Topic: N161-001

SeaLandAire Technologies, Inc.

Mid Frequency Active Sonobuoy

The increasing capabilities of adversary submarines, combined with the challenging acoustic characteristics of littoral waters create a significant challenge, particularly for current tactical Anti-Submarine Warfare (ASW) systems, which are primarily platform centric and designed for mono-static operations. SeaLandAire Technologies (SLA) specializes in rapid development of advanced engineering solutions in a broad range of applications. SLA is developing an A-size Mid Frequency Active Sonobuoy (MFAS) capable of significantly improving the ASW effectiveness resulting in better defense for the carrier fleet in all ASW mission areas. The end objective of this Phase II is to have a field-proven buoy design that can then be moved to production and qualification, with the assistance of our transition partner.

Technology Category Alignment:

Microelectronics and Nanoelectronics
RF Components for sensing, transmission and communication
Modularity
Sensors
Acoustic, Seismic and Magnetic

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SYSCOM: NAVAIR
Contract: N68335-18-C-0129
Corporate Brochure: https://navystp.com/vtm/open_file?type=brochure&id=N68335-18-C-0129

Department of the Navy SBIR/STTR Transition Program

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WHO

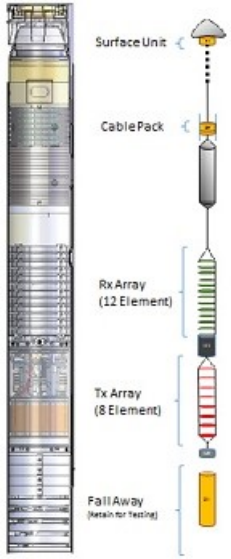
SYSCOM: NAVAIR

Sponsoring Program: PMA 264

Transition Target: PMA-264 Air ASW Systems Program Office as a new program of record

TPOC:
(301)757-3694

Other transition opportunities:



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WHAT

Operational Need and Improvement:
There is a need for a mid-frequency sonobuoy to provide a more integrated coverage area.

Specifications Required:
A-size sonobuoy with wide bandwidth receive and transmit capability.

Technology Developed:
The key technology development is a mid-frequency wideband active/passive A-size sonobuoy. This includes subsystems of sonar amplifier, receive electronics, processing, power, RF link, cable and suspension.

Warfighter Value:
- Provides a coordinated anti-submarine warfare (ASW) system for wide area search capability
- Improved detection range, localization and track capability
- Baseline technology for future development in this field

WHEN

Contract Number: N68335-18-C-0129 **Ending on:** December 1, 2019

Milestone	Risk Level	Measure of Success	Ending TRL	Date
Acoustic Receive & Projector Array Test-Seneca Lake	Low	Prove out functionality and data such as beam patterns, frequency response	3	September 2018
Lower Unit / Projector Array Integration Test - Seneca Lake	Low	Lower unit on/off functionality, achieve required SPL	4	January 2019
Full Acoustic System Performance Validation Test	Med	Successful receive and transmit of pings	5	October 2019

HOW

Projected Business Model:
SeaLandAire has the ability to produce sonobuoys at a low rate using in-house manufacturing, however, for larger commercialization efforts we will team with a manufacturer. SeaLandAire has identified a manufacturing partner for transition of this technology to the defense sector and is in the process of further defining the partnership.

Company Objectives:
SeaLandAire's objective for presenting at the Navy Forum for SBIR/STTR Transition (FST) is to showcase our rapid response development capability. We have found the FST to be a great forum to let primes know about our capability. We have had two primes in particular that have observed our work at the FST on other programs and have come to SeaLandAire for significant development work although not directly related to the program that was being presented. Another objective SeaLandAire has for the FST is to highlight some of our other technology that is not directly related to the current project. This helps show SeaLandAire's range of experience in air and sea autonomous vehicles and sensor systems.

Potential Commercial Applications:
The SeaLandAire team anticipates transitioning the Mid Frequency Active Sonobuoy (MFAS) to a future DOD production program as well as to non-DOD opportunities. We will facilitate transition of the MFAS and all technology developed under this SBIR to the fleet for purposes of improving the US Navy's ASW capabilities.

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