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# THE UNIVERSITY OF KANSAS SPACE TECHNOLOGY LABORATORIES

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March 8, 1974

Mr. Timothy T. White, Code TD4 National Aeronautics and Space Administration Lyndon B. Johnson Space Center Houston, Texas 77058

RE: Monthly Progress Report for February 1974, Contract NAS9-13331.

Dear Mr. White:

The University of Kansas Center for Research, Inc. reports the following work performed during the period 1 February 1974 to 28 February 1974.

## 1.0 CONTINUING STUDIES

1.1 (Task 2.1.1.2, 2.1.3.1, 2.1.3.2) Development of Catalogue for Radiometer Temperature Measurements Performed to Date.

Progress was made in compilation of this catalogue.

- 1.2 (Task 2.1.3.3) Study of Effects of Atmosphere Upon S193 Rad/Scat Measurements. Same as 1.1 (above).
- 1.3 (Task 2.1.1.5) Ground Truth Collection.

A program to convert the format on the tape received from the National Severe Storm Forecast Center in Kansas City to system standard for the local Computation Center has finally been debugged. There were some problems with the documentation of the encoding onto the tape that caused a few extra steps in the decommutation effort.

The tapes from NASA have been decommutated and data from some passes have been plotted on 1:250,000 maps.

# 1.4 Data Decommutation and Analysis.

We have had some severe problems in decommutating the tapes from NASA. Also, we have noticed some idiosyncrasies in the data that seem to stem from production data processing rather than the raw data itself. A letter enumerating these idiosyncrasies and other mistakes is forthcoming.

Data for some ocean targets have been analyzed in-house. A report published under a different contract is enclosed. These results are very much associated with this project.

Some over-land passes for radiometer operation have also been analyzed. Enclosed you will find computer printouts of radiometer temperature (processed inhouse) for three data takes over the U.S.

#### 2.0 REPORTS COMPLETED

One report was published under a different contract but we think it is applicable to this project as well. Arun Sobti, J. D. Young, "Preliminary \$193 Radscat Oceanographic Data for SKYLAB II," CRES Technical Memorandum 254–3.

#### 3.0 SPECIAL ANALYSES

No special analyses were requested of us. We are pleased to learn that a large quantity of data was obtained at oblique roll offsets for the CTC mode. We are, however, apprehensive about the quality of this data because of the rumors we have heard regarding transmitter failures and scan malfunctions.

#### 4.0 DATA RECEIVED

We are still awaiting a formal listing of what data to expect on this contract. Meanwhile, all available data (received from NASA on any contract to KU) is being scanned for applicability to this project.

## 5.0 COMMENT

I shall provide you, very soon, a breakdown of the impact that the late arrival of the data, the nature of the data, and the anomalies in the data have upon the contract, both in terms of schedule and cost. For the moment, let me say that we have suffered a rather substantial setback in our schedule for the contractual obligations and that extra effort has been required that could not possibly have been foreseen in May, 1973.

Sincerely,

Arun Sobti

Project Engineer

Remote Sensing Laboratory

AS/rmm