The Oregon Array for Teleseismic Study
Newsletter

The University of Wisconsin - Madison

Dept. Geology & Geophysics
U. of Wisconsin-Madison
1215 W Dayton St
Madison, WI 53706

Phone: (608) 262 7513
Fax: (608) 262 0693

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Dear OATS Participant,

We want to thank you again for helping us with this project and give you some of the latest news.

So far the project has been going very well. We installed all 11 stations by the end of July, 2003 and since then we have had three visits to make sure the instruments are working properly and to collect the earthquake data stored on the disks. The data has been of excellent quality. We have precisely recorded the very small ground vibrations from earthquakes all over the world. By comparing the vibrations at each of the stations, we can get a better idea of what is happening in the Earth's mantle below Oregon.

Our stations recorded the biggest earthquake last year, the magnitude 8.3 Hokkaido earthquake that occured in northern Japan on Sept. 25th, 2003. Fortunately, this earthquake occurred about 60 km offshore in the Pacific ocean, so damage was not severe. Still, the earthquake hurt 236 people, about 41,000 people were forced to leave their homes, and 16,000 houses were without electricity. Our instruments can easily record earthquakes of this magnitude despite the vibrations being imperceptible to humans, and are shown on the next page.

Once again, thank you for your help and cooperation with this project. We look forward to seeing you soon in the coming spring.

- The OATS team

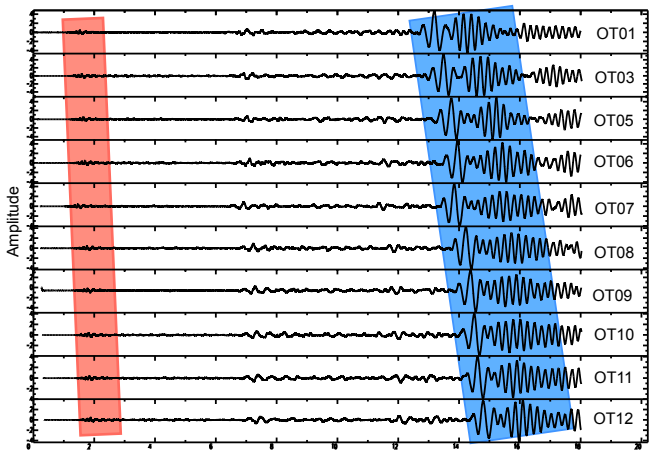
The OATS Team:

Richard M Allen
Lee Powell
Neal Lord
Andrew Lockman
Mei Xue

Anne Trehu
John Nabelek

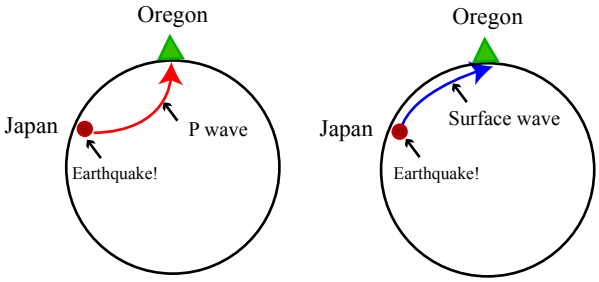
THE UNIVERSITY WISCONSIN MADISON

OREGON STATE UNIVERSITY



The earthquake waves recorded by our stations in Oregon. P-waves are shaded with light red color and surface waves are shaded with light blue color.

Cross-sections through the Earth showing the path of P-waves (red) and surface waves (blue)



P-waves are the fastest waves in an earthquake, and travel through the body of the earth before reaching Oregon (as shown left), while surface waves travel more slowly, and stick to the surface of the earth (as shown right).

An unwelcome guest!

Mice were found in the vault of one station, but fortunately they had moved out before they could cause damage. Belgian squirrels ate the cable of another station and caused the station to fail. No wonder we call them pests!

If you find such unwelcome guests roaming around our stations, please let us know when we are there. We really appreciate it.

OATS project supporters at station OT09 - Gary Miller and his daughter

Thank you to all OATS participants, without your help and cooperation, the OATS project could not run so smoothly!

If you have any questions or comments about our work please feel free to contact:

OATS

Richard M Allen

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Madison, WI 53706

Phone: (608) 262 7513
Fax: (608) 262 0693
rallen@geology.wisc.edu

Come visit us at:

http://www.geology.wisc.edu/~rallen/OATS