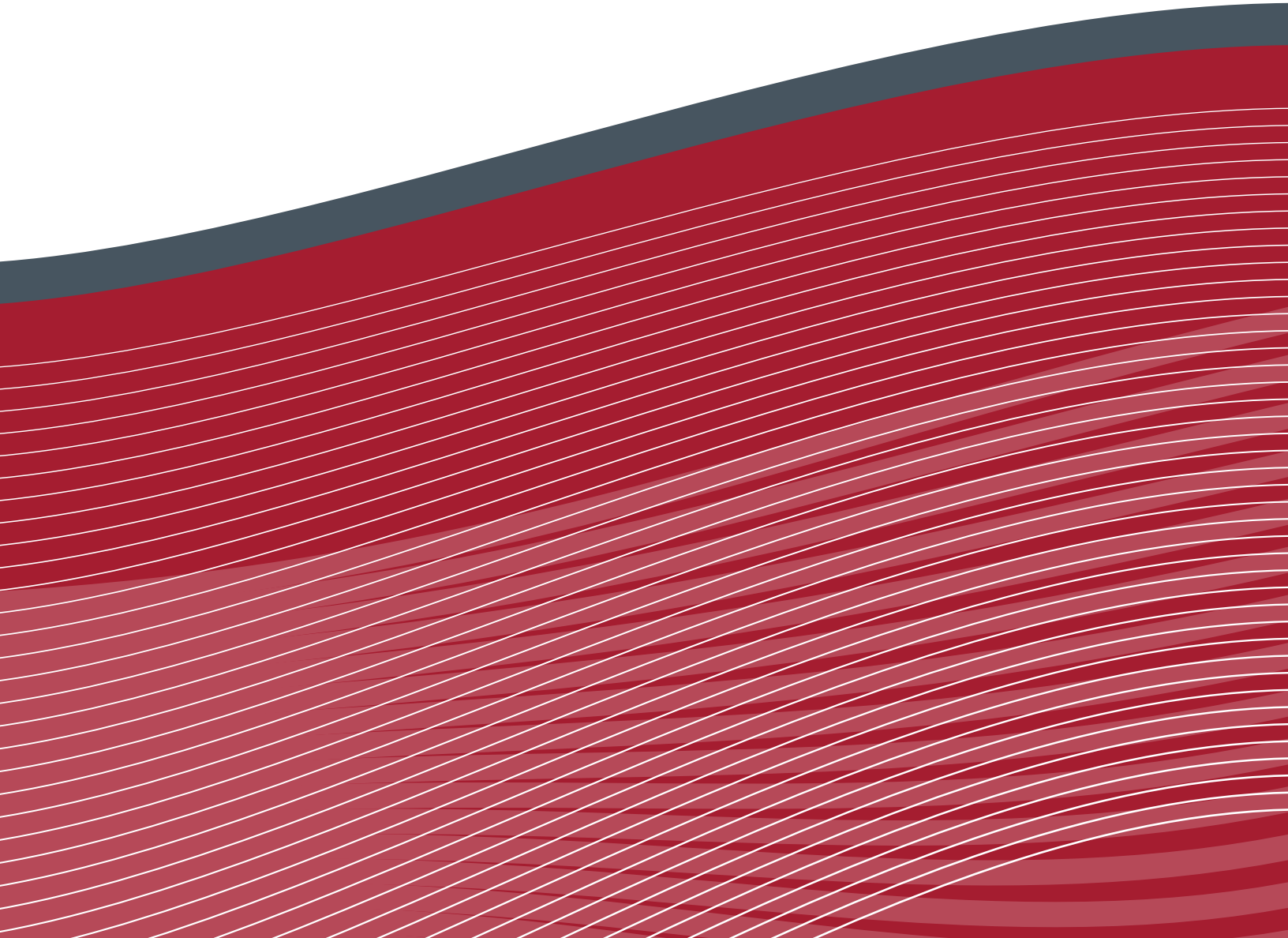


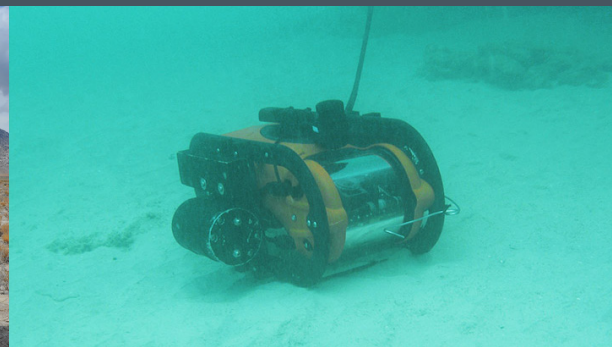
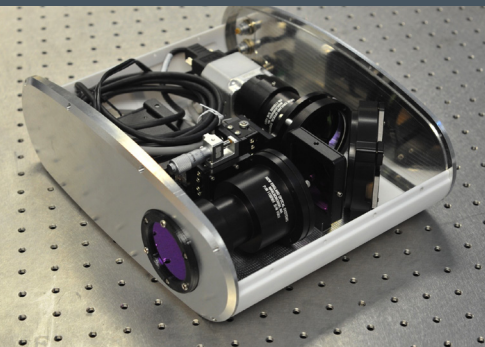
**SPECTRUM PHOTONICS, INC. HONOLULU, HAWAII**





## CORE COMPETENCIES

- » Development of trace-level chemical sensor systems for underwater explosive compound detection.
- » Development of cutting edge, compact, low-cost, hyperspectral imaging systems.





# PRODUCTS AND SERVICES

## Customized Solutions

Spectrum Photonics, Inc. develops custom systems to meet customer needs and has the capability to test/demonstrate/validate in realistic test scenarios. Custom systems generally include two core technologies, underwater trace-level sensor and hyperspectral imaging (HSI). Each system's Size, Weight and Power (SWaP) trade-offs are optimized for the specific application. Spectrum Photonics, Inc. has developed custom hyperspectral imaging (HSI) systems, hand-held units, unmanned aerial vehicle (UAV) units, tower sized units and others.

## Application Areas

Underwater explosive detection systems for port/harbor/ship security, EOD, and UUXO. Stand-off imaging systems for improved explosive device detection, disturbed earth and persistent surveillance/reconnaissance, narcotics manufacturing detection.

### **Underwater Explosive Detection System Deployment Methods**

Diver-held, REMUS, HULS/DHINS, and other similar class UUVs.

### **Hyperspectral Imaging (HSI) System Deployment Methods**

Aerial reconnaissance and surveillance aboard Raven-class UAVs, hand-held units, tower-mounted / check-point station systems, vehicles on-the-move.

# MARKETS

- » Trace-level chemical sensor systems for underwater explosive compound detection.
- » HSI systems for broad application in the chemical, biological, explosive, and narcotic detection communities.

# CUSTOMERS

- » Navy: Naval Sea Systems Command, Pacific International Center for High Technology Research (through the Office of Naval Research).
