GEOFON Status Report for the FDSN Meeting Perugia, Italy, July 2007

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Network Operations

The permanent GEOFON network presently consists of 61 stations (Fig. 1), a complete GE station table can be found under www.gfz-potsdam.de/geofon/new/netabs/ge.html. Due to the focus on the Indian Ocean Tsunami Warning System (presently 10 stations in Indonesia), the activites within the regular GEOFON program remain minimum. However, three new real-time stations have been installed since the last regular FDSN meeting in October 2005: Kabul, Afghanistan (KBU), Slitere, Latvia (SLIT), Matera, Italy (MATE). Five more stations became real-time (BOAB, DSB, KWP, MTE, SUW), one (PUL) near real-time with an artificial delay of 4 hours. A private VSAT system for most GEOFON stations in EuroMed area will be hopefully realized later in 2007. In addition to its own permanent network, GEOFON supports presently 28 other mostly national networks within its partnership initiative.

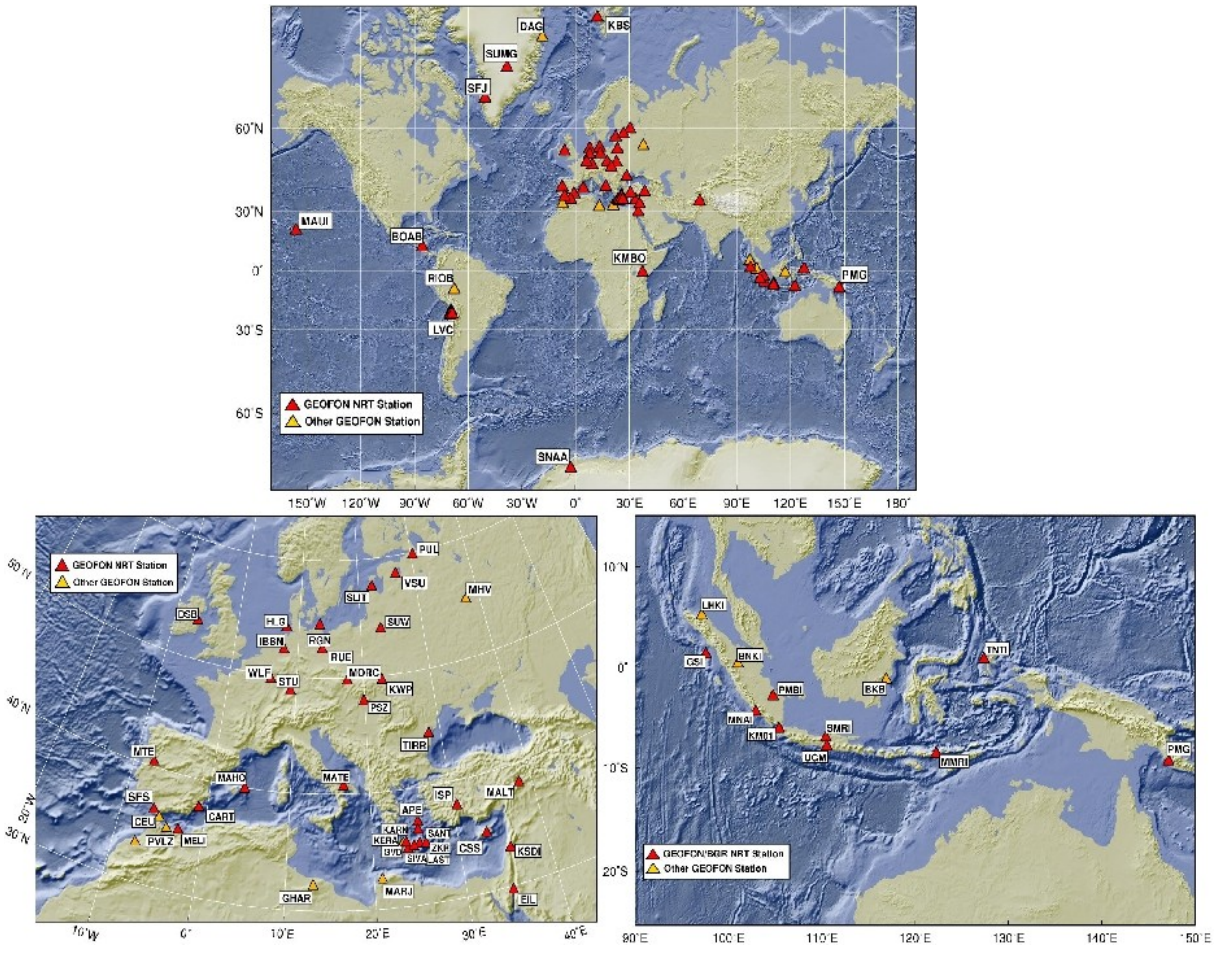

Fig. 1: GEOFON station maps as of June 30, 2007.

