Today is the 309th anniversary of an earthshaking event!

Portland, Oregon: Today marks the 309th anniversary of the last, great Cascadia Subduction Zone earthquake to strike the Pacific Northwest.

Scientific research in Oregon, Washington and Japan tells us that at 9:00 PM on January 26th, 1700 AD, a magnitude 9.0 earthquake, centered about 75 miles offshore, ruptured along a 600 mile long fault, running from Northern California to Southern British Columbia, causing untold damage and destruction to the Pacific Northwest coast and the Native American tribal communities that made the coast their home.

Native American oral histories, passed on for generations, echo this event and speak of a great shaking followed by a massive flood (tsunami) that struck the northwest coast. [Online: Native American oral traditions]

In Japan, written records uncovered in the last 15 years confirm the Native American oral histories, documenting an “orphan tsunami” that was spawned by the massive earthquake 309 years ago. [Online: Japanese historic accounts and oral histories of coastal destruction]

In Oregon, while most people will not be aware of the events that happened 309 years ago today, state agencies and local governments across Oregon are working to prepare for a natural disaster of unprecedented magnitude that could strike at any time.

“We now have a geologic record of these great offshore earthquakes going back about 10,000 years,” said James Roddey, Earth Sciences Information Officer with the Oregon Department of Geology and Mineral Industries. “We know they occur about every 300 to 600 years, so we’re within the window for another one to strike.”

Oregon coastal towns are the most vulnerable to a Cascadia Subduction Zone earthquake because of the devastating tsunami the earthquake generates as it ruptures the ocean floor. That’s why coastal communities from Brookings to Astoria are making emergency plans and continue to practice evacuation drills to help those living and working in the tsunami inundation zone - that area
where ocean waves would push inland.

“Like the Native Americans who have passed on myths and historic narratives of these great earthquakes and tsunamis of the past, it’s our turn, in fact an imperative, to begin creating a culture of awareness for Oregonians today,” said Roddey. “We’re the first generation in modern history that understands the risks and dangers of a Cascadia Subduction Zone earthquake.”

Beginning this year, many individuals and organizations from all walks of life are working to make this anniversary a yearly observation, including Althea Turner, Geologic Hazards Program Coordinator with Oregon Emergency Management and Patrick Corcoran, Hazards Outreach Specialist with OSU Sea Grant Extension.

“We have but to look at the earthquake and tsunami that devastated countries around the Indian Ocean in 2004 (a magnitude 9.3 subduction zone earthquake) to know how important it is to begin creating an ongoing, generational dialog about this geologic event that, when it happens, will affect everyone in the Pacific Northwest. One way we hope to do this is to make this day a yearly observance that everyone will be aware of,” said Roddey.

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The Oregon Department of Geology and Mineral Industries’ mission is to provide earth science information and regulation to make Oregon safe and prosperous. We are an independent agency of the State, and have a broad responsibility in developing a geologic understanding of natural hazards. We then make this information available to communities and individuals to help reduce the risks from earthquakes, tsunamis, landslides, floods, coastal erosion and volcanic eruptions. We assist in the formulation of state policy where an understanding of geologic materials, resources, processes, and hazards are key to decision-making. The Department is also the lead state regulatory agency for mining, oil, gas and geothermal exploration, production and reclamation.

Learn more about Oregon’s fascinating geology by going online at: http://www.OregonGeology.org