

made available under NASA sponsorship  
in the interest of early and wide dis-  
semination of Earth Resources Survey  
Program information and without liability  
for any use made thereof."

E7.4-10537  
CR-138286

**NORTH CAROLINA STATE UNIVERSITY AT RALEIGH**

SCHOOL OF PHYSICAL AND MATHEMATICAL SCIENCES

DEPARTMENT OF GEOSCIENCES  
Box 5966 ZIP 27607

Investigation Title: Utilization of ERTS-A Data in Geological Evaluation,  
Regional Planning, Forest Management, and Water  
Management in North Carolina

Proposal No. 018

GSFC. ID 281

Contract No. NAS5-21732

Principal Investigator: Charles W. Welby  
Department of Geosciences  
North Carolina State University



Date: May 8, 1974

The period February-March was spent developing with the North Carolina Region G Planning Agency a project for use of ERTS-1 imagery. A photogeology class started using ERTS-1 imagery in an attempt to evaluate its usefulness. An exhibit of ERTS-1 images was prepared for the Design School by a student to acquaint a group of potential users with the imagery. Work was continued in studying the usefulness of the imagery in mapping of floodplains in the Coastal Plains region of North Carolina, and ERTS-1 imagery was used in an ongoing study of urban forests in the Raleigh area.

Perusal of the imagery coming in during this period reenforced the opinion that one of its most valuable uses will be monitoring of the water masses in the North Carolina coastal area.

Funds for completing the project are about gone.

(E74-10537) UTILIZATION OF ERTS-A DATA  
IN GEOLOGICAL EVALUATION, REGIONAL  
PLANNING, FOREST MANAGEMENT, AND WATER  
MANAGEMENT IN NORTH (North Carolina State  
Univ.) 2 p HC \$4.00 C5CL 08G

N74-25855

Unclas  
G3/13 00537

ERTS and Multispectral Photography

Charles W. Welby  
Department of Geosciences  
North Carolina State University  
Raleigh, North Carolina 27607

Abstract

ERTS-1 imagery can be used to study a wide variety of phenomena. For the geologist its most apparent use is in structural studies. Lineaments are conveniently mapped in many cases, and a regionwide, synoptic view of the structural geology may be obtained. Other uses include land use studies, highway route planning, and studies related to water quality in large bodies of water.

Multispectral photography has been used only limitedly in solving geologic problems, but it has been used successfully in conjunction with vegetative studies, water quality studies, and with studies of marshes.

To be presented at: 25TH ANNUAL HIGHWAY GEOLOGY SYMPOSIUM

Raleigh, North Carolina

May 24, 1974, Technical Session