Fig. 2: Installation of GEOFON/GITEWS field station in Indonesia

GEOFON Earthquake Monitoring System for Tsunami Warning

Beside the installation of 10 stations in Indonesia (Fig. 2), major milestones in 2006/2007 were the installation of an Indonesia based private VSAT-System for GEOFON/GITEWS in October 2006, covering most of SE Asia and the development and installation of the prototype earthquake monitoring system as part of the future tsunami warning center in Jakarta in May 2007. The VSAT system does not only provide real-time access to GEOFON/GITEWS stations in Indonesia, but will also connect our planned stations in Sri Lanka and the Maldives. The Chinese stations in Indonesia will be served as well. The SeisComP 3.0 software package (Fig. 3) provides state-of-the-art automatic real-time and manual data processing including special early warning features, QC moduls and sophisticated graphical user interfaces. SeisComP 3.0 systems can be operated in highly distributed mode across IP networks and exchange event and inventory parameters with other SeisComP and foreign processing systems using QuakeML (tbd). This allows data processing at different nodes avoiding e.g. the massiv import of global or regional data streams to the Jakarta warning center. On the other hand, other earthquake information and tsunami warning centers on regional and global scale could gain immediate automatic information on ongoing local earthquake analysis.

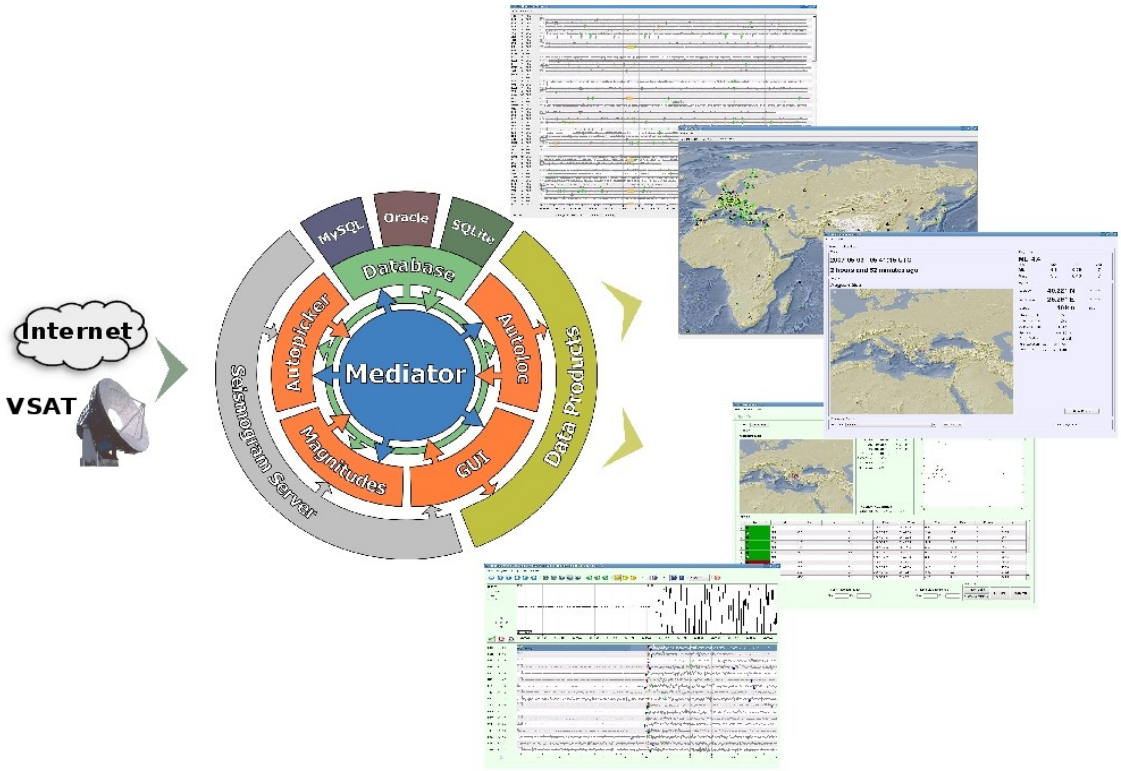

Fig. 3: SeisComP 3.0: Prototype earthquake monitoring system for integration in tsunami warning systems