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MONITORING PHYSICAL AND CHEMICAL PARAMETERS OF DELAWARE
BAY WATERS WITH AN ERTS-1 DATA COLLECTION PLATFORM

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Significant Results

The results of the analysis of data collected during the summer of 1974 demonstrate that the ERTS Data Collection Platform (DCP) is quite responsive to changing water parameters and that this information can be successfully transmitted under all weather conditions. The monitoring of on-site probe outputs reveals a rapid response to changing water temperature, salinity and turbidity conditions on incoming tides as the tidal salt wedge passes the probe location. The changes in water properties were corroborated by simultaneously sampling the water for subsequent laboratory analysis. Fluctuations observed in the values of salinity, conductivity, temperature and water depth over short time intervals were extremely small. Due to the nature of the probe, 10% to 20% fluctuations were observed in the turbidity values. The use of the average of the values observed during an overpass provided acceptable results. Good quality data was obtained from the satellite on each overpass regardless of weather conditions for the duration of the study. Continued use of the DCP will help provide an indication of the accuracy of the probes and transmission system during long term use. So far the study has shown the responsiveness of the ERTS-DCP to be quite valuable in displaying rapid fluctuations in water properties and the reliability of the system to be sufficient in providing data at regular intervals.