EDUCATION-COMMUNICATIONS REPORT AND RECOMMENDATIONS

Purpose of Travel:
Association of American Geographers 99th Annual Meeting

Attendee's Name:
Joseph J. Kerski, Geographer:
Education/GIS, Denver

Locations: New Orleans, Louisiana

Event Date: 4-8 March 2003

My Activities At Conference:

1) Present paper entitled "Two Projects—One Tool: Evaluating the Effectiveness of GIS in Colorado."

2) Co-Chair a Session on GIS in education.

3) Assist in operating, setting up, and tearing down USGS exhibit.

4) Participate in meeting of the geography education specialty group.

5) Attend paper, plenary. and poster sessions.

Summary

I and others at the USGS participated in the 2003 annual meeting of the Association of American Geographers (AAG). The AAG is **the** major geography research professional society in North America. Increasingly, it includes international members. AAG was founded in 1904 in Philadelphia. The society includes geographers in business and government but is primarily composed of 7,000 members from the academic geography community--professors at universities and community colleges, and graduate students. Their conferences attract between 3,000 and 4,500 people annually. This conference was one of the larges AAG annual meetings. Furthermore, the proportion of AAG members who attend the conference is over 50%, which is very high for a professional society.

New Orleans, Louisiana, as shown on stunning Landsat scene we displayed in our exhibit, dating from February 2003, created by Mark Barber at USGS EROS Data Center with specifications from Elizabeth McCartney from the MidContinent Mapping Center. Thanks to you both!

The New Orleans Hyatt Regency, site of the 99th Annual Meeting of the Association of American Geographers (AAG). The AAG conference featured some wonderful trips to battlefields, factories, levees, cemeteries,

wetlands, and other cultural and physical sites of note. Unfortunately, I was too busy to attend these, but I spoke with a few people who reported on the excellence of these field trips.

The interior of the Hyatt Regency was a remarkable feat of engineering with a 30 floor open interior atrium.

The AAG President is Dr Duane Nellis from the University of West Virginia. The AAG authors two academic journals through Blackwell Publishers, the *Annals of the AAG,* and *The Professional Geographer*. In addition, they publish a monthly *AAG Newsletter*. I have been an AAG member since 1992 and it is a major source of professional development for me and also very personally rewarding.

By participating in this conference, we demonstrated the leadership that the USGS has in geographic data and research that not only geographers, but also anyone with an Earth-based project, can use in their research. In so doing, the good will and recognition of the USGS in the geography community is quite excellent. Given increasing media attention on both the need for geographic skills, geographic data, and the need for geographic and environmental research, the potential is high for increased work with the AAG.

Paper and Workshop Sessions

Paper Sessions I Was Involved With:

(1) Emerging Themes in Geography Education: New Approaches to Teaching and Learning.

I have been working with Sophia Linn, Program Coordinator for the Colorado Geographic Alliance, and other geographic researchers and teachers on GIS and geography education coordination for several years. Our latest research project involves mapping the Colorado Standardized Achievement Program (CSAP) scores with GIS methods and tools to raise the awareness of the power of geography and GIS in the educational curriculum. We are also working to compile a set of evaluation tools that help to measure the effectiveness of GIS in education. We presented a paper on both of these projects in a session organized by Dr Jan Smith of Slippery Rock State University. Dr Smith is organizing all the papers into a published volume of IRGEE—*International Research in Geographic and Environmental Education.*

Joseph Kerski and Sophia Linn before their presentation on the GIS evaluation tools and mapping standardized test scores.

(2) I co-chaired a session with Diana Casey from Muskegon Community College entitled "Focus on Teaching Strategies and Methodologies—Physical Geography and GIS."

Attendees at the session I co-chaired with Diana Casey, one of my favorites of the conference, as we had a lively set of presenters focused on multimedia, remote sensing, the Internet, and GIS in education. One of the presenters was Dr Brey, whom I worked with a few weeks ago at the University of Wisconsin (see report on this event).

