

ONC Now Hosting Data from Three Oceans

Submitted by Virginia Keast Wed, 2014-11-05 06:00

Ocean Networks Canada (ONC), an initiative of the University of Victoria, has further expanded its footprint across Canada with the launch of a new collaboration with the Fundy Ocean Research Centre for Energy (FORCE).

ONC is a world-leader in ocean observing technology supported by Oceans 2.0, its comprehensive data management system developed to provide a vital link between sensors and users around the world. With advanced observatories on the Pacific coast and in the Canadian Arctic, today's launch on the Atlantic coast establishes ONC's operations from sea to sea to sea.

This collaboration, initiated by ONC's Innovation Centre, will provide FORCE with a sophisticated data acquisition, archiving and visualization system that supports the Province of Nova Scotia's leading edge research and development of in-stream tidal technology.



FORCE tidal demonstration site near Parrsboro, Nova Scotia.

In 2012, ONC was a major contributor to FORCE's original design and installation of the world's first cabled underwater monitoring tidal demonstration platform specifically for extreme tide conditions.

Today, Ocean Networks Canada continues this commitment by giving FORCE users enhanced access to environmental sensor data over the Internet in real-time from the Bay of Fundy. A range of instrument data are provided, from current weather conditions to wave and tidal information, as well as a daily time-lapse video from the weather station at the tidal energy test site. Oceans 2.0 also streams this information live for the benefit of guests to the FORCE visitor centre at its spectacular location overlooking Minas Passage in the Bay of Fundy.



FORCE will take advantage of all existing Oceans 2.0 functionalities (see [Fact Sheet](#)) including:

- data search and data product downloads
- video archive and device control
- robust system security, plus established data backup and redundancy processes
- scalability that can support instruments deployed in the future
- private data hosting for commercial clients (such as turbine vendors) as well as open data sharing for researchers and the public
- a dedicated development team to provide new and improved functionality and tools; and
- exposure to a worldwide audience through ONC's data portal.

ONC's Innovation Centre builds upon its proven technologies and global partnerships to develop commercial and policy applications for ocean observing system technologies, and to advance Canada's marine technology industry across the country and around the world.

Quotes:

Tony Wright, General Manager, FORCE

"FORCE is building an underwater sensor platform that will soon be able to deliver real-time data from the Minas Passage. Understanding this powerful environment is critical to successful turbine design, environmental effects monitoring, and ultimately unlocking Fundy's enormous energy potential. We are pleased to work with Ocean Networks Canada to enhance the accessibility of that data to scientists and developers around the world."

Dr. Kate Moran, President and CEO, Ocean Networks Canada

"With the integration of Oceans 2.0 to manage data from the Bay of Fundy, Ocean Networks Canada further cements its leadership as an ocean observing system with a strong national presence in the Atlantic, the Arctic and the Pacific. We're proud to be working with dynamic partners such as FORCE and the Province of Nova Scotia."

Scott McLean, Director, ONC Innovation Centre

"With Oceans 2.0, ONC looks forward to supporting FORCE in developing a new world standard in ocean observing systems applied to challenging extreme tide environments. This novel test site will provide opportunities for the Canadian ocean tech industry to develop new technologies and services to meet the growing global demands for tidal energy systems."

About Ocean Networks Canada:

An initiative of the University of Victoria, Ocean Networks Canada (ONC) operates the world-leading NEPTUNE and VENUS cabled ocean observatories in the northeast Pacific Ocean off Canada's west coast. In addition, smaller-scale community observatories are located in the Arctic at Cambridge Bay, Nunavut, and Mill Bay, British Columbia, with more installations under development along the BC coast and across Canada. ONC leverages the unique capabilities of the ocean observatories to inform public safety, marine safety and environmental monitoring. Its goals are to deliver science and information for good ocean management and responsible ocean use for the benefit of Canadians.

Designated one of only four of Canada's Major Science Initiatives, ONC is supported by the Canada Foundation for Innovation, Networks of Centres of Excellence of Canada, the Natural Sciences and Engineering Research Council of Canada, Transport Canada, Western Economic Diversification, IBM Canada, and the Canadian Network for the Advancement of Research Industry and Education (CANARIE). The Government of Canada and the Government of British Columbia both contributed to the installation of ONC infrastructure.

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PDF File:

 [Oceans2_FactSheet_Nov2014.pdf](#)

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