

## EROS DATA CENTER

## Applications Branch Activities

I. Training Program

## A. Scheduled Sessions:

November 27 - December 1	<u>BLM</u> Advanced Geology Workshop
January 8 - 12	<u>Strip</u> Mine Monitoring Workshop
January 22 - 26	<u>BLM</u> Digital Workshop
February 12 - 16	<u>USF</u> & WS Workshop
March 5 - 9	Resource Assessment Workshop (Univ. of California)
April 3	AAPG Conference Workshop (Houston)
April 3 - 6	<u>Water</u> Resources Workshop
April 23 - 27	<u>USF</u> & WS Workshop
April 30 - May 25	12th International Workshop
May 7 - 11	<u>BLM</u> Workshop (Phoenix)
May 21 - 25	<u>BLM</u> Workshop (Boise)
June 4 - 8	Basic Geology Workshop
June 11 - 15	Pecora V
June 18 - 22	Vegetation Workshop (Univ. of Michigan)
June 18 - 22	Harvard Terrain Analysis Course
June 25 - 29	Coal Surface Mining Workshop
September 10 - October 5	13th International Workshop
September 17 - 20	ASP/ACSM Fall Convention
October 15 - 19	Advanced Geology Workshop
October 23 - 26	Water Resources Workshop

## B. Educational Aids:

- Total of 55 Workshop Exercises on the Current Listing
- Maintaining Multiple Copies of "Representative" Exercises
- Seven Slide-Cassette Training Modules in Use
- Experimental Video-Taping of Presentations by Visiting Lecturers

**C. University Involvement:**

- Collaborating on Courses with South Dakota School of Mines and Technology, University of Michigan, and University of California
- Participating in Courses by George Washington University
- Hosting Courses by Harvard University
- Experimenting on Curriculum Development with Texas A & M University (USGS Grant)

**D. Information Exchange:**

- Five-day Turnaround on 80% of Incoming Letters
- Ten-day Turnaround on 100% of Incoming Letters
- 80% of Letters Handled by T & A Section
- Listing of Training Opportunities Outside of EDC
- Updating by Word Listing in Library
- Investigating Possible Library Terminal Link with Reston and Denver Libraries
- Recruiting for the Visitor Assistant Position

**II. Cooperative Demonstration Projects (With Cooperators Listed)**

**A. Completed:**

- Urban and Regional Land Use Change Detection (Atlanta Regional Commission)
- Monitoring Irrigated Land Acreage (PNRC - Oregon)
- Urban Land Use Mapping (PNRC - Oregon)
- Vegetation Mapping Project in Southeastern Idaho (USGS/EIA Program)
- Assessment of Flood Damage in the Red River Valley (USGS/WRD, States of North Dakota and Minnesota)
- South Dakota Land Use Mapping Project (South Dakota State Planning Bureau)
- Engineering Geological Analysis in the Denali Region, Alaska (Bureau of Land Management)
- Geohydrologic Analysis in the Denali Region, Alaska (Bureau of Land Management)
- Vegetation Mapping and Accuracy Assessment in the Denali Region, Alaska (Bureau of Land Management)
- Gypsy Moth Defoliation Study in Pennsylvania (USDA/Animal Plant Health Inspection Service)



- Northern Florida Irrigated Lands Project (USGS/WRD of State of Florida)
- Lake Mead National Recreation Area Resource Inventory Project (National Park Service)

B. In Progress:

- ✓ - Landsat Applications Program (PNRC, NASA, States of Oregon, Washington, and Idaho)
- Upper Midwest Groundwater and Materials Study (USGS/WRD, States of South Dakota, Minnesota, Iowa, and Wisconsin)
- Data Collection Platform Project (USGS/WRD, National Weather Service, SDSU)
- Multidisciplinary Case Study in Claunuch, New Mexico (EROS Program Office)
- Utah Desertification Study (USGS/Flagstaff Field Office, EROS Program Office)
- Arizona Vegetation Resource Inventory Project (Bureau of Land Management)
- Merging Landsat and Other Forest Inventory Data (Washington Department of Natural Resources)

C. New:

- Assessment of Croplands with Aircraft Scanner Data (Bureau of Reclamation)
- Development of Wildlife Habitat Evaluation Procedures (U.S. Fish and Wildlife Service)
- Strip Mine Monitoring and Reclamation Project (Office of Surface Mining, EPA)
- Change Detection Procedures in a Rangeland Environment (Bureau of Land Management, U.S. Forest Service)
- Columbia River Basin Irrigated Lands Study (U.S. Army Corps of Engineers)

III. Branch Manuscripts

(See listing dated November 1, 1978)

IV. Data Analysis Laboratory Operations

- Simulation of EDIPS Data (for DMA)
- Modify Optronics Program to 1600 BPI
- Update RSX 11D Operating System

- Support Data Calibration Project (Trautwein)
- Support Project "Deep" (DeNoyer)
- Support Landsat Conversion Project (Robinove)
- I-100 Max-Likelihood Program
- Fast-Classifer Decision Rule on I-100
- Modify IDIMS CLASFY Function
- Modify IDIMS Compare Program
- Thematic Statistics Extractor
- I-100 Transfer Format Program Rewrite
- Modify ISI Programs to Read from Kennedy Drives
- EDIPS Tape Read on I-100 and on ISI
- CCRS/EDC Software Exchange
- Read Telespazio Ground Station CCT Format
- Read GSFC Fast Video Format
- Correct for NASA CCT Format Change

## V. Basic and Applied Research and Development

### A. Completed:

- Crop-Soils Relationship Study in Brookings County, South Dakota
- Rangeland to Cropland Conversion Study in Stanley County, South Dakota
- Digital Classification of Range Resources in Southeastern Idaho
- Targeting Nickel Laterites in Indonesia
- Principal Component/Canonical Analysis
- Terrain Illumination Correction of MSS Data
- Digital Topographic Slope and Aspect Display and Analysis

### B. In Progress:

- Study of Atmospheric Considerations in Geologic Applications
- Correlation of Landsat Data with Geophysical Data
- Grassland to Cropland Conversion Study in Meade County, South Dakota
- Effects of Resampling on Classification Accuracy
- Composite Mapping for Post-Classification Refinement
- Engineering/Environmental Comparisons of Landsat Band 8, NOAA-5, and HCMV Data



**C. New:**

- Effects of EDIPS Image Enhancement Procedures on Interpretability of Soil and Vegetation Resources
- Applications of Aircraft and Landsat Data for Materials and Landform Analysis in the Midwest
- Sampling Methodologies for Vegetation Inventories
- Evaluation of RBV Image Data over the Southeastern Idaho Site
- RBV Overlay with MSS (Digitally)

**VI. Special Assignments**

Denver Field Office

NASA Regional Training and Assistance Program

Texas A & M University Grant

LACIE Reviews

ISP Commission II (Working Group II/4)

ISP Commission VII (ASP Correspondent)

BLM/EROS MOU

DAL Hardware Upgrade Package

Pecora V (with AWRA), June 1979

ASP Fall Meeting, October 1979

Pecora VI (with SEG), Fall 1980

ASP Committee on Instrumentation for Remote Sensing Data Reduction

Applications Branch - DAL Advisory Committee

NASA ASVT Reviews

International Geographical Society (Officer)

Geosat/NASA Test Case Program

NASA Advisory Subcommittee on Geodynamics and Geology (for STAAC)

Applications Branch Five-Year Plan