RESEARCH LABORATORIES, INC.

September 2014 The New WTS-LVDF, Conferences, Profilers in Lakes, Instrument Housings

2014 Events

OCEANS '14 MTS/IEEE

Oceans '14 MTS/IEE St. John's Newfoundland September 14-18, 2014 Booth 39

代表 The Oceanographic Society of Japan

Oceanographic Society Japan Nagasaki University September 14-16, 2014



Sea Tech Week Brest, France October 13-17, 2014

Ocean Optics XXII

Ocean Optics XXII October 27-31 2014 Portland, Maine Contact us for a meeting

New! The WTS-LVDF Sampler

The <u>WTS-LV</u> Dual Filter Sampler (WTS-LVDF) is now available for purchase. Features include:

• Modular vertical intake filter holders.

• Separately metered 142mm filter holders for parallel filtration.

· High capacity 36V battery.

The New WTS-LVDF Samplers in Vent Studies

In 2015, a hydrothermal vent sampling cruise will deploy the first McLane-manufactured WTS-LV dual filter samplers (WTSLV-DF, see side bar). Following a technology transfer from Woods Hole Oceanographic Institution (WHOI), McLane will deliver <u>WTS-LVDF</u> samplers with newly designed dual vertical intake filter holders to Commonwealth Scientific and Industrial Research Organisation, Australia (CSIRO) for a 2015 cruise in the Southern Ocean.



WTS-LV Recovery During a LADDER Cruise at the Pacific Rise Shown: C. Strasser, Deck crewman, P. Hennessy (Photo: S. Mills)

Previously, the <u>WTS-LV</u> has delivered strong sampling results for Hydrothermal vent studies, including WHOI's interdisciplinary LADDER (LArval Dispersal on the Deep East pacific Rise) project which deployed several WTS-LV samplers over several years at 9N on the East Pacific Rise. LADDER data helped scientists rethink theories about deep-sea larvae dispersal.

CSIRO plans to deploy the WTS-LVDF samplers at the Kerguelen

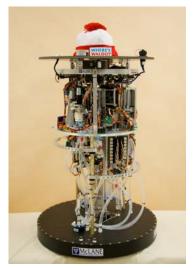


New WTS-LVDF

Visit Booth 39 at Oceans '14 Canada or <u>contact</u> us for more details.

Where's Waldo?

McLane has delivered an Environmental Sample Processor (**ESP**) to the Monterey Bay Aquarium Research Institute (MBARI). MBARI staff have nick-named the ESP "Waldo" after the epon-ymous children's book series.



ESP 'Waldo'

Training Classes at McLane

<u>Training</u> classes on McLane <u>profilers</u> and <u>samplers</u> help ensure a smooth field season. Below, Hannah Preischel of Texas A & M University at <u>IFCB</u> training. Plateau off the Heard and McDonald Islands in the Southern Ocean. Researchers hope to test a hypothesis that surface waters are fertilized with iron when active submarine Magmatism is driven by hydrothermal activity. Results can also finger-print plumes at the study site and produce three-dimensional, high resolution maps of trace element distribution in suspended marine particles.

The WTSLV-DF uses a new <u>WTS-LV</u> frame design, upright WTS-LV controller housing, and other deployment-proven WTS-LV features. Two newly designed vertical intake 142 mm filter holders are installed to allow simultaneous filtering using two different porosities. The Vertical Intake filter holders can also be used as a single filter holder option on the standard and upright WTS-LV.

The WTSLV-DF is now available for purchase. <u>Contact</u> us or stop by **Booth 39** at Oceans '14 for more details.

Upcoming Conferences

Learn what's new in the US and around the World for McLane **profilers**, samplers and **flotation** at these events:

- 14-18 September, McLane General Manager Jon Mogul is at Oceans '14 MTS/IEE, St. John's, Canada. Come to Booth 39 and learn about our new <u>WTS-LV</u> Dual Filter system (WTSLV-DF). Jon will also have a <u>G6600</u> flotation hardhat sample on-hand.
- 14-16 September, McLane Representative 3S Ocean Network Ltd. is at the Oceanographic Society of Japan conference at Nagasaki University.
- 13-17 October, see McLane Representative Anhydre at SeaTech Week Brest, France.
- 27-31 October, McLane Director of Special Projects Ivory Engstrom attends the Ocean Optics XXII conference in Portland, Maine. Ivory can answer your questions about IFCB technology, ESP deployments and other McLane products.

Profilers in Lake Studies

<u>Ice Tethered Profilers</u> (ITPs) have been used in separate lake studies in Montana and Oregon.

In Montanta's Flathead Lake, the University of Montana recently recovered profilers after a two year deployment. Researchers investigated lake conditions such as climate warming, the presence of an invasive mysid and a substantial disruption of the food web in all of the Lake's trophic levels. Researcher Bonnie Ellis presented study findings at JASM 2014 this May.

> An <u>ITP</u> also monitors the aquatic environment in Oregon's Crater Lake. For that study, the profiler is deployed at around 580m and records top to bottom water column measurements for

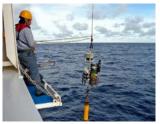


H. Preischel, Texas A & M University

Instrument training at McLane is included with new <u>samplers</u> & <u>profilers</u>

Photos from the Deck

McLane is looking for your instrument and flotation deployment <u>photos</u> which will be traded for McLane t-shirts.



WTS-LV Recovery, 9N, East Pacific Rise (Photo: S. Mills)

Quick Links

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Profiler Deployment Crater Lake, Oregon Shown: S. Metzger

conductivity, temperature, depth and dissolved oxygen. The ITP vertically profiles the water column and collects *in situ* measurements of data. Data can be transmitted near real-time via inductive modem.

Custom Instrument Housings Tailored to your Project

McLane Glass Instrument Housings are an efficient housing option for electronics, batteries, or navigation devices. Housings are based on the 12" glass sphere. McLane glass instrument housings have interior



space that holds complex wiring schemes. Instrument housings can be deployed as part of a custom instrument or in-line from a mooring in high visibility polyethylene hardhats.

Our engineers work closely with customers to manufacture the housings to specific electrical penetrator needs or pressure feedthroughs. Vacuum release ports are installed for opening and re-sealing housings. Each housing is individually tested and depth rated up to 6,000 meters. <u>Contact</u> us for details.

Instrument Housings