to license joint-owned technology related to 3D printing of sensors for extreme environments. A portfolio of patents was licensed to Nahsai LLC, a service-disabled veteran-owned small business working to develop new commercial products.

Another level of technological advances has occurred in his "bug lab", where the focus is bio-inspired research. There, researchers are studying insect sensors to develop technologies mimicking the advantages of biosensors. "Our researchers recently completed developing a "smellocopter" UAV," reveals Loux, "that uses moth antennae to autonomously guide a small UAV to find a chemical source."

Loux is no stranger to the concepts of research and protecting intelligence, having served as a Special Operations Intelligence Officer in the Air Force. After leaving active duty, he spent 12 years working as the technology transfer manager at Arizona State University prior to becoming an ORTA.

After two years with AFRL/RW, Loux continues to find excitement in his daily activities. "Definitely, the highlight of my job is getting to learn about new cutting-edge technologies," he adds, "and working to creatively find civilian and commercial applications to technologies developed within a military lab."

To learn more about the Air Force Research Laboratory Munitions Directorate, please visit https://www.afrl.af.mil/RW/, or e-mail Bill Loux at william.loux.2@us.af.mil.