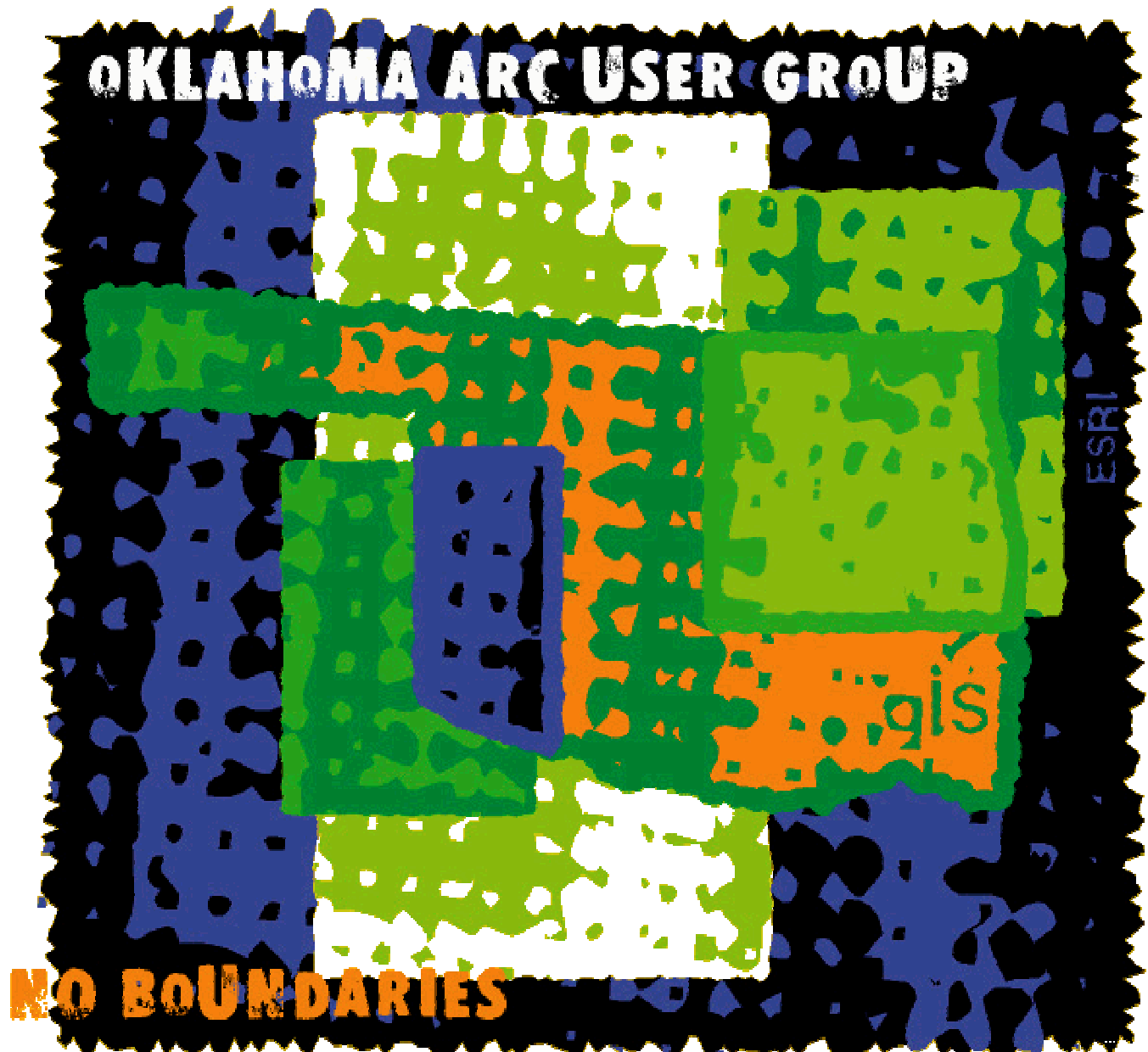


6th ANNUAL SCAUG 2003
Oklahoma Chapter Conference



October 9, 2003

Moore-Norman Technology Center
Norman, Oklahoma

Table of Contents

<i>Welcome.....</i>	<i>2</i>
<i>Exhibitor Directory.....</i>	<i>3-5</i>
<i>Conference Map & Exhibit Hall.....</i>	<i>6</i>
<i>Agenda.....</i>	<i>7</i>
<i>Keynote Speaker.....</i>	<i>8</i>
<i>User Poster Presentations.....</i>	<i>9-12</i>
<i>User Presentations.....</i>	<i>13-17</i>
<i>ESRI Session Descriptions.....</i>	<i>18</i>





Oklahoma Chapter South Central Arc Users Group (SCAUG)



Colleagues & Professionals,

Thank you for your attendance & input in the coordination of this conference. Every year we strive to make each conference better & more informative than the previous one. We also try to make each conference as comfortable & pertinent to recent developments within G.I.S. as possible.

