General Disclaimer

One or more of the Following Statements may affect this Document

- This document has been reproduced from the best copy furnished by the organizational source. It is being released in the interest of making available as much information as possible.

- This document may contain data, which exceeds the sheet parameters. It was furnished in this condition by the organizational source and is the best copy available.

- This document may contain tone-on-tone or color graphs, charts and/or pictures, which have been reproduced in black and white.

- This document is paginated as submitted by the original source.

- Portions of this document are not fully legible due to the historical nature of some of the material. However, it is the best reproduction available from the original submission.

Produced by the NASA Center for Aerospace Information (CASI)
June 5, 1975

California Earth Science Corporation (CalESCO) is pleased to submit its 24th Monthly Progress Report on the application of Skylab imagery to analysis of fault tectonics and earthquake hazards in the Peninsular Ranges, Southern California under NASA Contract No. NAS 2-7698.

Summary Outlook

The principal plans for the immediate future are to prepare the final reports on our analysis of Skylab data, and to prepare and analyze S192 images. Field studies of the area covered by the S192 images will be accomplished when the technical reports in preparation are completed.

Significant Progress

1. A paper entitled "Active and Inactive Faults in Southern California Viewed from Skylab" was prepared and submitted for publication in the Proceedings Volume of the NASA Earth Resources Survey Symposium, Houston, Texas. This paper constitutes a summary of the principal research accomplished on the subject contract.

2. Thin sections of rock exposed along the San Diego River linear were prepared and determined to be fault breccia.

3. Single band and ratio images of the western Mojave Desert were prepared from the S192 digital tapes. Subtle differences in color of soil and rock are apparently enhanced on the ratio images.
4. Several field days were spent in the Peninsular Ranges completing our study of the San Diego River and Otay Mountain faults. In addition, linears between Japatul Valley and Barrett Lake were investigated. Two north-northeast trending linears (Horsethief Canyon and Pine Valley Creek) and an east-west linear (Pine Creek) were concluded to have resulted from erosion along well-developed foliation in crystalline basement rocks.

Expected Accomplishments, Current Month

1. A paper entitled "Active and Inactive Faults in Southern California Viewed from Skylab" will be presented at the NASA Earth Resources Symposium, Houston, Texas, June 8-13, 1975.


3. Work will be continued on the following technical reports:
   - Investigation of Lineaments on Skylab and ERTS Images of Peninsular Ranges, Southwestern California
   - Skylab Imagery of the Salton Trough Area, Southern California
   - Analysis of the Enhancement Characteristics of Pseudocolor Transformations

Travel Summary and Plans

Trips to Houston, Texas and Washington, D.C. to present the above referenced papers are planned.

Very truly yours,

CALIFORNIA EARTH SCIENCE CORP.

Paul M. Merifield
Principal Investigator

cc: NASA
Scientific and Technical Information Facility
Attn: Earth Resources
P.O. Box 33
College Park, Maryland 20740

NASA-Lyndon B. Johnson Space Center
Earth Observations Division
Attn: Dr. David Amsbury, Mail Code TF6
Houston, TX 77058

NASA-Lyndon B. Johnson Space Center
Earth Resources Program Office
Attn: Robert K. Stewart, Mail Code HD
Houston, TX 77058