

Heights of the tsunami of the Empo Boso-Oki earthquake of November 4th, 1677

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The tsunami height distribution of the Boso-Oki earthquake of November 4th, 1677 had been studied by Hatori(1975, 1979, and 2003), Tsuji(1994) and Takeuchi et al.(2007), but most of those results were estimated ones by their damage grade. In the present study we newly estimated tsunami heights with considering ratio of damages houses with total number of houses in each damaged coastal village, and we made exact measurement at all villages where description of tsunami damage was recorded in old documents. We clarified the lords who controlled each villages, and checked the configuration of residential area on the detailed map of 50,000 to one published in the period of the Meiji Era. We estimated the thickness of flooded water as 3 meters for the case that almost all houses were swept away in the residential area of a village, as 2.5 meters for the case that the number of swept away houses was about half of the total number of a village, as 2 meters for the case that the not over half of the total houses were swept away.

The highest inundation height of 13.5 meters height was measured at Takagami village in Choshi city, where sea water rushed into a pond and sea water flooded over the path whose height was 13.0 meters.

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