

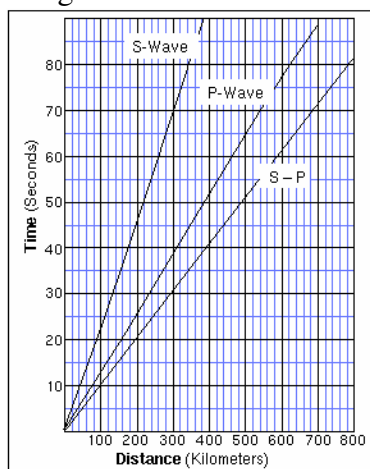
Earthquake Epicentre Assignment Version 1

Record all answers on the other side of the work sheet.

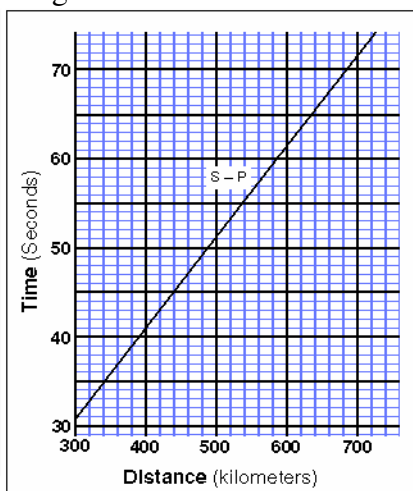
- 1) Use the seismic traces from each of the three seismograph stations to measure
 - a) an S-P wave arrival time difference,
 - b) a maximum S-wave amplitude (there are no surface waves on these traces).
- 2) Use the magnified S-P wave curve to determine the distance from the epicentre to each of the seismograph stations.
- 3) Use the distance from each station to and the maximum amplitude to determine the Richter magnitude for the earthquake. Average the answers for the three stations.
- 4) Use a compass and the three epicentre distances to locate the epicentre by drawing appropriately sized circles around each seismograph station on the regional map.

S-P Arrival Time vs Distance Curves

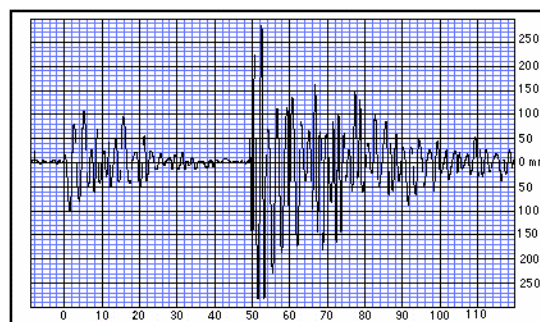
Large



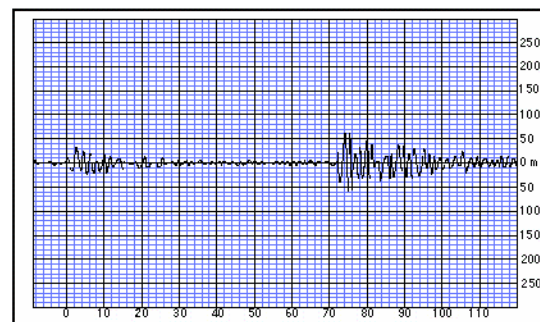
Magnified for Better Precision



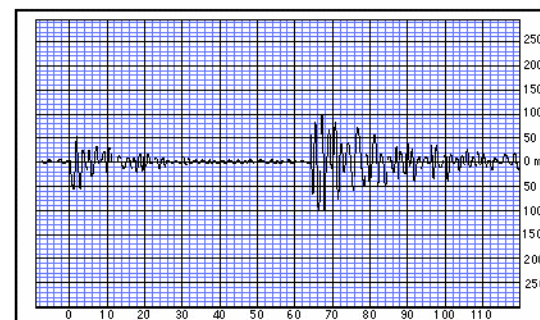
Seismic Traces



Eureka, California

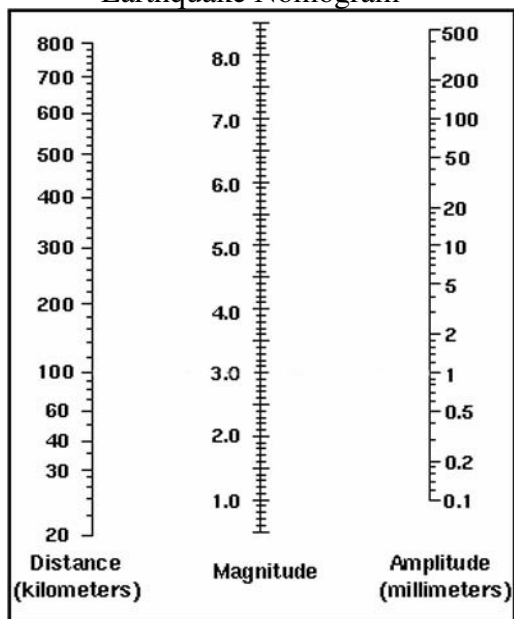


Elko, Nevada



Las Vegas, Nevada

Earthquake Nomogram



Regional Map for Earthquake Epicentre Location



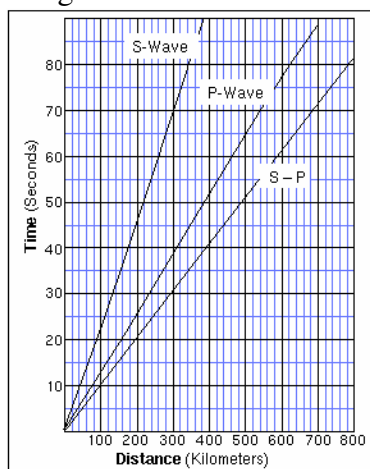
Earthquake Epicentre Assignment Version 2

Record all answers on the other side of the work sheet.

