



USSOCOM SBIR Successful Technology Pursuit



Innovative Technology

Topic Number | SOCOM05-010

Topic Title | Disposable Remote Chemical Sensor

Warfighters require robust, inexpensive, and disposable chemical sensors that have the capability to broadcast and to provide sensor site weather conditions. These sensors could provide a monitoring capability for chemical event detection and identification, as well as the location and direction of chemical agent movement, which would enable predictive effects analysis and management in support of civil and military force protection. To meet this need, ADA Technologies developed a system that consists of a suite of covert, modular, lightweight, rugged and easily deployed sensor pods for weather and Chemical Warfare Agent (CWA) measurement. These sensor pods auto-network to relay spatially and temporally stamped data to a central command and control center. The company's sensors are able to operate autonomously, and are capable of collecting and transmitting data (via satellite or radio) such as the sensor's Global Positioning System (GPS) location, chemical identification, chemical concentration. Other SensorPods provide measurements including: temperature; humidity; high resolution barometric pressure; solar radiation; rainfall; wind speed/direction/gust; present weather conditions; and cloud height. The sensors are deployed in a network configuration allowing for a variety of sensor modules and collection points which can be configured for specific applications and missions.

Company and Contact Information

Company Name | ADA Technologies (This technology was spun off into ADSS, which was acquired by Design Net Engineering)
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Military and Commercial Significance

ADA Technologies was awarded a Phase II Small Business Innovation Research (SBIR) contract from the Department of Defense (DoD) of over \$1.2 million for the development of its sensor system. The sensor system has been used since 2007 and over a 1,000 SensorPods have been shipped for deployment.

Although the company's ChemPod has not yet transitioned, its related SensorPods have been used by several DoD agencies, the National Oceanographic and Atmospheric Administration (NOAA), and Northrop Grumman.

The technology developed under this effort was spun-off to become Advanced Distributed Sensor Systems (ADSS), which was acquired by Design Net Engineering in 2012 and currently operates as Design Net Sensor Systems.

The system could be used in applications where automatic remote surveillance, tracking and predictive contamination modeling are necessary, such as overseas peacekeeping or U.S. civil protection operations.

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