# State installs new seismic instruments in High Desert

**Sam Pearson, Barstow Desert Dispatch, 2-8-12**

BARSTOW -- The California Geological Survey has installed new equipment in the Barstow area to take measurements during earthquakes.

The three new “accelerographs” collect data about how buildings respond to shaking ground and transmit it to agency headquarters in Sacramento.

The measurements help the agency know how strong structures should be reinforced in order to withstand an earthquake. Earthquake forces decrease with distance from the fault, but the rate varies depending on the fault, said Anthony Shakal, manager of the California Strong Motion Instrumentation Program, which the Geological Survey launched in 1971.

The group operates about 750 ground sensors throughout the state, like the new equipment near Barstow. They also manage equipment embedded in about 200 buildings, hospitals and bridges that collect data in the event of an earthquake.

Shakal said the equipment is about the size of a large shoebox and connects to a power supply as well as a backup battery system. It transmits data automatically by phone line to the Geological Survey. The machines cost about $6,000 each.

Earthquakes can occur in Barstow along several smaller faults like the Lenwood, Mount General, Calico and Camp Rock faults. The new instruments are located east of Mojave near the Camp Rock and Calico faults.

The next big earthquake is likely to occur in Southern California, and even though Barstow is not near the powerful and well-known San Andreas Fault, its faults can still provide valuable data, the agency said.

“There are a group of northwest-trending faults that don’t have very frequent earthquakes but are capable of big ones in the Mojave,” said Supervising Geologist Chris Wills in a written statement. “Barstow’s right in the middle of that.”

Barstow has experienced several large earthquakes, including the 6.5 Manix earthquake in 1947, the 7.3 Landers earthquake in 1992, the 7.1 Hector Mine earthquake in 1999, and a magnitude 5.1 earthquake in 2008, according to the Geological Survey.

The instruments can be used to map the level of shaking and help emergency responders estimate what areas are likely to have the most damaged buildings.

The agency’s goal is to eventually have measuring equipment in every California ZIP code.