

November 1997

Spectrum

Center for Remote Sensing
and Geographic Information Science
Michigan State University

Remote Sensing Restructured at MSU

New Name and Services Announced

In order to be more competitive and responsive to the rapidly-changing markets in environmental analysis and related spatially-referenced information technologies, the Center for Remote Sensing has been restructured and renamed the Center for Remote Sensing and Geographic Information Science. The Center will serve as a support unit to environmental activities both on- and off-campus.

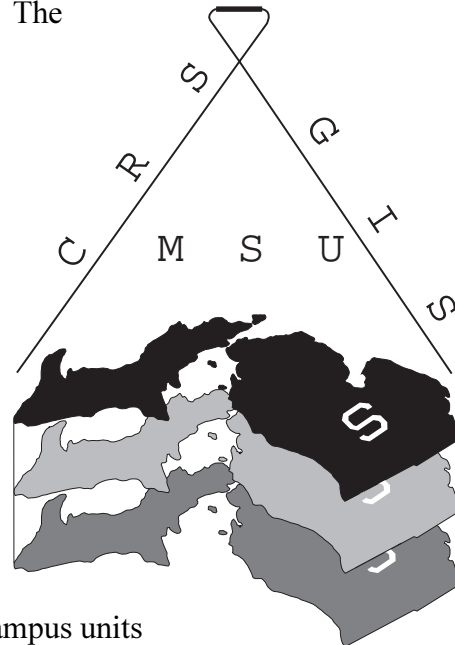
The Center has been transferred to the College of Social Science and a campus-wide Board of Directors advises the Center Director on services and policies. The Center will interact closely with other interested labs and centers across campus including the Basic Science Remote Sensing Initiative in the Department of Geography.

The basic missions of the Center are service and outreach. Contract work for on-campus and off-campus units remains a high priority. Current staff will continue to supervise this work and revenue from

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these projects will provide opportunities for student employment and training.

Outreach instruction continues primarily in the area of airphoto interpretation / remote sensing and GIS training.

Service to other campus units is provided through consulting in remote sensing, GIS, cartographic technologies, and spatially-referenced databases. The Center also maintains an Aerial Imagery Archive, custom photo interpretation and GIS services, and specialized equipment services.

Current Center Projects

- Branch County Parcel and Soils Mapping
- FRAMEWORK GIS
- Flint GIS Demonstration
- Housing Site Analysis
- Atlas of Michigan
- LandScan Digital Photography

New State Atlas Underway

The Atlas of Michigan Project, housed at the Center since August, is developing ideas and prototypes for a CD-ROM that will present Michigan information in a variety of forms, from basic data and conventional maps to animations, sound bites, and video clips. Its goal is a product that can be used in college-level instruction, that will showcase MSU research, and that will be of interest to the general reader. Project director, Richard Groop, hopes to encourage MSU researchers to provide material for the new atlas. The CD-ROM is the first of three projected atlas products, which also include a web site providing state data and a traditional, bound book.

The atlas' staff members bring diverse backgrounds and experience to the project: Cartographer Mike Lipsey managed the Center for Cartographic Research and Spatial Analysis in the Department of Geography for ten years followed by a decade in computer support and development. Dr. Nancy Yattaw, cartographer and GIS specialist, performed demographic and spatial analysis for the Institute for Public Policy and Social Research (IPPSR) in the College of Social

Science while at the same time earning her Ph.D. in Geography. Jessica Dolanski, GIS and cartographic specialist, recently completed her Master's degree in Geography. Her thesis, "Development, Application, and Evaluation of the Archaeological Site Prediction System," incorporated her undergraduate degree in Anthropology and her graduate GIS focus. Multimedia specialist Jill Hallden has received widespread acclaim and several awards for her animation of U.S. population density from 1790 to 1990. She is currently completing her Master's degree in Geography and plans to begin the Ph.D. program next year.

Faculty from the Department of Geography are providing initial guidance on structure and content, but plans include creating a larger advisory group that encompasses more of the MSU research and outreach community. Funding for the project is currently being provided by the Office of the Provost; the Vice-Provost for Computing, Technology, and Libraries; the Department of Geography; and the Center for Remote Sensing and Geographic Information Science.

