

Damaged coasts of the tsunami of the Enpo Boso-Oki Earthquake of November 7, 1677

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The Enpo Boso-Oki earthquake of November 7th, 1677 occurred in the sea area of the south east offing of Boso peninsula, Kanto district, Central Japan. The shaking of the earthquake was weak, and no damage occurred due to the shaking. The shaking was felt only on the Boso Peninsula and at Edo (Tokyo). Though the shaking was small, but a huge tsunami hit the coasts of Boso peninsula, and north to Iwanuma city about 20 kilometers south of Sendai. Detailed house and human damage was recorded in "Gyokuro-So", one of the fundamental chronologies of the Tokugawa Government. In Katsuura city on the coast of Boso Peninsula, at Kawazu, Sawakura, and at Shinga villages 47 houses were destroyed, and 7 people were killed in total. Inundation heights of the tsunami at those three villages are estimated at 8.0, 8.5 and 6.3 meters, respectively. At Onjuku fishery village, 30 houses were destroyed and 57 people were killed, and tsunami height was estimated at 9.7 meters. At Yasahido village, where total number of houses was about 30, 25 houses were swept away and 13 people were killed, and tsunami height was 12.8 meters. In Choshi city, sea water rushed into Obata Ike pond. We measure the height of the saddle point separating the pond from the open sea, and we found out that tsunami height was 13.5 meters there. The tsunami height at Iwaki City, Fukushima Prefecture was 4.8 to 6.9 meters. On Hachijo Island, about 300 kilometers south of Tokyo, the residential area of Yato behind Yaene port was flooded by sea water and the inundation height is estimated at about 10 meters. The tsunami wave affected west to Ise Bay, Nagoya City. At Utsumi port in Minamichita town about 25 ships were wrecked due to the tsunami. Tsunami also recorded at Owase city on the south east coast of Kii peninsula. The authors of the present study wish to express their thanks to JNES for its financial support in promoting our research.

Keywords: historical earthquake, historical tsunami, the 1677 Boso-Oki earthquake, metropolitan area, Ise bay, Kii peninsula

