



International access to the US Plate Boundary Observatory

W. Prescott (1) and M. Jackson (1)

UNAVCO

As part of EarthScope, the United States is deploying a Plate Boundary Observatory (PBO). Funded by the National Science Foundation, PBO will install geodetic instrumentation across the United States with a goal of investigating: the forces, spatial distribution, and evolution of plate-boundary deformation; earthquake nucleation processes; and magmatic processes. A primary focus of the PBO will be the reduction of risk posed by earthquakes and volcanoes. When fully implemented in the fall of 2008, PBO will consist of approximately 1000 fixed Global Positioning System (GPS) stations, approximately 150 borehole strainmeters, 5 longbaseline strainmeters and a pool of 100 portable GPS instruments.

Many countries around the world are deploying similar geodetic networks often in conjunction with seismic networks. In the US, there is a parallel seismic effort to enhance the national seismic infrastructure. The Advanced National Seismic System (ANSS) will install modern broad band seismic sensors for both weak and strong motions with a goal of reducing earthquake and volcano hazards by understanding when and where the hazards occur and by understanding their effects on the built environment.

While the combination of seismic and geodetic networks within one country forms a powerful tool for addressing these hazards, there is much that could be gained from cooperation among the networks in different countries. There are two sides to this cooperation. On the one hand, countries building new networks or enhancing their existing networks could benefit from the experiences of those countries with existing networks. On the other hand, access to the data and research results of the networks will lead to faster progress in hazard reduction if it is available to all interested scientists. The Plate Boundary Observatory has a policy of open access to all of the data from its

fixed GPS and strain instrumentation. We encourage scientists from other countries to take advantage of these data.