ESCI7205 hw5

This is going to be a big exercise that we will work on in several installments, so it will be broken down into little parts, the first of which will be due Tue., Oct. 13, 2009.

Part A:

1) Review the notes on SAC and AWK.

2) Copy the seismic data from /gaia/home/rsmalley/ESCI7205/seisdata to a directory in your account.

3) Each of these files is one day long. Read the Z component into SAC and answer the following questions.

- When was this data collected (general start and end times)?
- Where are the stations? (follow the notes to make a sac macro that will list the stations and their locations.)
- Describe what you see in the files. (Is there an earthquake? Is there more than 1 earthquake? Is the data from the station good?)

4) If there was an earthquake, where was it – can you find the answer on the internet?

5) Make a map showing the earthquake, the stations, and plot the great circle paths between the earthquake and the stations. (You have already plotted map backgrounds using pscoast, points using psxy, and "lines" using psxy [when you plotted the plate boundaries on the last homework]. Modify the shell script from the last homework to make the new map [This way you don't have to retype all the definitions at the beginning, etc.]. Be careful not to erase last week's homework. You may have to read the man pages for psxy a bit.)