

# DEPARTMENT of the INTERIOR

news release

GEOLOGICAL SURVEY

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## INTERIOR PLAYS LARGE ROLE IN EARTH RESOURCES SURVEY PROGRAM

More than 20 U.S. Department of the Interior scientists are included in an initial group chosen by NASA to analyze a wide variety of earth resources data to be gathered by two earth-orbiting spacecraft.

The spacecraft are the first Earth Resources Technology Satellite (ERTS-A, scheduled for launch in the spring of 1972), and the manned Skylab which will carry an Earth Resources Experiment Package (EREP), scheduled for launch in the spring of 1973.

Through its EROS (Earth Resources Observation Systems) program, administered by the U.S. Geological Survey, the Interior Department represents the largest single recipient and user agency of data to be obtained from NASA aircraft and spacecraft designed to gather repetitive information related to such disciplines as geology, hydrology, cartography, marine geology, geophysics, volcanology, and seismology.

As part of gearing up for making the best possible interpretations and uses of data -- much of which will be obtained from a variety of "remote sensing" devices carried in the satellites -- the U.S. Geological Survey will manage the EROS Data Center, being constructed at Sioux Falls, South Dakota. Processed data on terrain features will be stored in retrievable and reproducible form at the Center.

The feasibility of using high altitude aircraft and earth-orbiting satellites, carrying conventional and other sophisticated remote sensing devices, such as infra-red, ultraviolet, radar, to obtain earth resources data has been continuously tested in recent years by Geological Survey and other Department of Interior scientists.

Some of the products produced by the USGS from existing space photography include photomosaics of large portions of South America; maps of the southwest United States; and geological structure analysis of southeast and southwest United States. Aircraft projects already started as a "base-line" for data to be obtained from spacecraft include the Census Cities Project, infrared surveys of volcanoes, and maps showing the escape of fresh water into the oceans.

William A. Radlinski, USGS, Washington, D.C., and Acting Director, EROS Program, said that "based on findings to date, we are confident that the earth resources satellites will live up to expectations. The earth science community is eagerly awaiting the opportunities to apply space technology to the solution of many complex land resource and environmental problems."

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(Note to Editors: Attached is a listing of initial Interior scientists, experiments, area, addresses and phones)

## INTERIOR PLAYS KEY ROLE IN EARTH RESOURCES SURVEY PROGRAM

Scientists from the U. S. Department of the Interior have had 24 research proposals included in an initial group selected to analyze a wide variety of earth resources data to be gathered by two earth-orbiting spacecraft. This number represents 18% of all the proposals initially accepted. All of these studies involve fundamental or applied research on environmental problems within the United States. Another 10 proposals - to study environmental phenomena outside the United States - have also been accepted - pending approval from foreign governments. An additional 19 proposals have been tentatively accepted, subject to negotiation to reduce scope of effort and/or costs. The total number of Interior proposals accepted or tentatively accepted represents 13% of all proposals evaluated under the ERTS-A and Skylab programs.

INITIAL GROUP OF ERTS-A/PRRP SCIENTIFIC EXPERIMENTS  
(INTERIOR DEPARTMENT ONLY)

<u>EXPERIMENTER</u>	<u>EXPERIMENT</u>	<u>SITE</u>	<u>DISCIPLINE</u>
<u>CALIFORNIA</u>			
Dr. Erk Reimnitz Office of Marine Geology U. S. Geological Survey Menlo Park, California 94025 Phone: (415) 325-6695	Studies of Inner Shelf and Coastal Sedimentation Environment of the Beaufort Sea from ERTS-A	North coast of Alaska and Canada	Marine Geology
Oscar J. Ferrians C-AMR, U. S. Geological Survey Menlo Park, California 94025 Phone: (415) 325-6609	Remote Sensing of Permafrost and Geologic Hazards in Alaska	Alaska	Engineering Geology
James V. A. Trumbull Office of Marine Geology U. S. Geological Survey Menlo Park, California 94025 Phone: (415) 325-6493	Determination of Marine and Coastal Processes on Puerto Rico and Virgin Islands Platform	Puerto Rico and Virgin Islands (U.S. and British)	Marine Geology
<u>COLORADO</u>			
Russell G. Bentley, Jr. (Vice Thomas Heller) Bureau of Land Management Department of the Interior Denver, Colorado 80225 Phone: (303) 233-3611	Prediction of Ephemeral and Perennial Range Quality and Quantity during Normal Grazing Season	Oregon, Arizona, and Alaska	Agriculture
Larry D. Cast Bureau of Reclamation Department of the Interior Denver, Colorado 80225 Phone: (303) 233-3611	Remote Sensing of Bureau of Reclamation Projects from Satellites	Colorado	Engineering Geology