We would like to thank the ESRI San Antonio office for all the support & contributions they made in order to help make this conference possible. We also would like to thank our vendors in helping support this conference by being exhibitors, advertisers, & sponsors. Try to take time to thank our vendors & ESRI for helping make this conference possible.

Shellie Willoughby deserves special recognition for all her time, effort, & patience in organizing this conference.

We hope that you find this conference not only beneficial to you as a G.I.S professional but also enjoyable & interesting. Take time to meet everyone & share our knowledge.

Sincerely,

2003 OK SCAUG Steering Committee

*Shellie Willoughby
Joyce Green
Julie Parker
Michelle Matthews
Angela Mead*

*Kevin Koon
Kent Sanmann
Mike Sugru
Scott McKinney
Charles Brady III*

Exhibitor Directory

Azteca Systems, Inc.



Azteca Systems, Inc. creator of Cityworks is the only GIS-based Enterprise Asset Management (EAM) solution available. Built exclusively on top of ArcGIS and Arcview 3.X, ESRI's leading Geographic Information System (GIS) technology, Cityworks leverages the geographic data developed by Public Works and Utilities departments. Accessing the same relational elements in the GIS, Cityworks allows users to create, track and manage infrastructure information, customer requests and work orders.

Thanks,

Brent Wilson Cityworks by Azteca Systems GIS-Based Enterprise Asset Management 214.507.0579 cell 214.677.0121 ph. & fax bwilson@azteca.com
www.azteca.com

Western Data Systems



Western Data Systems is an Authorized Trimble Dealer and our only business is supplying GPS and GPS related products. We do this in several ways.

1. We are a direct seller of Trimble GPS products in Texas, Arkansas and Oklahoma. We can supply the entire Trimble line of GPS Survey, Mapping and Seismic Products, Training, Technical Support and all Accessories your crew might need. With offices in Houston, Dallas and San Antonio and Austin, you have a GPS professional within close proximity to you at all times.
2. We offer fully integrated GPS based Hydrographic systems anywhere in the United States, complete with training and support.
3. We have one of the largest Trimble GPS rental pools in the world. This equipment is available to a worldwide customer base. If your rental needs are for as little as one day or as long as one year, Western Data Systems can meet your needs. There are no other GPS rental companies that can combine the amount of equipment we have available with the technical support we can and do provide our customers.

Toll Free (877) 902-8112 1620 N. I 35E STE.310 Carrollton, TX 75006
www.westerndatasystems.com gary@westerndatasystems.com

Exhibitor Directory

Topographic Mapping Co.



Topographic Mapping Company is a wholly owned subsidiary of Topographic, Inc. As an ESRI Business Partner and an Autodesk Authorized Reseller, we are the leading source in the area for software, training, and data in addition to project assessment, consultation, and conversion.

Topographic Mapping Company
6709 North Classen Blvd.
Oklahoma City, OK 73116
Phone: (405) 843-4847 Topographic
Fax: (405) 843-0975
Email: inbox@topographic.com
URL: www.topographic.com

Contact: Stephen Banks, President

MARKHURD



MARKHURD is a full service mapping company, which provides aerial photography, digital orthophotos and complete digital mapping services to clients worldwide. Our capacity includes over 300 professional and technical experts in seven production offices. MARKHURD is committed to maintaining the quality, responsiveness, integrity, and creativity that has made us a recognized leader in our field.

THE SANBORN MAP COMPANY, INC.



Founded in 1866, Sanborn is one of the oldest and largest mapping companies in the U.S. It employs more than 250 people at seven regional offices throughout the country, one of which is located in San Antonio, TX. This office, formerly operating as Williams-Stackhouse, Inc., has been in business since 1938 and currently has 28 full-time employees. It specializes in providing a variety of photogrammetric services including aerial photography, analytical aerial triangulation, digital planimetric and topographic mapping, DTM collection, high-resolution image scans, and digital orthophotography.

Dennis Golding, Regional Manager; dgolding@sanborn.com
2118 Mannix Drive, San Antonio, TX 78217, (210) 824-6301, Fax (210) 824-8017

Exhibitor Directory

SCI (Strategic Consulting International)



SCI is a full service consulting firm providing services to public and private sector clients in the following areas: Geographic Information Systems (GIS), Information Management, Internet Support, Global Positioning System (GPS), and Program Management. We have a record of completing successful projects in the United States and internationally. As one of the leading providers of GIS in the United States, SCI offers a full range of services, from initial feasibility studies through application and database development to full implementation and systems management. SCI maintains a unique portfolio of qualifications from the Environmental Systems Research Institute, Inc. (ESRI) and Trimble Navigation Limited. These qualifications include ESRI business partner, authorized reseller and certified training statuses. SCI is also an authorized Trimble GPS system reseller and carry the full line of Trimble GPS mapping products.

