

## Height Distribution of the tsunami of the Keicho Earthquake of February 3, 1605 on the coast of the Boso Peninsula

\*Yoshinobu Tsuji<sup>1</sup>, Yosuke Kuroyanagi<sup>2</sup>, Takahiro Kinami<sup>3</sup>, Masami Sato<sup>4</sup>, Yayoi Haga<sup>4</sup>, Fumihiko Imamura<sup>4</sup>

1. Fukada Geological Institute, 2. Pacific Consultants Co. Ltd., 3. Kubiki Engineering Co. Ltd., 4. IRIDeS, Tohoku Univ.

The tsunami of the Keicho Earthquake of February 3, 1605 was recorded at the points on the Pacific coast of the western part of the Japanese Islands, and is sometimes regarded as one of the Tokai Gigantic earthquakes. In the present study we made clear the detailed distribution of heights of the tsunami of this earthquake on the open coast of the Boso Peninsula, Chiba Prefecture. The basic document of the present study is called "The Boso Chiran-ki" (Chronology of inner battle in Boso Peninsula), in which the names of 35 tsunami damaged villages were listed and the locations of these villages are shown by small circles in the Figure. There is a no damage coast of the length of about 12 kilometers between Katsuura town and Uchiura village, which is presumable that only a slight damage took place in this coastal section. The Text of "Toudai-ki (The Chronology of the years under the rule of the first Shogun Ieyasu Tokugawa)" also recorded this tsunami, and seven villages in the territory of Ootaki clan were swept away and nothing left on the ground. The locations of these seven villages are shown by black diamonds in Figure. A temple called Saitokuji in Amatsura village in Kamogawa city, handed down an old document in which it is recorded that all houses were swept away in this village. We made a field measurement in those villages. We obtained the tsunami height distribution is shown as the figure. The tsunami height exceeded 10 meters at sixteen points. Considering this tsunami height distribution, the 1605 Keicho earthquake is not considered as one of the series of the Off-Tokai gigantic earthquakes. Acknowledgement: This study was achieved as a part of the commissioned research named "Study on the historical tsunamis in the Pacific coast of Japan (2016)" on disaster prevention for nuclear facilities proposed by the Nuclear Regulation Authority, Japan.

Keywords: the 1605 Keicho Earthquake-Tsunami, Historical Earthquake, Historical Tsunami, Boso Peninsula, Japan Trench

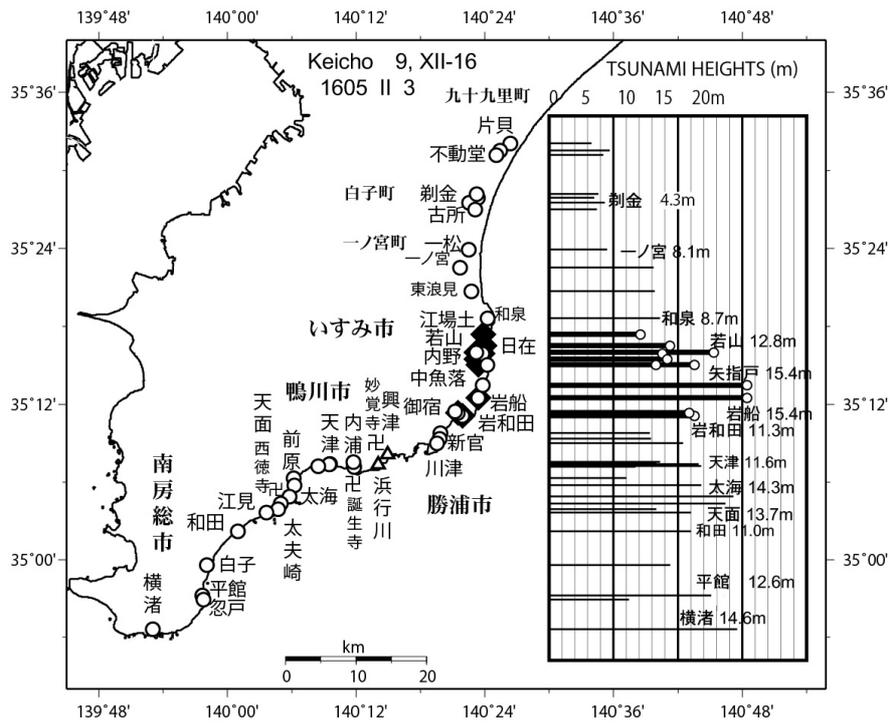


図 慶長9年12月16日（1605年2月3日）関東南方沖地震による房総半島の津波高さ  
 ◆ 『当代記』によって、小多喜領七ヶ村が「中二モ七村は跡形モナシ」と記された集落。  
 ○ 『房総治乱記』に「先潮災二逢シハ」で始まる文章で記された35ヶ村。4ヶ村は『当代記』に「あとかたもなし」と記された村と重複している。勝浦市川津以西、鴨川市内浦までの約13kmの間にある集落は被災した村が無く、この間は無事であったらしい。