- » Army: Night Vision and Electronic Sensors Directorate, Edgewood Chemical Biological Center.
- » Defense Advanced Research Projects Agency, Joint Interagency Task Force, National Science Foundation, National Defense Center of Excellence for Research in Ocean Sciences, and others.

# PARTNERS

- » FLIR Systems: partner in technology IP, manufacturing, and marketing capabilities.
- » University of Hawaii: partner in technology IP.

# PROFILE

Founded in 2008, Spectrum Photonics Inc. (SPI) develops threat detection sensor systems for the homeland security protection and defense sectors. SPI's primary technology focus areas are on compact, lightweight, hyperspectral imaging (HSI) systems and trace-level chemical detection systems. Since its founding in 2008, SPI has been awarded nearly a dozen SBIR Phase I, II, III and other DoD sponsored contracts in these areas.

Spectrum Photonics is led by CEO & President Dr. Edward Knobbe. Dr. Knobbe was formerly the Vice President for Research at ICx Technologies / Nomadics (currently a division of FLIR Systems) and was able to participate in the evolution of a small business to part of a large, publicly-traded company.

SPI's Chief Scientist, Dr. Paul Lucey from the University of Hawaii, brings a long and broad history in HSI technologies. SPI owns the exclusive rights to the Sagnac-based HSI technology and ancillary detection algorithms invented and patented at the University of Hawaii.

## CONTRACTS

Since 2009, Spectrum Photonics has received over 20 contracts, including:

- » Six federally-funded R&D contracts (two DARPA seedlings)
- » Four Phase I SBIRs (Army, CBD, NSF, and Navy)
- » Four Phase II SBIRs
- » One Phase III SBIR
- » One DTRA RIF program

## SPONSORS

- » NAVY PMS-408/EOD
- » US Army NVESD
- » US Army ECBC
- » Defense Threat Reduction Agency (DTRA)
- » DARPA
- » HTDV/ONR



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