Aerial Imagery Archive Expands

The Aerial Imagery Archive at the Center for Remote Sensing and GIS at Michigan State University is expanding its data sources and services available to the University and to the public. To accommodate these changes, the archive has doubled the space which

it previously occupied. This additional space was necessitated by the need for more imagery filing cabinets and to provide more work space for archive users.

To supplement its collection of aerial imagery, the archive has expanded its holdings of ancillary

data sources. In particular, the archive now maintains a complete collection of U.S. Geological Survey topographic maps for the state of Michigan. In addition, the archive has a complete set of Soil Surveys published for Michigan and a partial set of Plat Books (new and historic).

Archive Services

- Archive access, assistance, and photo checkout
- Custom searches for specific locations
- Viewing and interpretation equipment
- Black-and-white and color copy services available
- Scanning photos to a digital format

Archive Holdings

- 250,000 - 9" x 9" black-and-white historical aerial photography - includes all counties in Michigan - late 1920s through 1990s
- 56,000 - digital color aerial photographs - virtually the entire state of Michigan - converted from USDA 1992 35mm slides
- 15,000 frames of high altitude color infrared aerial photography
- 2,500 satellite images- photographic and digital
- 1,600 photographic indexes
- 100 photographic images acquired by astronauts from Skylab and Space Shuttle missions

Education and Training - Course Offerings Planned for 1998

Classes Conducted by Center Staff

- Fundamentals of GIS (2 days)
- Introduction to C-Map (4 days)
- ArcView (2 days)

For more information about training opportunities contact Towonna Williams at 517-353-7195.

Classes Offered by ESRI at Center's Training Facility

- Introduction to ArcView (2 days)
- Introduction to ARC/INFO (5 days)
- Advanced ARC/INFO (5 days)
- Programming with Avenue (3 days)
- Customizing ARC/INFO with AML (5 days)
- Working with ArcView Spatial Analyst (3 days)

Michigan Statewide Digital Aerial Photography Available

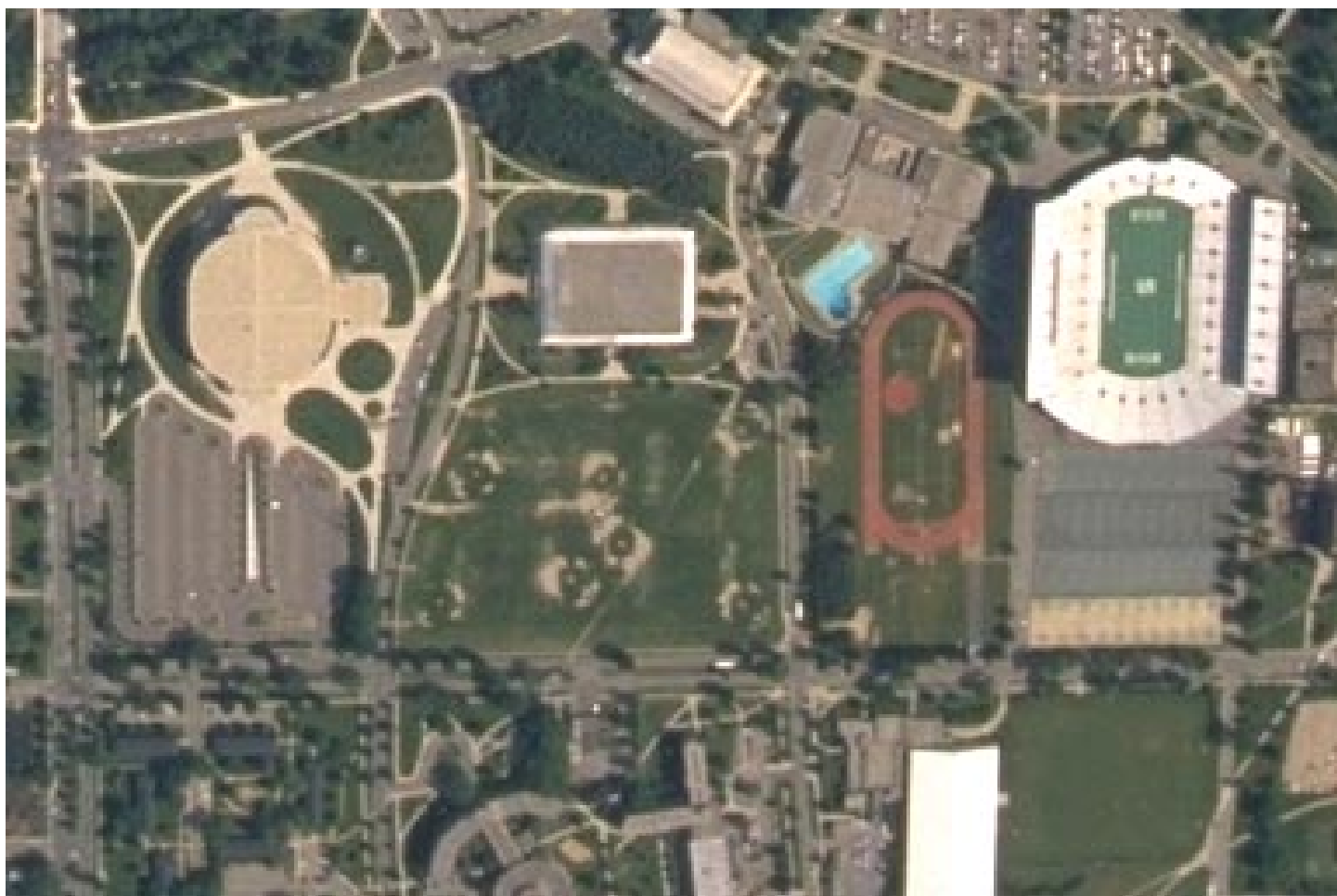
The Center has converted statewide 35mm aerial photography, acquired by the U.S. Department of Agriculture (USDA), to a digital format using Kodak Photo CD technology. The approximately 56,000 slides were obtained by USDA in 1991-92. These photos put you nearly 10,000 feet above the ground for an unsurpassed view of the landscape below. You can zoom in for a closer look at your city, neighborhood, or even your own home.

