

# Central Region Newsletter

## American Society for Photogrammetry & Remote Sensing

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### Pecora 2005 - Sioux Falls, SD

<i>Pecora Report</i>	1	<p>The 16<sup>th</sup> Annual William T. Pecora, Global Priorities in Land Remote Sensing, conference was a pleasant combination of prairie past and prairie future. This was exemplified best by the Prairie Fest at the USGS EROS Data Center where we enjoyed horse wagon rides, a bonfire, live bluegrass music, and roast bison. On the other end of the technology spectrum, we were also treated to demonstrations of the dish antenna that receives imagery from Landsat, a tour of the actual archives, and a view of the Land Processes Distributed Active Archive Center (LP DAAC) facility, including its impressive data silos.</p> <p>The conference meetings, held in Sioux Falls, South Dakota on October 23-27, 2005 were also successful. Presenters from the ASPRS Central Region included Geoffrey Folker, Assessing a Multi-temporal and Multi-scale Remote Sensing Approach for Characterizing Rangeland Condition on the Central Great Plains; Matthew Ramspott, Modeling Biophysical Factors in Grasslands Using Remote Sensing: Seasonal Effects; Jonathan Thayn, Rangeland Biocomplexity and Cattle Stocking Rates in Kansas; and Brian Wardlow, State-level Crop Mapping in the U.S. Central Great Plains Agroecosystem Using MODIS 250-meter NDVI Data. Dr. Kevin Price, of the University of Kansas, presented some of his research as well.</p> <p>Participants also enjoyed attending sessions that presented new techniques or information. During each session break we talked about the new ideas we had for improving current research projects or ideas for entirely new projects. Contacts were made with professors at other Universities who are interested in collaborative research. The plenary sessions regarding the future of remote sensing, upcoming sensors, and the continuity of Landsat or a Landsat-like mission were promising. Several of the vendor booths were note-</p>
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The Landsat receiving dish at the EROS Data Center



The EROS Data Center bonfire



Dr. Brian Wardlow presents his research

worthy. Of particular interest was a NASA globe built around a computer projector that could be used to display global remotely sensed data sets. In the demonstration the globe showed weather patterns and cloud movement on the earth and (since this is a NASA toy) the surface of the other eight planets of our solar system.

In short, members of the ASPRS Central Region benefited from attending the 16<sup>th</sup> Annual Pecora Conference. It afforded opportunities to share our research and receive critical review of our methods as well as a chance to explore other research directions.

*-submitted by John Thayn (Mt. Oread ASPRS Student Chapter)*

## GIS Day—16 November 2005

### Western Air Maps, Inc. Sponsors GIS Day Event at Westside Elementary Celebrate Your World With GIS

**<Overland Park, KS>**—Western Air Maps, Inc., a mapping and GIS solutions company in Overland Park, Kansas, sponsored the “Art and GIS” event, at Westside Elementary in Claremore, Oklahoma on GIS Day, November 16, 2005. Approximately 125 art students attended the GIS Day celebration.

Held each year on the Wednesday of the National Geographic Society’s Geography Awareness Week (November 13–19 in 2005), GIS Day is a global event that celebrates geographic information systems (GIS); the innovative technology that uses geography to enable planners, analysts, and others to make informed decisions about their communities.

Scott Perkins, GISP (Certified GIS Professional) and Vice President of Western Air Maps, Inc. said, “Ten years ago only a handful of our customers were using GIS, today it is a part of every project we complete. We recognize that today’s school children are tomorrow’s GIS users and we see GIS Day as small way that we can help support public education and give a little back to the community.”

Sherri Braly, art teacher at Westside Elementary, coordinated with Western Air Maps in planning her lessons for Geography Week. The first grade art class drew maps of their classroom, while the upper grades drew maps of their school and made salt maps of the State of Oklahoma.

Terry and Cheryl Rowell, GISP’s with Western Air Maps, Inc. gave a presentation to the 4<sup>th</sup> grade art students on GIS Day. They began with a PowerPoint giving the audience background information about Western Air Maps and the services that they provide. The students then watched “Layers of Our World”, a video featuring ESRI’s software application ArcGlobe. The ArcGlobe presentation explained to the students why GIS is important in city planning, agricultural use, utility operations, and many other professions.

