

Magnitude of the Western Canada Earthquake Tsunami of October 27,2012

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¹Nnne

The major earthquake occurred on October 27,2012 near the Queen Charlotte Is., B.C., Canada (52.788N, 132.101W, 14km depth, M7.7, USGS) .Moderate tsunami was widely observed in the Pacific zone (WC/ATWC, NOAA,JMA).The estimated tsunami source lies along the west side of Moresby Is. ,extending 120km length. The maximum semi-amplitudes are 3-25cm in B.C. Canada ,44cm at Crescent City,CA,43-79cm at Hawaii, 10-14cm in New Zealand and 10-24cn in Japan (large amplitude: Kuji,Ayukswa and Kagoshima-Nakanoshima). Judging from the attenuation of tsunami height with distance, tsunami magnitude is determined to be $m=1.5$ that the grade is relatively small for earthquake magnitude. Amplitudes at Hawaii, Japan and New Zealand were conspicuously large, suggesting the effective energy is projected toward the SW and E directions. It should be considered for the seismic gaps in Cascade and Yakutat regions.

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