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CR-133518

TYPE I PROGRESS REPORT (For the period 9 June 1973 to 8 August 1973)

TITLE: Effects of Construction and Staged Filling of Reservoirs on
the Environment and Ecology ERIC #341

PRINCIPAL INVESTIGATOR: Dr. Ravinder K. Jain
U.S. Army CERL
P. O. Box 4005
Champaign, IL 61820

GSFC ID NUMBER: DE 335

OBJECTIVE: To study the environmental and ecological impact of the
construction and operation of Oakley Dam and Friends Creek
Impoundment located on the Sangamon River in East Central
Illinois.

1. Three digital planimetric base maps of the study area have been completed using stereomodels of underflight photography. Within the next two months five stereomodels of underflight imagery will be used to complete the base mapping of the study area. Through two-dimensional transformations, the independently generated digital planimetric units will be connected to form a continuous strip covering the Sangamon River corridor from Rantoul to Springfield, Illinois.
2. Underflight photography was received for the following dates: 21 March 1973 and 31 May 1973. The photographs taken 31 May 1973 had considerable cloud cover obscuring important sections of the study area. A request was submitted for another flight over the study area in August or September 1973, if it could be arranged on a ferry mission to or from the East Coast.
3. Underflight photography is being sent to CERL in a prompt time period following the flights. The cooperation provided to CERL by the NASA personnel involved in the Aircraft Program is excellent.
4. Systematic processing of underflight photography and ERTS imagery is underway. Final processing of underflight and ERTS imageries is expected to be completed during the next two months. Flightline mosaics will then be constructed and detailed interpretation will be conducted at this stage.
5. All ERTS Data Request Forms are receiving prompt attention.
6. Work is about complete on a data analysis technique and the associated software for the extraction of engineering and geomorphic properties of the terrain in the study area, i.e., slope, rate of change of slope, surface geometry, etc. During the next two months work will commence on the photogrammetric compilation of the surface configuration of the study area utilizing aircraft photography. When the photogrammetric mapping is completed, the above mentioned computer program will be used to undertake the necessary analysis of the surface configuration data.

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E73-10882) EFFECTS OF CONSTRUCTION AND
STAGED FILLING OF RESERVOIRS ON THE
ENVIRONMENT AND ECOLOGY Progress Report,
9 Jun. - 8 Aug. (Corps of Engineers,
Champaign, Ill.) 1 p HC \$3.00 CSCI 08H
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