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Seismic Hazard Maps in Japan : purpose of the session

Mitsuyuki Hoshihara^{1*}, Yuichi Sugiyama², Hiroaki Yamanaka⁴, Nobuyuki Morikawa⁴

¹Meteorological Research Institute, ²AIST, ³Tokyo Institute of Technology, ⁴NIED

After Hyogo-ken nanbu Earthquake (Kobe Earthquake), Headquarters for Earthquake Research Promotion was established as a national government body. The headquarters has promoted the researches of active faults and historical seismic activity, and also evaluated potential of large earthquakes and the strong ground motion by the earthquakes. Based on the knowledge, seismic hazard map is edited, in which information of strength of the strong motion and their probabilities are compiled. The seismic hazard map was published tentatively in 2005, and its full version was in 2009. On the other hand, many local government bodies also have promoted the local version of the seismic hazard map taking their local characteristics into account.

These seismic hazard maps are based on the recent results and progress of researches, such as prediction of strong ground motion, models construction of subsurface structure, survey of active faults and the source model of potential large earthquakes. The seismic hazard maps are considered the comprehensive output of the earthquake researches.

What methods are used for the seismic hazard maps? What is current situation of the researches? How are the maps applied for disaster mitigation? What are new tasks to be solve? And how do we solve them? Based on these backgrounds, this session "Seismic Hazard Maps in Japan", is proposed from strong ground motion committee of Japan Seismological Society, Japanese Society for Active Faults Studies, and Society of Exploration Geophysicists of Japan.

On following issues, invited lectures are planned; how has seismic hazard map of national government constructed? How the maps are applied in our life? These topics will be reviewed.

In this session, we will discuss on the hazard map, development of its technology and application, as well as the future prospects.

Keywords: prediction of strong ground motion, hazard map, active faults, subsurface structure, strong ground motion, disaster prevention