



ADVANCED SENSORS FOR MOBILE MARINE PLATFORMS

Apeiron Lab's Tensor with NBOSI sensor

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NBOSI Secures Contracts for Innovative Applications of New CTD Sensors

East Falmouth, Massachusetts, 30 April 2024, Neil Brown Ocean Sensors (NBOSI), a leading provider of cutting-edge sensor technologies, is thrilled to announce groundbreaking contracts with two pioneering companies. These engagements mark exciting milestones for both NBOSI and the industry as they demonstrate novel applications of NBOSI's new 500 Series Conductivity-Temperature-Depth (CTD) sensors and highlight the utility of these sensors to ocean technology partners across multiple sectors.

The two companies, [Apeiron Labs](#) (Cambridge, MA) and [Acbotics Research](#) (Falmouth, MA), have emerged as early adopters of NBOSI's innovative new CTD family, recognizing the potential of these small, accurate, rugged and reliable sensors to support ocean technology and research programs.

These contracts represent not only new business for NBOSI but also underscore the growing demand for advanced sensor solutions across diverse applications including commercial monitoring and survey, underwater acoustics, oceanographic research, and defense.

Acbotics Research is a pioneering ocean technology start-up, building semi-Lagrangian autonomous floats for a collaborative NSF-funded effort titled, "Passive Localized Underwater Transiting Observing Systems (PLUTOS)", with partners at: Portland State; Georgia Tech; University of Delaware; and University of Georgia. The PLUTOS project seeks to develop and demonstrate a system of low-cost, modular, open-source logging drifters with acoustic and eDNA sensing/sampling capabilities to capture multi-modal data, with initial pilot studies for seal food web ecology in Massachusetts and California.

Acbotics will utilize NBOSI's Model 501 CTD to collect temperature and salinity data for acoustic modelling, for density calculations used in real-time buoyancy control, and to provide water column temperature and salinity as a part of the science dataset. The Model 501 offers precision electronics combined with a compact and rugged sensor body to deliver real-time, research-quality ocean data in an affordable, easy-to-integrate package.

Venture-backed Apeiron Labs' mission is to lower the cost of acquiring data from the upper ocean by orders of magnitude. Requiring accuracy, reliability, and a compact size, they selected the versatile NBOSI Model 503 CTD for their new Tensor 1 platform. The Model 503 is geometrically and hydrodynamically optimized for smaller platforms while maintaining all the performance benefits of the Model 501.

"We are thrilled to partner with both Apeiron Labs and Acbotics Research on these exciting projects." said Dave Fratantoni, CEO at NBOSI.

"We offer a uniquely personal approach to CTD sensor technology based on our years of experience both building and using our products in challenging ocean environments. We look forward to collaborating closely with both partners to ensure our sensors deliver accurate and reliable ocean

measurements in support of their program goals."

To date, NBOSI has primarily operated within the defense sector, so these novel commercial and oceanographic research applications represent new directions made possible by the innovative design and competitive pricing of NBOSI sensors. These new partnerships also reflect NBOSI's long-standing commitment to building sensors tailored to the specific needs of each customer including everything from unique sensor geometries to custom connectivity solutions.

Will O'Halloran, Vice President of Engineering at Apeiron Labs said; "Measuring subsurface ocean temperature and salinity is foundational to several of our target markets. NBOSI's 503 gives us the sensor quality we need in a package that fits neatly in our Tensor 1 autonomous underwater vehicle. We are eager to take the sensor through its paces in our upcoming trials."

Dr. Erin Fischell at Acbotics Research also recognised the advantages of the NBOSI sensor, stating; "NBOSI's sensor integrated seamlessly with our solutions to deliver our exacting requirements for small form factor, low-cost underwater sensing systems to the scientific community."

By pushing the boundaries of sensor technology and expanding into new sectors, NBOSI aims to empower industries with reliable and actionable insights giving customers data-driven decision-making tools.

Founded in 2004, NBOSI has been at the forefront of designing and supplying CTD sensors to the global subsea market. These sensors cater to the specific needs of autonomous vehicles and are applicable across a wide range of sectors including ocean research, industry and defense.

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For more information about NBOSI, please visit <https://www.nbosi.com/> or contact:

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About NBOSI:

NBOSI is a leading provider of cutting-edge marine technology solutions, specializing in the design and manufacture of advanced sensors supporting ocean research, industry and defense. With a commitment to excellence and customer satisfaction, NBOSI empowers scientists and engineers with reliable, high-performance tools designed to meet the unique requirements of the growing fleet of unmanned underwater and surface vehicles.

NBOSI, Neil Brown Ocean Sensors, Inc. was founded in 2004 by Woods Hole Oceanographic Institution (WHOI) scientist Ray Schmitt, and WHOI engineers Bob Petitt and Neil Brown. Their goal was to develop a new generation of Conductivity-Temperature-Depth (CTD) sensor technology specifically tailored to the unique requirements of mobile ocean platforms. Since its inception, NBOSI has successfully delivered hundreds of sensors to researchers and vehicle manufacturers worldwide, establishing a strong presence in the industry. The company's sensors are widely recognized and trusted, and are offered as standard equipment by market-leading vehicle manufacturers.

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