



Radar interferogram. Since space-based geodetic measurements have become available, there has not been a major earthquake on the San Andreas Fault. However, two major earthquakes have occurred in the Mojave Desert in 1992 (Landers) and 1999 (Hector Mine). This radar interferogram shows the ground motion associated with the 1999 Hector Mine earthquake. The ERS-2 satellite radar imaged the land before and after the earthquake. The difference in radar phase between the two acquisitions, shown here, reveals the rupture in great detail; one color cycle (or 'fringe') represents 28 mm of ground motion. The technique of radar interferometry offers the ability to monitor fault zones on continental scales and it is highly complementary to the 400 continuously operating Global Positioning System receivers that have been deployed along the San Andreas Fault zone. (Data from the Synthetic Aperture Radar (SAR) instrument on the European Space Agency ERS-2 satellite.)