

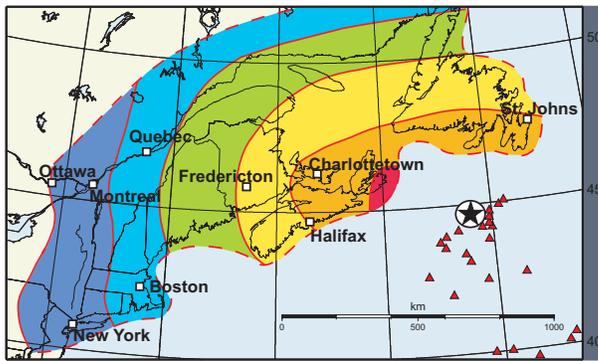


The 1929 "Grand Banks" Earthquake and Tsunami

On November 18, 1929 at 5:02 pm Newfoundland time, a magnitude 7.2 (M7.2) earthquake occurred approximately 250 kilometres south of Newfoundland under the Atlantic Ocean. This earthquake became known as the Grand Banks Earthquake, though it actually occurred west of the Grand Banks fishing region. Also known as the Laurentian Slope Earthquake, it was felt as far away as New York and Montreal. On land, damage was limited to Cape Breton Island, where chimneys tumbled and roads were blocked by minor landslides. In the Atlantic Ocean, however, the earthquake triggered a huge underwater slump, which severed 12 transatlantic cables and generated a tsunami. The tsunami was recorded along the eastern seaboard as far south as South Carolina and across the Atlantic Ocean in Portugal.

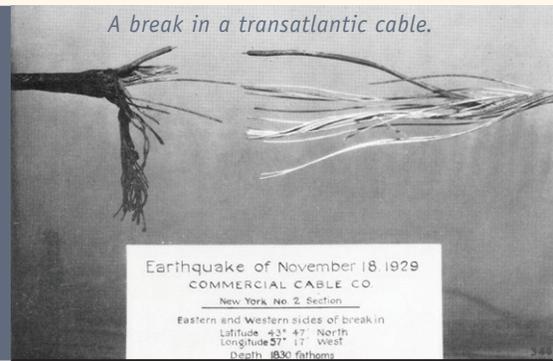


Buildings in Lord's Cove were smashed and moved about by the tsunami. Photograph by H.M. Mosdell, from the collection of W.M. Chisholm.



Earthquake intensity felt in different regions.

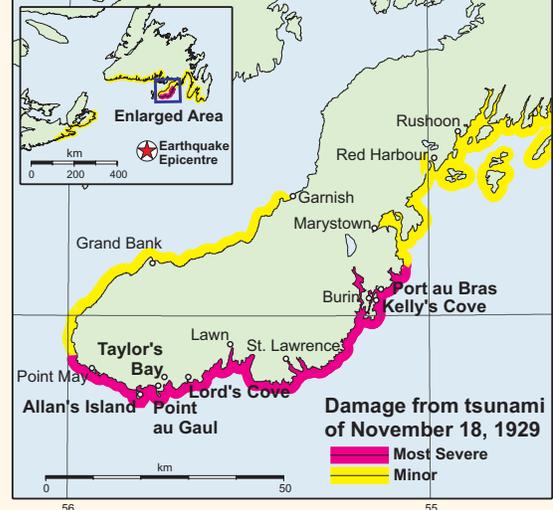
This map (left) shows the decrease in ground shaking with increased distance from the 1929 epicentre. Intensities represent the shaking from the earthquake, not the damage caused by the tsunami.



Tsunami Devastates the Burin Peninsula, Newfoundland "South Shore Disaster"

About two and a half hours after the earthquake, the tsunami struck the southern end of Newfoundland's Burin Peninsula. The wave came in three pulses and caused local sea levels to rise between two and seven metres. At the heads of several long, narrow bays on the Burin Peninsula, the surge of water reached levels as high as 13 metres. Twenty-eight people died, making this the deadliest tsunami related to an earthquake to hit what is now Canada (Newfoundland did not join Confederation until 1949).

In more than 40 villages in southern Newfoundland homes, ships and businesses were destroyed. More than 280,000 pounds of salt cod were lost. Total property losses were estimated at more than one million 1929 dollars.



Extent of damage from the 1929 tsunami on the Burin Peninsula (modified from Whelan, 1994). Village names in bold indicate where lives were lost.

Fragments of coastal homes, businesses, wharfs and fishing gear, Port au Bras.

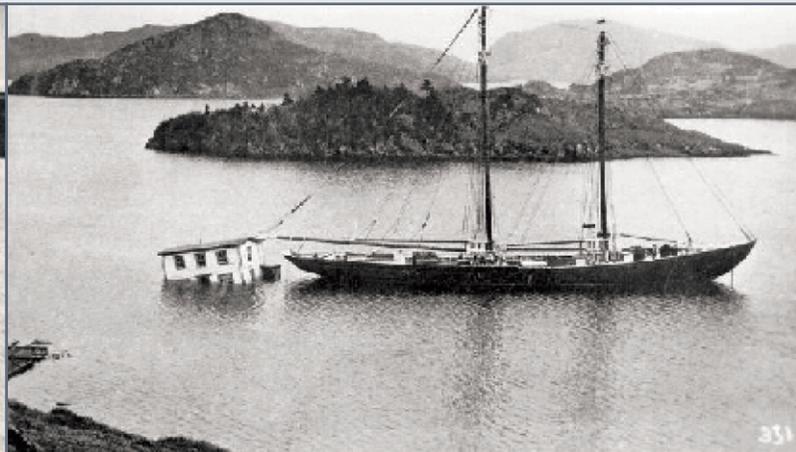


Here is an excerpt from the November 27, 1929 account by the Honourable Dr. Mosdell of the tsunami relief ship *Meigle*, as reported in the *St. John's Daily News*:

"Dwelling houses were reduced to a condition reminiscent of wartime description of the effects of heavy shell fire. Former sites of gardens and meadows now thickly strewn with boulders, some of them as large as casks thrown upon the shore by the devastating force of the tidal wave. Motor boats, stages and wharfs piers lifted bodily and thrown far inland in heaps of ruins...dozen[s] of houses, stores and stages were found thrown bodily into the pond at the head of the harbors, huddled together in one heap of destruction. Some lay upright but half submerged while others lay on their sides, and still others were entirely overturned."

Remnants of a destroyed building, probably a fish store, Port au Bras.

The home of Steven Henry Isaacs of Port au Bras, which was towed back to shore after being swept out to sea by the tsunami. Here it is anchored to the fishing schooner, *Marian Belle Wolfe*.



THE GRAND BANKS EARTHQUAKE AND THE 1933 BAFFIN BAY M7.3 EARTHQUAKE ARE EVIDENCE THAT LARGE QUAKE OCCUR ALONG CANADA'S EASTERN CONTINENTAL EDGE. HOWEVER, TSUNAMIS LIKE THE ONE CAUSED BY THE 1929 GRAND BANKS EARTHQUAKE ARE VERY RARE ON THE ATLANTIC COAST.

Government of Canada earthquake monitoring and research is undertaken by Natural Resources Canada's Earth Sciences Sector.

For more information on earthquakes visit the Geological Survey of Canada, NRCAN website: EarthquakesCanada.nrcan.gc.ca

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