

### Monterey's Breakwater Cove

(Photo: City of Monterey)

What: Oceans 2016  
When: Sept. 19-23, 2016  
Where: Monterey, Calif.  
[www.oceans16mmtsieeemonterey.org](http://www.oceans16mmtsieeemonterey.org)

# Oceans 2016

Click or Drag to Zoom

Each year the Marine Technology Society and the IEEE Oceanic Engineering Society cosponsor a joint annual conference and exhibition that focuses on advances in marine science, engineering, technology and policy. This year's running, Oceans 2016, is set to take place September 19-23, 2016 in Monterey, Calif. at the Portola Plaza Hotel and the Monterey Marriott, with plenary sessions at the Golden State Theatre.

According to its organizers, the annual event typically draws some 2,000 attendees from industry, academia and government; more than 500 professionally reviewed technical papers and 130-plus exhibitors showcasing some of the latest products, services and technological advancements; as well as a wide spectrum of plenary sessions, tutorials, workshops, demonstrations, professional field trips, networking opportunities and more.

#### Soundnine

Soundnine Inc. (S9), manufacturer of inductive modems, sensors with inductive telemetry and real-time data buoys will display its new Ulti-Buoy turnkey real-time T-chain buoy system at Oceans 2016 in Monterey.

Ulti-Buoy delivers high accuracy temperature profiles in real time for long maintenance-free deployments. Economical and easy to use, Ulti-Buoys transmit data via cellular or Iridium telemetry. S9's cloud-based data server delivers data directly to the users' desktop or smart phone.

Ulti-Buoy consists of a small robust spar buoy with solar powered buoy controller, cellular or Iridium modem, GPS, mooring wire and XTP Temperature, Pressure (optional) and tilt sensors. The XTP sensors sample simultaneously at programmed intervals and transmit their

Ulti-Buoy controller via inductive telemetry.

Just deploy the buoy and view data within minutes. It's that easy.

Ulti-Buoy is typically delivered pre-programmed with telemetry and data service activated. Free software provides access to your raw data, data parsing control, automatic customized report creation and forwarding, and a communication link with cellular connected buoys. The cloud data service is included free for three years. Cellular or Iridium telemetry service can also be provided by Soundnine, creating a total single-source solution.

**Booth: 603 (Monterey Marriott)**  
[www.soundnine.com](http://www.soundnine.com)

#### Blue Robotics

Blue Robotics Inc. in Torrance, Calif. has developed a line of marine robotics products including thrusters, sensors,

#### Soundnine



#### Blue Robotics



#### EdgeTech



lights and enclosures targeted towards commercial, research and hobbyist applications. Its recently released BlueROV2 brings these products together into one of the most affordable and capable subsea vehicles on the market. Featuring six thrusters in a vectored configuration, HD video streaming, a 100m depth rating, and open-source software and hardware, the BlueROV2 is suited for inspection, research, aquaculture and many more applications. More than 100 units have been sold in the first two months since release. In the coming months, Blue Robotics will release a number of accessories, sensors and features for the BlueROV2 in a continued effort to make it the most capable vehicle on the market.

**Booth: 604 (Monterey Marriott)**  
[www.bluerobotics.com](http://www.bluerobotics.com)

#### EdgeTech

EdgeTech is celebrating "50 Years in Underwater Technology" this year, and the company will be exhibiting many of its well-known products and solutions at Oceans 2016. The company is known worldwide for its high quality products which include side scan sonars, sub-bottom profilers, bathymetry systems, AUV, USV and ROV-based sonar systems, combined and customized solutions. In addition to the full line of underwater survey products, EdgeTech provides reliable USBL systems, transponder beacons, deep sea acoustic

[www.marinetechologynews.com](http://www.marinetechologynews.com)

releases, shallow water and long life acoustic releases and customized underwater acoustic command and control systems.

**Booth: 41 (Portola Plaza)**  
[www.edgetech.com](http://www.edgetech.com)

#### Schmidt Ocean Institute

On August 15, 2016 Schmidt Ocean Institute completed its sea trials in Guam, testing its new ROV SuBastian, which is designed to go to depths of 4,500m and will be used by scientists to investigate the ocean, deploying and recovering equipment as well as conducting photo-mosaicing, sample collection, seafloor mapping and seawater characterization. The ROV weighs 6,500 lbs. and has two 4K ultra-high definition pan-zoom-tilt cameras designed for performing scientific video acquisition, which will get live-streamed via YouTube. The ultimate goal is to provide critical data that is open-sourced and free to the public. Schmidt Ocean Institute plans to return to Guam in November with research vessel Falkor and ROV SuBastian for a one week science verification cruise led by a team of expert biologists and geologists. The verification cruise will be followed by the first research cruise with the ROV. This expedition will return to the Mariana Back-Arc with SuBastian to collect samples and investigate geologic activity on hydrothermal vents that the institute discovered last year.

