

**Seacoast Science, Inc. Awarded Three-Year \$8 Million SBIR Phase III Contract by Army Research Office.**

Carlsbad, CA, June 1, 2007 – Seacoast Science, Inc. (Seacoast) announced that it has been awarded a Phase III Small Business Innovation Research (SBIR) contract by the Department of Defense's Army Research Office to develop a microelectromechanical systems (MEMS) based chemical sensor capable of detecting illicit narcotics and the chemicals used to manufacture these illicit drugs. The program is slated for three years with an estimated total value of \$8 million, with the Year 1 award being \$1.8 million.

The field deployable microsensors will be small enough to be used for clandestine operations and light enough to be carried by personnel entering suspected drug labs. This three year program will allow time for Seacoast to complete the product development and to field test the systems before final commercialization.

The Seacoast system uses a multiplexed array of microfabricated capacitors as detectors, with each detector in the array coated with a different chemically selective absorbent material. When these materials absorb a chemical from the air, the smart sensor's electronics measures the capacitances, and identifies the chemical by the collective pattern created by the array. The 0.75-micrometer by 300-micrometer capacitors are micromachined on the surface of a single chip 10 mm<sup>2</sup>. During the program Seacoast will integrate this device with sample collection and amplification technologies that will aid in the detection and quantification of drugs and their precursor materials. The final product will aid and protect law enforcers in their fight against illicit drug manufacturers, traffickers, and the growing "Meth epidemic".

In Year 1, Seacoast will demonstrate the detection of methamphetamine precursor chemicals, and begin development of a sampling system for drug particles. Future work will involve testing with law enforcement personnel and field tests to improve system robustness, and usability.

This systems development program will complement Seacoast's continuing work on chemical sensors for chemical warfare agents and explosives. Seacoast's goal is to develop the microcapacitor array for a wide range of applications, such as homeland security, law enforcement, and public safety. Because of their small-size, low-power requirements and low-cost these sensors can be deployed to detect harmful chemicals anywhere including in government facilities, industrial complexes, commercial buildings, and even unmanned air vehicles.

**About Seacoast Science, Inc.**

Seacoast Science, Inc. ([www.seacoastscience.com](http://www.seacoastscience.com)) is a privately held R&D company located in Carlsbad, California. Seacoast develops chemical microsensors, and fabrication and testing systems for chemical sensors. Seacoast's technologies focus on chemical and biological sensing systems homeland security, military and civilian first responders, environmental compliance, and many other markets.

**For additional information, please contact:**

Todd Mlsna  
President & CTO  
Seacoast Science, Inc.  
P.O. Box 130485  
Carlsbad, CA 92013-0485  
Tel: (760) 268-0083  
Fax: (760) 268-0662  
E-mail: [tmlsna@seacoastscience.com](mailto:tmlsna@seacoastscience.com)  
Web: [www.seacoastscience.com](http://www.seacoastscience.com)

**Disclaimer**

This project is sponsored by the U.S. Army Research Office. The content of this news release does not necessarily reflect the position or the policy of the Government, and no official endorsement should be inferred.

###