



# Navy SBIR/STTR Success



## Compact, lightweight sensor handling system for unmanned vehicles

There is a worldwide push to make mine countermeasures more efficient and cost effective. With this goal in mind, the U.S. Navy is investing heavily in subsea robotics.

Topic Number: N06-186

SBIR Investment:  
**\$864,896**

Phase III Revenue:  
**\$9,100,000**

Douglas Humphreys  
dhumphreys@vctinc.com  
1900 Campus Commons Drive, Suite 300  
Reston, VA 20191

[www.vctinc.com](http://www.vctinc.com)

## About the Technology:

VCT's Powered Tow Body (PTB) is designed to make mine countermeasures safer, and more cost effective. Combining the best aspects of towed and autonomous vehicles, PTB is a towed platform for underwater sensors that can operate at a fixed position relative to the towing craft. It can do this because it has a propeller, active control fins, and sophisticated software that allow it to remain steady. Like an AUV, it can run SAS to image the seafloor and use forward-looking sonar to look ahead of the tow craft. Like a towed vehicle, it can run on topside power and deliver data in real-time.

## Naval Benefit

The U.S. Navy helped develop PTB to accelerate large-area mine clearance operations. In a mine clearance scenario, a PTB would be deployed onboard an Unmanned Surface Vessel (USV). The USV could speed to the minefield from a safe standoff distance and deploy and recover the PTB autonomously. On minesweeping ships, the multipurpose sonar system could travel forward of the ship's stern for forward looking sonar and also perform the side scan mission. Now, variable depth sonars towed behind the ship could be replaced with a lighter-weight towed unit that operates right below the stern of the tow ship.

## Transition

After completing a Phase I and Phase II SBIR with NAVSEA, Vehicle Control Technologies focused on the transition of its product. VCT has sold three of its Powered Tow Bodies, resulting in over \$5.6 million in commercial sales. They also received a Phase III ONR contract worth \$2.4 million to further develop the PTB concept. In addition to mine hunting, PTB's inherent steadiness, endurance, and real-time data capabilities can also be applied to ISR, ASW, and oceanographic missions. And for customers interested in both PTB and AUV capabilities, PTB can operate equally well as a tethered or autonomous platform.



# Vehicle Control Technologies, Inc.

Published 2014