

Cambridge Bay Community Observatory

The Cambridge Bay Observatory is the first location in Canada’s Arctic for year-round, continuous undersea monitoring of the environment. It offers science-based support for greater understanding and protection of the fragile arctic marine ecosystems. Data streaming from the instrument platform includes HD underwater video and acoustics, water properties, and ice thickness. On the surface, a camera monitors ice formation and a weather station provides meteorological data.



Ocean Networks Canada’s current and proposed locations

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Owner
[Ocean Networks Canada \(University of Victoria\)](http://www.oceannetworks.ca)

Membership
Associate Member

Website
www.oceannetworks.ca

Latitude
69.11762

Longitude
-105.05365

Location
Cambridge Bay Government Dock

Nearest Community
Cambridge Bay

Territory/ Province
Nunavut

Aboriginal Government/ Homeland
N/A

Facility Type

Year-Round Research Station, Site for Observing/Monitoring

Research Hinterland

Atmosphere, Coastal, Estuary, Marine, Sea Ice

Main Research Disciplines

Marine Biology, Microbiology, Oceanography, Climatology, Environmental Sciences, Atmospheric Chemistry and Physics, Mapping/GIS, Biochemistry, Isotopic Chemistry, Geomorphology, Paleoecology, Traditional/Aboriginal Knowledge

Research History

A high-resolution time-series of both seawater and meteorological measurements made by instruments at the Cambridge Bay Observatory (CBO) started in September 2012 and continues to the present day. Data from the CBO sensors have been used in a variety of ongoing research projects: 1) Development of ice and ice melt: numerical modeling; 2) Characterization of the under-ice and post-melt phytoplankton bloom dynamics; 3) Tracking of tagged fish in collaboration with the Ocean Tracking Network.

Current Projects

Operational Sea-Ice Forecasting; pCO₂ and pH sensors for improved arctic understanding; Characterization of microbial community annual cycle response to methane pulses.

Power

External Electrical Grid

Communications

Internet, Computer

Local Transportation

N/A

Equipment Storage

N/A

Dormitory/Sleeping Facilities

N/A

Dining/Kitchen Facilities

N/A

Laboratory Facilities

N/A

Fuel Availability

N/A

Research Requirements

Data viewing and download is free: dmas.uvic.ca/home

Special Rules and Regulations

N/A

Local External Resources

N/A

Nearest Medical Service
Cambridge Bay Health Centre

Safety Considerations
N/A

Cost
www.oceannetworks.ca/technology-services

Other Information
N/A

Last Updated
2015-05-30