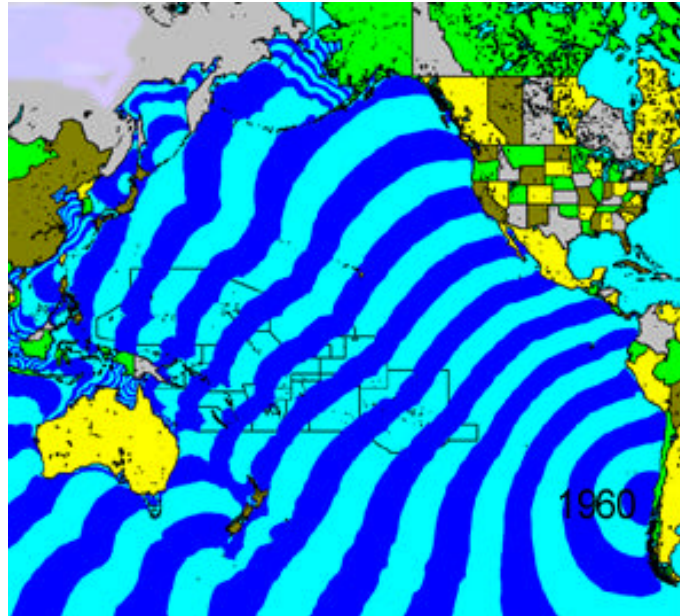


The 22 May 1960 Chilean Tsunami -

The largest earthquake (magnitude 9.5) of the 20th century occurred on May 22, 1960 off the coast of South Central Chile. It generated one of the most destructive Pacific-wide tsunamis. Near the generating area, both the earthquake and the tsunami were extremely destructive, particularly in the coastal area extending from Concepcion to the south end of Isla Chiloe. The most extensive tsunami damage occurred at Isla Chiloe, the coastal area closest to the epicenter. Huge tsunami waves measuring as high as 25 meters, arrived within 10 to 15 minutes after the earthquake, killing at least two hundred people, sinking all the boats, and inundating half a kilometer inland.



Travel Time of the 1960 tsunami (each contour represents one hour of travel time. (Modified ATWC graphic)

There was extensive damage and loss of life at Concepcion, Chile's top industrial city. Near the city of Valdivia, the earthquake and subsequent aftershocks generated landslides which killed 18 people. At the port city of Valparaiso, a city of 200,000, numerous buildings collapsed. A total of 130,000 houses were destroyed - one in every three in the earthquake zone and approximately 2,000,000 people were left homeless. Total damage losses, including to agriculture and to industry, were estimated to be over a half billion dollars (1960 dollars). The total number of fatalities associated with both the tsunami and the earthquake was never established accurately for the region. Estimates of fatalities ranged between 490 to 5,7002 with no distinction as to how many deaths were caused by the earthquake and how many were caused by the tsunami. However, it is believed that most of the deaths in Chile were caused by the tsunami.



Tsunami destruction at Isla Chiloe, Chile.

The tsunami was also very destructive throughout the Pacific Ocean, but particularly in the Hawaiian Islands and in Japan where there was tremendous loss of life and damage to property. It took about 15 hours for the tsunami to travel to the Hawaiian Islands - a total distance of more than 10,000 kilometers from the generating area in Southern Chile. The tsunami caused little damage in most of the Hawaiian

islands, but the island of Hawaii and particularly the Hilo Bay area were hit the hardest. Destructive waves destroyed completely the waterfront and killed 61 people. Total damage was estimated at \$24 million (1960 dollars). Elsewhere along the western coast of the United States, notable tsunami waves and run-up were begun 15.5 hours after the occurrence of the earthquake in Chile. At Crescent City, California, waves of up to 1.7 meters were observed and minor damage was reported.



Tsunami surging up the Wailua River, at Hilo Hawaii

Photos of tsunami destruction of Hilo's waterfront





May 22, 1960. Tremendous force of tsunami waves and debris bent parking meters and snapped utility poles at Hilo, Hawaii. (U.S. Navy)

