



**NSF Award Abstract -
#0405437**

**The NARS-Baja Seismic Array: Continued
Operations and Research**

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Abstract

A broadband seismograph network - the NARS-Baja network (Network of Autonomously Recording Seismographs) - consisting of 14 three-component broadband seismographs is being completed and operated in Baja and Sonora, Mexico, around the Gulf of California. The instruments have been installed in cooperation with the University of Utrecht and Centro de Investigacion Cientifica y de Educacion Superior de Ensenada and will be in operation for at least for 3 years. The data are retrieved from the stations approximately every three months and are available through the IRIS-Data Management Center and the Southern California Earthquake Data Center. With these data, the investigators are mapping the crustal and upper mantle structure around the Gulf of California using receiver functions, tomography, and surface wave analysis with the aim to investigate the: 1) difference in mantle structure beneath the Gulf of California and the North American plate boundary; 2) the possible relation of along-strike structural complexity in the crust and mantle and the systematic change in deformation style in the Gulf of California rift; and 3) the location of active faults in the Gulf and their slip direction. This project has strong synergism with other NSF-funded large-scale projects such as EarthScope and MARGINS).

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