RBR

Measure the blue planet.

About RBR

Since 1976, RBR has been designing and manufacturing rugged, high precision sensing data loggers suitable for environmental, geophysical and oceanographic monitoring and survey work. Committed to providing the right tool for the job, we listen to our partners making instrument application and project budget our top two priorities, while providing exceptional support throughout the entire process, and after purchase.

Our Instruments

All RBR instruments have been designed for easy use and require minimal service intervention. With minimal power use, they are optimal for long deployments ultimately minimizing operational costs.

Our Software

All RBR instruments use a single piece of software: Ruskin. Compatible with PCs, Macs, Android, and iOS devices, Ruskin is the one application that does it all. Deploy, download, and display the data from your logger with ease. Free to download, you can even run Ruskin without an RBR instrument to simulate deployments and estimate battery autonomy and memory usage for different scenarios.

Our Partners

RBR has a network of knowledgeable representatives around the world who are passionate about oceanography and water quality. Handling all North American sales directly, we work closely with our resellers to ensure that our customers have exceptional service, sales and support within your country.

Working with RBR

RBR is proud to partner with leading researchers and operational surveyors around the globe from pole to pole. With a wide variety of instruments and configuration options, exploration options are almost endless. Our compact loggers are small, lightweight packages that are suitable for carrying to high mountain lakes or sending to deep ocean depths. Our larger instruments are used to measure up to thirteen parameters, come equipped with fast USB download speed, and a variety of other features such as optional Wi-Fi and twist activation, depending on your instrument of choice.

Opportunities with RBR

At RBR, we not only create instruments to measure the blue planet but are also always looking for ways to make it a better place. Join our efforts, and become a part of the RBR team as a visiting researcher. These openings are offered to experienced scientists, engineers, and technicians as a four, eight or twelve-month position based in Ottawa, Canada.

Working with us, you have the opportunity to take on a wide range of projects including sensor physics, EM modelling, overall instrument design, CTD and other water quality data analysis, and much more!

If this opportunity peaks your interest, we encourage you to visit our careers page for further details and apply!

User Story

Go Big or Go Home: instrumenting the nearshore

284 RBRsolo Ts in two days: oceanographer measures temperature variability in California's nearshore.

Last summer, offshore of California's Point Sal State Park, Oceanographer Jamie MacMahan and his team successfully deployed 284 RBRsolo Ts in a new and versatile lightweight system to study ocean dynamics in a complex and energetic region of the nearshore. The deployment was part of a pilot project designed to inform a much larger study – involving over 30 principle investigators – on how masses of water are transported on and off shore.

MacMahan, an associate professor of oceanography at the Naval Postgraduate School in Monterey, California, uses temperature to identify and then track masses of water. By looking at temperature signals, MacMahan can identify ocean dynamics such as upwelling, rip currents, and internal waves.

In just two days, the team deployed 35 moorings in multiple arrays to examine the dynamics around Point Sal's eponymous rocky headland, sandy and rocky beaches and submerged rocky outcroppings. Each mooring had between six and twelve RBRsolo Ts attached by key ring and electrical tape to the line. The instruments were set to log temperature at 1Hz and left for 45 days.

"The RBRsolo Ts are my favourite instrument," MacMahan says, "They're easy to use. The battery life is amazing. It's six months and you can sample continuously at one hertz. That's amazing, all in a little, easy package."

Typically, oceanographers use pre-designed temperature strings for such a deployment, but MacMahan wanted to be able to change his lines at any moment, and to use his instruments in new configurations in the future: "As scientists doing fieldwork, you're always re-evaluating your design, even to the last minute. You want to optimize it. So I wanted to go with independent temperature sensors."

MacMahan is interested in the region from 20m depth to about 4m, where waves begin to break. By using 35-lb barbell weights as anchors and crab buoys for buoyancy, his team had a lightweight system they were able to deploy and recover by hand. And after pulling up their lines, they found their data recovery rate was over 99%.

Using a new and lightweight system was risky – they could have lost all their instruments and the season's data, but of his system, MacMahan says, "I've learned that it's so easy, it's so simple, but it's very robust."

The full-scale experiment at Point Sal will take place in fall of 2017. MacMahan says he sees no need to repeat any measurements because of the quality of his results from last summer. Instead, he will create new mooring lines with the RBRsolo Ts to get at larger spatial scales, covering 30 miles along the beach instead of just three.

Read his full user story here.

Dr. MacMahan's work is funded by the Office of Naval Research.

Points of Interest

Getting in touch with RBR – Contact us
Sensors, compact loggers, standard loggers & more! – All products
Sales inquiries – Find a representative