総説

緊急地震速報 -新たに登場した地震防災情報-

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Abstract

In Japan extensive seismic networks have been constructed nationwide composed of high sensitivity seismographic network (Hinet), broadband seismographic network (F-net) and strong motion seismographic network (K-NET) as well as those by JMA and by universities. As a practical application of those data MEXT, JMA and NGOs are cooperating to develop an earthquake early warning system (EEW) since 2003 for the purpose of providing estimated seismic parameters to general public and prescribed users concerned with seismic risk reduction.

Once earthquakes occur those focal parameters are calculated as soon as enough number (smallest number is one) of observation sites sense seismic waves, and are revised successively as seismic signals are received at larger number of observation sites in time. The transmitted parameters are used by application systems at sites to arrival time and seismic strength information in order for automatic or semi-automatic actions of various disaster mitigation countermeasures.

Many of applications systems have been developed under the coordination of consortium of concerned organizations and private companies (Real-time Earthquake Information Consortium: REIC). At present we are in the full stage both of the prescribed utilization and of the general usage through television and radio starting from October 1. Full adoption of the system is thought to reduce a large portion of damages induced by major disastrous earthquakes (several tens percents).

Keywords: earthquake, mitigation, early warning, safety network, consumer systems