Drop, cover, and hold on

Submitted by Duncan Lowrie Thu, 2019-11-14 15:22

The final land-based Earthquake Early Warning (EEW) sensors have been installed, completing this advanced seismic infrastructure for British Columbia's alerting system. The system, now ready for commissioning, includes eight seafloor EEW sensors installed on the Cascadia subduction zone, providing real time data on earthquakes?a first on the seafloor off the coast of North America. 36 land-based EEW sites on Vancouver Island help to pin down high magnitude earthquakes.

Data integration is done with the Canadian National Seismograph Network and Pacific Northwest Seismic Network. We are currently working with alerting authorities to determine future roll out of the earthquake early warning system.

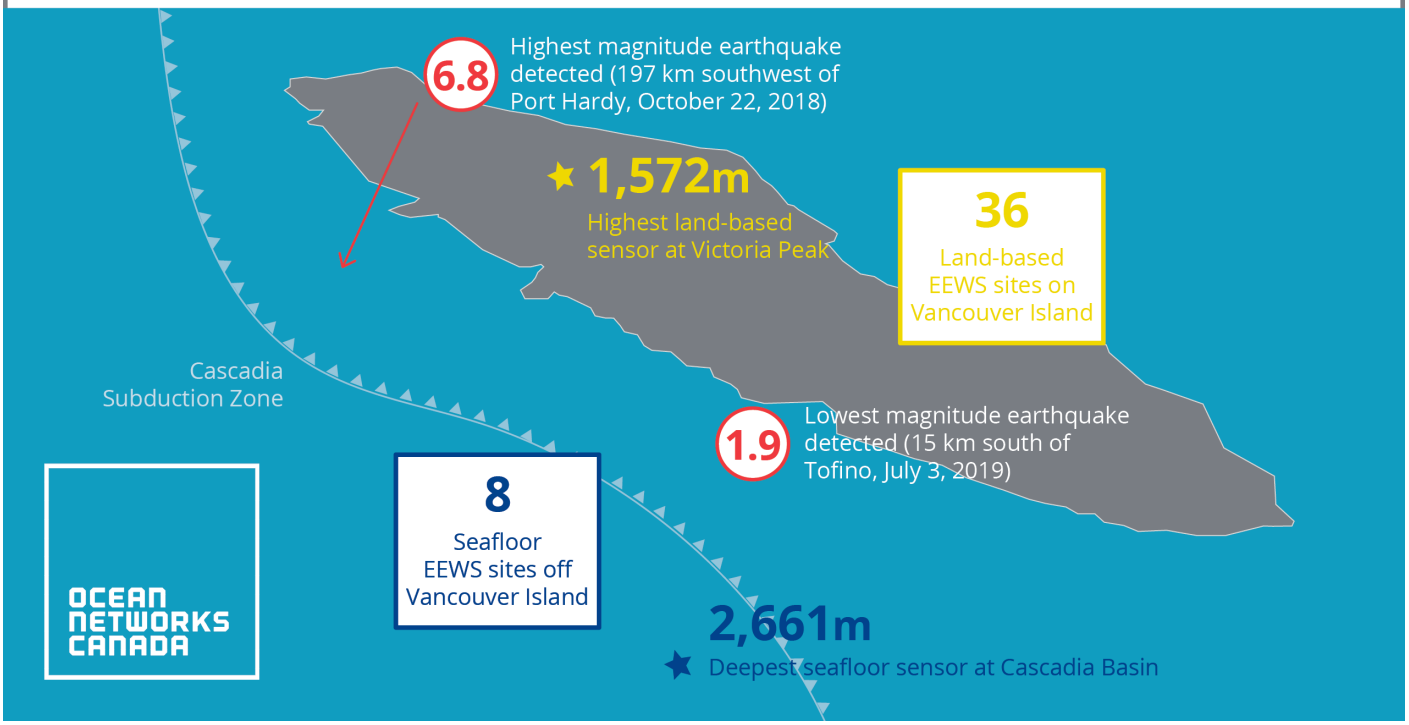
Earthquake Early Warning Factsheet

Ocean Networks Canada's Earthquake Early Warning System provides real-time seismic monitoring and leading-edge science, technology and data management capabilities. Data are integrated with the Canadian National Seismograph Network (Natural Resources Canada) and the Pacific Northwest Seismic Network (University of Washington, Seattle).

105
Earthquake sensors, instruments, and devices on EEWS

23
Earthquake detections by EEWS since September 2018

7 million
Provincial/Federal funding invested in ONC's EEWS



There are currently no known means to reliably predict earthquakes, however seismic instruments can rapidly detect an earthquake as it begins to unfold and communicate a warning before shaking arrives.

Earthquakes release energy that travels through the Earth as seismic waves. Primary or ?P? waves travel faster than secondary or ?S? waves. The latter are the cause of severe damaging ground shaking. It is the ability to detect these first ?P-waves? that enables earthquake early warning systems to deliver alerts before the arrival of the ?S-waves?.

The detection of an earthquake by many sensors can provide rapid estimates of the location and magnitude of an earthquake as it occurs. This information can be used to determine the estimated arrival time and intensity of ground-shaking at specific locations across a region, allowing protective actions to take place before the shaking hits.

ONC is monitoring and observing Cascadia Subduction Zone seismic activity 24/7 with multiple data and system redundancies. Check out ONC?s interactive earthquake data dashboard to explore recent earthquakes around the world.

Read More:
https://www.oceannetworks.ca/innovation-centre/smart-ocean-systems/earthquake-early-warning

Tags:

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