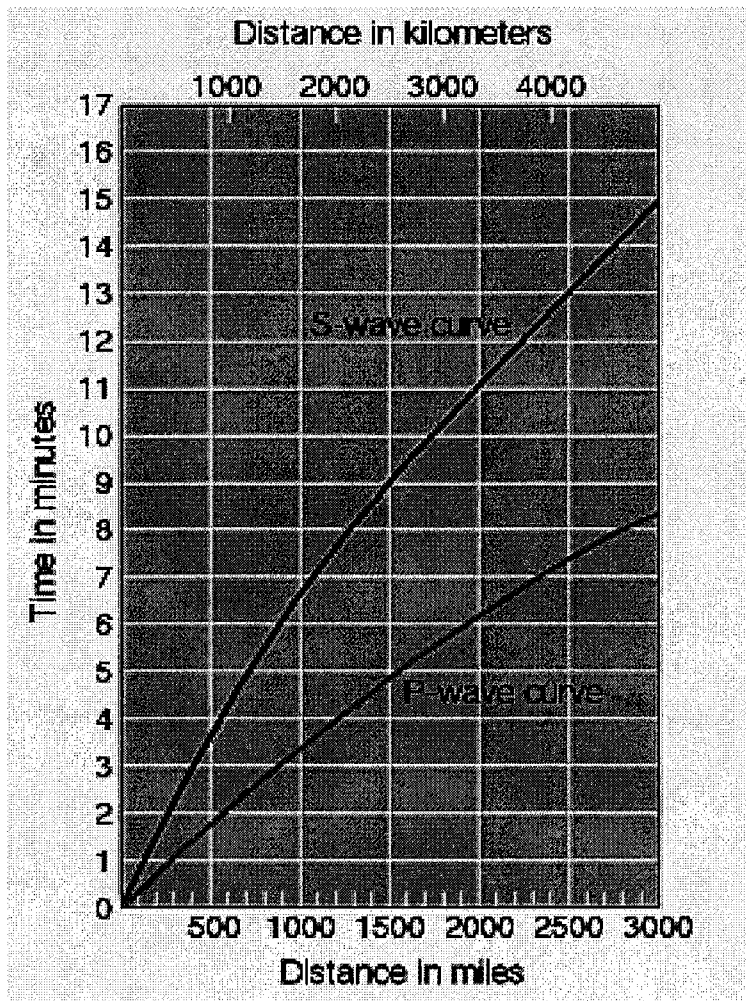


# Earthquake Waves and Time/Travel Graphs

## Procedures:

- 1) On the y axis, measure the space for the time interval on a scrap piece of paper. Make tick marks at zero and at the given time for the question
- 2) Slide your piece of paper across the graph until your two tick marks line up with the P and S wave lines. ENSURE YOUR PAPER STAYS STRAIGHT UP AND DOWN DURING THIS!!!
- 3) Go to the top axis (kilometers) and see where your paper hits the axis. This is the distance to the Focus of the earthquake.
- 4) Find the distance for a P-S wave time lag of: 30 seconds, 2 minutes 6 minutes, 10 minutes (for the last one, you will have to "extrapolate" or guess). Record your answers in a chart of your construction and attach it.



(questions over)

**Questions:**

**(use full sentences or write question and answer)**

1) Match the wave type (p, s, l) with the description:

- travels fastest
- arrives second
- causes little damage.
- cannot travel through liquids
- travels only on the surface

2) If the P and S wave arrive almost simultaneously, what does that tell you about how far away the earthquake's focus was?

3) How can P waves be used to help give warnings before the ground starts shaking?