

WHO

**SYSCOM:** NAVSEA

**Sponsoring Program:** OPNAV Sponsor: N2N6

**Transition Target:** NavAir Platform to be determined

**TPOC:** (202) 781-3014

**Other Transition Opportunities:** ONR is intending to test this for antenna applications

**Notes:** CAES AT&E has completed Phase I and is Phase II is currently in progress for SBIR N201-032

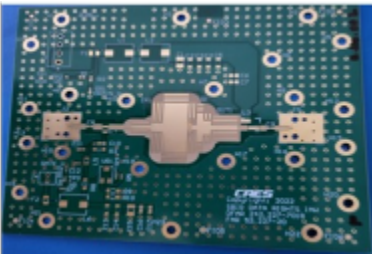


Image provided by CAES AT&E

WHAT

**Operational Need and Improvement:** DoN requires effective communications for Naval operations which provides simultaneous broadcast of RF across a wideband spectrum. Legacy Naval networks can only operate one beam at a time.

**Specifications Required:** DoN needs more effective communication. Simultaneous RF transmission is the next generation development building upon legacy technology. Developing a technology with more operational bandwidth will be a technological improvement.

**Technology Developed:** AT&E working with the University of Colorado Boulder has designed and manufactured an amplifier prototype capable of transmitting four simultaneous Orthogonal Frequency Division Multiplexing (OFDM) waveforms.

**Warfighter Value:** The value to the warfighter will be improved communication with simultaneous transmission across a wider RF spectrum. The increased data available to the warfighter will expand mission capabilities.

WHEN

**Contract Number:** N68335-21-C-0641      **Ending on:** Sep 24, 2023

Milestone	Risk Level	Measure of Success	Ending TRL	Date
Phase 1	Low	Model and simulation are functional	2	4th QTR FY20
Phase 2	Low	Build and Test of proof of concept	4	1st QTR FY23
Phase 3	Low	Amplifier prototype tested and delivered	6	4th QTR FY23
				TBD

HOW

**Projected Business Model:** CAES AT&E has an existing amplifier solution in development. We intend to manufacture this product which has both commercial and military applications.

**Company Objectives:** Design and deliver a High Efficiency Wideband Linear Amplifier viable for both the military and commercial markets.

**Potential Commercial Applications:** Commercial Applications include 5G and future wireless communications platforms