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E7.4-10660  
CR-138892

SKYLAB

MONTHLY REPORT #7

- A. TITLE: FEASIBILITY OF USING S-191 INFRARED SPECTRA FOR GEOLOGICAL STUDIES FROM SPACE,
- B. PRINCIPAL INVESTIGATORS: R.J.P. Lyons; F.R. Honey  
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- D. TECHNICAL MONITORS: Larry York; Tim White  
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Houston, Texas 77058  
  
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- E. PERIOD: February 1, 1974-February 28, 1974

REMOTE SENSING LABORATORY  
STANFORD UNIVERSITY  
STANFORD, CALIFORNIA  
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(E74-10660) FEASIBILITY OF USING S-191 INFRARED SPECTRA FOR GEOLOGICAL STUDIES FROM SPACE Monthly Report, 1-28 Feb. 1974 (Stanford Univ.) 3 p HC \$4.00 N74-29691 Unclas CSCI 08G G3/13 00660

F. OVERALL STATUS (Problem areas, significant progress)

1. Software development on PDP-10 completed with exception of algorithm for conversion of digital values for each channel to corresponding radiance values. Tables of digital voltage versus wavelength may be obtained for any time on tapes by scanning start times for each record. Program has been tested on S-191 tapes.
2. No RB-57 data tapes received for analysis.
3. Bore-sight films for SL-3 and RB-57 (Mission 248) are being studied and the respective ground tracks mapped from them, along with the geology being overflown.

G. DATA RECEIVED TO DATE

See next page.

H. RECOMMENDATIONS (Decisions/Actions required to ensure attainment of scientific objectives).

Rapid dispatch of RB-57 infrared pallet data tapes.

I. EXPECTED ACCOMPLISHMENTS FOR NEXT PERIOD

1. Completion of flight path maps and associated geology.
2. Analysis of S-191 tapes and RB-57 tapes (if received).

J. SIGNIFICANT RESULTS

None as yet.

K. SUMMARY OF FUTURE EFFORT

1. Use of software for tape reading of S-191 tapes and RB-57 tapes to correlate spectra with ground station and ground track geology respectively, and to study and attempt removal of atmospheric contributions to the spectra.
2. SL-3 and RB-57 tracks on a geologic map, providing a chart of geologic species as a function of (a) target (SL-3), and (b) time down flight path (RB-57).

L. TRAVEL SUMMARY AND PLANS

None for next period.

**G. DATA RECEIVED TO DATE**

**AIRCRAFT RB57**

**SKYLAB**

	<b>Films</b>	<b>Boresight Film</b>	<b>Data Logs</b>	<b>Data Tapes</b>	<b>16mm.C.R.T. Plots</b>	<b>I.R. R57 Data Images</b>	<b>S190A</b>	<b>S190B</b>	<b>S191 Data Tapes</b>	<b>S191 Boresight Film</b>
<b>SL2</b>	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	R.	N.R.	7 track (1 set of 2)*	R.
<b>SL3</b>	R.	R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	7 track (3 sets of 2)	R.

\*Received unordered test tape and data tape (S192) from SL2 which we would like to retain for 3 months.

R.=Received

N.R.=Not Received