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Progress Report on ERTS Project 281

a. Title of Investigation

Sediment Pattern Correlation with Inflow and Tidal Action, Proposal No. MMC 281.

b. Principal Investigator

Warren E. Grabau, CSFC ID DE328

c. Problems

None

d. Work Accomplished 1 January - 28 February 1974

Preparation of a draft of the final report of the Chesapeake Bay study is under way. This report will include the presentation and analysis of data from the two 10 October 1972 scenes of the Chesapeake Bay area.

In response to amendment No. 5 to Contract S-70259-AG, computer compatible tapes for scenes No. 1285-16024, 1266-20581, and 1295-15142, which cover Lake Pontchartrain, Cook Inlet, and the Choptank River, respectively, are being processed for the purpose of producing photomaps that show the distribution of suspended materials. The results will be included as a part of the report now being prepared.

The effects of the horizontal lineations that are apparent in much of the ERTS-1 data have been minimized in sediment concentration photomaps by a recently developed computer program. This program is applied to the ERTS-1 data after the pixels are classified according to the spectrum they match, thereby minimizing any adverse effects that might otherwise result from digitally filtering the data.

e. Work Contemplated 1 March - 30 April 1974

Processing of ERTS-1 data for the scenes of the Choptank River, Cook Inlet, and Lake Pontchartrain will be completed.

Preparation of the draft of the final report of the work in the Chesapeake Bay area, Lake Pontchartrain, and Cook Inlet will be continued.

(E74-10430) SEDIMENT PATTERN CORRELATION WITH INFLOW AND TIDAL ACTION Progress N74-20957
 Report, 1 Jan. - 28 Feb. 1974 (Army
 Engineer Waterways Experiment Station) Unclas
 2 p HC \$4.00 CSCI 08C G3/13 00430

Incl. 1

f. Significant Results

None this reporting period.

g. Published Articles, Papers, Reports, Talks

The following papers concerned with ERTS-1 work under way at the USAE Waterways Experiment Station have been prepared:

(1) "A Technique for interpretation of Multispectral Remote Sensor Data," by A. N. Williamson; presented at the ASP/ACSM Symposium on Remote Sensing in Oceanography, Orlando, Florida, in October 1973, and subsequently presented upon request at the ASCE Annual and Environmental Engineering meeting held in New York, N. Y., 29 October - 2 November 1973.

(2) "Sediment Concentration Mapping in Tidal Estuaries," by Messrs. W. E. Grabau and A. N. Williamson; presented by Mr. Williamson at the Third Symposium on ERTS-1 Studies held in Washington, D. C., 10-14 December 1973.

(3) "Mapping Suspended Particle and Solute Concentrations from Satellite Data," presented by A. N. Williamson at the ASCE National Water Resources meeting held in Los Angeles, Calif., 21-25 January 1974.