CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY

Name(s)
Renee B. Krieger

Project Number
J1024

Project Title
Wave Energy

Abstract

Objectives/Goals
My project is determining which kind of ocean waves, short and frequent, or long and less frequent, will generate a greater measurable amount of electricity. I hypothesized that shorter and more frequent waves would create more electricity.

Methods/Materials
I built a device to harness the energy and connected it to a buoy. The buoy then went into the water and was pulled down at different speeds and lengths to simulate waves. This generated electricity which was then measured and recorded.

Results
Both types of waves seem to generate about the same amount of energy. The smaller, more frequent waves had the single highest average, but it was inconsistent. The longer, less frequent waves had slightly lower averages, but they were more consistent.

Conclusions/Discussion
My conclusion is that both types of waves generated about the same amount of electricity, but more testing will be needed to come to a solid conclusion.

Summary Statement
My project is about which kind of ocean waves, short and frequent, or long and less frequent, would generate a greater amount of electricity.

Help Received
Dr. Tom O'Neil of Oxanard College helped me design the device to harness the wave energy.