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Land use survey and mapping, and water
resources investigation in Korea

Investigation #0001495(replaced by #G29910)

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AND WATER RESCURES INVESTIGATION IN KOREA
Quarterly Report (Ministry of Construction)
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Quarterly Report

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Land use survey and mapping, and water resources
investigation in Korea (#0001495)

I. The Scope of Work

The titled investigation covers the followings and it will be carried out for better understanding and study of the surface substance and hydrological characteristics of the Korean Peninsula with the use of LANDSAT imagery analysis:

1. Land use classification and changes through photo-interpretation - this result will be incorporated into the on-going 1:25,000 land use map project.
2. Production of one sample sheet 1:250,000 orthographic map.
3. Production of one sample sheet 1:250,000 ortho-photo-map.
4. Flow dynamics study for estuary areas.
5. Surface water distribution for flood forecasting in downstream areas.
6. Flood inundation areas to estimate flood damage.

II. Objectives

The Landsat data will promote the efficiency for the following on-going and programmed projects of the Institute providing new information on topographical and hydrological features:

1. Land Use Map Project

From 1972, Korea started this project to cover (1:25,000) 830 sheets for the entire country. Landsat imagery will efficiently be utilized as supplementary data with using conventional aerial photographs for the map revision and the mapping of one sheet 1:250,000 scale.

2. Orthographic Mapping

Korea has a poor coverage of 1:250,000 maps. One sample sheet of this scale will be photo-planimetrically revised with new information from Landsat data, as a pilot project to prove the possibility of continuation of the revision for the remaining sheets.

3. Ortho-photo Mapping

Korea has well trained engineers for ortho-photo mapping, however, no small scale maps (less than 1:50,000) has been available. One sample sheet of an ortho-photo map will be produced with Landsat data.

4. Flow Dynamics Study

Better understanding of the characteristics of flow dynamics is very critical for the estuaries being damaged by salt water interusion and lack of fresh water.

5. Flood Forecasting

Adequate hydrological data can be obtained for downstream areas where data has not been available for flood forecasting. Also, Landsat data will provide information for flood damage assessment.

III. Progressing

In this quarter period (from 1 January 1977 to 31 March 1977), there has not been accomplished notable achievements due to mainly the lack of preparation of Landsat data collection.

However, during the period, we have ordered fifty(50) scenes of imagery of B/W with product code 01 in each band to the EROS Data Center, which have been selected on the basis of cloud cover 0-10%, in principle, dated from 1975 through 1976 to fulfill the investigation goal.

We have also, in the mean-time, received nine(9) scenes of imagery which cover thirty six (36) negative films in 70mm x 70mm format and paper prints in 9" x 9" each band respectively, from the EROS Data Center through the Korean Embassy in Washington, D.C.

But these datas are still short-coming for the investigation:

It is therefore, anticipated that a considerable progress will be achieved in next quarter period, if the datas above mentioned are to arrive as soon as possible.