



EGELADOS - A new seismological broadband network in the southern Aegean

A. Brüstle (1), **M. Rische** (1), M. Bischoff (1), T. Meier (1), W. Friederich (1) and the EGELADOS Working Group

(1) Ruhr University Bochum (rische@geophysik.rub.de)

The Hellenic subduction zone with its high seismicity, occurrence of large earthquakes, tsunamis and volcanic eruptions calls for intense seismological research. Building on previous campaigns which focused on the forearc along Crete and the volcanic arc in the area of the Cyclades we have begun to install a temporary, amphibian, broadband seismic network which covers the complete southern part of the Hellenic subduction zone. It will provide an unique opportunity to investigate crust and mantle structure with high resolution, and to observe microseismicity and large earthquakes over the full area simultaneously resulting in a snapshot of the currently active faults. Installation, maintainance and scientific investigations are carried out by Ruhr University Bochum (within the SFB 526) in collaboration with partners at University Thessaloniki, National Observatory Athens, TU Crete, Istanbul Technical University, GFZ Potsdam and University Hamburg.

The network consists of 45 broadband land seismographs deployed on the Greek mainland, on most of the southern Aegean islands and in western Turkey. It is planned to deploy another 25 ocean-bottom broadband seismographs in May 2006 in order to realize an array of evenly spaced seismographs spanning the whole southern Aegean. The network design incorporates stations from the CYC-NET and permanent stations of the GEOFON network.

Installation of land seismographs was finished in October 2005. Both OBS and land stations are scheduled to operate until March 2007. All stations are equipped with Guralp 60s broadband sensors and 24 bit recording units from the new German amphibian seismograph pool (DEPAS).

In order to monitor station performance and data quality about 20 stations have been equipped with GSM modems. Thus, we are able to present first test data and will also

show recordings of the magnitude 6.7 event from January 2006 which occurred close to the island Kythera.