



**CALIFORNIA STATE SCIENCE FAIR  
2007 PROJECT SUMMARY**

<b>Name(s)</b> <b>Anna Dewey; Charles Dewey</b>	<b>Project Number</b> <b>S0304</b>
<b>Project Title</b> <b>Infrawaves: Nature's Early Warning System</b>	
<b>Objectives/Goals</b> The objective of our project was to determine if infrawaves could be used as early warnings for natural disasters, not only by scientists and seismographs, but by people in the danger zones. We worked to determine if humans could sense the infrawaves, and if they could, whether male or female test subjects heard the low frequency tones better.	
<b>Abstract</b>	
<b>Methods/Materials</b> In order to perform our experiment we needed a Fender Passport Deluxe PD 25(250 watt speakers), an Oscillator, Power Cables, Banana Jack Adapter, Audio Jack Cable, Speaker Cable, Pens, Audio Test Worksheets, A Testing Facility and human test subjects. Using the oscillator to generate low frequency tones, in descending increments of 10 Hz. from 50 Hz. to 10 Hz. ask test subjects to record whether they felt or heard tones.	
<b>Results</b> Our results proved that infrawaves can be sensed by humans, if with a varying degree of sensitivity. Male teenagers were significantly more sensitive to the subaudible tones than female teenagers.	
<b>Conclusions/Discussion</b> Not only did we determine that humans can sense infrawaves, we also proved that male teenagers heard the tones better than female teenagers. Also, on later trials, significantly more people sensed the tones, leaving us questioning whether exposure to the tones could provide an early warning system for the public in danger zones, where natural disasters occur frequently.	
<b>Summary Statement</b> We studied human sensitivity to infrawaves to determine if infrawaves could be used by the public as an early warning for natural disasters.	
<b>Help Received</b> Michael Talley for use of Oscillator; Walter Ruggieri for use of Fender Passport and testing facility; Volunteers/Test Subjects for participating in this test	