Subject: Bi-monthly Progress Report Number 1.

Gentlemen:

Oceanographic Services, Inc. is pleased to submit progress report number 1, covering the period 2 October 1972 to 2 December 1972 under contract NAS5-21877.

A. Title: Acquisition and Analysis of Coastal Ground-Truth Data for Correlation with ERTS-A Imagery. Proposal number 066.

B. Principal Investigation: Dr. Richard C. Miller, GSFC ID PR533.

C. No serious problems have been encountered. Cloud cover has obscured the target areas on some occasions. Data from RBU band 1 would be useful.

D. The first ERTS data, in the form of 70mm positive and negative transparencies (MSS 4567) have been received during this reporting period.

The images of ocean areas of interest show only a small variation in photometric density. Therefore, several techniques for enhancing these variations have been examined. Preparations for obtaining the ground-truth data are proceeding. Digital magnetic tapes have been requested and will be examined for the original full range of contrast in the water areas.

Work during the next reporting period will include continued study of photo enhancing techniques, correlation of received data with existing knowledge of the target areas, and acquisition of ground data concurrent with satellite passes.
E. Significant results to date: Areas with high sediment loads and a wide range of water parameters (such as San Francisco Bay, an area not a target of this study but included on the imagery) show dramatic variations in the photographs. Open oceanic areas off California have relatively homogenous water and hence a much lower range of contrast. The mean shore coastal areas show an intermediate range.

F. No material resulting from the study to date has been released.

G. Recommendations: None.

H. Changes to standing orders: None to date, although a change requesting 9.5 X 9.5 black and white transparencies will be filed soon.

I. Image Description Forms: None have yet been prepared pending detailed analysis of imagery.

J. A data request form was filed on 8 November 1972. No materials from that request have yet been received. The magnetic tape, in particular, is needed as soon as possible.

K. Other information: None.

Sincerely,

Richard C. Miller, PhD
President

OCEANOGRAPHIC SERVICES, INC.