



Installation the on-line, real-time EEW array in Tainan City, Taiwan

Ruei-Hua Huang (1), Ting-Li Lin (1), Cheng-Yung Tsai (1), and Yih-Min Wu (2)

(1) Department of Earth Sciences, National Cheng Kung University, Tainan, Taiwan, (2) Department of Geosciences , National Taiwan University, Taipei, Taiwan

Taiwan is located in the circum-Pacific seismic zone and has been constantly threatened by large, disastrous earthquakes. Nowadays, earthquake early warning (EEW) system is one of the effective strategies and has been operated in many countries for earthquake hazard mitigation. Supporting by Ministry of Science and Technology, an experimental EEW system consisting of more than 500 MEMS-type of accelerometers (Holland, 2003), named as the “Palert” system, has started operating since June 2012 in Taiwan (Wu and Lin, 2014; Wu et al., 2013).

We established a local EEW array in Tainan in real-time and on-line mode based on the Earthworm (USGS) platform. Waveform stacking method is used to enhance the S/N ratio and improve the accuracy of the onsite magnitude estimate (MPd) by treating an array as a single on-site EEW station. Therefore, it can be regarded as a hybrid EEW system and might be installed in the other populated cities.

Keywords : earthquake early warning, seismic array, waveform stacking