Unclas 00097

08H G3/13

a. Title: Monitoring Changing Geologic Features Along the Texas Gulf Coast

ERTS-A Proposal No.: SR 183

- b. GSFC ID No. of P.I.: IN 409
- c. The imagery received at this time covers only a small fraction of the study area.
- Preliminary examination of the first ERTS-A imagery of the south Texas coast indicates that variations in water properties in the Gulf of Mexico and coastal waters are sufficiently well defined to permit investigation of suspended-sediment transport. In conjunction with a pass of ERTS-I over the south Texas coast and the adjacent continental shelf, a concentrated effort was made on August 29-31 to gather supplementary remote-sensing imagery and water data to aid in the interpretation of water-turbidity variations shown by the satellite imagery. RB-57 aircraft made two overflights along the coast at an altitude of 60,000 ft. to obtain photographic and thermal infrared imagery of the coastal zone; the time interval between repeated coverage of the same point will permit measurement of short-term movements of any welldefined plumes of turbid water. Photographic coverage of Corpus Christi Bay and the adjacent coast was obtained from an aircraft at 12,000 ft. at two other times of day. Drift bottles and seabed drifters were released from a U.S. Coast Guard aircraft over an area extending 30 miles from shore and 120 miles alongshore. During a two-day cruise on the Gulf of Mexico, cross-sections of water temperature, salinity, and turbidity were made along lines extending to distances of 24 miles from shore; similar data were obtained from Corpus Christi Bay.

The data and imagery gathered will be analyzed during the next

reporting period.

e. - k. Not applicable

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MONITORING CHANGING GEOLOGIC FEATURES ALONG THE TEXAS GULF COAST 1/

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Type I Progress Report for Period 1 July 1972 - 31 August 1972

Prepared for:

Goddard Space Flight Center Greenbelt, Maryland 20771