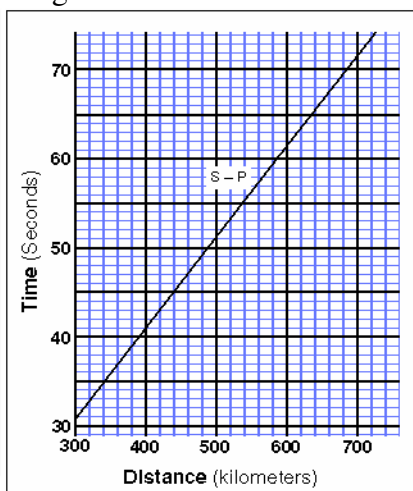
- 1) Use the seismic traces from each of the three seismograph stations to measure
 - a) an S-P wave arrival time difference,
 - b) a maximum S-wave amplitude (there are no surface waves on these traces).
- 2) Use the magnified S-P wave curve to determine the distance from the epicentre to each of the seismograph stations.
- 3) Use the distance from each station to and the maximum amplitude to determine the Richter magnitude for the earthquake. Average the answers for the three stations.
- 4) Use a compass and the three epicentre distances to locate the epicentre by drawing appropriately sized circles around each seismograph station on the regional map.

S-P Arrival Time vs Distance Curves

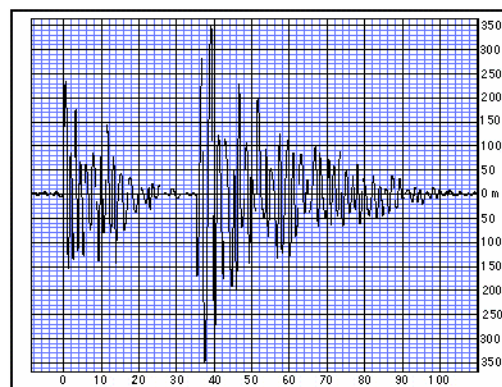
Large



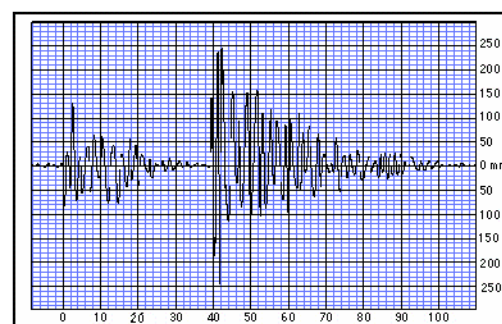
Magnified for Better Precision



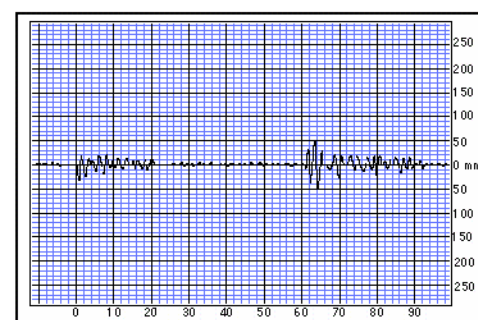
Seismic Traces



Fresno, California

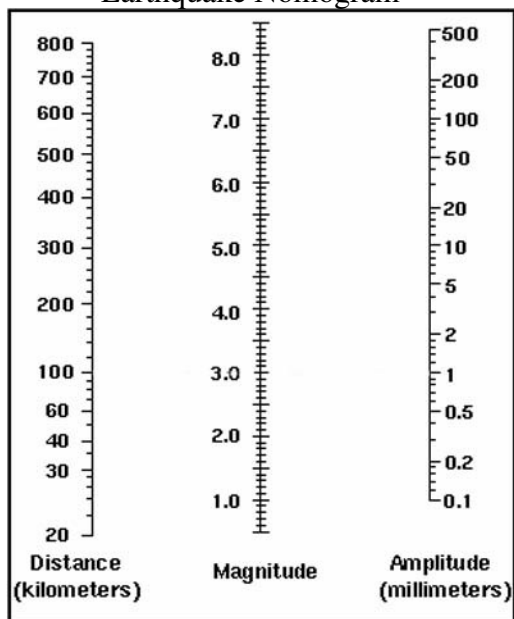


Las Vegas, Nevada



Phoenix, Arizona

Earthquake Nomogram



Regional Map for Earthquake Epicentre Location



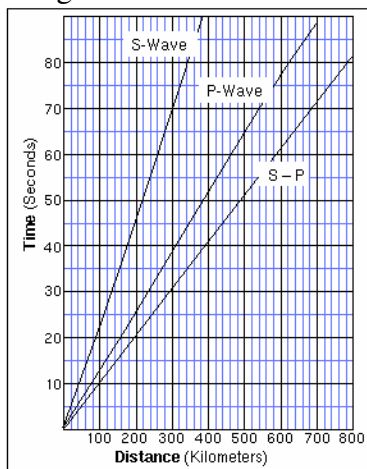
Earthquake Epicentre Assignment Version 3

Record all answers on the other side of the work sheet.

