WHO

SYSCOM: NAVAIR
Sponsoring Program: PMA-264
Transition Target: Next Generation Airborne Passive System (NGAPS)
TPOC: (301)757-3694

Other transition opportunities: None

Notes: Currently the NGAPS is being developed as a FNC by ONR, but that program is over at end of FY19. At that point, all development efforts will move to PMA-264. Currently, the Program of Record for this is not in place, but that will be established next year. This effort in addition to three other SBIR efforts are risk reduction efforts to address the highest risk technologies and ensure successful transition.

WHAT

Operational Need and Improvement: An array of vector sensors provides major system gains over legacy array of omnidirectional hydrophones.

Specifications Required: The CDVSA will be a portion of a long life, A-sized sonobuoy and must meet the following requirements: Less than 10” in height, less than 4.5” in diameter, less than 15 pounds in weight, and draw less than 350 mW.

Technology Developed: STR and its partner GD-APS have developed a novel approach that combines two vertical line arrays to provide increased capability at reduced power usage and smaller size. This unique design allow the sensor to meet the noise floor requirements while maintaining a system that can be easily constructed. The latest generation of COTS microcontrollers are used to reduce power usage while maintaining a low unit cost for each CDVSA.

Warfighter Value: The CDVSA will be a vital part of future advanced sonobuoys. This sensor will be part of a persistent passive acoustic capability which is rapidly deployable and is a standard A-size sonobuoy form factor.

WHEN

Contract Number: N68335-17-C-0129 Ending on: November 30, 2018

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<th>Measure of Success</th>
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HOW

Projected Business Model: STR and our partner GD-APS are looking for an opportunity to license the array technology along with the vector sensor technology to a qualified sonobuoy manufacturer such as USSI or Spartan. Additionally STR would like to be involved in future pre-planned product improvements to either the array design, processing approach for managing power, or reductions in size and weight. These follow-on design activities would be conducted in partnership with GS-APS where the relevant expertise will be utilized as appropriate.

Company Objectives: STR’s primary objective with this SBIR effort is to become a trusted performer in the design and development of future sensor capabilities for NAVAIR. A secondary objective is to become a licensed technology provider for US sonobuoy manufacturers.

Potential Commercial Applications: These type of deep vector sensor array have a wide variety of commercial applications including use in monitoring deep water oil and gas infrastructure; changing geo-physical properties of the ocean due to climate change or commercial exploitation of deep ocean environments.

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