LandScan CDs (which may be ordered from the Instructional Media Center at MSU, phone (517) 353-9228) contain the first digital

aerial imagery archive of Michigan. Each LandScan CD includes one set of high resolution (1024 x 1536) images extracted from the original Photo CD Image Pac. Visit our web site to view a LandScan image at: <http://www.crs.msu.edu>.

- 98% of the state of Michigan is contained in this digital atlas
- Photos are available for all counties, one county per CD, except for nine Upper Peninsula counties which require two CDs

- All photos are true color images
- Each photo covers one square mile in every township
- The image viewer included on each CD provides display, zoom, color and image enhancement controls
- Export images to over a dozen file formats
- Create black-and-white and color prints
- Link your database to the LandScan Viewer and display by choosing records in a browse window



Center for Remote Sensing and Geographic Information Science

New - Telephone Directory

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Imagery Archive	355-3771		
FAX	353-1821		

(all area code 517)

Web Site <http://www.crs.msu.edu>

Upcoming Meetings

Twelfth International Conference and Workshops on Applied Geologic Remote Sensing: *Practical Solutions for Real-World Problems*. 17-19 November 1997. Marriott City Center in Denver, Colorado. Contact: ERIM Geologic Conferences, Box 134001, Ann Arbor, MI 48113-4001. Tel: 313-994-1200. ext. 3234. Fax: 313-994-5123. Internet: wallman@erim.org.

Spectrum

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MSU is an affirmative action/equal opportunity institution.

In January 1998, over 1,600 dedicated township officials from every corner of the state will travel to Detroit to attend the Michigan Townships Association's 45th Annual Educational Conference. The theme of this year's conference, to be held January 20-23, 1998, at The Westin Hotel in Detroit, is Townships: Leading Michigan's Future.

First International Conference on Geospatial Information in Agriculture and Forestry: *Technology, Applications, and Decision Support*. Disney's Coronado Springs resort, Lake Buena Vista, Florida. Contact: ERIM Agriculture Conferences, Box 134001, Ann Arbor, MI 48113-4001. Tel: 313-994-1200. ext. 3234. Fax: 313-994-5123. Internet: wallman@erim.org.

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