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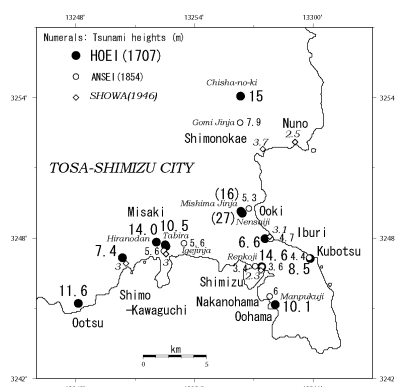
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## Tsunami inundation heights of the 1707 Hoen Earthquake in Tosashimizu city, Kochi prefecture, Shikoku, Japan

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A jointed gigantic earthquake called Hoen earthquake occurred in the jointed regions of south offing of the Tokai and the Nankai districts, the western part of the Japanese Islands. It had been well known that the magnitude of this earthquake is larger than those of the 1854 Ansei Nankai and the 1946 Showa Nankai earthquakes. The number of the points where tsunami heights were measured by reliable instruments on the basis of reliable old documents or legends had not been many. We intended to obtain more data of reliable tsunami heights of this event. In the present study, we measured tsunami heights by using the GPS instrument at the points where the record of sea water inundation limit clearly in nine towns and villages on the coast in Tosashimizu city, Kochi prefecture, Shikoku. We interviewed the specialists of local history of the Tosashimizu citizen library, and several experts of local history at coastal villages. The result is shown in the figure. It was newly clarified that inundation heights of the Hoen earthquake were around 15 meters at four villages, Shimonokae, ooki, Shimizu, and Misaki. We compared the tsunami heights of the Hoen earthquake with those of the 1854 Ansei-Nankai and the 1946 Showa Nankai Earthquakes, and found out that the former is twice of three times of the latter.



Keywords: the 1707 Hoen Earthquake, joint gigantic earthquake, historical earthquake, tsunami, Shikoku