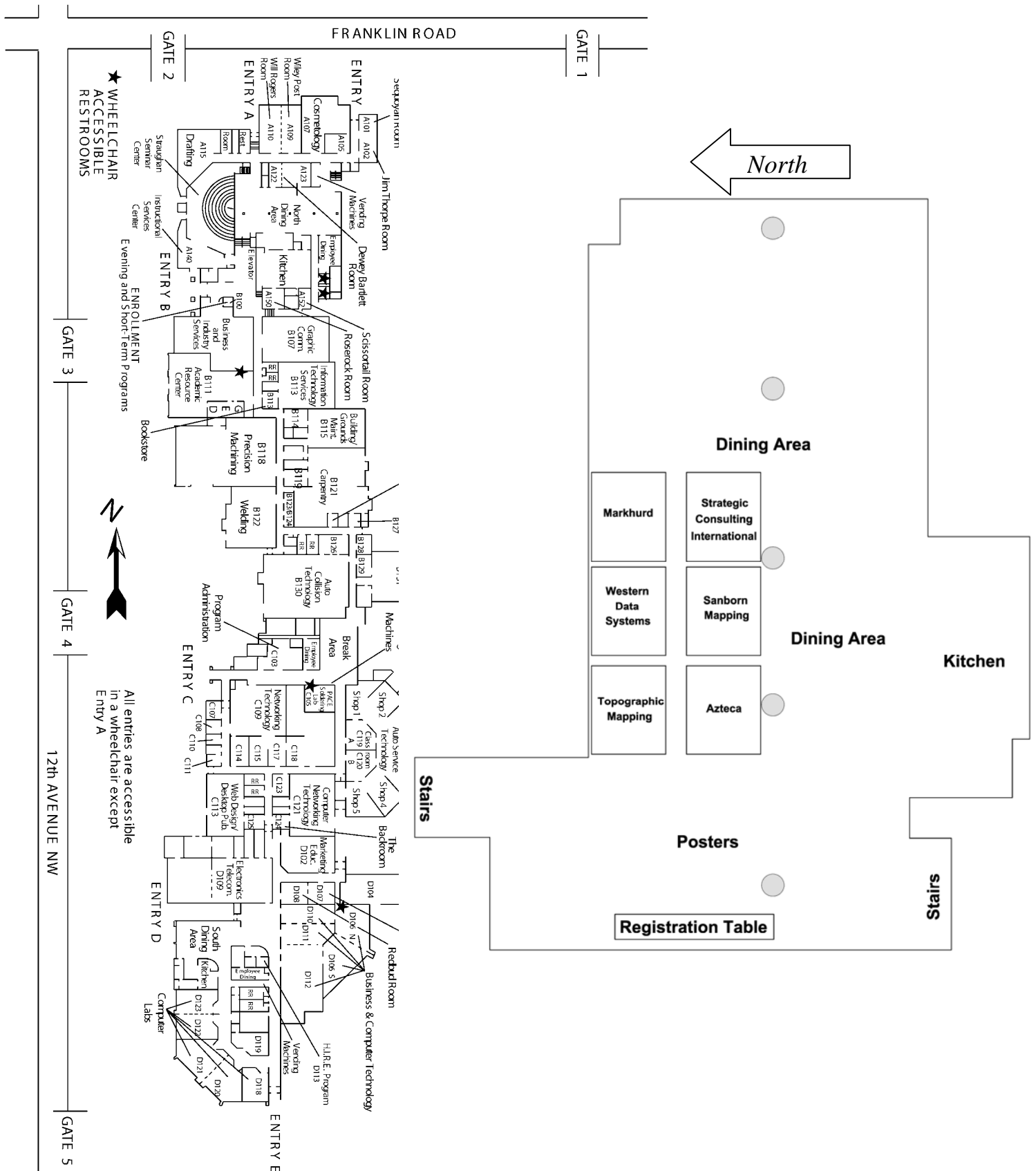
5829 E. 76th Place
Tulsa, Oklahoma 74136-8407
Phone: (918) 523-1833
Fax: (918) 523-1833
Email: sales@scigis.com
URL: www.scigis.com
Contact: Eric Jones

ESRI



With annual sales of more than \$340 million, ESRI remains the world leader in the geographic information system (GIS) software industry for more than 30 years. As the leader in GIS technology, ESRI offers innovative solutions that will help you create, visualize, analyze, and present information better and more clearly. Working with location information, ESRI's GIS software and solutions give you the power to solve problems you encounter every day. Organizations around the world, as well as local, state, and federal government agencies, are using ESRI GIS software to make smart and timely decisions. ESRI provides powerful GIS solutions to more than 300,000 clients in more than 189 countries. In fact, ESRI is leading the industry in providing mapping technology that meets today's global needs. ESRI offers GIS solutions to help you unlock the spatial component of your valuable data and see your organization's information from a new perspective. www.esri.com