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<u>EXPERIMENTER</u>	<u>EXPERIMENT</u>	<u>SITE</u>	<u>DISCIPLINE</u>
<u>COLORADO</u>			
Lynn M. Shown Water Resources Division U. S. Geological Survey Denver, Colorado 80225 Phone: (303) 233-8675	Determination of the Utility of ERTS-A Imagery in the Preparation of Hydro- logic Atlases of Arid Land Watersheds	Northeastern Montana, Wyoming, New Mexico, and Utah	Hydrology
Dr. Harry W. Smedes Geologic Division U. S. Geological Survey Denver, Colorado 80225 Phone: (303) 233-6329	Computer Mapping of Terrain Using Multispectral Data from ERTS-A for the Yellowstone National Park Test Site	Yellowstone Natl. Park, Wyoming, Montana, and Idaho	Geology
Dr. Roger B. Morrison Geologic Division Pacific Environmental Geology U. S. Geological Survey Denver, Colorado 80225 Phone: (303) 233-6466	ERTS Evaluation of Imagery of the Great Plains in Map- ping Pleistocene Landforms and Formations	Illinois, Iowa, Missouri, Nebraska, South Dakota, and Kansas	Quaternary Geology
Dr. Roger B. Morrison Geologic Division Pacific Environmental Geology U. S. Geological Survey Denver, Colo. (303) 233-6466	Evaluation of Skylab (EREP) Data of the Great Plains in Mapping Pleistocene Land- forms and Formations	Illinois, Iowa, Missouri, Nebraska, South Dakota, and Kansas	Quaternary Geology
Dr. Kenneth Watson Geologic Division Regional Geophysics U. S. Geological Survey Denver, Colorado 80225 Phone: (303) 233-2349	Remote Sensing Geophysics from Skylab	Southeastern Calif. and Mill Creek, Oklahoma	Geophysics

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<u>EXPERIMENTER</u>	<u>EXPERIMENT</u>	<u>SITE</u>	<u>DISCIPLINE</u>
<u>DISTRICT OF COLUMBIA AND VICINITY</u>			
Dr. John L. Place Geographic Applic. Program U. S. Geological Survey Washington, D. C. 20242 Phone: (202) 382-5864	Land-Use Mapping and Model- ing for the Phoenix, Arizona, Quadrangle	Arizona Regional Ecological Test (ARETS)	Regional Geography
Bill J. VanTries Bureau of Sport Fisheries and Wildlife Department of the Interior Washington, D. C. 20242 Phone: (202) 343-4363	An Evaluation of Space- Acquired Data as a Tool for Management of Wildlife Habitat in the State of Alaska	Alaska	Wildlife Management
Dr. Jules D. Friedman Geologic Division U. S. Geological Survey Washington, D. C. 20242 Phone: (202) 343-3346	Thermal Surveillance of Active Volcanoes Using ERTS-A Data Collection System (DCS)	Oregon, Washington, and California	Geophysics (Volcanology)
Morris Deutsch Water Resources Division U. S. Geological Survey Washington, D. C. 20242 Phone: (202) 382-4423	Hydrologic Significance of Faults in the Great Smokey Mountains National Park	Tennessee and North Carolina, Great Smokey Mountains National Park	Hydrology
Dean T. Edson Topographic Division U. S. Geological Survey Washington, D. C. 20242 (McLean, Va.) Phone: (703) 343-5481	Application of ERTS-A Imagery to Thematic Mapping	Sites in U.S.A.	Cartography

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<u>DISTRICT OF COLUMBIA AND VICINITY</u>			
Dean T. Edson Topographic Division U. S. Geological Survey Washington, D. C. 20242 (McLean, Va.) Phone: (703) 343-5481	Application of Skylab Imagery to Thematic Mapping	Sites in U.S.A.	Cartography
Dr. Robert B. McEwen Topographic Division U. S. Geological Survey Washington, D. C. 20242 (McLean, Va.) Phone: (703) 343-9461	Cartographic Evaluation of ERTS Orbit and Altitude Data	Arizona	Photogrammetry
Joseph T. Pilonero Topographic Division U. S. Geological Survey Washington, D. C. 20242 (McLean, Va.) Phone: (703) 343-9461	Investigation of ERTS/RBV and MSS Imagery for Photo- mapping of the United States	Chesapeake Bay Area (Md., Va., N.J., Penna., Del., N.Car., W. Va.,) Ariz., Iowa, Minn., Ontario (Can.), S. Dak., and Ohio	Cartography
Joseph T. Pilonero Topographic Division U. S. Geological Survey Washington, D. C. 20242 (McLean, Va.) Phone: (703) 343-9461	Investigation of Skylab Imagery for Photomapping of the United States	Chesapeake Bay Area (Md., Va., N.J., Penna., Del., N. Car., W. Va.), Ariz., Iowa, Minn., Ontario (Can.), S. Dak., and Ohio	Cartography
Joseph W. Luckus Topographic Division U. S. Geological Survey Washington, D. C. 20242 (McLean, Va.)	Experiment in Cultural Inter- pretation and Map Revision from ERTS-A Data	Various Sites in the United States	Cartography

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