

# Disaster reduction project using JMA nowcast information in Nagoya Univ.

# Yoshinari Hayashi[1]; Takamori Ito[2]; Koshun Yamaoka[3]

[1] Disaster Management Office, Nagoya Univ.; [2] OYO SI; [3] RC. Seis. & Volc., Nagoya University

If the ground motion information detected near the source is transmitted immediately as an early warning for ground motion to sites at some distance away before the ground motion begins there, the information could be utilized for various damage mitigation measures. An early warning system has been used in practice in 3 countries. The warning system for train, named UrEDAS has been operated in Japan since 1991. Radio using warning system is developed for Mexico city which had been damaged in the 1985 Michoacan earthquake. The Taiwan Central Weather Bureau (CWB) has utilized its Rapid Earthquake Information Release System (RTD) since 1995.

People of Tokai area are afraid of the occurrences of Tokai earthquake and Tonankai earthquake in recent years. If these earthquakes occur, heavy damages are expected in Nagoya city. But source areas of these earthquakes are apart from Nagoya city, so if the early warning system is realized, we will can reduce disasters.

We have been developing the seismic early warning system using JMA nowcast information since 2003. The feature of this system is dual warning sources, JMA nowcast information via a dedicated line and independent seismometers operated by ourselves. These data are assembled in the nowcast server placed in Nagoya University. Another feature of this system is using INTERNET taking and serving seismic data. This feature contributes to cost-down of regular communication fee.

We started the feasibility study on effectiveness of JMA nowcast information for disaster reduction. In the first step, we are motivated to multipurpose using in Nagoya University, because network environment is well prepared and there are some dangerous spots, chemical laboratories, for example.