Conference Map & Exhibit Hall



A G E N D A						
8:00	Registration opens with Vendor Exhibits					
8:30 - 8:50	Welcome - Seminar Room					
	ESRI Doctors Office Dining Area					
	Will Rogers Room		Wiley Post Room			Jim Thorpe Room
User Presentations						
9:00 - 9:25	Stacy L. Cejka, COEDD Kim Green, KEDDO	9:00 - 9:25	Chris Ksepka - City of OKC			Jean Vieux - Vieux and Associates, Inc.
9:30 - 9:55	JB Akin -DESC, Inc	9:30 - 9:55	Sara Cobb - City of Edmond			
10:00 - 10:25	Robert Biffle-OSU	10:00 - 10:25	Bob Springer, SCI Julianne Hoagland, OK Dept of Wildlife Conservation			Craig Molander, Surdex
10:30 - 10:55	Amy Thomas - Tulsa Health Department	10:30 - 10:55	Laura Harjo - Cherokee Nation			
11:00 - 12:30	Lunch/ Poster Competition North Dining Area					
12:45 - 1:45	Keynote Speaker - Seminar Room Rich Turner (ESRI), ArcGIS Production Manager					
ESRI Technical Sessions						
2:00 - 2:50	ArcGIS ArcMap and Cartography: Working with Text, Labels, and Annotations	2:00 - 2:50	ArcGIS Developer: Customizing and Extending the ArcGIS Desktop	2:00 - 2:50	ArcGIS Geodatabases: Designing a Geodatabase	
3:00 - 3:50	ArcGIS ArcMap and Cartography: Working with Text, Labels, and Annotations	3:00 - 3:50	ArcGIS Developer: Customizing and Extending the ArcGIS Desktop	3:00 - 3:50	ArcGIS Geodatabases: Designing a Geodatabase	
4:00 - 4:15	Closing Remarks - Seminar Room					
4:30 - ?	Social - Conference Survey Awards Prizes					

Keynote Speaker

Richard B. Turner

17 years at ESRI

June 2000 – present

Product Manager, ArcGIS

January 1991 – June 2000

Product Manager, ArcView GIS—ESRI's first high-volume, desktop-oriented GIS software product

January 1987 to January 1991

Product Manager, PC ARC/INFO—ESRI's first desktop-oriented GIS software product

January 1986 to January 1987

Applications Analyst—Worked with clients to develop user requirements and workflow processes. Designed and implemented pilot projects and technical benchmarks demonstrating ESRI products suitability for customer application requirements.

Education

- Bachelor of Science in Environmental Sciences, Virginia Polytechnic Institute and State University
- Master of Science in Computer Sciences, Virginia Polytechnic Institute and State University

Poster Presentations

Name: Janelle Williams

Organization: Tulsa Airport Authority

Title: Response Areas

Description:

The map 'Response Areas' consists of areas at Tulsa Airport Authority where the Tulsa Police Department, Tulsa County Sheriff's Office and airport officers respond to. Included will be a list of the buildings that correspond to the areas.

Name: Chris Hill

Organization: Oklahoma Biological Survey

Title: GIS and Stormwater Project Planning

Description:

Management of municipal stormwater projects and improvements is an important part of any city's operation. As recently as 20 years ago, the City of Tulsa ranked near the bottom of floodplain management for municipalities. Tulsa then began an active campaign to control its flooding problems via massive stormwater drainage improvements. Today, the City of Tulsa serves as the example of how to better utilize its floodplain areas and control major flooding problems in the city.

However, not all of Tulsa's flooding problems have been solved. Many small-scale local drainage problems continue to plague the city's residents. In response, Tulsa needed to shift its focus from large-scale flooding control to the more local oriented flood control problems. To gather the local problem areas, Tulsa developed a continuously updated stormwater log detailing all of the functions and actions involving Tulsa's stormwater department. When the department has handled a specific item, it is removed from the list and archived. Using the concern items not archived, a list of the outstanding Citizen Call-ins (CIC) and Mayor's Action Center (MAC) items was extracted and geocoded. The geocoded concern points were used to determine the density of CICs and MACs in relation to each other using Spatial Analyst. The resulting density grids are then used to determine areas in Tulsa with a significant concentration of stormwater concerns. The concern density is also compared to known flooded property areas and future capital improvement project locations to determine cost/benefit analysis, project feasibility, and project prioritization. This poster exhibit highlights both the procedure and results of this study.