Other Sessions I Attended

(1) Presidential Plenary

I attended the presidential plenary panel session given by several prominent geographic researchers. The reason I attended was because I thought the theme was especially pertinent to the educational partnership work that I do and was applicable to the research, production, and The National Map partnerships that others at the USGS work on. This theme was "Crossing Boundaries—Creating Partnerships in Geography." First, Duane Nellis, AAG President (West Virginia University), spoke, followed by Susan Hanson (Clark University), Jack Dangermond, Thomas Wilbanks (Oak Ridge), and Kamlesh Lulla (NASA).

AAG President Duane Nellis of West Virginia University.

Susan Hanson discussed the barriers that exist for effective communication about geography and challenged us to break down these barriers. Her issues about relevancy and audience are exactly what we are work with in the USGS communications and education program.

ESRI President Jack Dangermond spoke about how academic geographers support the private sector, and how the private sector supports academic geographers.

Dr Wilbanks identified five priorities for partnerships, emphasizing all the while that

the importance of geography goes beyond the *discipline* of geography. I could not agree more!

(2) Teaching Methods Round Table Discussion

(3) GIS and Society

(4) US Ethnic Communities and Distributions

(5) K-12 Education.

(6) Globalizing Cities. I always encourage geographers to attend at least one session that is outside your field of interest and background, and don't always follow my own advice! I did so at this conference, however, at this session which analyzed cultural and economic linkages both inside and between cities (two presenters from the session below).

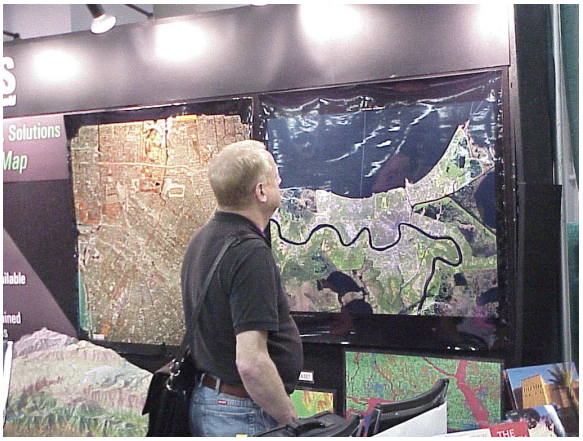
(7) Illustrated Paper Session: Geography Education.

(8) GIS In Education. Dr Xie and others from Eastern Michigan University presented here. I have worked with them for years on an NSF-sponsored grant supporting an online collaboratory and set of lessons for using GIS for science education.

Exhibits

The AAG exhibit hall is perennially one of my favorite places. This year's exhibitors included textbook companies (University of Minnesota Press and Wiley, for example), map companies (such as Rand McNally), geography organizations (such as the International Geographical Union and the National Council for Geographic Education (NCGE)), government organizations (such as the USGS, Bureau of Census, NASA DAAC, and NIMA), software companies (such as Pixoneer and ESRI), field equipment companies (such as Applied Field Data Systems) and others.

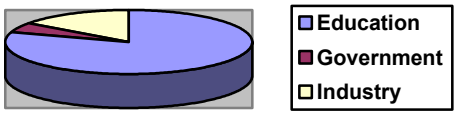
Joseph Kerski and Elizabeth McCartney, information specialist at the MidContinent Mapping Center, work at the USGS exhibit. We made an excellent team and I learned, as usual, a great deal from Ms McCartney's technical knowledge. We were located adjacent to the National Atlas exhibit, staffed by Billy Tolar of Reston, VA. The EDC DAAC exhibits were located in the next aisle. Also helping with the exhibits were Larry Handley of the USGS National Wetlands Research Center and Debbie Reusser.



