

## **Plans for Taiwan earthquake and tsunami monitoring cooperation with countries surrounding the South China Sea**

\*Bor-Shouh Huang, Chun-Chi Liu, Wen-Tzong Liang and Wen-Gee Huang

Institute of Earth Sciences, Academia Sinica, Taipei, Taiwan

hwbs@earth.sinica.edu.tw

More than 50 broadband seismic instruments are currently operated by Institute of Earth Sciences (IES), Academia Sinica to study the earth deep interior and seismic hazards. It was part of the Broadband Array in Taiwan for Seismology (BATS) and designed to deploy within Taiwan and its surrounding islands in the past. However, it is currently encouraged by the National Science Council, Taiwan (NSC) and Academia Sinica to distribute abroad for international cooperation and extension of research topics. Currently, 25 portable stations are deployed in northern Vietnam to study the geodynamic evolution of the Red river fracture zone and planned to distribute to southern Vietnam and Philippines, in near future, to study the geodynamic evolution and its deep structures of the South China Sea. In our planning, some high quality stations may be left as permanent stations and added continuous GPS observations, and instruments to be maintained and operated by our cooperation institutes, for instance, Institute of Geophysics, Vietnamese Academy of Sciences and Technology (VAST) in Vietnam and Philippine Institute of Volcanology and Seismology (PHIVOLCS) in Philippines. Finally, those stations will be planned to upgrade as real time transmission stations for earthquake monitoring and tsunami warning. Recently, this portable seismic array has been found to construct satellite real-time data transmission system for data collection. In near future, we should have ability to contribute data from stations on remote sites. We are searching for new cooperation from the surrounding countries of the South China Sea to install new seismic stations to construct a complete seismic network of the South China Sea.