Poster Presentations

Name: Todd Fagin

Organization: Oklahoma Biological Survey

Title: Geographic Information Systems and Ecological Research
(Projects of the Plant Ecology Field Laboratory)

Description:

The Oklahoma Biological Survey (OBS) is a research unit of the College of Arts and Sciences at the University of Oklahoma, as well as a state office. The purpose of the OBS is to collect, analyze, and disseminate information related to the biota and ecology of the state of Oklahoma and associated geographical areas. In this poster, we showcase a sampling of the research conducted by the Plant Ecology Field Laboratory at the OBS, the purpose thereof to demonstrate how geographic information systems technologies may be utilized to enrich our understanding of Oklahoma's biological and ecological diversity.

Name: Kent Sanmann

Organization: City of Moore

Title: "Come to Moore- You'll be Blown Away!"

Description:

No, that is not the slogan of the City of Moore, although in light of the last few years people might be forgiven for thinking it should be. This poster will describe the use of the City of Moore's GIS system in the recovery from the May 8, 2003 tornado.

Poster Presentations

Name: Jeremy Taurig

Organization: (OWPI) Oklahoma Wind Power Initiative

Title: A Statewide Wind Power Assessment for Oklahoma Using Two Wind Resource Models

Description:

As one of the fastest growing energy sources in the world, wind power has become an attractive option for energy consumers and energy development companies interested in providing clean, inexpensive power. Many multinational companies, such as BP-Amoco, Chevron, Texaco, Conoco, Phillips, and Shell are beginning to invest their resources in this viable technology. Several states, most notably Iowa, Minnesota, and Texas, have already begun to tap their abundant wind resources. Oklahoma will soon join the above states with 177 megawatts of installed wind energy capacity by the end of 2003.

The Oklahoma Wind Power Initiative (OWPI) began in July of 2000 as a collaborative project between the University of Oklahoma and Oklahoma State University. OWPI's mission has been to stimulate wind development in the state through education and by providing wind resource and policy information to legislators, landowners, and other interested parties. One of OWPI's main goals has been to develop and improve high-resolution wind resource maps at the wind industry standard height of 50-meters.

These wind resource maps were developed by incorporating Oklahoma Mesonet wind data, elevation data, and land use, land cover data into two wind resource models. The first model used by OWPI was a mass consistent model specifically designed for wind resource applications called WindMapTM. The second model was developed by OWPI using neural network analysis, which is an artificial intelligence approach to modeling non-linear mathematical problems.

Both model results show the spatial variability of the wind resource in Oklahoma. Specifically, both models show that significant portions of western Oklahoma and the Panhandle are suitable for large-scale wind development, whereas most of eastern Oklahoma tends not to be suitable for large-scale development. Aside from these similarities, the two models appear significantly different. The WindMapTM model shows broad areas of wind resource regimes while the neural network model closely adheres to changes in topography and hence reflects more local variation in wind regimes. These differences can be attributed to the higher resolution of the neural network model and the development process for each model.

Poster Presentations

Name: Muheeb Awawdeh

Organization: (OSU) Oklahoma State University

Title: Evaluating USDA's Conservation Reserve Program in Texas
County, Oklahoma

Description:

USDA's Conservation Reserve Program (CRP) is a voluntary program initiated in 1985 in which landowners are encouraged to retire highly erodible lands for 10-15 years. However, CRP has been criticized for administrative shortcomings and failure to achieve ancillary environmental objectives, such as improving wildlife habitat and promoting water quality. The main goal of this research is to evaluate the long-term environmental benefits of CRP. The specific objectives are:

- To accurately map the spatial and temporal changes associated with CRP tracts for Pre-CRP (1985) and Post-CRP (1990) time periods
- Using a GIS-based modeling approach, evaluate the long-term environmental benefits associate with CRP.

Our long-term goal is to develop an integrated Web-GIS DSS to help USDA manage, plan, and prioritize future CRP enrollments. The study area of the project is Texas County, Oklahoma. This county ranks first in the state in terms of CRP enrollments. The GIS-integrated hydrologic model AV-SWAT (ArcView – Soil and Water Assessment Tool) is being used to evaluate the potential environmental benefits of the CRP in terms of soil and water quality. AV-SWAT is a public domain hydrologic model developed by the USDA-ARS, Temple, Texas. SWAT simulates the effect of management decisions on water, sediment, nutrient and pesticide yields with reasonable accuracy on large, ungaged river basins. GIS is ideally suited for input data management and output visualization purposes. AVSWAT provides a user-friendly interface to easily preprocesses the input data and post process the output data of SWAT. Some of the input data for Texas County include DEM (30m), Soils (STATSGO), LULC (CRP and other cover types). Other data such as management practices (acquired from County Extension Department) and weather (Cooperative Observer Program, COOP). The Beaver River Watershed was subdivided into 53 sub-basins using the DEM as the base data source. The CRP tracts in Oklahoma will be evaluated in terms of soil loss, sediment and nutrient loadings. The model was calibrated using two USGS stream gage stations (Coldwater Creek and Beaver River), and the sediment yield was estimated for the period 1960-2000. Although the sediment yield was low overall, it correlates well with the CRP density.

