Introduction

The objective of this report is to identify and map the tsunami inundation hazard across the Aleutian Islands of Alaska, and south along the coast of Oregon. Detailed information on fault geometries, distant earthquake/tsunami events have affected the Oregon coast: The "Ring of Fire", also called the Circum-Pacific belt, is the zone of subduction — when thin, oceanic subducts beneath thicker, lighter plates that make up continental plates. The Alaska-Aleutian Model Specifications were created by DOGAMI. Senate Bill 379 line data were redigitized and the Alaska Maximum. All tsunami simulations were run assuming subsidence, computer models, and the methodology used to create the computer simulation model output is provided to DOGAMI as a hypothetical maximum event. This maximum has been identified and mapping the tsunami inundation hazard across the Aleutian Islands of Alaska, and south along the coast of Oregon (Figure 2).

The Oregon Department of Geology and Mineral Industries (DOGAMI) has been administering the National Oceanic and Atmospheric Administration (NOAA) coastline from the 49th parallel south, including the Oregon coast. The model uses extreme fault model parameters that result in maximum tsunamis.

This rupture causes a vertical displacement of 10 feet. The tsunami wave and was the hardest hit.

Vicki S. McConnell, Director and State Geologist

Map Explanation

The tsunami inundation map displays the number of buildings inundated for the Alaska M9.2 (1964) and the Alaska Maximum. All tsunami simulations were run assuming that the location of each point was inundated by a 10-foot tsunami wave and was the hardest hit.

The tsunami inundation map displays the cumulative number of buildings inundated within the tsunami's inundation extent for the two scenarios at the profile locations shown B-B'. The tsunami scenarios are modeled to occur at a static (no flow) tide and equal to the Mean Higher High Water (MHHW) tide; MHHW is defined as the average height of the high tide. The tsunami scenarios are modeled to occur at a static (no flow) tide and equal to the Mean Higher High Water (MHHW) tide; MHHW is defined as the average height of the high tide; MHHW tide is used to estimate the tsunami's inundation extent.

Legend

- Buildings within Tsunami Inundation Zones
- Enhanced Tsunami Wave Height Through Time for Simulated Gauge Station
- Maximum Water Elevation Profiles

Earthquake Size

- Alaska Maximum
- Alaska Maximum Wet/Dry Zone

Earthquake Magnitude

- ~9.2
- ~9.0


distance from coast, miles

Tsunami Inundation Map Index

References

- Global Historical Tsunami Database, Boulder, CO, USA.
- Tsunami Inundation Scenarios: Oregon Department of Geology and Mineral Industries.