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RESOURCES DEVELOPMENT ASSOCIATES

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October 23, 1978

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AID Reference Center
Agency for International Development
Washington, D.C. 20523

Subject: Quarterly Progress Report, July 1 - September 20,
1978. Contract for Remote Sensing Technical
Support. Project No. 515-0144, Contract No.
AID/1a-C-1235

Gentlemen:

Enclosed find two copies of the above referenced report
which was sent to Costa Rica On October 22, 1978.

Very truly yours,
RESOURCES DEVELOPMENT ASSOCIATES

Timothy K. Cannon / ggm

TIMOTHY K. CANNON
Project Manager

TKC:ggm

Enclosures

To: Heriberto Rodriguez, Project Liaison
Officer, USAID Mission to Costa Rica

From: Timothy K. Cannon, Project Manager
Resources Development Associates

Date: October 20, 1978

Subject: Quarterly Progress Report, July 1 -
September 30, 1978. Contract for
Remote Sensing Technical Support.
Project No. 515-0144, Contract No.
AID/1a-C-1235

Sponsoring Agency: United States Agency for International
Development

1.0 LEVEL OF EFFORT, 6/16/78 to 10/6/78

<u>Personnel</u>	<u>Report Period</u>	
Campbell	35.5 man-days	63.25 man-days
Cannon	53.5 man-days	141.5 man-days
Craib	2.15man-days	11.4 man-days
Ellefsen	21.0 man-days	45.0 man-days
Goebel	8.0 man-days	8.0 man-days
Meyers	0.0 man-days	1.0 man-days
Raburn	71.0 man-days	76.6 man-days
Sader	73.5 man-days	150.75 man-days

Billed to date , 10/6/78, are:

Salary, wages and overhead	\$78,422.08
Travel	\$ 9,388.39
Allowances	\$ 4,520,25
Other Direct Costs	\$10,158.48
Participant Training	\$11,417.63
Subcontract	\$ 5,000.00

2.0 ACTIVITIES

During the current reporting period, the RDA team and its Costa Rican counterparts have made major strides toward completing the bulk of the land cover mapping and assembling other resource data. Members of the RDA team visited Costa Rica twice: in August, Bob Campbell, Timothy Cannon, Richard Ellefsen, and Steve Sader spent two weeks working with their Costa Rican counterparts in the field and checking the land cover mapping scheme; in September, Steve Sader and Joe Goebel spent ten days in Costa Rica checking soils information and making observations on land cover classification for aerial photography and satellite mapping.

A major amount of work has gone into the compilation, at a common scale, of soils, climate, geologic, drainage, and watershed maps. These information sources, along with map separates produced from the 1:50,000 and 1:200,000 topographic maps of Costa Rica supplied by the IGN, constitute a major portion of the required thematic resource base. Rich Davidson, who is in charge of scribing for RDA, has completed approximately 50% of the bases, excluding the land cover classifications that are still to be compiled. From aerial photography, the Costa Rican counterparts have completed approximately 80% of the land cover mapping assigned to them.

Steve Sader, the RDA team member in charge of land cover mapping, has completed two-1:50,000 quad sheets. All of these efforts represent a substantial amount of work toward the completion of the land cover classification. They indicate that this mapping is nearing the point where it, too, can be entered into the common data base.

Land cover classification from Landsat imagery is proceeding on two fronts. Approximately 25% of the project area has been completed using visual image analysis techniques. Within the digital realm the classification analysis, which was first begun with the assistance of the Costa Rican trainees in June,

has been examined and refined. Stratifications for major areas have been completed; they are presently being submitted for the final computer run of land cover classification. This is being done for the San Jose 1:200,000 quad sheet.

Soils and biophysical (physiographic) classifications of the San Jose and the Limon 1:200,000 quad sheets are approximately 75% complete. Some field checking has been carried out by Joe Goebel and Steve Sader as previously mentioned. 1:200,000 black and white prints of the Landsat imagery have been produced in order to match the geographic information base that is being assembled at that scale. Data from existing climatic, geologic, and soils maps have been reproduced and printed on clear film positives at the same scales, thereby enabling the team to extract a maximum amount of data from the visual Landsat imagery.

The cooperation of the Costa Rican technical counterparts and the Instituto Geographical Nacional, under the direction of Sr. Rudin, has been very gratifying. A good working rapport has been established between RDA and the Costa Rican representatives. Much of the progress achieved during this reporting period has been due to their excellent support. RDA has been able to utilize their knowledge of Costa Rica and the Costa Rican counterparts have a thorough understanding of the project and its goals. In spite of the continuing heavy work loads given them by their respective agencies, the Costa Rican counterparts have completed much of their assigned work.

3.0 PROBLEMS ENCOUNTERED DURING THE WORK PERIOD

No major problems were encountered during this work period. The late arrival of Landsat data from 1978 has, however, seriously reduced the amount of time available for working with the new material to fully assess its value in a change detection

and monitoring system. A number of scenes were acquired by the satellite during the spring of 1978; they allow us to see virtually all of the corridor area, cloud free.

The failure of EROS's EDIPS system to come on line at the projected date of September 1 has resulted in a lack of the high quality, computer-enhanced, visible images. In addition, changing the dates of the upcoming training period, presently scheduled for mid-November, from the original target date of October has raised the possibility of some scheduling problems occurring near the end of the contract period. As previously mentioned in section 2.0, Government agency work loads for the Costa Rican trainees/counterparts have been heavy, causing some difficulties in the execution of project-related assignments.

4.0 ACTIVITIES PLANNED FOR THE NEXT REPORTING PERIOD

During the next reporting period it is anticipated that the first major activity will be the mid-project presentation, scheduled to occur the last week in October. It will be followed by a two-week, on-the-job training period beginning November 17 for the Costa Rican counterparts at the RDA facilities in California. At the request of the Costa Rican attendees, the on-the-job training program has been reduced to two weeks to accommodate their respective agency work loads.

During the on-the-job training period, the land cover maps, derived from aerial photography, should be completed and transferred to the final scribed material. The final land cover classifications of Landsat should also be nearing completion. Soils and biophysical classification should be finished and entered into the data base. Change detection work demonstrating the capabilities of both aerial photography and satellite imagery to provide updating of data bases should

be finished. The statistics for the land cover classification, which included sampling design and sampling verification, should also be completed.

A handwritten signature in cursive script, appearing to read "Timothy K. Cannon".

TIMOTHY K. CANNON
Project Manager

TKC:ggm