User Presentations

Name: Stacy Cejka, Kim Green

Organization: COEDD, KEDDO

Title: Hazard Mitigation Planning for Rural Oklahoma Communities

Description:

The Stafford Act of 2000 requires all eligible entities to pass a Multi Hazard Mitigation Plan prior to receiving federal disaster funds. This presentation provides one approach to Hazard Mitigation Planning which incorporates current community planning tools such as capital improvement planning and emergency operations planning.

Topics covered will include the following:

- ☐ Performing a Hazard Mitigation Analysis using GIS
- ☐ Using available data from other sources
- ☐ Utilizing existing community planning projects in mitigation

Kiamichi Economic Development District of Oklahoma (KEDDO) has developed one of the few Hazard Mitigation Plans accepted by Oklahoma Department of Civil Emergency Management.

Presenters are Kim Green, GIS Specialist at KEDDO, and Stacy L. Cejka, IS Manager at Central Oklahoma Economic Development District, COEDD. Both are members of OARC an association of the eleven regional sub-state planning districts in Oklahoma. OARC's GIS spans nearly every economic, social and community development application.

Name: J.B. Akin

Organization: DESC, Inc.

Title: Fire Attack Pre-Plans & Disaster Contingency Planning

Description:

DESC, Inc. has been developing GIS and CAD tools for public safety since 1998. Geographic Utility for Disaster Operations (GUIDO), a web application for both ArcIMS and MapGuide, will provide scalable situational awareness for responses from house fires to hazardous chemical spills to bomb threats to sniper/counter-sniper situations. DESC tools are developed for non-technical users who need spatial awareness in times of an emergency.

User Presentations

Name: Chris Ksepka

Organization: City of Oklahoma City

Title: GIS Components Used to Centralize and Integrate Physical Address Data for Municipal Government.

Description:

Physical address is the key identifier in virtually every municipal government business process. As information flows from the public, through city departments, and back, address is often the common thread. There is tremendous potential for harnessing this thread for processes improvement resulting in greater efficiency and higher quality of service. Geographic Support Services designed and implemented a citywide strategy for centrally managing address information. We are building an interdepartmental information infrastructure around GIS-managed centralized databases. An ESRI enterprise GIS platform provides the advanced technology enabling unlimited integration with departmental systems. With this integration, all users contribute to the maintenance and accuracy of the central GIS data store. This presentation will describe the data tier, middle tier, and client tier components used to centralize one key set of business information: physical address data.

Name: Laura Harjo

Organization: Cherokee Nation

Title: Cherokee Nation GIS: Advancing Tribal Self Determination

Description:

The GIS system at Cherokee Nation over the past few years has created several crucial applications using GIS technology. GIS has given the Tribe an edge in many of their endeavors, everything from land litigation to economic development. The system has been used as a tool to exercise the Tribe's sovereignty and the Tribe's land rights. This presentation will touch upon each of the many uses of Cherokee Nation's GIS.

User Presentations

Name: Amy Thomas

Organization: Tulsa Health Department

Title: Bio-terrorism Preparedness and Syndromic Surveillance

Description:

My presentation will summarize the GIS projects at the Tulsa Health Department in Tulsa, OK. I will also introduce our Tulsa Area Syndromic Surveillance System (TASSS) to the audience. TASSS & GIS have become very important parts of our health department. Mapping morbidity and mortality have a far reaching impact on health awareness, health intervention, grant writing, and even mosquito remediation.

Name: Robert Biffle

Organization: Department of Geography, OSU

Title: Online Raster Image Extraction and the Development of the OCGI

Description:

Using the Microsoft .net programming environment, it is possible to supplement the process of extracting geo-data from online mapping systems using ArcIMS and ArcSDE technologies. The standard ESRI based system permits the service provider to allow the user to download customized shapefiles of geospatial datasets for vector and GRID based data. However, downloads of raster based images (MrSID) such as digital ortho-quad (DOQ) photos is not provided for in the standard ArcIMS 4.0.1 EXTRACT function. The Oklahoma Center for Geospatial Information (OCGI), an online service of the Department of Geography at Oklahoma State University, has developed a subsystem that allows the online user to select an area on a map of Oklahoma and download not only vector data for the specified area using the EXTRACT function, but also full quadrangle MrSID formatted DOQ and digital raster graph topo map images. This presentation will be centered on a demonstration of the functionality and future plans of the OCGI, including the development of the interactive raster download function as well as the development of a complete FGDC Clearinghouse node using ArcIMS and the ArcIMS Metadata Server as the primary development engine.

User Presentations

Name: Sara Cobb

Organization: City of Edmond

Title: The City of Edmond: Now What?

