

I became more interested in earthquake research in my first year of college. I picked my institution off of my goals of becoming a marine biologist, but the deep mysteries of the ocean became less appealing as my professors continuously told me to become more specific in my research goals. I then became interested not in the ocean, but the floor below it and since I did not have the option of switching to a geology major I looked into other opportunities. In my first research experience with SCEC I became fascinated with earthquake research and how professionals are going about experiments and the technology used to answer questions.



The 11 ShakeOut areas in California

Last summer I worked on a project that monitored the San Andreas Fault using Global Positioning Systems (GPS) to find the direction the fault is moving, and about how many millimeters it moves within a year. This project is tied closely to ShakeOut projects. The Great California ShakeOut promotes earthquake preparedness by teaching the public about earthquake safety and seismic risks within their area of residency. The Southern California Earthquake Center (SCEC) creates Virtual Displays of Objects (VDOs) to show past earthquake events and how the intensity of the quake compares to the amount of damaged caused by it. SCEC VDO is a way to create animations to give the public a visual of earthquake



hazards and scenarios. Although the San Andreas fault may seem like the biggest hazard within California, the state also has many other faults beneath it. California has faults ranging from Del Norte in the north to San Diego in the south all of which pose possible hazards, giving California the name Earthquake Country. When the ShakeOut started in 2008, its focus was in Southern California. Since then, the ShakeOut has expanded throughout the whole state of California. There are 11 ShakeOut areas within in the state which are divided by the counties within each area. To give each area an idea of possible earthquake hazards, several SCEC VDOs are being created, showing the area, the counties within it, and faults in the area, and past seismicity of the area. SCEC VDO is a 4D computer program that allows one to show not only the surface of the area, but also what is under the surface. This allows the depiction of the depth of the faults and the differences in the depths of earthquakes. The main goal of the project of creating these VDOs of the 11 ShakeOut areas is to eventually post them on the web so they are available for public viewing.

The Southern California Earthquake Center strives to keep the public informed and educated so in the event that there is an earthquake, civilians will know how to protect themselves and loved ones to prevent injuries and death. Although damage may be inevitable in a very large event, there are ways to go about minimizing the damage. These videos are not to create panic or worry, but to create awareness so civilians are ready to Drop, Cover, and Hold On when the next earthquake occurs.