# Cambridge Bay Observatory

In 2012, Ocean Networks Canada installed a community-based, cabled seafloor observatory in Cambridge Bay, Nunavut, the first of its kind to be installed in Canada's North. The observatory provides freely accessible data from continuous monitoring of environmental conditions in the Arctic Ocean and enables greater understanding and protection of fragile Arctic marine ecosystems, which supports science-based decision-making.





#### **Arctic Science & Data**

In the current context of climate change and the pressures that global warming imposes on the environment, especially in the Arctic, continuous monitoring and collection of timeseries data are crucial to understanding and managing the Arctic Ocean. The Cambridge Bay observatory has been successfully running for two years now allowing for comparison of the environmental conditions, such as timing and magnitude of events over the last two winters.



#### **Technology Canadian Made**

The instrument platform hosts marine sensors developed by five Canadian companies and includes an underwater HD video camera, hydrophone, fish tag receiver, as well as sensors to measure seawater properties and ice thickness. An above-water camera monitors surface ice formation, and a weather station provides real-time atmospheric conditions. Additionally, an Automatic Identification System antenna is positioned on top of a local building for identifying and locating nearby ships.



### Local Observations. Global Connections.

Free and open access to scientific data from the community-based observatory enables local students, teachers, and community members to be stewards of their own environment. Ocean Networks Canada is helping to establish connections between local stakeholders, scientists and community leaders with experts in Arctic science and monitoring across Canada. Local schools will be invited to participate in the pilot year of a novel educational program based on analyzing, understanding and sharing ocean data collected by cabled observatories.



**Ocean Networks Canada** operates world-leading cabled ocean observatories for the advancement of science and the benefit of Canada. Study locations include the NEPTUNE and VENUS observatories off the west coast of British Columbia, along with community-based observatories in Cambridge Bay, Nunavut and Mill Bay, British Columbia. Data collected by hundreds of instruments are delivered for free through an Internet portal. Scientists and citizens alike can observe the underwater natural environment in real-time from anywhere on the globe, studying a wide range of phenomena including earthquakes, tsunamis, climate change, ambient noise and Arctic change.

### **University of Victoria**

The University of Victoria is a top-ranking Canadian research university located on Vancouver Island that emphasizes real-life learning and curiosity driven research. It is a national and international leader in the study of oceans with expertise as far-ranging as ocean-climate interactions, ocean observation systems, physical and chemical oceanography, marine ecology, and ocean engineering. **www.uvic.ca** 

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## Biographies





#### University of Victoria President and Vice-Chancellor Jamie Cassels, QC

Professor Jamie Cassels, the University of Victoria's seventh President and Vice-Chancellor, is a legal scholar of international stature, a nationally-recognized master teacher and a talented university administrator noted for his outstanding leadership and vision. He joined UVic as Professor of Law in 1981 and continues to be active as a legal scholar. He was Dean of UVic Law from 1999 to 2001 and from 2001 to 2010 served as UVic's Vice-President Academic and Provost. In that capacity, he showed himself a strong advocate of excellence in teaching and of research-enriched learning. Prof. Cassels' areas of research expertise include remedies, legal theory, contracts, and torts. Other interests include environmental issues, law and society in India, and race and gender issues in the law of tort. He is the author of numerous books and articles, including: The Uncertain Promise of Law: Lessons from Bhopal (1993) about the environmental and human cost of the devastating 1984 explosion at a Union Carbide chemical plant in Bhopal, India, and its aftermath. As dean, Prof. Cassels was instrumental in launching the ground-breaking Akitsiraq Law Program delivering legal education to Inuit students in Canada's far north and incorporating both western and Inuit legal concepts and traditions.

President Cassels is a member of the Bar of British Columbia and has practised law and acted as a consultant to governments at all levels on issues of public significance. He was appointed Queen's Counsel in 2004 for his scholarly and service contributions to the legal profession. He holds a BA in law and philosophy from Carleton University, an LL.B (bachelor of law) from the University of Western Ontario and an LLM from Columbia University.



#### Ocean Networks Canada President & CEO Kate Moran

Dr. Kathryn (Kate) Moran is the President & CEO of Ocean Networks Canada and also holds a faculty appointment in the School of Earth and Ocean Sciences. Ocean Networks Canada operates the worldleading NEPTUNE and VENUS cabled ocean observatories for the advancement of science and the benefit of Canada. These observatories collect data on physical, chemical, biological, and geological aspects of the ocean over long time periods, supporting research on complex Earth processes in ways not previously possible. Prior to joining Ocean Networks Canada, Moran was Professor at the University of Rhode Island and held a joint appointment in the Graduate School of Oceanography and the Department of Ocean Engineering. She also served as the Graduate School of Oceanography's Associate Dean, Research and Administration. From 2009 to 2011, Moran was seconded to the White House Office of Science and Technology Policy where she served as an Assistant Director and focused on Arctic, polar, ocean, the Deepwater Horizon oil spill, and climate policy issues. During the Deepwater Horizon oil spill, Moran was selected to be a member of the President's eightmember science team under the leadership of US Secretary of Energy Chu. In 2004, Moran co-led the \$13M Integrated Ocean Drilling Program's Arctic Coring Expedition—the first deepwater drilling operation in the Arctic Ocean. Moran worked as a research engineer at Canada's Bedford Institute of Oceanography. Her major research focus areas are marine geotechnics and its application to the study of paleoceanography, tectonics, and seafloor stability.

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