Description:

The City of Edmond's digital requirements have been on the books for a year. We are in maintenance mode on the data collections (except Easements). GIS is being used throughout the City. It's time to sit back and start working with the extensions.

Not quite yet.

This presentation will review the successes and challenges of requiring digital submissions with new developments, data maintenance and GIS usage throughout the City. This presentation will also outline the upgrade path to ArcSDE and ARCGIS that the City of Edmond anticipates to follow over the next 6 months.

Software: ArcView 3.1, Azteca Systems' Cityworks, Accela's Permits Plus, Oracle, ArcInfo 8.02 Workstation

Name: Jean Vieux

Organization: Vieux & Associates, Inc.

Title: GIS-based Calibrated Radar Rainfall

Description:

Users that need to map accurate rainfall measurements over specified areas will want to attend this presentation. Available data, how it is processed, and what differences exist between products will be explored. Data resolution, spatial resolution, and radar product characteristics will be demonstrated along with several applications of real-time, GIS-based, calibrated radar rainfall systems.

User Presentations

Name: Bob Springer, Julianne Hoagland

Organization: Strategic Consulting International, Oklahoman Department of Wildlife Conservation

Title: Oklahoma Wildlife Management Areas Web Viewer

Description:

Faced with the cost of compiling and printing a new print version of the Oklahoma Wildlife Management Areas Atlas, the Oklahoma Department of Wildlife Conservation asked SCI to develop an ArcIMS application as the solution for distributing information to hunters and outdoorsmen. The viewer, which will become operational this month, provides a flexible, easy to use Web-based tool for Oklahomans to learn more about hunting opportunities in the state. This presentation will focus on the development of the viewer, as well as a demonstration of the product.

Name: Craig Molander

Organization: Surdex

Title: Integrated GPS/INS/ISAT Processing – A Case Study Through Practical Requirements

Description:

Is it possible to collect 800,000 square miles of photography in 3 months? With the help of several teammates, Surdex Corporation was able to do just that. With a streamlined workflow and a well-documented set of parameters laid out, this enormous task is a lesson in advanced technologies and cooperation. This user presentation will cover just how Surdex was able to pull off such a daunting task.

ESRI Sessions

ArcGIS ArcMap and Cartography: Will Rogers Room

Working with Text, Labels, and Annotations

This session is about how ArcMap adds text to maps and how text is edited in maps. This includes setting label placement options, conflict detection, creating annotation and feature-link annotation, and editing annotation.

ArcGIS Editing: Wiley Post Room

Introduction to Editing in ArcMap

This session will demonstrate how to work with the editing environment in ArcMap. Key editing concepts, such as the edit sketch, edit tasks, snapping, digitizing, editing shapefiles and geodatabase feature classes will be discussed in detail. This session will also discuss editing attribute values for features and tables participating in ArcMap relationships, and feature classes and tables with associated domains, as well as using subtypes for efficient editing. New editing tools available with ArcGIS 8.3 release will also be discussed.

ArcGIS Geodatabases: Jim Thorpe Room

Designing a Geodatabase

ArcGIS provides a framework for advanced geographic data modeling based upon cartographic representation and use. Maps, layers, renderers, and symbols present information in a cartographic context. Geodatabases structure spatial data in a relational database through data sets, relationships, and integrity rules. The process of designing a GIS database is the same whether you represent your data in coverages, shapefiles, or geodatabases. Your goal in designing a GIS database is to produce printed and interactive maps that present information about geographic objects. This session will begin with an overview of how maps motivate and define your geodatabase schema. The essential steps for defining logical map layers and their representations will be presented. Next, you will see these concepts applied to define spatial data representations, feature classes, and data set properties and how these are implemented in the geodatabase.



Your
 **Trimble**™ Survey Specialist



Western Data Systems™ specializes in sales throughout Texas, Oklahoma and Arkansas. Equipment rentals available nationwide and even globally. With a rental inventory of over 150 instruments, WDS™ offers the latest technology at competitive rates. In addition WDS™ has Trimble™ Certified Trainers providing the highest level of training and support.

You are never far away from the experts.

Dallas

1620 N. I-35E, Suite 310
Dallas, Texas 75006
877-902-8112

Houston

14722 Regnal Street
Houston, Texas 77039
888-700-5211

San Antonio

12000 Crownpoint, Ste. 150
San Antonio, Texas 78233
877-300-9659

Austin

7801 N. Lamar, Ste. C-71
Austin, Texas 78752
866-565-4937

www.westerndatasystems.com

ad designed by B'Jay Kendrick -bjayk@hotmail.com

TOPOGRAPHIC IS YOUR SOURCE FOR GIS

Topographic Mapping Company offers you the mapping services needed from Initial Phase to Full GIS Implementation.

