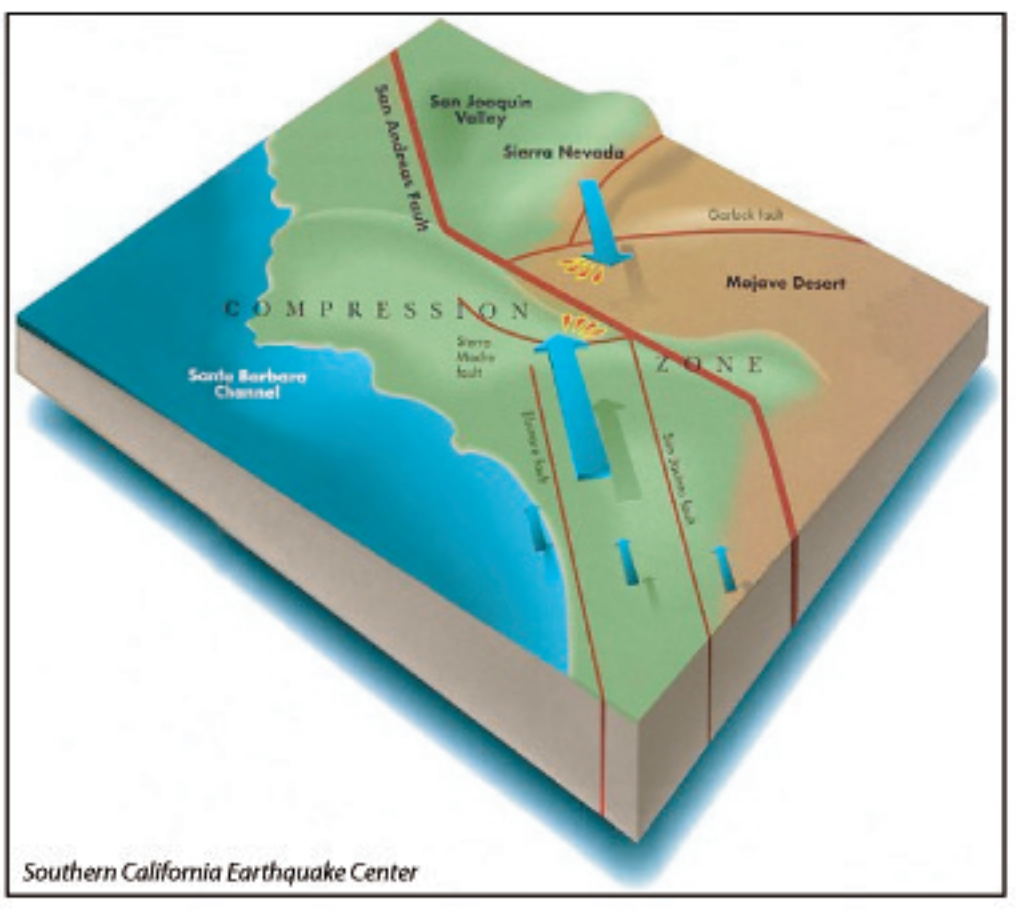
The Southern California Intergrated GPS Network

Using the Global Positioning System to Study Earthquakes

Southern California is a giant jigsaw puzzle, and scientists are now using GPS satellites to track the pieces. These puzzle pieces are continuously moving, slowly straining the earth's crust. That strain is eventually released in earthquakes. The innovative Southern California Integrated GPS Network (SCIGN) tracks the motions of these pieces over most of southern California with unprecedented precision. This new network greatly improves our ability to assess seismic hazards and quickly measure the larger displacements that occur during and immediately after earthquakes.



Southern California Earthquake Center

S. California is on the boundary between the North American and Pacific plates. The Pacific plate moves northwest relative to the N. American plate at about 2 inches/year. SCIGN measures the horizontal motion across S. California and the north-south squeeze that uplifts the east-west mountains of Southern California.