only recognizes correlations which are either in phase or exactly out of phase as "signal". Thus a very long and slowly propagating wave would be rejected as noise whereas a pure standing wave would be recognized as "signal". Aubrey and Emery first applied the technique to 12 U.S. gages each of which encompassed 61 years of data and secondly to 41 tide gages with a common time base of 40 years of data. Different rates of rise were found for the East and West coasts. From the longer term data set of 12 stations, the eustatic values on the West and East coasts were found to be rising by averages of 1.4 mm/year and 1.3 mm/year, respectively. For the shorter term (40 years) of 41 stations, the rates of change for West and East coasts were -0.3 mm/yr and +2.5 mm/yr, respectively. It was found that the long-term rates of sea level rise are increasing from Cedar Key on the Florida west coast to Cape Hatteras, decreasing from Cape Hatteras to Cape Cod and increasing from Cape Cod to Eastport, Maine. These results are presented in Fig. 2.2. Finally, it was concluded that there is no evidence from this analysis that rates of SLR are increasing over the past 10 years.

Pirazzoli (1986) has analyzed the results from 1,178 tide gage stations provided primarily by the Permanent Service for Mean Sea Level. This appears to be the largest data set considered in an individual analysis. The analysis method was straightforward, first taking averages for each station over five

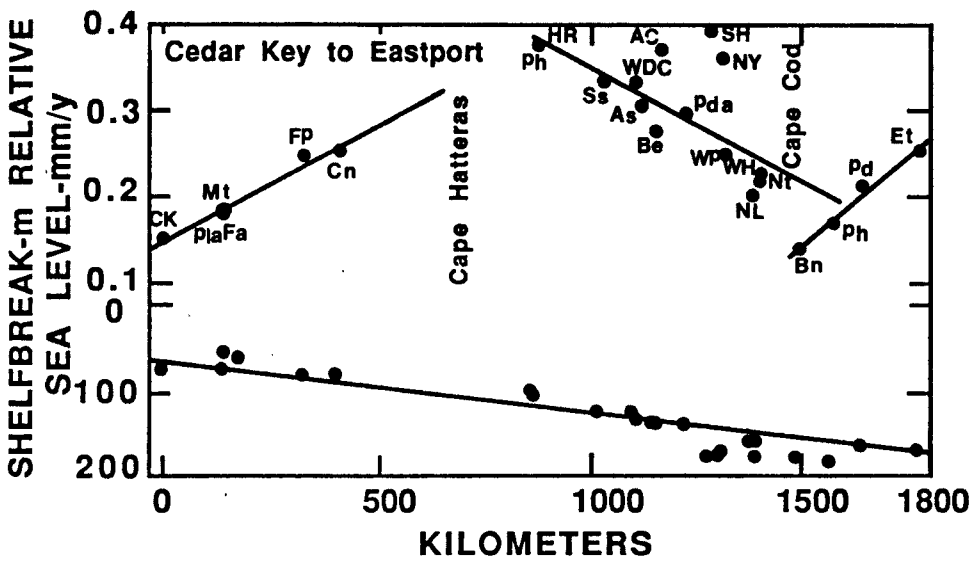

Fig. 2.2. Mean Annual Relative Sea Level Changes During 40 Year Record. Lines Define Three Main Segments of East Coast with Differing Sea Level Trends (after Aubrey and Emery, 1983).