

TIMES COLONIST

UVic students shake out earthquake warning system

[Jeff Bell](#) / Times Colonist

October 15, 2015 06:00 AM



Teron Moore of Ocean Networks Canada braces himself under a table during a demonstration Wednesday of an earthquake-warning system developed by University of Victoria students. Photograph By DARREN STONE, Times Colonist

Seconds can save lives when an earthquake hits.

That was the message Wednesday at the University of Victoria, where a student-designed earthquake-warning system was demonstrated to promote today's Great B.C. Shakeout awareness event.

The demonstration took into account what would happen if a 9.0-magnitude earthquake hit about 150 kilometres southwest of Victoria.

UVic's Ocean Networks Canada offshore sensors would detect the first signs of such an event and send out notifications that would provide the Victoria area a warning of 20 seconds in advance of major shaking.

In theory, that could save lives.

With proper systems in place, it would be enough time to shut off gas lines, halt surgeries, block traffic from tunnels and ensure that vehicle doors at fire stations remain open.

Ocean Networks Canada runs cabled ocean observatories off the coast of southern B.C. with undersea instruments connected to the Internet.

Seismic sensors on the ocean floor and land-based instruments generate notifications that, in Wednesday's scenario, sent the warning to the countdown alarm designed by engineering students.

Preparation is also the theme of the annual Shakeout. It will focus on a minute-long indoor safety drill at 10:15 a.m.

for schools, businesses and other groups in which they are encouraged to drop, cover and hold on — get on the ground, under a desk or beneath a table.

Teron Moore, an ONC business analyst, said earthquake preparedness is a “shared responsibility” for a variety of agencies.

He said it will take considerable funding to expand B.C.’s earthquake-warning capability, but noted that progress is being made.

Moore said ONC has eight sensors that can detect earthquake activity, along with the alarm device showcased Wednesday. Funding is needed to expand.

“Cost is always a key piece,” he said.

“If you look at the Japanese, they have hundreds of sensors offshore and almost a thousand that are onshore, but that’s also a [smaller] area and they have lots more earthquakes than B.C. has.

“So it’s a challenge to put an estimate to the actual cost that a B.C. system would take, but it’s in the millions of dollars, for sure.”

Ideally, the number of warning devices in B.C. would rival Japan, Moore said. He noted that other systems are being developed in the province, including one at the University of British Columbia, and ONC is working on an iPhone app that can provide warnings.

Oak Bay Fire Chief Dave Cockle, who also serves as president of the B.C. Earthquake Alliance, said important steps can also be taken over a short period.

“That little bit of warning is just enough for you to drop, cover and hold on, just enough for you to recognize what is going on in your life at the time so that you can prepare yourself,” he said.

“But none of it matters if you don’t take the time yourself to put a [preparedness] kit together, understand the risks where you live, understand the risks where you visit, understand your environment.”

UVic vice-president Gayle Gorrill told a campus gathering that she will be among the B.C. residents taking part in today’s provincewide drill.

At CFB Esquimalt, the occasion will be marked by a two-minute sounding, from 10:14-10:16 a.m., of the siren that is part of the facility’s mass-notification system.

Registration for the Shakeout across B.C. on Wednesday was at over 770,000 and counting.

The website for the event is shakeoutbc.ca.

jwbell@timescolonist.com (<mailto:jwbell@timescolonist.com>)

© Copyright Times Colonist