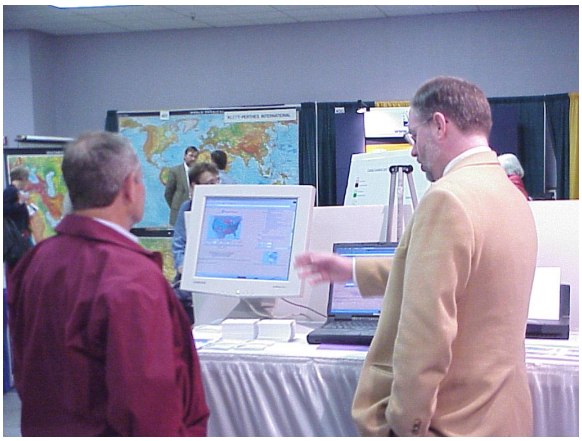
A visitor to our exhibit examines the aerial photograph and the Landsat scene that we had on display.

Billy Tolar, USGS headquarters and expert on the National Atlas, works in the National Atlas exhibit.

Communication Focus Areas



Our goal at the conference is to reflect applications and use of GIS at the USGS, rather than simply the base data we produce. We also seek cooperative research and development agreements, and production agreements with those we come into contact with.



Billy Tolar displays the many features of the National Atlas to a geographer at the National Atlas exhibit.

Elizabeth McCartney discusses USGS GIS and visualization tools with a geographer visiting the exhibit.

Visitors to our exhibit examine the brochures, maps, posters, and books we had on display.

Personnel required for AAG conference:

Experience working with digital data users, and knowledgeable about:

(1) Applications of geography and geospatial data using USGS products.
(2) Geographic research at the USGS.
(3) USGS products and services with emphasis on GIS, geologic data, hydrologic data, satellite images, digital imagery and cartographic data.
(4) Cooperative agreements between the USGS and state, private, and federal partners, particularly in relation to The National Map.

Materials We Displayed and Distributed:
The following maps that we gave away were most popular:

Mesa Verde National Park map
USA Watersheds map

Also very popular was the new GIS poster, and Elizabeth's USGS Digital Data Sampler CD.

Other items we displayed and distributed:

National Map notepads
Landsat image cards
USGS Bookmarks
US-Mexico transboundary project information sheets
Historical Landsat Image Books
How to Get Info from USGS info sheets
How to Use USGS Spatial Data
Educational Newsletters
Louisiana Topographic Map Indexes
Coastal Fact Sheet
GeoMac - Wildfire fact sheet
GIS in Education Information Sheet
Implementation and Effectiveness of GIS in Education
Map Mysteries
Teaching with Topographic Maps
Digital Data prices
ACSM Bulletin article on the National Map
PE&RS Article on NED
Mendenhall postdoc flyers
USGS bags

FS-010-01 Science, Society, Solutions
FS-018-02 The National Map: Topographic Maps for the 21st
FS-033-01 USGS WWW information
FS-060-02 The National Map – Hydrography

FS-061-02 Homeland Security and The National Map
FS-062-02 The National Map Pilot Projects
FS-050-02 USGS Environmental Studies of the World Trade Center Area
FS-083-00 Earth Explorer
Louisiana barrier islands
National Wetlands Research Center Geologic Assessment and Process of Lake Ponchartrain

Louisiana Fact Sheet
Educational Materials from the USGS
National Elevation Dataset
National Hydrography Dataset
National Land Cover Dataset
High Resolution Land Cover
List 67-0001 USGS Maps Price List
Form 67-0002 USGS Maps, Books, and other Published Products
List 67-0035 Satellite Image Maps List
FS-087-02 Rare Earth Elements-Critical Resources for
FS-092-02 Mount Mazama and Crater Lake
FS-095-02 Vulnerability of U.S. National Parks to Sea-Level Rise
FS-096-96 Earthquake Technology Fights Crime
FS-152-99 Major Quake Likely to Strike between 2000 and 2030
FS-152-00 Viewing Hawai'i's Lava Safely

Aerial Photographs & Satellilte Images
Map Projections posters
USGS GeoData
Topo map symbols sheets
Deserts

