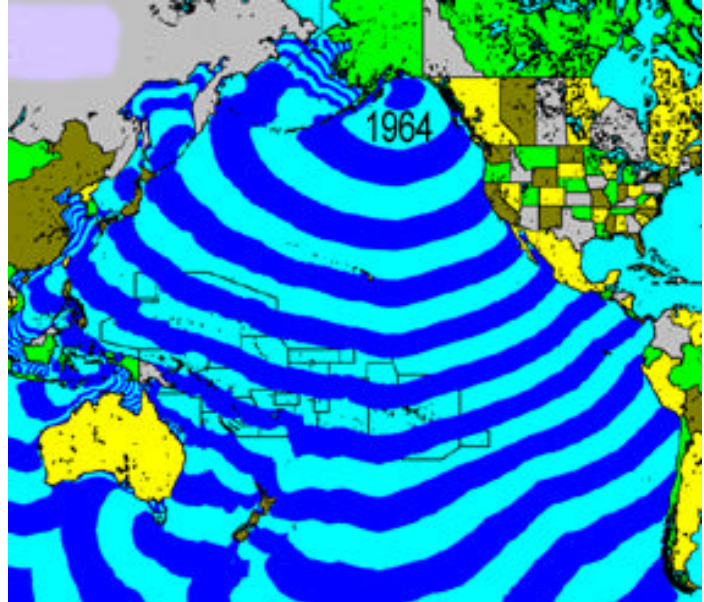


**The 28 March 1964 Alaska Tsunami** - The largest earthquake of the 20th Century in the northern hemisphere, with a magnitude 9.3, affected an area in Alaska that was almost 1600 km long and more than 300 km wide - extending from Valdez to the Trinity Islands, southwest of Kodiak Island in the Gulf of Alaska. The earthquake caused areas to be lifted by as much as 15 m (50 feet) in certain areas, while many other areas subsided greatly. In addition to many local tsunamis generated within the Prince William Sound, vertical crustal displacements averaging 1.8 m (6 ft.) over an area of about 300,000 square kilometers (115,000 square miles) extending in the Gulf of Alaska's continental shelf, generated a Pacific-wide tsunami. Its waves were very destructive in southeastern Alaska, in Vancouver Island (British Columbia), and in the U.S. States of Washington, California and Hawaii. The tsunami killed more than 120 people and caused more than \$106 million in damages, making it the costliest ever to strike the Western United States and Canada.



*Travel Time of the 1964 tsunami (each contour represents one hour of travel time. (Modified ATWC graphic)*



*Tsunami damage at Kodiak Island*

Five of Alaska's seven largest communities were devastated by the combination of earthquake and tsunami wave damage. Alaska's fishing industry and most seaport facilities were virtually destroyed. Tsunami waves at Kodiak Island washed away a total of 158 houses and buildings within two blocks of the waterfront. Fishing boats were carried hundreds of meters inland.



The 1964 tsunami waves caused also extensive damage in Vancouver Island (British Columbia), and in the states of Washington, California and Hawaii, in the U.S.. The waves affected the entire California coastline, but were particularly high from Crescent City to Monterey ranging from 2.1 - 6.3 meters (7-21 feet).

Hardest hit was Crescent City, California, where waves reaching as much as 6 meters (20-21 feet) destroyed half of the waterfront business district. Eleven persons lost their lives there. At Santa Cruz Harbor, the tsunami waves reached as high as 3.3 meters (11 feet) causing some damage. There was extensive damage in San Francisco Bay, the marinas in Marin County and at the Noyo, Los Angeles and Long Beach harbors. Estimated losses in California were between \$1,500,000 and \$2,375,000 (1964 dollars), while at Crescent City tsunami damage was estimated at \$7,414,000.



*The railroad yard at Seward, Alaska after the 1964 tsunami struck.*

*(Left) Damage along Seward's waterfront . (Right) The extent of tsunami inundation at Valdez.*





*Tsunami destruction at Seward, Alaska.*



*A Photo of how powerful the tsunami was at Whittier Alaska. The wooden plank was forced right through a truck tire.*