

# Air Force partnership with industry sparks a more robust STEM internship program

*By Mindy Cooper, Air Force Technology Transfer Program / Published September 11, 2017*

**EGLIN AIR FORCE BASE, FLORIDA** – The Air Force Research Laboratory Munitions Directorate and Cummings Aerospace have partnered to provide a unique internship experience for college engineering students.

Under a Cooperative Research and Development Agreement, the two parties developed an internship program that will allow four college students in the AFRL Scholars Program to be mentored by scientists from both Cummings Aerospace and the Munitions Directorate. The students will work at the Directorate's Dynamic Materials Characterization Laboratory at Eglin Air Force Base.

This summer will be the first time there has been an Industry Scholars segment within the AFRL Scholars program.

“The program provides a new and innovative way to provide interns with the perspective of working with both AFRL and an industry partner,” explained Brian Mitchell, who leads the Munition Directorate's Education Outreach Program. “In this way the scholars can gain a better understanding of what working as a scientist or engineer is like from both the government and private industry perspective.”

The AFRL Scholars Program is facilitated by the Universities Space Research Association and offers stipend-paid summer internship opportunities to high school, undergraduate and graduate students pursuing STEM degrees. The selected interns gain valuable hands-on experiences working with full-time AFRL scientists and engineers on cutting-edge research and technology and are able to contribute to unique, research-based projects. Graduate interns are able to collaborate with AFRL on current research and incorporate the research into their graduate work.

This year Industry Scholar students will be focusing on materials and mechanical characterization of high performance structural casing materials. The project involves characterization of microstructure using optical/electron microscopy as well as quasi-static and dynamic mechanical testing using mechanical test frames. Students will also be responsible for designing and conducting thermal process experiments to develop an improved understanding of phase stability and transformations. They will be trained on equipment, and be expected to work as a team with technicians and scientists to develop data and gain an understanding for new prototype material systems.

“The collaboration between AFRL and Cummings Aerospace, enabled by the CRADA, will provide both interns and their mentors with valuable insight into industry and Air Force technologies and capabilities to develop the next generation of weapons,” said Cummings Aerospace President and Chief Executive Officer, Sheila Cummings. “Additionally, this opportunity demonstrates the committed relationship and shared strategic vision between industry and AFRL to find new and innovative ways to address the challenges of future weapons science and technology needs.”

For more information about CRADAs and technology transfer opportunities with the Air Force, call the Air Force Technology Transfer Program Office at 937-904-9830.