

Tales from a Sisters Naturalist
by Jim Anderson

Look out for the Big One!

Every night, just as you lay your head on your pillow and slowly sink into a peaceful sleep, open your eyes and think, “Where’s the flashlight!? Where’s the fire extinguisher and my whistle?”

Why? Because you’ll have a better chance to live through the “Big One.”

Scoff if you will, but like it or not, our beautiful Central Oregon — with its glittering snow-capped volcanic peaks, faulted rims, sheer cliffs, magnificent scenery and Great Sandy Desert that was formed over millions of years — had moments of (literally) terrifying jolting from earthquakes that reshaped our landscape again and again.

Right now, while you’re reading this paragraph, there are forces you and I can’t imagine (or control) pushing and shoving the earth under our feet. USGS (United States Geological Survey) geologists have seismographs hooked up to Mother Earth all over the Northwest that measure her movements 24/7/365.

These “little black boxes” are most times overlooked, as the USGS geologists want to keep them hidden and out of harm’s way. I’ve stumbled over a couple, and I’m sure others of you have. Please, leave them alone; your life could depend on them operating the way they

should.

They send a coded signal to a listening device via satellite, a signal that’s the very heartbeat of our grand old Earth. It’s not a question of “if” but “when” the rhythm of our planet will be suddenly interrupted by motion and mayhem, and when it is, the warning will come to us through those little seismographs.

If you’re in your home eating supper watching Jeopardy! when the Big One happens don’t dive for cover; get out of the house and stand in the open — but NOT near power poles! If leaving the house isn’t in the cards, grab up your flashlight, fire extinguisher and whistle and lay down next to your sofa or bed.

Do not dive under a table! The roof may come crashing down and squash you like a bug. Lying down next to a sofa, bed, washer, dryer or bureau will better protect you. With your flashlight you will be able to see what’s happened when the motion stops.

Here in the Pacific Northwest, we can expect a 9-plus earthquake off the coast of Oregon and Washington. However, because Sisters Country is located so far from the expected epicenter, damages will vary, depending on building construction and local geology.

The Boy Scout motto, Be Prepared, will probably get you out of most trouble.

With your fire extinguisher you can (hopefully) put out any fires that start, and have time to slither out from under of the mess around you that was once your house. If you’re stuck, blow that whistle when help arrives! This scenario is not something out of a horror movie, it’s for real; it has happened before and will happen again. And here’s why...

Out in the Pacific Ocean, about 400 miles west and a little north of where we’re standing in Central Oregon, there’s an enormous 300-mile-long hump on the earth relentlessly growing. Geologists call it the Juan de Fuca Ridge. It’s made up of magma (lava) slowly coming to the surface, and is known as the Cascadia Fault Zone, stretching from Northern British Columbia to Northern California.

The ridge is pushing two great slabs of ocean floor both west and east as the volcanic mound slowly adds material to the earth’s crust. One of these great slabs of ocean crust is known as the Pacific Plate, which is moving west toward Asia. The other slab is the Juan de Fuca Plate, moving east toward North America and they’re on a tectonic collision course, with the Juan de Fuca plate sliding (subducting) under the North American Plate.

The problem is, it’s not a smooth action; it’s plate-against-plate grinding along with relentless energy impossible to measure or imagine. The weight of the Earth is holding everything more-or-less fast — for now. When the plates move — which they will — it could be a sudden jolt that will create an earthquake of at least 9-plus magnitude, and that, good neighbors, will be The Cascadia Big One!

That quake won’t be a short blast of energy along a fault line in the earth’s upper crustal zone, like those little 6.0 dazzlers in California — it will be bigger, deeper, and go on for perhaps 3 or 4 minutes, with dozens of aftershocks, maybe for days, even months. We can’t even imagine the destruction from the tsunamis on the coast...

If you don’t want to believe it, fire up your computer and go to <http://pnsn.org/outreach/>

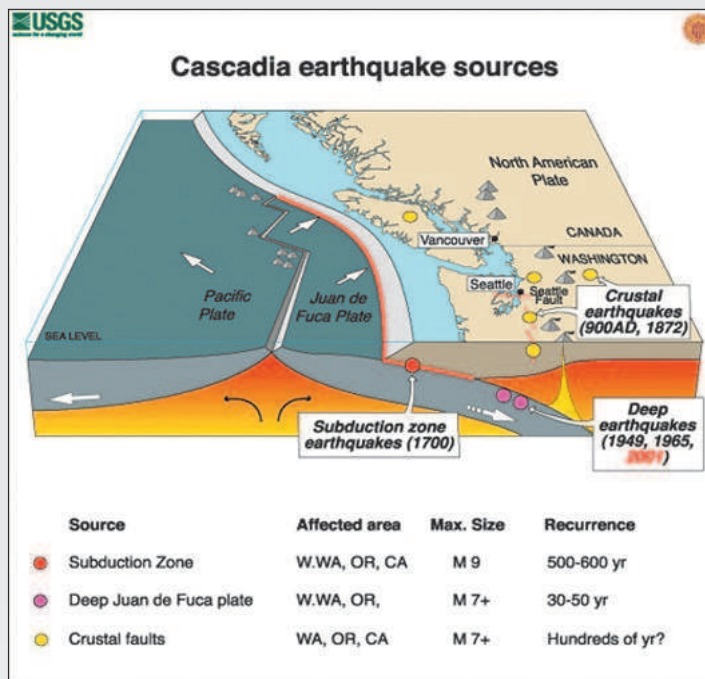


ILLUSTRATION COURTESY OF USGS

This is what will cause the Cascadia Big One.

earthquakesources/csz and look at the charts.

Back in 1988, geologists thought there was little chance for a dreadful event that the would unleash an earthquake of 9 or higher on the Richter scale, but today’s science addresses a greater risk, and who knows what it’s going to be like as we upgrade the data in 2015.

So, please, take the Boy Scout Motto to heart, and “Be Prepared.”

Make a plan with your family of what to do when the Big One hits (or some other emergency). Keep plenty of food and water on hand — not in the freezer, but in a place where there’s

a good chance it won’t be buried or burned up.

Cell phones probably won’t work with all the towers and power sources crashing around us, but those two-way walkie-talkies will, so make sure you have plenty of batteries for them, and they’re handy to grab with the flashlight, fire extinguisher and whistle.

This story is not a “Tall Tale,” or to scare the daylights out you, it’s just to bring you up to the reality of the way our Earth has been operating ever since it came to be. It will keep doing so, right up to the time when the Sun collapses and really ruins our day.

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