is concentrated on the north bank at a location directly across from the southshore marina. This phenomenon is clearly seen in the last two frames of Fig. 2.11.

In addition, the dye study revealed eddy activity along the north bank, just inland of the inlet mouth. This eddy formation is indicated by the tendency of the dye to remain in that area only to become more concentrated there; the dye did not begin to be transported inland until 14 minutes after injection. This phenomenon is especially noticeable when one compares the westward transport rate of the dye on the northshore to that of the dye on the southshore (see Fig. 2.11). This eddy formation during flood, coupled with wave activity, serves as the mechanism initiating sediment transport, and hence erosion, in this region.

3.8 Wave Information

Wave data (significant height and period) at the location shown in Fig. 2.4 were obtained over a period of only four days (January 27-30, 1983) and therefore could not be considered as representative over a longer duration. Comparisons of similar data taken at a permanent wave gage off of West Palm Beach at a depth of 10 m (COEL, 1983) over this same four day period were made. The purpose of this was to determine if the measured inlet waves were sufficiently comparable to those of West Palm Beach so as to justify using the more representative wave record of the latter in the model study.

Wave measurements were taken every hour at the inlet gage but only every six hours at the West Palm Beach gage. Ten concurrent readings were obtained from the two gages. The resulting data from these readings are plotted in Figs. 3.10 and 3.11. Figure 3.10 (Shore