



# Open Ocean Robotics Launches First USV for Marine CO<sub>2</sub> Removal Monitoring with Sales to Leading Research Institutions

*With initial sales to Dalhousie University and Iceland's Röst Centre, Open Ocean Robotics introduces first USV built for marine carbon removal monitoring.*

VICTORIA, BRITISH COLUMBIA, CANADA, May 9, 2025 /EINPresswire.com/ -- Open Ocean Robotics (OOR) is proud to announce the launch of the first uncrewed surface vehicle (USV) specifically engineered for the measurement, reporting, and verification (MRV) of marine carbon dioxide removal (mCDR). The first two OOR MRV vehicles will be delivered to research institutions leading the way in mCDR: Dalhousie University's Ocean Frontier Institute in Halifax, Canada, and the Röst Marine Research Centre in Iceland.

As the world looks to ocean-based solutions for net-zero carbon emission goals, mCDR has emerged as a promising pathway for removing gigaton-scale volumes of atmospheric CO<sub>2</sub>. Achieving this potential depends on robust MRV systems that are scientifically credible, scalable in operation, and trusted by policymakers, investors, and researchers alike.

Open Ocean Robotics' solar-powered DataXplorer™ directly addresses this challenge. Designed for long-duration deployments in both coastal and open-ocean conditions, the second generation DataXplorer platform offers autonomous, emission-free operation with unmatched data collection capability.

"Our oceans hold immense potential to fight climate change but realizing that potential depends on having the right tools," said Julie Angus, CEO and Co-founder of Open Ocean Robotics. "With DataXplorer, we're introducing the first USV that is purpose-built to monitor marine carbon removal—providing continuous, real-time data without emissions or costly ship-based surveys."

Equipped with a comprehensive suite of oceanographic sensors—including pH, atmospheric and oceanic pCO<sub>2</sub>, and an acoustic Doppler current profiler—plus an automated winch for vertical CTD profiling, the Gen-2 DataXplorer offers precise insights before, during, and after carbon removal interventions. Real-time analytics powered by onboard AI and the cloud-based XplorerView™ control platform deliver actionable intelligence through satellite and cellular networks.

These USV deliveries mark a critical milestone for the science and scalability of climate-focused ocean technology. With a modular design and trailer-based deployment, DataXplorer eliminates the need for large research vessels, reducing monitoring costs by over 90% while enabling persistent data collection even in high sea states or remote areas.

By supporting MRV for ocean alkalinity enhancement, and other mCDR strategies, these deployments will help fill vital data gaps that currently impede policy development, financial investment, and operational implementation as well as play a key role in observing ecosystem health. This collaboration underscores the leadership of Ocean Frontier Institute, Röst Marine Research Centre, and Open Ocean Robotics in establishing the scientific and technological foundations for responsible, scalable ocean-based carbon solutions.

### About Open Ocean Robotics

Open Ocean Robotics is a Canadian marine technology company that develops solar-powered, uncrewed surface vehicles for zero-emission ocean data collection. With a mission to make the ocean more understood, protected, and accessible, the company's autonomous platforms and AI-powered software deliver scalable, cost-effective solutions for climate science, maritime surveillance, and environmental monitoring.

Learn more at [www.openoceanrobotics.com](http://www.openoceanrobotics.com)

### About Ocean Frontier Institute

The Ocean Frontier Institute, led by Dalhousie University, is a global leader in interdisciplinary ocean research. Established in September 2015, The Ocean Frontier Institute unites researchers, industry, and government to solve complex ocean problems.

Learn more at [www.ofi.ca](http://www.ofi.ca)

### About Röst Marine Research Centre

Röst is a non-profit research centre in Iceland that supports high-quality science in marine and climate fields. Established by Transition Labs and funded by the Carbon to Sea Initiative, Röst provides field infrastructure, technical support, and research coordination for scientists working in real-world ocean environments. The centre works closely with both international partners and the Icelandic scientific community to help advance ocean-based research and innovation.

Learn more at: [rostrannsoknir.is](http://rostrannsoknir.is)

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