



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
NOAA Ship PEIRCE S-328
439 West York Street
Norfolk, Virginia 23510

September 11, 1981

TO: Chief, Tidal Requirements & Acquisitions Branch
FROM: *[Signature]*
Commanding Officer
NOAA Ship PEIRCE S-328

SUBJECT: Bubbler Marigrams for August 1981

During the months of June and July, we successfully gathered data from the two tide gages mounted on the Sandbridge Pumping Pier. During the month of August, the ADR gage, with good annotations, remained in operation for most of the month. The Bubbler gage also operated most of the month. However, the Bubbler's time annotations were extremely inconsistent.

The ADR record contains one gap in excess of three days. This gap extends from J.D. 218, 2300Z - J.D. 222, 1712Z. The Bubbler gage was in operation during this period, except for one hour, but its time annotations are questionable.

In an attempt to resolve this problem, overlapping ADR and Bubbler readings were compared at both ends of the ADR "down" period. The ADR readings were hand plotted and mylar overlays were made of the Bubbler readings. The end of gap comparisons indicated that the Bubbler gage time was one hour fast. Green colored annotations to this effect have been made on the Bubbler marigram covering this 3 3/4 day period. It should be emphasized that this is our "best estimate" and a more thorough analysis of the entire month's Bubbler marigram is necessary. The remainder of the month has similar time annotation problems. Apparently many different observers from several sources annotated the marigram during this period. Our tides officer and our contract observer have, again, thoroughly discussed annotations and the first nine days of September have excellent annotations.

Hourly heights normally supplied with this report have not been included because of the ambiguity of the marigram annotation.

The three day, eighteen hour gap exceeds normal hydrographic requirements. If it is impossible to interpolate tidal correctors for the period during which the ADR gage was inoperative resulting in the loss of survey data, we request you advise us as soon as possible.



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