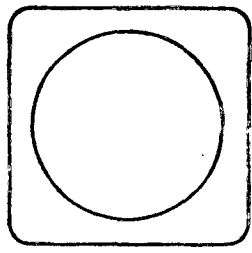


EARTH SATELLITE CORPORATION
(EarthSat)



Made available under NASA sponsorship
In the interest of early and wide dis-
semination of Earth Resources Survey
Program information and without liability
for any use made thereof."

1771 N STREET, N W., WASHINGTON, D C. 20036 / (202) 785-1123

September 29, 1972

E72-10178
CR-128373

Mr. Roland S. Yunghans
New Jersey Department of
Environmental Protection
P. O. Box 1390
Trenton, New Jersey 08625

RE: SR #304 - ERTS-1, New Jersey

Dear Mr. Yunghans:

Earth Satellite Corporation is pleased to submit this progress report for the period from July 1, 1972 to September 1, 1972. To facilitate review by the New Jersey Department of Environmental Protection and NASA, a consistent summary format has been adopted:

- A. Title: Application of ERTS-A Data to the Protection and Management of New Jersey's Coastal Environment
- B. Principal Investigator: Mr. Roland S. Yunghans, SR #304
- C. Co-Principal Investigators: Mr. Edward B. Feinberg,
New Jersey Department of
Environmental Protection

Dr. Frank J. Wobber,
Earth Satellite Corporation
- D. Contributors: Mr. Donald Garofalo, Earth Satellite Corporation
Mr. Robert Mairs, Earth Satellite Corporation
Mr. Lawrence Pettinger, Earth Satellite Corporation
Mr. David Thibault, Earth Satellite Corporation
- E. Summary of Accomplishments:

The following tasks were initiated during the reporting period:

- 3.1.1 Acquisition of Existing Imagery
- 3.1.2 Equipping the NJDEP ERTS Facility

(E72-10178) APPLICATION OF ERTS-A DATA TO
THE PROTECTION AND MANAGEMENT OF NEW
JERSEY'S COASTAL ENVIRONMENT Progress
R. S. Yunghans, et al (Earth Satellite
Corp.) 29 Sep. 1972 4 p
CSCL 08C G3/13
Unclas
00178
N73-10357

- 3.1.3 Preparation of Simulated Imagery Set 1/
- 3.1.4 Introductory Briefings
- 3.1.5 Selection of Test Sites
- 3.1.6 Collection and Organization of Collateral Data

The identification of existing imagery which may be used in the experiment (3.1.1) has been completed. The collection and organization of collateral data (3.1.6) will be completed in the next 30 days.

Equipment for the New Jersey ERTS facility (3.1.2) has been acquired and is being used by state personnel to work with initial ERTS-1 imagery. The second set of ERTS-1 imagery (August 16) received by the State is relatively cloud free and contains a number of features which are of interest to the State. These are being analyzed by EarthSat.

An essential part of the first phase (originally the Pre-launch Phase) of the New Jersey experiment is the briefing (3.1.4) and interviewing (3.1.8) of State officials who will be utilizing ERTS information products to make coastal management and environmental protection decisions. The initial briefings and preliminary interviews are scheduled for October 3 and 4. ERTS imagery sets are to include aircraft imagery (3.1.3) and have been prepared for the briefings.

Candidate test sites have been selected which are representative of the New Jersey coast and which contain the coastal management problems discussed in the proposal. Test Site selection will be finalized in the next thirty (30) days.

F. Significant Results:

Apparent sewage sludge disposal by barge has been detected approximately 12 miles offshore in an area with an approximate radius of 2.5 nautical miles (Frame No. 1024-15071-5). Verification is underway to determine whether this dumping is within one of the three approved dump sites in the Bight. Analysis of all available historical and routine meteorological data in correlation with the observed phenomenon

1/ ERTS-1 imagery has been substituted for the simulated imagery.

is necessary before final conclusions can be reached with respect to the effects of currents on the disposal of dumped wastes. Four effluent plumes emanating from the shoreline just south of Sandy Hook are observed and are moving in a southerly direction. Another plume is evident north of Barnegat Inlet and is moving almost directly offshore. This suggests that the more northerly plumes are under the influence of the tidal regime around New York Harbor much more than are the plumes further south along the New Jersey coast.

Of further interest are what appear to be an internal wave phenomena approximately 75 miles east of the New Jersey coast. This same sort of phenomena has been observed repetitively off the coast of Oregon.

G. Problems:

No particular problems were encountered during the reporting period. Compression of the pre-launch phase is largely an inconvenience which may delay -- but not materially affect -- the reporting of significant results. More prompt receipt of ERTS imagery will facilitate its use by NJDEP for coastal environmental protection purposes.

H. Recommendations for Technical Changes:

None at Present

I. Changes to Standing Order Forms:

None

J. Overview:

The New Jersey ERTS experiment is proceeding on schedule. The preliminary (pre-launch) phase tasks are being compressed, and subsequent tasks are being conducted concurrently wherever possible in order to accelerate the reporting of significant results.

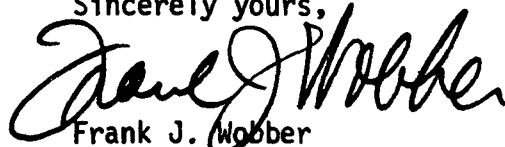
Mr. Roland Yunghans

-4-

Questions concerning this report should be directed to Dr. Frank J. Wobber,
(202) 785-1123.

I appreciate that you may wish to modify this report before submission to NASA to include additional information. We request that this format be followed, and that substantive changes be kept to a minimum. I will be pleased to discuss any changes which you think are necessary.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Frank J. Wobber". The signature is written in a cursive, flowing style.

Frank J. Wobber
Director
Geosciences and Environmental
Applications Division

FJW/kw