Mr. Rowell took the children through a day in their life from the time that they awoke until they were home for the evening and how GIS affected these everyday activities. Terry Rowell presented a “fly through”, created using ArcGIS and ArcScene softwares, of the path of a 2003 tornado that ripped through Kansas City. A question and answer period followed the presentation. Photographs were taken of the chil-

*(Continued on page 3)*



Terry Rowell speaks to Westside Elementary students for GIS Day

dren and their art projects. The participants also received a certificate of appreciation for participating in GIS Day.

“Art and GIS” provided those curious about GIS to see its applications in action. A GIS is a computer-based mapping tool that takes information from a database about a location; such as streets, buildings, water features, and terrain; and turns it into visual layers. The ability to see geographic features on a map gives users a better understanding of a particular location. GIS professionals touch lives daily, working to solve problems related to the environment,

health care, land use, business efficiency, education, and public safety. The power supply directed to homes, the patrol cars and fire trucks that keep neighborhoods safe, and the delivery trucks on the road all function more efficiently because of GIS. This technology helps businesses place ATMs and restaurants at more convenient locations, allows people to pull maps off the Internet, and helps farmers grow more crops with less chemicals.

GIS technology has been used to aid Homeland Security initiatives, and monitor the spread of Severe Acute Respiratory Syndrome (SARS), map the debris field following the *Space Shuttle Columbia* tragedy, map flooded areas in Louisiana and Mississippi after Hurricane Katrina.

Applications of GIS technology are limited only by the imagination of users. From border patrol agents to doctors, and from federal agency employees to local city planners, people in nearly every profession across the globe are reaping the benefits of GIS technology.

This marked GIS Day’s seventh year. Western Air Maps would like to thank the administration, Mrs. Braly, and her art classes for participating in the celebration and hope that it will become part of an annual tradition at Westside Elementary.

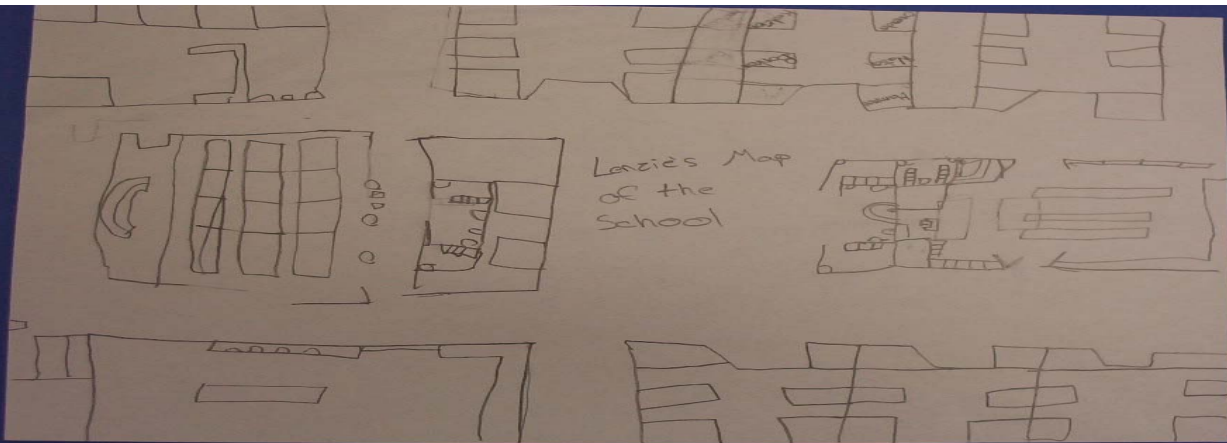
To learn more about GIS Day past and present, log on to [www.gisday.com](http://www.gisday.com). To learn more about Western Air Maps, Inc. log on to [www.westernair.com](http://www.westernair.com).

*GIS Day is principally sponsored by the National Geographic Soci-*



Salt Maps





School Map

ety, the Association of American Geographers, and the University Consortium for Geographic Information Science, the United States Geological Survey, the Library of Congress, Sun Microsystems, Hewlett-Packard, and ESRI.

