

**WHO**

**SYSCOM:** NAVSEA  
**Sponsoring Program:** PEO Undersea Weapons Systems (UWS)  
**Transition Target:** Acoustic Underwater Countermeasures  
**TPOC:** (401) 832-3838

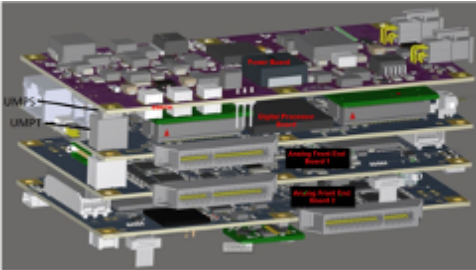


Image provided by CAES AT&E

**Other Transition Opportunities:** Potential applications include oil and gas exploration, bathymetry, harbor, and coastal surveillance for homeland defense.

**Notes:** Other SWaP constrained cylindrical applications like torpedoes and missiles. There is potential opportunities to expand the developed technology across other DoD platforms such as Unmanned Surface Vehicles (USVs), Unmanned Underwater Vehicles (UUVs), and Unmanned Arial Vehicles (UAVs).

**WHAT**

**Operational Need and Improvement:** The Navy requires a compact high speed signal processor capable of supporting data fusion for torpedo defense applications.

**Specifications Required:** DoN has a narrow diameter platform requiring a strict SWaP constraint to support the current and future needs of this platform

**Technology Developed:** CAES AT&E has designed a system of four SWaP constrained Digital Signal Processing boards that exceed current DoN requirements. This technology offers a 64 channels of high-performance digital signal processing while meeting small form factor and power constraints.

**Warfighter Value:** This technology provides the warfighter data fusion capabilities, improved situational awareness, real-time processing capabilities equivalent to those of UAV applications, and addresses the need to combat future growth. Each system is modular and upgradable through upgradable sensor cards and performance improvement through software algorithm updates.

**WHEN**

**Contract Number:** N68335-21-C-0349      **Ending on:** May 24, 2022

Milestone	Risk Level	Measure of Success	Ending TRL	Date
Hardware Prototype Operation	Low	Board operates as intended	6	3rd QTR FY23
Hardware Delivery to NUWC	Low	Board Successfully operating in NUWC Lab Environment	6	1st QTR FY24
System integration into Field test environment	Medium	Board operates as intended in field test environment	7	3rd QTR FY24

**HOW**

**Projected Business Model:** CAES recently acquired Ultra Electronics which has a significant footprint within the DoN and specifically the underwater community. CAES intends to leverage both this internal division as well as external OEM partners which include Leidos and L3Harris who are pervasive with this community too.

**Company Objectives:** CAES is a Tier 3 DoD Defense Supplier, we will apply our Mil-Std manufacturing practices to product the card to support the DoN in this initial platform and potential alternative platforms with a similar mission

**Potential Commercial Applications:** This is a customer digital signal processing board for a SWaP constrained platform. Potential commercial applications may include underwater ROV