

Be Tsunami Prepared

Submitted by Katie Shoemaker Tue, 2018-03-27 12:32

Deadly tsunamis may be rare, but if you live in a coastal community it's important to be informed and prepared. On 27 March 1964, a magnitude 9.2 earthquake off the coast of Alaska generated a series of seismic waves down the west coast of North America, causing multiple tsunami waves to funnel up the narrow Port Alberni Inlet. Thankfully, there were no casualties, but the disaster damaged buildings, downed phone and power lines, and had a lasting impact on the community.

Over the last few years, Ocean Networks Canada (ONC) has been working with provincial, national and international partners to develop innovative tsunami modelling, measuring, monitoring and reporting methods that supports the creation of more accurate tsunami detection and inundation maps. Partners include Emergency Management British Columbia, [National Oceanic and Atmospheric Administration ? NOAA](#), Canadian Hydrographic Service, GeoBC, Alberni-Clayoquot Regional District, Natural Resources Canada, University of Victoria, IBM, Compute Canada and Westgrid.

A recent collaboration between ONC and the University of Victoria's Coady Laboratory has led to the development of a virtual reality game prototype (*see video below*) that simulates science-based tsunami events in the City of Port Alberni. This interactive game involves both cooperative and competitive elements to engage youth and young adults, and will be featured at the Royal BC Museum's new student learning centre. This project has been made possible with the support of IBM, NSERC, Compute Canada, and Westgrid.

"In this project, University of Victoria undergraduate students have the opportunity to work with researchers at ONC on an exciting project that promises to change the way we teach kids about their world," says Dr. Derek Jacoby, the University of Victoria researcher leading [the virtual reality team](#) (*Figure 1*). "Using detailed mapping data and accurate simulations, virtual worlds are being created that show the effects of a tsunami and the results of different ways of preparing for it."



Figure 1. University of Victoria researcher Derek Jacoby and ONC's ocean analytics program manager Tania Insua are developing a science-based virtual reality game as an education tool to engage young people in tsunami preparedness.

In British Columbia, Tsunami Preparedness Week takes place 8-14 April 2018, which is a great opportunity to attend an information session or high-ground hike in your local area. Included below are a few events in which ONC will be participating.

- **5 April - Victoria** PMI and EGBC dinner presentation. The Victoria Chapters of the Project Management Institute and Engineers and Geoscientists BC are jointly hosting a Professional Development event with guest speaker Dr. Tania Insua, ONC's ocean analytics program manager. Virtual reality modeling developed at ONC will be featured.
- **9 April - Victoria** City of Victoria Be Tsunami Smart Info Session
- **10-11 April - Port Alberni.** Earthquake and tsunami science and technology: recent advances for Port Alberni (see poster below).

BRITISH COLUMBIA TSUNAMI PREPAREDNESS WEEK

APRIL 9TH-13TH 2018

JOIN US TO LEARN
ABOUT EARTHQUAKES
AND TSUNAMIS
TUESDAY APRIL 10TH

6:00-9:00 PM Virtual Reality Preparedness Game

7:00-8:30 PM Presentations

Future Damage Potential from Earthquakes and Tsunamis in Port Alberni
With Tuna Onur, PhD. *Member of the Standing Committee on Earthquake Design,
National Building Code of Canada.*

Earthquake and Tsunami science and technology: Recent advances for Port Alberni
With Tania L. Insua, PhD. *Ocean Analytics Program Manager, Ocean Networks Canada.*

Upper Lounge AV Multiplex | 3737 Roger Street | Port Alberni

For more information, visit acrd.bc.ca/529



- **16-17 April Vancouver** - Understanding Risk British Columbia ? ONC will be presenting on a tsunami panel at this event.
- **14-16 May Vancouver** - BC Tech Summit. Experience the virtual reality game at ONC

and University of Victoria booths. Attend the presentation ?Data and Disasters: Industrial IoT for Response and Prevention? on 16 May at 3.15pm.

- **10-15 June Victoria** ? ASLO Summer Meeting, Dr. Derek Jacoby (Coady Laboratory) will be presenting the virtual reality project, Jay Hoeberechts (University of Victoria School of Earth and Ocean Sciences) will be presenting his research on tsunami detection, and ONC will be presenting a poster on radar technology.
- **12-16 August Vancouver** ? Siggraph, an annual conference on computer graphics attended by tens of thousands of computer professionals.

?I am looking forward to sharing the latest tsunami research in a way that is easy to understand and relate to locally,? says Tania Insua, ONC?s ocean analytics program manager. ?We all learn in different ways, so generating various tools that help to understand earthquakes and tsunamis helps all of us to be prepared.?

Related Stories

[Tsunami models used for preparedness exercise in Port Alberni](#)

[A Canadian First: NOAA brings tsunami digital elevation model training to Victoria, BC](#)

[A Fly-on-the-Wall: Notes from Port Alberni's Exercise Coastal Response](#)

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