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- submitted by Cheryl Rowell, Western Air Maps

## KU GIS Day Symposium Highlights a Broad Spectrum of Perspectives in Geography

Wednesday, November 16 marked the 4<sup>th</sup> Annual GIS Day Symposium hosted by the Geography Department at the University of Kansas (KU). A variety of speakers explored the role of GIS in extending the limits of how people interact with information to gain knowledge about the world. Highlights included presentations from educators and researchers affiliated with KU and Kansas State University, a student competition featuring participants from departments and research units across the KU campus, and two outstanding keynote speakers. This year's featured speakers, Eddie Bright from Oak Ridge National Laboratory and Dr. Geoffrey Demarest from the Foreign Military Studies Office at Fort Leavenworth, rounded out the day with compelling discussions of the utility of the GIS framework in addressing problems of global security and emergency preparedness.

The day's first session highlighted work at the frontiers of geographic data visualization and information retrieval. Jeremy Bartley of the Kansas Geological Survey (KGS) presented some of his work on MapDex, an automated indexing tool designed to facilitate access to geographic datasets and map services available on servers internet-wide. His presentation culminated in a demonstration of how MapDex integrates with Google Earth to allow quick visualization of datasets (such as high-resolution imagery) from the servers indexed by MapDex. Matt Dunbar, graduate student in Geography and researcher at the Kansas Applied Remote Sensing Program, gave a demonstration of the GeoWall, a portable 3-D projection system capable of displaying stereo data sets to a classroom audience by way of directional polarizing filters mounted on twin projectors and specially designed glasses worn by the viewer. The demo included stereo oblique photography ranging

from historic photos of the Grand Canyon to recent pictures of the surface of Mars, and ended up in the planimetric perspective with stereo renderings created using aerial and satellite data, topographic maps, and digital elevation data.

The second session featured remote sensing and GIS work related to the development of decision support systems. Dr. Kevin Price, Professor of Geography at KU, presented his work supporting the National Rangeland Drought Damage Assessment program. His talk offered insights into the techniques being developed for integrating vegetation greenness data derived from NOAA satellite imagery into an automated monitoring framework capable of providing spatially specific information for rangeland insurance claim managers. Dr. Eric Bernard, Assistant Professor of Landscape Architecture/Regional and Community Planning at Kansas State University, talked about his involvement in the Global Research on Water Based Economics (GroWE) project. A component of this work in western Kansas focuses on examining the landscape of a groundwater-based economy, the geography of groundwater use and depletion pressure, and the process of public participation in sustaining the viability of this vital resource.

Session 3 featured educational practitioners of GIS technology. Dr. Tom Baker of the KU Center for Research on Learning presented an overview of the integration of GIS into K-12 classes and curriculum. Baker provided a brief history of GIS in K-12 education as well as statistics on current trends and future prospects and challenges for incorporating GIS into the classroom. John Kostelnick, graduate student in Geography at KU and GIS instructor at Haskell Indian Nations University (HINU), and Rex Rowley, graduate student in Geography at KU, presented an overview of recent GIS activities at HINU. Kostelnick discussed several current GIS projects at HINU, as well as the development of a GIS curriculum and periodic tribal GIS workshops at Haskell. Rowley presented an ongoing joint project between HINU and KU: using GIS to model global sea level rise and its potential effects on population.

The student session featured 8 short talks by KU undergraduate and graduate students: Justin Buck from Ecology and Evolutionary Biology (EEB) and the Natural History Museum (NHM); Ngoc Nguyen from the School of Architecture and Urban Design; Staci Martin-Wolfe and Anton Menning from the William Allen White School of Journalism and Mass Communications; Thalia Tooke from EEB; Joel Plummer (1<sup>st</sup> place winner) from the Department of Geography and the Center for Remote Sensing of Ice Sheets; Richard Williams from EEB and NHS; Trish Jackson (3<sup>rd</sup> place winner) from Geography, and Jonathan Thayn (2<sup>nd</sup> place winner) also from Geography. These student talks were evaluated by a panel of expert judges from the KU community, including: Jeremy Bartley (KGS), John Dunham (Manager of Cartographic Services at KGS), Scott McEarthron (map librarian, T.R. Smith Map Collection), Mickey Waxman (Statistics Consultant, Information Services/Technology), Xingong Li (Assistant Professor, Geography), Rhonda Houser (GIS/Data Specialist, GIS and Data Services), and Tom Baker (Assistant Research Professor, Center for Research on Learning). Geoffrey Demarest and Eddie Bright also served as judges.

