



Navy SBIR/STTR Success



Integrated Maritime Surveillance System

The Integrated Maritime Surveillance System provides accurate, timely, and meaningful information through a powerful 3-D geospatial display of the maritime environment.

Topic Number:
SOCOM02-006

SBIR Investment
\$1,349,658

Phase III Revenue:
\$71,045,656

About the Technology:

Coastal environments present a unique challenge to security officials charged with policing and protecting critical infrastructure, fisheries, and commerce. Techno-Sciences' Integrated Maritime Surveillance System (IMSS) provides an integrated Maritime Domain Awareness capability to address all threats to coastal resources, infrastructure, and critical waterways. The IMSS is a tightly integrated network of ship and shore based sensors, communications devices, and computing resources that collect, transmit, analyze and display a broad array of maritime data including automatic identification system (AIS), surface radar, surveillance cameras, global positioning system (GPS), equipment health monitors and radio transmissions of maritime traffic in wide operating areas. The Coastal Surveillance Station is a critical element of an integrated maritime domain awareness system that displays, on a single screen, all information as a common operational picture for key decision makers. Additionally, the IMSS can be installed as a full Global Maritime Distress and Safety System compliant solution.

Naval Benefit

Techno-Sciences' Coastal Surveillance Stations utilize customer-driven specifications to install equipment that is integrated in an open architecture framework for easy integration with existing legacy systems. The technology provides Port Officials and Maritime Authorities the Command, Control, and Communication Centers needed to coordinate a host of response activities, providing unprecedented maritime domain awareness of important and strategic waterways to allies in the Asia-Pacific region. Data from various nodes is fused and integrated via Techno-Sciences' Maritime Awareness Center (TMAC) Software. The IMSS is now used by the Indonesian Navy after the U.S. Government provided approximately \$57 million via the National Defense Authorization Act to support Indonesia's establishment of an IMSS, which enhances Indonesia's ability to detect, track, and monitor vessels passing through territorial and international waters. This capability is crucial to combating piracy, illegal fishing, smuggling, and terrorism within and around Indonesia's maritime borders. The IMSS helps achieve Indonesian and U.S. maritime security goals while exemplifying bilateral cooperation under the Comprehensive Partnership.

Transition

Techno-Sciences successfully matured and transferred the core communications management technology from its original SBIR with USSOCOM to develop the IMSS. TSI subsequently secured Phase III funding from SPAWAR in excess of \$70 Million to provide, install, train and support an IMSS for Indonesia and Malaysia to combat piracy and terrorism. The IMSS was officially handed over to the Government of Indonesia following an Operational Demonstration conducted in Surabaya in 2011. The IMSS is manned and operated by the Indonesian Navy, and consists of 18 Coastal Surveillance Stations, 11 Shipboard surveillance nodes, two Regional Command Centers, and two Fleet Command Centers, spanning the Indonesian coast along the Strait of Malacca and the Sulawesi Sea. In Malaysia it provided eight Coastal Surveillance Stations and a Regional Command Center to monitor the eastern coast of Sabah on the Sulu and Sulawesi Seas.

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