

FREEPORT AREA SCHOOL DISTRICT

April 19, 2016 - For Immediate Release:

4th Annual Sea, Air and Land Challenge to be held at Freeport Area Senior High School on April 26, 2016, 10 am – 4:30 pm

Freeport Area Senior High School is providing their facilities on Tuesday, April 26, 2016, for the 4th Annual Sea, Air and Land Challenge. The event, developed by Penn State Electro-Optics Center, and funded by the Office of Naval Research and Alcoa, provides a series of engineering challenges for high school students. The challenges are based on military relevant scenarios.

True to the name, the engineering challenges are held in the sea, in the air and on the ground. Teams of students worked throughout the school year to design and build unmanned vehicles and custom payloads for each challenge. The students and educators were connected with industry engineers who help mentor the teams throughout the design and development process.

The program was developed by Dr. William Kiser, Senior Director of Penn State Electro-Optics Center and is administered by Penny Ward, Program Manager of the Sea, Air and Land Challenge. Dr. Kiser stated, "One objective of the program is to provide students with an opportunity to tackle a very difficult task involving Science, Technology, Engineering and Math, while still in high school. If we can also provide students with insight into tremendous technical careers in the Department of Defense and armed forces, then we consider the program a success." Mrs. Ward added, "A bigger challenge however, is to help educators and administrators learn to implement a successful STEM program into their school given budget, time and resource constraints. Educators want desperately to increase STEM education in the local schools, but are constantly struggling to find time in their already very busy schedules. Several of the local schools have written the program into their curriculum, which is fantastic for the program as well as for the students, offering them more opportunities in STEM education."

On Tuesday, the teams will come together to showcase their systems. Aerial challenges will be conducted with the students flying quadcopters. All students wishing to pilot on the day of the event must pass a flight certification test and their system is required to pass a flight worthiness test prior to Challenge Day. The students have built payloads which are attached to their quad copter and must release an object to hit certain targets. The sea challenge takes place in a 1500 gallon sea tank and the land course involves robotic systems engineered to maneuver through obstacle courses and completing certain "missions" in under 15 minutes. The Challenges are scored by a panel of judges from industry, military, education and business, all of whom volunteer the time to generously support the initiative.

Overall this year, the program has grown to 454 participants (51 teams) competing from 25 school districts, representing 15 counties and 3 states. The Southwestern, Pa challenge being held at Freeport High School, hosts 12 school districts, including Freeport, Lenape, Butler, Kiski and Springdale, just to name a few. Other challenge locations include Central, Pennsylvania and Crane, Indiana.

The event is supported by retired US Navy SEALs and US Army Green Berets, who will give presentations to the participants regarding the importance of technology to national security and the tremendous technical careers available in the Department of Defense and armed forces.

For questions, please contact Michael Kleckner, Principal, Freeport Area Senior High School at (724) 295-5143.