## Department of the Navy SBIR/STTR Transition Program

Cover Layer

Highly Anisotropic

Microstrip Patch Antenna -

Superstrate

Statement A: Approved for Release. Distribution is unlimited. NAVSEA #

**WHO** 

TPOC:

SYSCOM: NAVSEA

**Transition Target:** 

Sponsoring Program:

Other transition opportunities:

Topic # NUWC-2 Microstrip Patch Antenna Naval Undersea Warfare Center Newport

## WHAT

## **Operational Need and Improvement:**

Specifications Required:

**Technology Developed:** Robust, fault tolerant design offers substantial potential to easily retrofit and greatly improve performance and capabilities of existing patch antennas without altering the device footprint. The bandwidth of a prototyped GPS antenna was increased from a typical 2-5% to 20-25%. A highly anisotropic superstrate layer is placed over an existing patch antenna as a retrofit or incorporated into new systems to enable broader bandwidth capabilities for a given antenna while not compromising other performance characteristics. Substantial bandwidth improvement enables diverse, multiple capabilities from a single antenna (e.g. satellite telephone and GPS) and higher data transfer rates. Protected under US Pat. No. 9,281,568.

## Warfighter Value:

WHEN	Contract Number: T2-ORTA-NUWC-2				HOW
Milestone	Risk Level	Measure of Success	Ending TRL	Date	Projected Business Model: Company Objectives: Potential Commercial Applications:
					<b>Contact:</b> Technology Partnerships Office, NUWC_NPT_TPEO@navy.mil 401-832-8728