

Magnitude of the Solomon Tsunami of February 6, 2013

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The great earthquake occurred on February 6, 2013 at the junction of Solomon and New Hebrides trenches (10.738S, 165.138E, 28.7km depth, M8.0, USGS). Moderate tsunami was widely observed in the Pacific zone (WC/ATWC, NOAA, JMA). The tsunami killed 10 persons and 590 houses destroyed at Nendo Is.(Santa Cruz Is.) located near the source region. The estimated source lies 250km length toward E-W direction. Judging from the attenuation of tsunami height with distance, tsunami magnitude is determined to be $m=2$ that the grade is the mean value for earthquake magnitude. For tsunami magnitude, semi-amplitudes of the following regions are relatively large: 20cm at Crescent City, California, 18cm at Maui, Hawaii, 17-19cm in Galapagos and Coquimbo, South America and 40cm at Hachijo Is., 19cm at Chichijima ,Japan. The pattern of amplitude distribution is similar to other Solomon-Vanuatu tsunamis.

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