Session 4 featured KU Geography professors Christopher Brown and Peter Herlihy, who both have a Latin American research focus. Dr. Herlihy spoke about a recent trip to southern Mexico by faculty and students from KU and other U.S. institutions. His team collaborated with local residents, students and government officials to organize GIS and GPS workshops. A major result of this trip was that many local property ownership databases were converted into digital format, corrected, and augmented with newly collected data. Dr. Brown also presented results from recent fieldwork. His studies in the Brazilian Amazon have shown that soybean cultivation and its support infrastructure have increased dramatically over the past several years. A combination of remotely sensed and ground-collected data indicate that these new land use patterns pose a serious risk to rain forest extent and have prompted a notable change in the region's economy and politics.

Geoffrey Demarest, the first keynote speaker, continued the focus on Latin America with a compelling presentation about the collection and updating of land tenure records in Colombia. He made a clear case for the importance of maintaining the reliable and accessible land tenure information crucial to a peaceful and

civil society, recounting some of his work in Colombia to help assemble and modernize this information as part of an effort to attain peace and better security in that troubled region.

Eddie Bright, the second keynote speaker, offered an update on the most recent version of Landsat, the unique raster global population database developed at Oak Ridge National Laboratory. Landsat has a wide variety of uses relevant to assessment of populations at risk, to planning and preparedness for natural disasters and potential security threats, and a host of other potential economic and social issues. New developments currently underway are focused on the assessment of transient diurnal population movements in major cities as well as longer-term population shifts at regional and national levels.

*Compiled by: Matthew Ramspott, Ph.D. Candidate, Department of Geography, University of Kansas*

I would like to acknowledge the assistance of Joel Plummer and John Kostelnick.

### Events Calendar

January 25-27, 2006. **Calibration and Orientation Workshop: EuroCOW 2006**, Castelldefels, Spain. Organized by ISPRS Working Group 1/3 and the EuroSDR Commission I. EuroCOW 2006 will be held at the Institute of Geomatics, located in the Mediterranean Technology Park (PMT), Castelldefels is 20 Km South from downtown Barcelona, 7 Km South from Barcelona International Airport. For more information, please contact: Inma Sánchez, EuroCOW Secretary, Institut de Geomàtica, Parc Mediterrani de la Tecnologia Av. del Canal Olímpic s/n, 08860 Castelldefels (Barcelona), [info@eurocow.org](mailto:info@eurocow.org).

For more information about the workshop visit our web page: <http://www.eurocow.org>

February 14-16, 2006. **Topographic Mapping from Space (with Special Emphasis on Small Satellites)**, Ankara, Turkey. <http://www.bilten.metu.edu.tr/ISPRSWorkshopAnkara2006/>. Organized Jointly by ISPRS Commission I, WG I/5 and WG I/6; Geometric Modeling of Optical Spaceborne Sensors and DEM generation Working Group; Small Satellites Working Group.

April 23-27, 2006. **The 10th Biennial MAGIC Symposium**, Westin Crown Center, Kansas City, Missouri. (<http://magicweb.kgs.ku.edu/magic/s2006/index.cfm?Title=2006+MAGIC+Symposium>)

