

ERTH 465
Homework 6
Due Tuesday 3 October

Please answer on back or on separate sheets, in complete sentences where appropriate. DO NOT JAM ANSWERS BETWEEN EQUATIONS, if equations are used. (100 pts)

Here is the link to the hourly composite reanalysis page maintained by NOAA.

<https://www.esrl.noaa.gov/psd/data/composites/hour/>

1. Your task will be to create and print a set of simple charts for 12 UTC 4 January 2008. The charts will be sea level pressure (2 copies), precipitable water, and 500 mb heights.

Beyond the choices for variables and analysis levels at the top, here are the choices you should make for the options on the page:

Shading: Contours (black and white only)
Plot Type: Mean
Scale Plot Size (%): 150; Plot Contour Labels: Yes
Region of Globe: Custom
Custom Longitude: 200 and 250
Custom Latitude: 25 and 60

For Sea level Pressure (the unit is Pascals instead of kilopascals (mb):
Override Contour Interval? Interval 400; High 105000; Low 95000

For 500 mb Heights (the unit is meters instead of dm):
Override Contour Interval? Interval 60; High 5100; Low 5900

For Precipitable Water, any level choice will work; Remove override contour interval and the limits. The unit is kg/m^{-2} and that is the same as cm of precipitation depth.

2. On one of the copies of the sea level pressure field, sketch in your guesstimate for surface fronts. (Remember, 1000-500 mb thickness contours are very similar to the 500 mb height contours.)











