

## J-THIS - a Public System for Sharing Information on Nationwide Probabilistic Tsunami Hazard Assessment in Japan -

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The National Research Institute for Earth Science and Disaster Resilience (NIED) has been conducting nationwide Probabilistic Tsunami Hazard Assessment (PTHA) in Japan. For the better usage of tsunami hazard information based on PTHA, NIED set up the committee for Usage Application of Tsunami Hazard Information (2013-2016) and the committee for Advanced Usage of Tsunami Hazard and Risk Information (2017-). The former committee emphasized the importance of public system for sharing information on various tsunami hazards. Following in it, the latter committee has been discussing the specifications and the needs in tsunami hazard information and risk at an advanced level with using the system.

Based on the above, we have been developing Japan Tsunami Hazard Information Station (J-THIS) to construct such a public browsing system. J-THIS is available on the web and has five main functions. It enables general users to view (1) distributions of the exceedance probability of tsunami heights higher than 3m, 5m, and 10m within 30 years at every 50m mesh on the coastlines on Geospatial Information Authority of Japan (GSI) Maps, (2) tsunami hazard curves for 30 years at every 50m mesh on the coastlines, (3) earthquake fault models used for tsunami simulation on GSI Maps and earthquake fault parameters, (4) distributions of tsunami heights, for each earthquake fault model, at every 50m mesh on the coastlines on GSI Maps, and (5) bathymetric charts of 1350m, 450m, 150m, and 50m mesh on GSI Maps.

In the first step of sharing information on nationwide PTHA in Japan, J-THIS is providing PTHA along the Nankai Trough, which focused on inter-plate earthquakes (Mw7.6-9.0) excluded possible maximum-sized ruptures, by Headquarters for Earthquake Research Promotion (HERP) of Japanese Government (2020). HERP (2020) announced distributions of the exceedance probability of tsunami heights higher than 3m, 5m, and 10m within 30 years at each city, ward, town, and village. J-THIS provides not only information announced by HERP (2020) but also detailed information of it and related information, in terms of five points as described above.

We have been developing J-THIS as a part of the research project on “Research on Evaluation of Hazard and Risk” of NIED. Some contents in J-THIS are equal to the PTHA along the Nankai Trough announced by HERP (2020).

Keywords: Japan Tsunami Hazard Information Station (J-THIS), tsunami, Probabilistic Tsunami Hazard Assessment (PTHA), Nankai Trough

