

Tsunami Shake n Quake: Sediment Evidence



A trench cut through a coastal intertidal marsh exposes a peat layer, the remains of a former, now buried, marsh. The marsh abruptly subsided 1/2-1 m in a great earthquake about 300 years ago. The sand above the buried peat layer was swept into the subsided coastal region by the waves of the resulting great tsunami (after Clague and Bobrowsky, 1994a).

http://seismescanada.rncan.gc.ca/zones/cascadia/megafig_e.php

A 6 m long core sample taken from the deep Pacific sea floor shows fine grained mud layers alternating with sandier layers. The latter are interpreted to have been deposited from submarine landslides triggered by great earthquakes. The mud layers formed by the slow continuous rain of finer sediment settling from the ocean. The volcanic ash at the bottom is dated as 7700 years old (after Adams, 1990).

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