

Japan Geoscience Union Meeting 2011

(May 22-27 2011 at Makuhari, Chiba, Japan)

©2011. Japan Geoscience Union. All Rights Reserved.



HDS028-02

Room:302

Time:May 23 16:39-16:54

The National Seismic Hazard Maps for Japan published by The Headquarter for Earthquake Research Promotion (HERP)

Sadayuki Kitagawa^{1*}

¹MEXT

The HERP was established based on a Special Measures Law on Earthquake Disaster Prevention, which took the lessons of the Great Hanshin-Awaji Earthquake on January 17, 1995. The executive office of the HERP is set up at the MEXT. The HERP is promoting researches into earthquake with the goal of strengthening disaster prevention measures, particularly for the reduction of damage and casualties from earthquakes. The HERP carries out many projects to achieve the goal.

One of our products is the National Seismic Hazard Maps for Japan. It consists of two types of maps. One is the Probabilistic Seismic Hazard Maps, and the other is the Seismic Hazard Map for a Specified Seismic Source Fault (the scenario map). It was first published in 2005 and updated annually by including added / updated long-term evaluation result & yearly update of the probability of earthquake occurrence. In 2009, a major revision was published. 250m grid is employed for probability (or ground motion) estimation. Landform type classification and amplification factor of surface soil layers were reconsidered and updated. As for the probabilistic maps, maps showing the 'impact' of each category of earthquakes were added. As for the scenario maps, the detailed distribution of seismic intensity was created for all major active fault zones though it was published for limited faults in the past. In 2009, the HERP published another type of experimental scenario maps called long-period ground motion maps (experimental). Targets of the maps are currently the presumed Tokai, Tonankai, and Miyagi-ken-oki earthquakes. The products include distributions of velocity response spectra (periods are 5, 7, 10 sec. with the damping factor 0.05.), maximum velocities, and durations of ground motions.

Keywords: HERP, National Seismic Hazard Maps, New Promotion of Earthquake Research, evaluation of long-term earthquake occurrence