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CR-131909

BIMONTHLY REPORT FOR NAS5-21816, PROPOSAL 299
for the period Feb. 1, 1973-March 31, 1973

- TASK 2 (UN 628) Investigation to Relate the Chlorophyll and
Suspended Sediment Content in the Waters of the Lower
Chesapeake Bay to ERTS-1 Imagery
Drs. Fleischer, (Ludwick), Hanna, Gosink and Bowker
- TASK 3 (UN 673) The Use of ERTS-1 to More Fully Utilize and
Apply Marine Station Data to the Study of Productivity
along the Eastern Shelf Expanded Waters of the United States.
Dr. H.G. Marshall

Submitted to the

Goddard Space Flight Center
National Aeronautics and Space Administration

By the

Old Dominion University Research Foundation
Old Dominion University
Norfolk, Virginia 23508

E73-10593) INVESTIGATION TO RELATE THE
CHLOROPHYLL AND SUSPENDED SEDIMENT CONTENT
IN THE WATERS OF THE LOWER CHESAPEAKE
BAY TO (Old Dominion Univ. Research
Foundation) 3 p HC \$3.00

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ERTS-1, Proposal 299, Task 2

Report Period: February-March 1973

Principal Investigator: Peter Fleischer
Institute of Oceanography
Old Dominion University

During February-March, 1973, ground truth was collected over Chesapeake Bay during two of the three ERTS overpasses. Weather conditions were too severe during the other overpass to allow monitoring.

Ground truth collected includes surface water samples for chlorophyll, suspended particulates, temperature, and salinity analysis; transmittance and bathymetry over three lower Chesapeake Baselines.

Imagery for the January 26 and February 3 overpasses has been received.

Digitization of surface-water transmittance and bathymetry for computer correlation to the bulk computer tapes is proceeding, and suspended particulate analysis has resulted in weight concentrations. X-ray diffraction analysis of suspended particulates has also been begun.

ERTS-1 Proposal 299, Task 3

Report Period: February-March 1973

Principal Investigator: Harold G. Marshall
Department of Biology
Old Dominion University

Examination of plankton from water samples taken in previous months was the major activity during the February-March 1973 period. Over 100 samples are being examined quantitatively and qualitatively regarding phytoplankton species.

Water samples were taken at the mouth of the Chesapeake Bay on February 13 and March 3 during periods of ERTS overpass.

Data products, positive transparencies from the ERTS program have been received and are under study at the Old Dominion University Earth Resources Image Analysis Laboratory.

The most promising results are products from the January 26, 1973 satellite overpass.