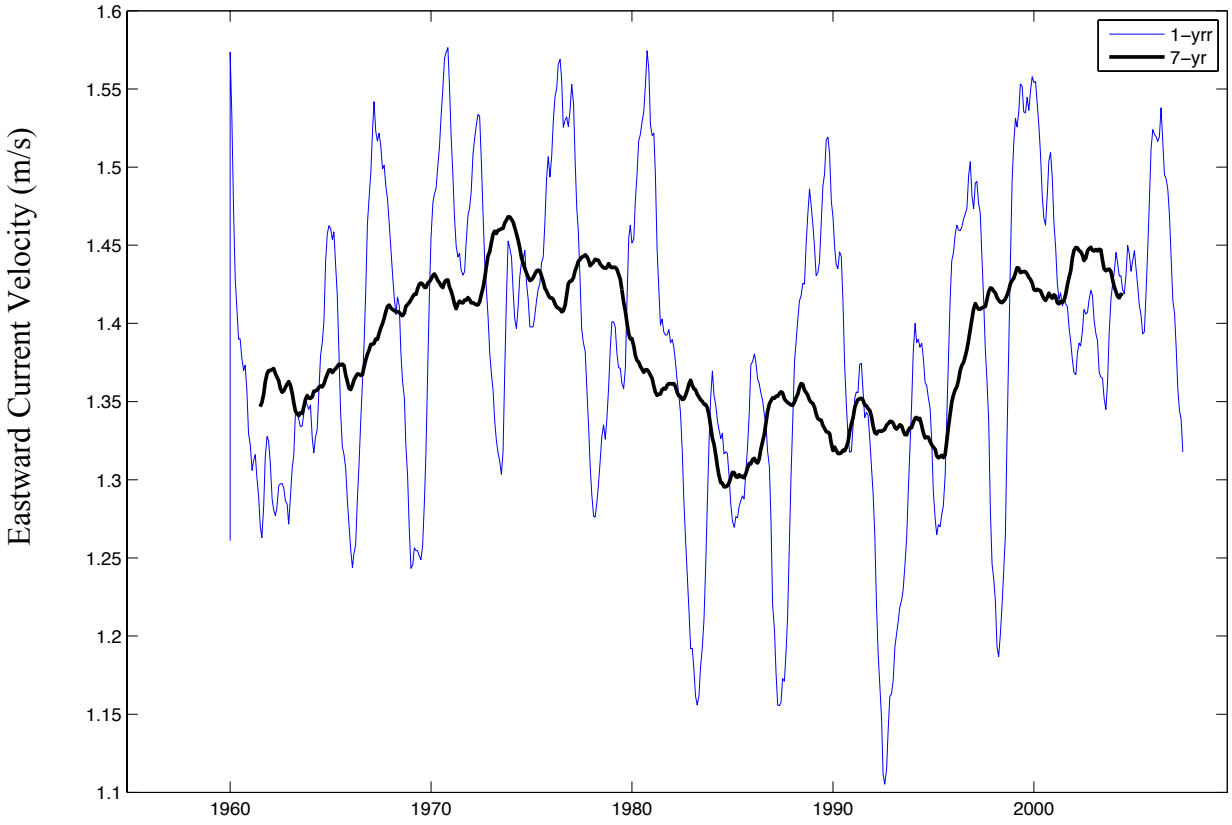
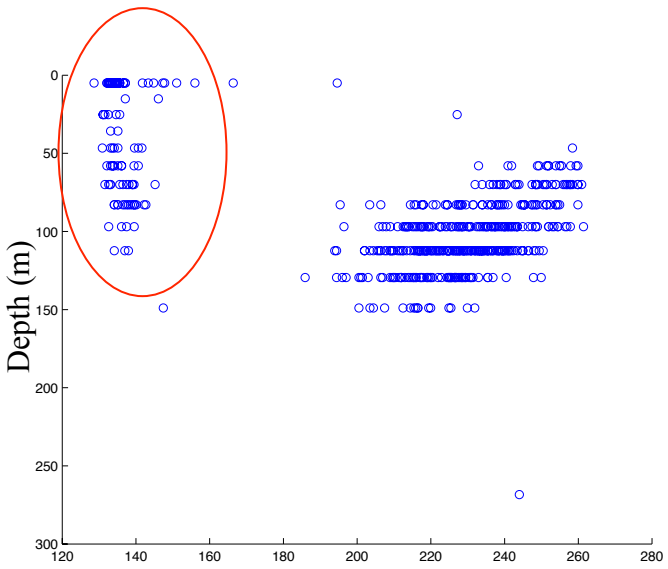
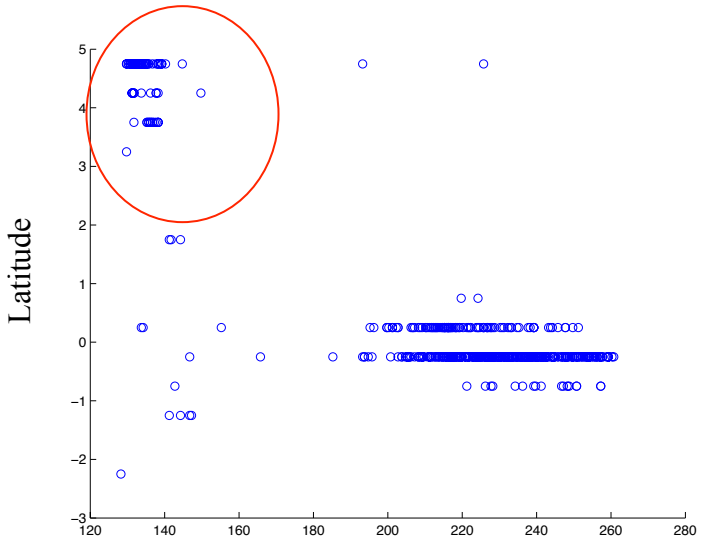
Max Eastward Velocity
Constraints: Full SODA Domain



