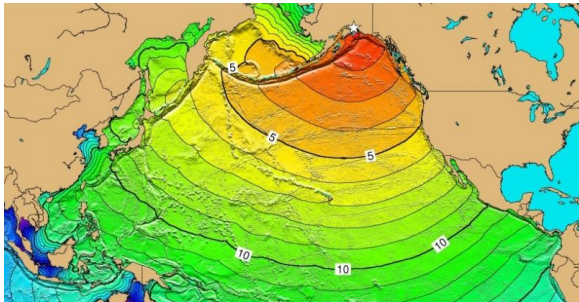


Tsunamis



Welcome to the ONC Tsunami Working Group! If you are here this means that you are interested as a scientist in tsunami science and you would like to follow closely the different advances in the projects that we are working on.

Tsunami science has a lot of different parts that need to articulate together to make the research useful for society. This type of research cannot be done in isolation and requires a collaborative effort between researchers and agencies in order to prepare coastal communities. You can see a list of the collaborators and different projects that constitute the pieces of this puzzle.

In this page we intend to update you and have an open forum to discuss ongoing projects and new ideas that may materialize in new initiatives.

The NEPTUNE cabled observatory array off the west coast of Vancouver Island has detected in the past multiple tsunamis from far-field sources, including the Tohoku tsunami of 2011 and the 2012 Haida Gwaii event. The Bottom Pressure Recorders in the NEPTUNE cabled network measured the wave height at different times as it approached the shores of Vancouver Island. The NEPTUNE array can be used to detect near-field events with existing instrumentation including seismometers and hydrophones with the potential of incorporating High Frequency coastal RADAR to directly measure and profile incoming tsunami waves several minutes before they impact the shoreline. The ONC Tsunami project is a shared initiative started by ONC and the University of Victoria (UVic) that is developed in collaboration with Emergency Management BC, Natural Resources Canada, Department of Fisheries and Oceans, GeoBC, Alberni-Clayoquot Regional District, NOAA-NCEI, IBM Canada, Compute Canada, Westgrid, University of Rhode Island, University of Paris-Est, University of Toulon among many others.

This program is designed to conduct high speed analysis of NEPTUNE sensor data from a near field tsunami event and combine these data with tsunami pre-calculated scenarios of the inundation impact onshore. The initial efforts of this project are focused mostly in Barkley Sound and the city of Port Alberni. However, new areas are expected to be included in the next phases.

Note that most of the main topics under this project has a child page dedicated to it. Please, check those out if you are interested in a particular topic. You can check those on the right side of this page or on the links at the bottom of this page.

User list not rendered as you do not have the privilege to view user profiles.

Recent relevant publications by working group members
Gao, D. 2016. Defining Megathrust Tsunami Sources at Northernmost Cascadia Using Thermal and Structural Information. Master of Science Thesis, School of Earth and Ocean Sciences, The University of Victoria.
Grilli, S.T., Shelby, M., Grilli, A., Gu��rin, C-A, Grosdidier S., Insua, T.L. 2016. Algorithms for tsunami detection by High Frequency Radar: development and case studies for tsunami impact in British Columbia, Canada. ISOPE Conference Proceedings.

- Digital Elevation Models for BC
 - DEM documentation
 - DEM training notes
- Source models

ONC Staff Scientists managing this group:
(contact one of us if you wish to become part of this working group)

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This group is interested in:

Label list

As you and your team label content this area will fill up and display the latest updates.

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- [Tsunami detection](#)
 - [GNSS tsunami detection](#)
 - [HF radar detection](#)
 - [Pressure sensors for tsunami detection](#)
- [Tsunami wave propagation models](#)

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