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INFRARED AND OPTICS DIVISION
TECHNOLOGY APPLICATIONS

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Mapping Exposed Silicate Rock Types and Exposed Ferric
and Ferrous Compounds from a Space Platform

Quarterly Report for Period 8 June - 8 September 1974

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Prepared by

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The following report serves as the sixth quarterly report for this contract, which is entitled "Mapping Exposed Silicate Rock Types and Exposed Ferric and Ferrous Compounds from a Space Platform." The financial reports have been submitted monthly under separate cover.

PROGRESS

Two major activities constitute the effort for this quarter. First we continued program preparation for utilizing data from the S191 sensor. Second, S192 data from White Sands was processed to determine that the ERIM software package could handle the S192 data. Also, Dr. Vincent attended the Principal Investigators conference in July at Houston.

Programming to read the S191 standard tapes, to calibrate the data, and to place it in a form compatible with other ERIM listing and plotting routines continued. A tape reading module capable of reading the data from the two tapes was written and debugging begun. (The spectral scan of S191 is formatted on two digital tapes. The data must be read from these tapes and merged to give data for the entire scan.) A calibration module is planned to apply information in the title blocks to raw data on the tape to permit reconstruction of the actual spectral radiance values. These will be written on tape in a format compatible with existing plot and listing routines. Work on this task is expected to be complete in the next quarter.

Data from an SL-2 pass over White Sands was processed to verify compatibility of the ERIM software package with the Skylab data. Scan line straightened data were used. We found that the data and the software package were compatible after the dimensioning of some arrays of the software was enlarged to accommodate the larger volume of data.

In the middle of July, Dr. Robert K. Vincent attended a Principal Investigators Conference in Houston.

PLANS


The programming of the S191 software will be completed. When S192 tapes arrive, processing of that data will begin.

Dr. Vincent is expected to leave ERIM on October 1, 1974 to assume duties as president of Geospectra Corporation, Ann Arbor, Michigan. We are processing the necessary paperwork to transfer responsibility for contract performance to Mr. F. Thomson. Dr. Vincent will continue to be associated with the project as a consultant.

TRAVEL

Dr. Vincent travelled to Houston in mid-July for the Principal Investigators Conference.

Respectfully submitted,



Frederick J. Thomson
Research Engineer

APPROVED BY:



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FJT:RRL:njm