**Booth: 605 (Monterey Marriott)**  
[www.schmidtcocean.org](http://www.schmidtcocean.org)

#### Seafloor Systems

Seafloor Systems, Incorporated, a provider of specialized survey equipment to the Hydrographic and Geophysical Survey community, will conduct live demonstrations of its EchoBoat-ASV with integrated multibeam echosounder during the Oceans '16 Exhibition.

The customizable, portable, autonomous and remotely controlled EchoBoat-ASV survey vehicle will be integrated with a NORBIT iWBMBc—Compact Widebeam Multibeam Sonar, with integrated INS/GNSS and real-time sound velocity probe.

Seafloor's EchoBoat-ASV includes the proprietary AutoNav, an auto pilot module which allows the user to preplan survey waypoints, upload via RF to the vehicle and have it automatically carry out the mission without user input. The system also provides the ability to manually override auto pilot mode as well as a return to base function.

The boat features dual-DC motors for ease of control and redundancy, noncorrosive materials, an integral transducer well and multi-sensor payload capability. It allows the hydrographic surveyor to reliably and effectively tackle multibeam surveys in shallow waters or difficult to reach areas when conventional survey boats are not an option.

**Booth: 404 (Monterey Marriott)**  
[www.seaflorsystems.com](http://www.seaflorsystems.com)

#### Polymer Corporation

Polymer Corporation, based in Rock-



## Show Preview

### Schmidt Ocean Institute



land, Mass., is a manufacturer of high-performance, difficult-to-produce plastic parts and assemblies for surface, underwater and deep sea use. Its parts are tough, lightweight, don't corrode or rust, and meet a wide variety of mission-specific performance requirements.

Polymer has extensive knowledge of materials for marine use and continues to extend its repertoire of custom-formulated, application-tailored materials. It can machine precision parts quickly in any of these materials. Furthermore, its liquid resin casting process is ideal for many marine applications—thick walls for extreme depth pressures, no-leak windows and sensor zones, design freedom to reduce potential leak paths, low-cost tooling and fast time to first article. Polymer often encapsulates delicate electronics, GPS modules, antennae and other critical components.

Polymer now is leading the way in the use of additive manufacturing, or 3D printing, to advance production possibilities for fully functional plastic parts. No tooling, no long wait, tough parts that perform. It recently produced the propeller shown for an underwater defense propulsion application, going from an engineering part design file to a finished, vehicle-ready part in an hour. The future imagined and delivered.

**Booth: 73 (Portola Plaza)**  
[www.polymercorporation.com](http://www.polymercorporation.com)

### TE Connectivity

Exhibiting at SEACON booth, TE Connectivity will showcase many products, including its SEACON 55 dry-

### Seafloor Systems



mate connector series. These connectors have been developed for a variety of applications, including remotely operated vehicles, umbilicals, underwater cameras and diver communications. The SEACON 55 series benefits from a design incorporating features, such as gold plated contacts with contact band interface technology. The product line also boasts industry standard compatibility and reliable sealing technology.

**Booth: 504 (Monterey Marriott)**  
[www.te.com](http://www.te.com)

### HYDROSPACE Group

Hydrospace Group specializes in the design and manufacture of engineering systems developed for the harsh environment of subsea, space and terrestrial applications. Hydrospace pressure vessels, windows and lenses for manned and unmanned systems are certified in accordance with ASME Pressure Vessels for Human Occupancy (PVHO) for hyperbaric, subsea and space applications (including subsea instrumentation). Hydrospace electric motor systems increase performance capabilities through our custom designed and manufactured propulsion systems (innerspace thrusters), hydraulic power units (HPU), pump drives, wheel drives and battery systems for underwater vehicles. This includes brushless DC servo motors ranging from 1 to 50 HP with custom control software for analog or networked system instrumentation. In addition, Hydrospace has a wider range of pressure tolerant ICTINEU Li-Po batteries rated to 3,000-6,000m. The Hydro-

### TE



space line of precision rotary actuators offers electric drive pointing systems for cameras, sonars and instruments.

**Booth: 107 (Monterey Marriott)**  
[www.hydrospacegroup.com](http://www.hydrospacegroup.com)

### Rockland Scientific

Rockland Scientific will introduce the new MicroPod-EM flow sensor, designed for integration on gliders and other autonomous underwater vehicles. The MicroPod-EM works on the principle of electromagnetic induction and measures directly the axial speed of the vehicle, U, through the water.

The axial speed of a glider is an important quantity affecting the flight dynamics of the glider, as well as the accuracy of certain oceanographic observations. For example, accurate knowledge of U is required when converting measurement points from time-domain spacing to spatial-domain spacing. Some sensors, e.g., turbulence shear probes, require U for proper scaling or measured signal. While U can be estimated from hydrodynamic models, a direct measurement of the axial speed is useful and preferred in many applications.

The MicroPod-EM can also be used in laboratory flume settings to measure flow speed independently of the presence of acoustic scatterers, eliminating the need for seeding of the flume installation. The MicroPod-EM is also available as a modular unit integrated in Rockland's MicroRider turbulence payload system.

**Booth: 45 (Portola Plaza)**  
[www.rocklandscientific.com](http://www.rocklandscientific.com)