

## State of Arizona Arizona Geological Survey

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M. Lee Allison Director and State Geologist

News Release: Arizona Geological Survey Receives FEMA Grant to Improve Earthquake Monitoring & Risk Assessment in Arizona

28 July 2008

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Arizona Geological Survey

Tucson. Earthquake hazard assessment in Arizona is the focus of a new grant awarded to the Arizona Geological Survey and its partner geoscience teams at Arizona State University (ASU), Northern Arizona University (NAU), and the University of Arizona (UA).

The Federal Emergency Management Agency (FEMA) awarded \$493,678 as a Pre-Disaster Mitigation Competitive Grant to the consortium headed by the Arizona Geological Survey (AZGS) to improve earthquake monitoring and revisit seismic hazard assessment in Arizona. AZGS and the three universities are providing \$172,000 in matching funds.

The Arizona Division of Emergency Management (ADEM) administers the grant and fourteen of Arizona's 15 counties signed on as partners in the project.

The three-year award provides for the purchase and maintenance of eight of the 58 broadband seismometer stations currently, but temporarily, deployed in Arizona as part of EarthScopes' USArray Program (http://www.iris.washington.edu/USArray/index.html).

Small earthquakes that are generally undetected in Arizona now, may offer clues to where larger earthquakes could occur in the future. Dr. Matthew J. Fouch (ASU Earth & Spaces Sciences) noted that this new network "provides us with a fundamentally improved ability to see deep inside the crust and mantle beneath the state ... and provide the key evidence we need to better understand the geology we observe at the surface".

"Once gathered it (seismic data) will be a valuable source of information and used in updating the State's earthquake risk assessment" said Darlene Trammell, ADEM State Hazard Mitigation Officer.

The Earth science teams at ASU, NAU and UA are responsible for analysis and interpretation of seismic data that should provide new insight into Arizona's earthquake hazards. Mimi Diaz (AZGS) is

coordinating science outreach and will work with local jurisdictions to update their hazard mitigation plans.

Each broadband station comprises a shallow vault to house the seismometer, a digitizer/recorder, solar rechargeable battery, a global positioning system (GPS) receiver, and a data telemetry system. Earthquake event data are transmitted to the Array Network Facility at the University of California, San Diego, and from there they are disseminated to researchers and the public.

**For more information** contact the Arizona Geological Survey's Mimi Diaz (602)708-8253; mimi.diaz@azgs.az.gov) or Michael Conway (520)770-3500; michael.conway@azgs.az.gov).

For an illustration showing the distribution of USArray seismometers in Arizona, and the location of earthquakes detected by the array, see <a href="http://arizonageology.blogspot.com/search?q=earthscope+">http://arizonageology.blogspot.com/search?q=earthscope+</a>

## **Principal Investigators & Affiliations**

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