Your GIS Data Source ~

- Land Grid - PLS
- Culture Data
- Aerial Photography
- Topographic and County Maps

Your GIS Services Source ~

- Scanning and Digitizing
- Geo-Referencing Map Images
- GIS Needs Analysis, Strategic Plan and Implementation

Your GIS Software Source ~

- ESRI Reseller - ArcGIS 8.3 is Available NOW!
- ArcIMS and All Extensions such as 3D Analyst and Spatial Analyst

TOPOGRAPHIC

SURVEYING • MAPPING • GIS • GPS

Since 1954, Surdex has served its clients by providing high-quality geospatial services for a variety of industries. Be sure to sit in during our user presentation as we share our insight on the USDA's NAIP Program.



520 Spirit of St. Louis Blvd. ● Chesterfield, MO 63005
636-532-3427 ● www.surdex.com

**S
C
I** **STRATEGIC
CONSULTING
INTERNATIONAL**

Oklahoma City (405) 755-0059

Tulsa (918) 481-0034

sales@scigis.com

www.scigis.com

Oklahoma's #1 GIS/GPS Dealer

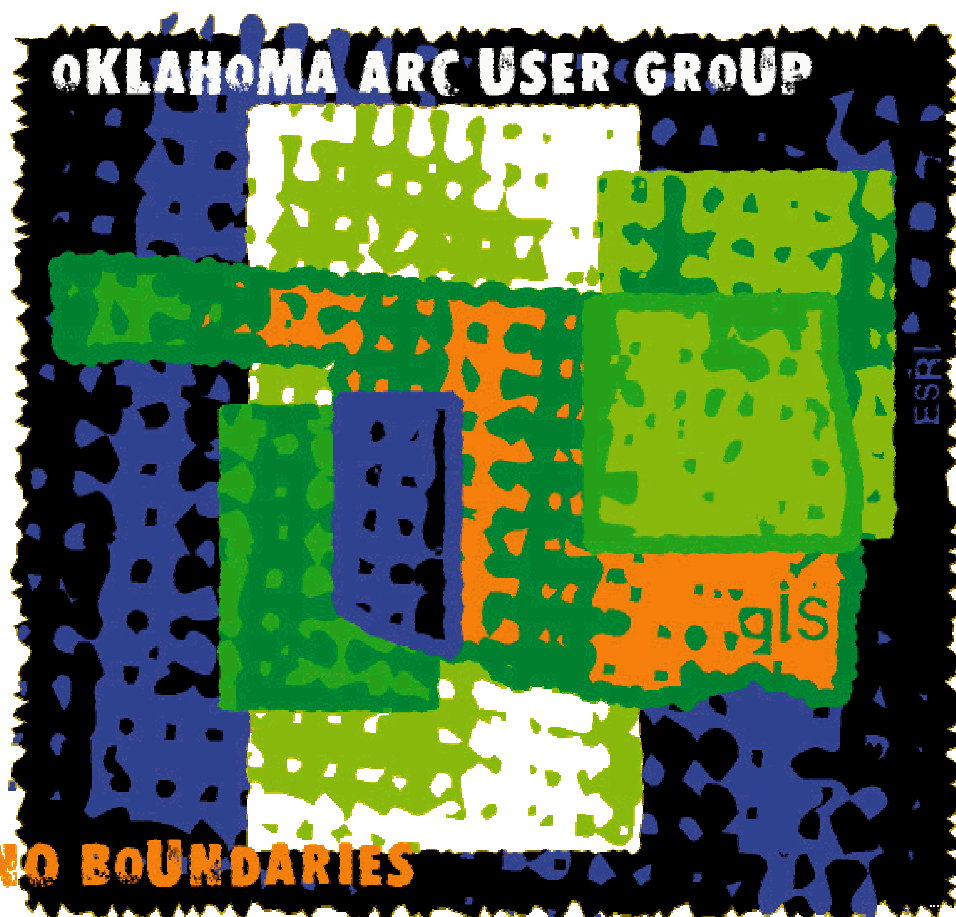


ESRI
Technology
AUTHORIZED
BUSINESS PARTNER

GIS / GPS Solutions
Internet Mapping
Authorized Training
QuickStart Programs
ESRI Software
GPS Equipment



MAPPING & GIS
AUTHORIZED
RESELLER



Thank for coming, Hope to see you next year!!!

*Please take time to thank the personnel of
Visual Lease Services (VLS) for sponsoring
our evening social.*

Thanks,

SCAUG Steering Committee



Visual Lease Services is a constantly growing and changing enterprise that cannot be summed up in a few short words. We like to stay abreast of current technology and this is at the heart of everything we do. Mapping for private and government entities, valuation of property, real estate or otherwise, and information management are but a few of the areas we have helped guide into the information age. We have applied our love for technology to benefit our clients, providing a wide variety of services tailored to your needs. We adhere to the highest standards in all we do and believe that a good business relationship is an ongoing one.