Position of Max Eastward Velocity

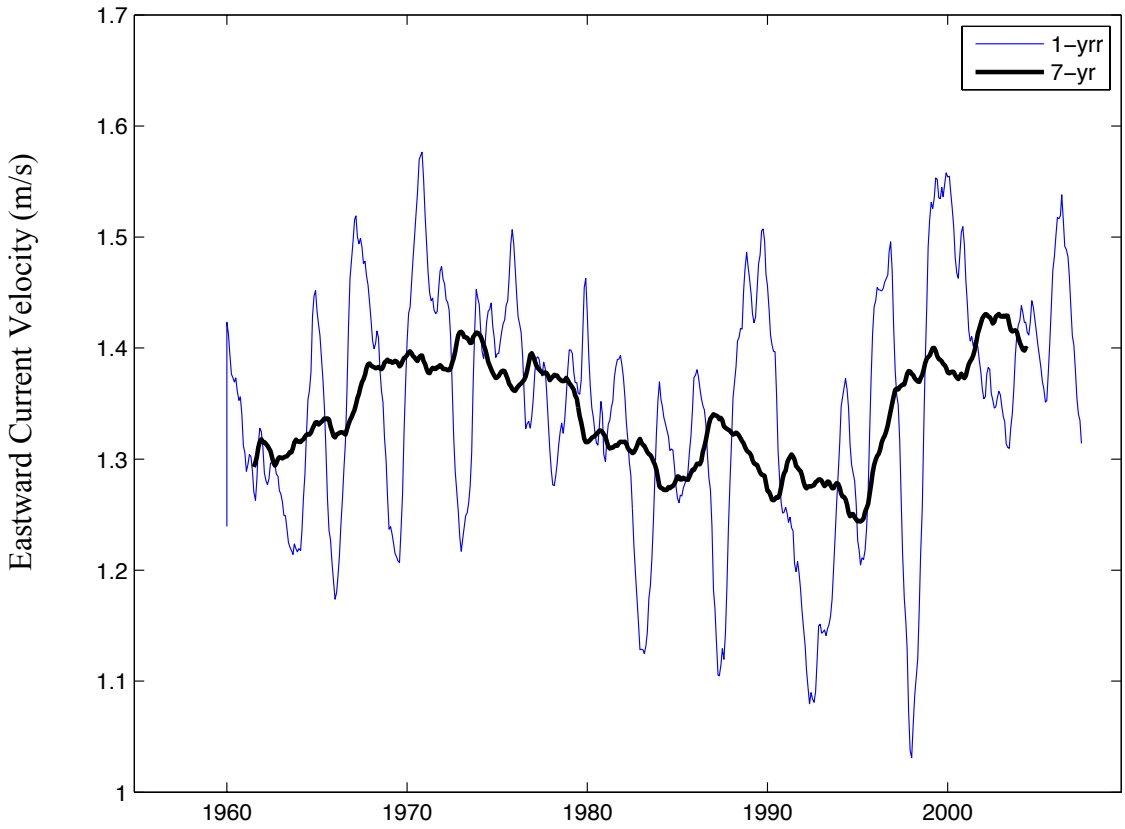


Longitude

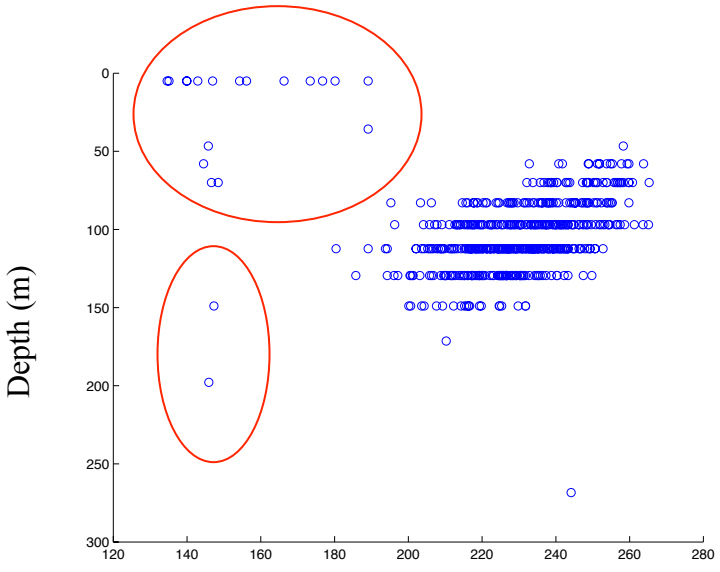


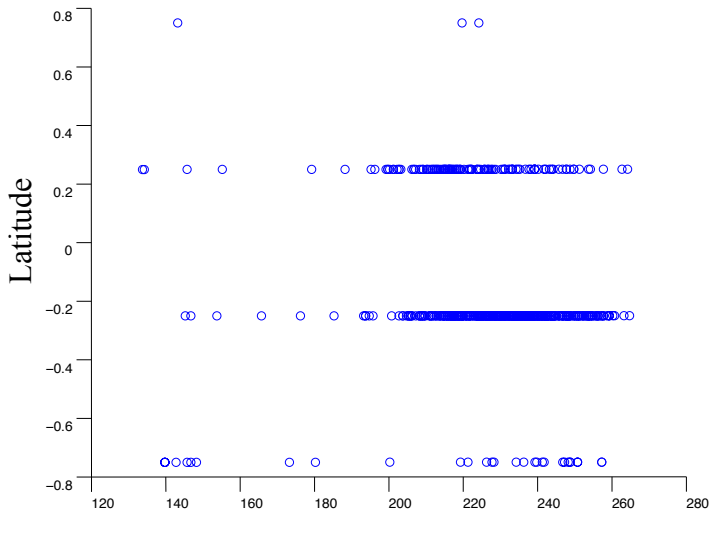
Longitude

Max Eastward Velocity
Constraints: -1<latitude<1

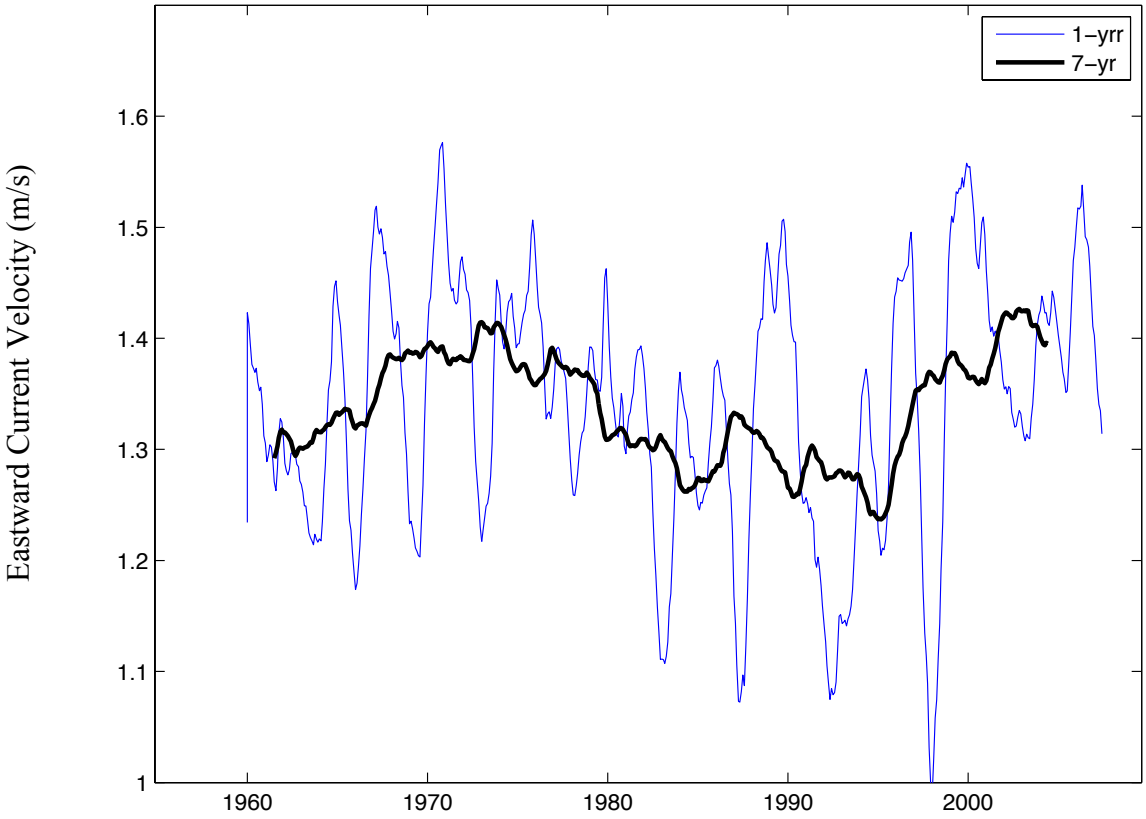


Position of Max Eastward Velocity

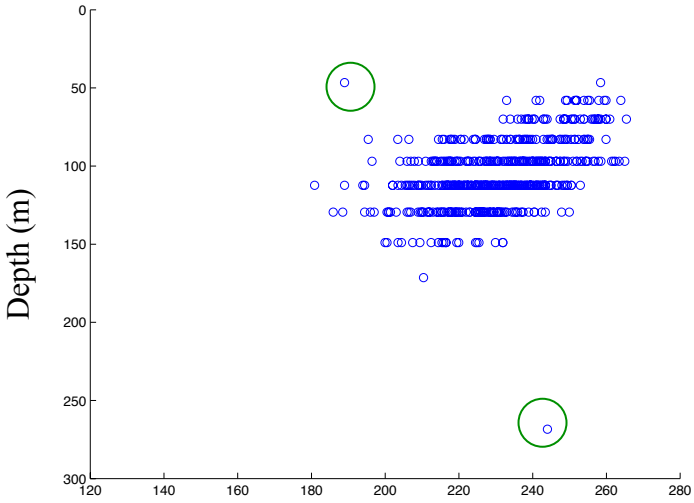


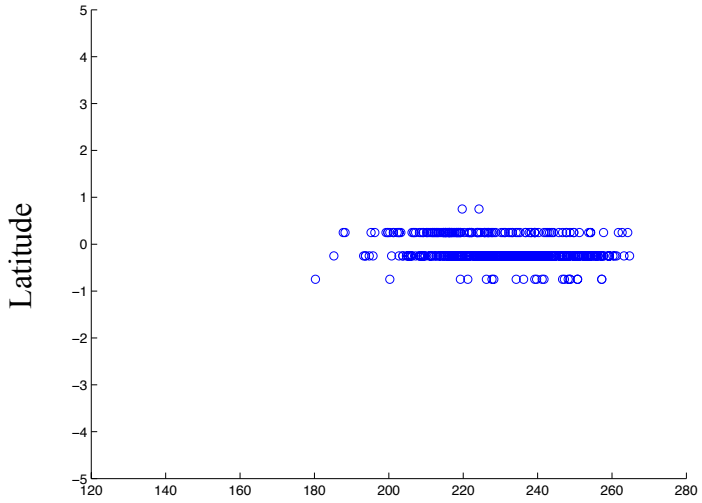


Max Eastward Velocity
Constraints: -1<latitude<1; longitude>160; depth>40m



Position of Max Eastward Velocity





In order to clear out the points circled in red, I had to restrict the domain to where I the EUC to be located. This forces the code to sample from the EUC region. Since this region did not automatically return the largest eastward velocity, restricting the "max" search to this area (presumably the EUC) will inherently include slower current intensities than originally sampled. The result of this is most striking between 1970 and 1980 where the variability drops considerably when the search for max current is restricted to -1<lat<1… kindof makes me wonder what was going on at 3-5N during that time but there's probably a simple explanation.

I did not filter out the two points circled in green in the last set of position plots. They are highlighted merely to indicate that I suspect they are not EUC signals. The position plots illustrate that the EUC tends to be positioned slightly to the south of the Equator rather than being strictly symmetric about it.

Considering only the last time series plot: The increase in current intensity between 1994-2005 seems more dramatic than the intensity increase that occurred at the beginning of the time series. Also the range (high current intensity to low) seems greater in the second half of the time series than the first.