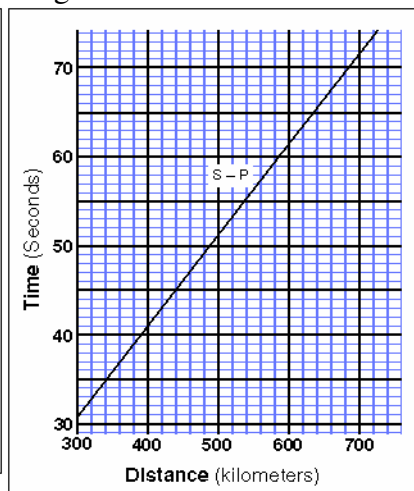
- 1) Use the seismic traces from each of the three seismograph stations to measure
 - a) an S-P wave arrival time difference,
 - b) a maximum S-wave amplitude (there are no surface waves on these traces).
- 2) Use the magnified S-P wave curve to determine the distance from the epicentre to each of the seismograph stations.
- 3) Use the distance from each station to and the maximum amplitude to determine the Richter magnitude for the earthquake. Average the answers for the three stations.
- 4) Use a compass and the three epicentre distances to locate the epicentre by drawing appropriately sized circles around each seismograph station on the regional map.

S-P Arrival Time vs Distance Curves

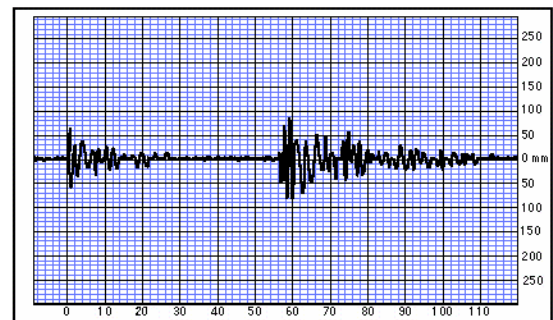
Large



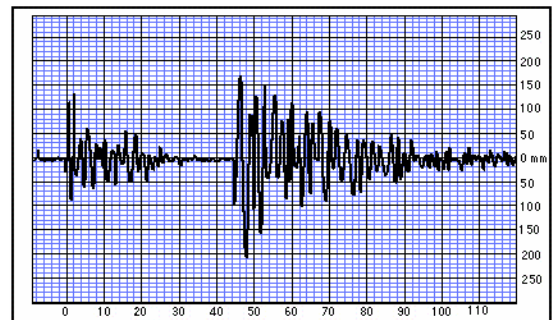
Magnified for Better Precision



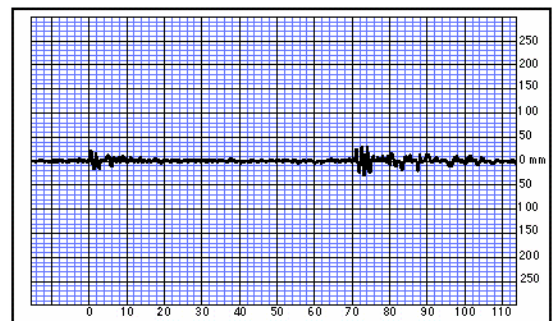
Seismic Traces



Pusan, Korea

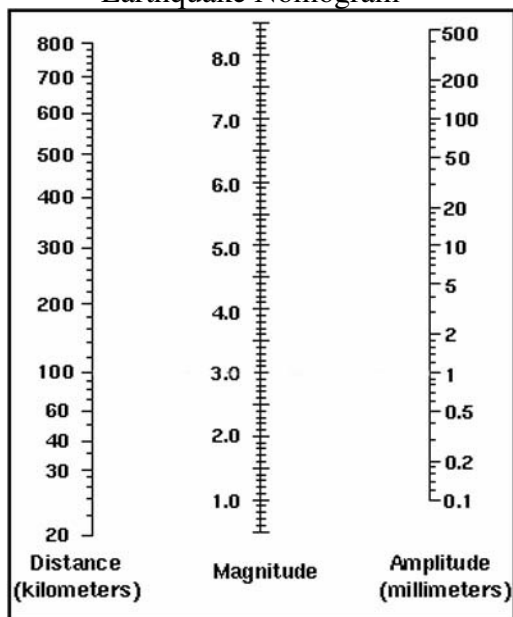


Tokyo, Japan



Akita, Japan

Earthquake Nomogram



Regional Map for Earthquake Epicentre Location