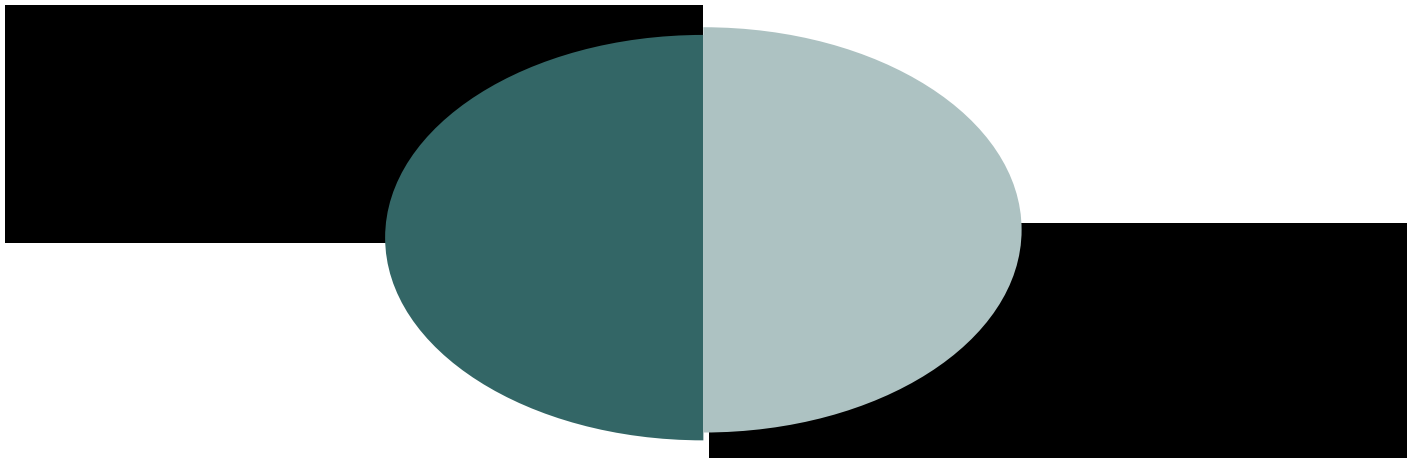
April 24-28, 2006. **USDA FS Remote Sensing Applications Conference (RS2006)**. Sheraton City Centre Hotel, Salt Lake City, UT. Sponsored by: USDA Forest Service, NASA, University of Utah Digit Lab. Conference provides a forum for people interested in remote sensing and resource applications to share experiences and ideas and to learn more about the latest remote sensing technology. Contact: Michael Morrison at 801-975-3755 Email: [mmorrison@fs.fed.us](mailto:mmorrison@fs.fed.us)  
<http://www.fs.fed.us/eng/rsac/RS2006>

May 1-5, 2006. **ASPRS Annual Conference**. Reno Hilton Hotel, Reno, Nevada. (Book a Room in advance: [www.caesars.com/reservations/main.aspx?hotelid=06&specialgroupcode=ASPRS](http://www.caesars.com/reservations/main.aspx?hotelid=06&specialgroupcode=ASPRS))

## Board Notes

The following are some highlights from the December Board meeting.

- **Scholarships**—The Board has received five scholarship applications; three from Missouri, one from Kansas, and one from Arkansas. Scott Perkins will contact other scholarship selection committee members: Robert Bradford, Eric Cenovich, Steve Egbert, and Matt Ramspott and begin reviewing applications.
- **By-Laws Changes**— Expect a ballot soon to vote on amending the Region By-Laws. The section proposed for change is Article VII, Section 1, of the by-laws, titled Meeting and Bylaws. The proposed wording is: "The annual meeting of the Central Region shall be held in June of each year. The time, date, and place of the meeting shall be designated by the President one year prior to the meeting. The meeting location will alternate to represent the four states comprising the region. The decision will be made and announced at the annual meeting."
- **Board Officers**—The Region has a new Vice-President. In accordance with Region By-Laws, Region President Monika Moskal appointed Barry Budzowski first to the Board and then to Vice-Presidency. We thank Barry for his willingness to serve the Region.
- **Letter Requesting Donations for Student Travel**—The Board will be making an appeal to its regular and sustaining members to make donations to supplement student travel to conferences.



## New Members!

The Central Region welcomes two new student and four regular members for this issue.

### Student Members

- Mr. Mohammad M. Alsahli, Lawrence, Kansas
- Mr. Adam Barnes, Lincoln, Arkansas

### Regular Members

- Mr. Arthur D. Davis, Stillwater, Oklahoma
- Mr. Kyle Gonterwitz, Overland Park, Kansas
- Mr. Victor A. Murray, Ada, Oklahoma
- Mr. Greg Resz, Jefferson City, Missouri

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Email: [prufe@usgs.gov](mailto:prufe@usgs.gov)

## **ASPRS CENTRAL REGION**

USGS-MCMC MS 706  
1400 Independence Rd  
Rolla MO 65401