



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Nathan Bales; Daniel Trubey	Project Number S0701
Project Title Earthquake Precursor Detection	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals We are trying to see if we can build a radio receiver sensitive enough to detect in the DC-30 Hz range which is know to contain earthquake precursors.</p> <p>Methods/Materials We built an inductor coil as our antenna, a receiver circuit, power supply, and we bought an analogue to digital converter to connect it all to a PC. We used an oscilloscope to take measurements and are planning to eventually use a program that came with the ADC to plot the data in live time.</p> <p>Results When we hooked the receiver, antenna, and power supply up to our oscilloscope we found that we got what looks like to be the right kind of signals coming out of the receiver.</p> <p>Conclusions/Discussion We conclude that the receiver is sensitive enough to detect in the DC-30 Hz radio wave range.</p>	
Summary Statement We are testing the ability of a receiver to detect earthquake precursors.	
Help Received Richard Trubey helped with general electronics questions. Bruce Mount helped with more in-depth electronics questions that Richard Trubey could not answer. Charlie Plyler made the schematics we used for the receiver circuit and power supply.	