PP1386-J Satellite Image Atlas of Glaciers of the World – North America
PP1625 (CD) 2000 Resource Assessment of selected coal beds and zones in the…Appalachians
PP1643 Active tectonics of the Devils Mountain fault and related structures…Pacific Northwest 50
PP1648 Geochemical Landscapes of the Conterminous United States 50
MF-2401 Maps showing lava inundation zones for Mauna Loa, Hawaii: USGS Miscellaneous Field Studies 20
Bulletin 2188 Geology and Natural History of the Bay Area 50
Bulletin 2195 Rocks and Geology in the San Francisco Bay Area 50
New North America Magnetic Anomaly Map 25
A Strategy for Monitoring Glaciers (1132) *http://ak.water.usgs.gov/glaciology/reports/circular1132/* 40

Ground Water and Surface Water – A Single Resource (1139)
http://water.usgs.gov/pubs/circ/circ1139/

Estimating Areas Contributing to Recharge in Wells (1174)
http://water.usgs.gov/ogw/pubs/Circ1174/

Land Subsidence in the United States (1182)
http://water.usgs.gov/pubs/circ/circ1182/

Yucca Mountain as a Radioactive-waste Repository (1184)
http://geopubs.wr.usgs.gov/circular/c1184/index.html

Sustainability of Ground-Water Resources (1186)
http://water.usgs.gov/pubs/circ/circ1186/

Beyond the Golden Gate (1198)
http://geopubs.wr.usgs.gov/circular/c1198/

1208 – Water Quality in the Mississippi Embayment – Louisiana and other states

Ground Water Level Monitoring (1217)
http://water.usgs.gov/pubs/circ/circ1217/

The USGS and the Chesapeake Bay (1220)
http://pubs.usgs.gov/circ/c1220/

Materials in the Economy (1221)
http://pubs.usgs.gov/circ/2002/c1221/

Estimated Use of Water in USA (1200)
http://water.usgs.gov/watuse/pdf1995/html/

The Quality of our Nation's Water (1225)
h*ttp://water.usgs.gov/pubs/circ/circ1225/*

C1195 USGS National Research Program in Hydrologic Sciences

C1223 Report to Congress – Concepts for National Assessment

Featured Websites

NWIS and real-time streamflow
http://waterdata.usgs.gov/nwis/

National Geologic Map database
http://ngmdb.usgs.gov/

The National Map Viewer
http://nationalmap.usgs.gov/nmjump.html

National Atlas of the United States
http://www.nationalatlas.gov/

The North America Tapestry of Time
http://tapestry.usgs.gov/

The Geographic Face of the Nation: National Land Cover Characterization
http://landcover.usgs.gov/natllandcover.html

Magnetic Anomaly Map of North America
http://crustal.usgs.gov/namad/the_project.ht ml

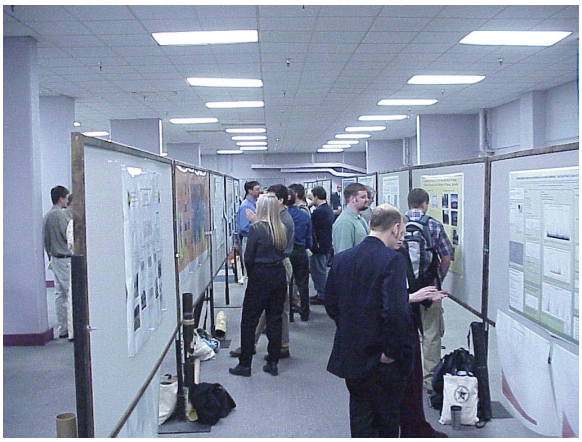
South Florida Satellite Image Map (Northern and Southern Everglades) I-2742
http://sofia.usgs.gov/projects/remote_sens/sflsatmap.html

Perspective Views of Crater Lake, Oregon
http://geopubs.wr.usgs.gov/dds/dds-72/

2000 Multibeam Sonar Survey of Crater Lake (DDS-72)
http://geopubs.wr.usgs.gov/dds/dds-72/

Geochemical Landscapes of the Conterminous United States -- New Map Presentations for 22 Elements (PP 1648)
http://pubs.usgs.gov/pp/2001/p1648/

Poster Sessions



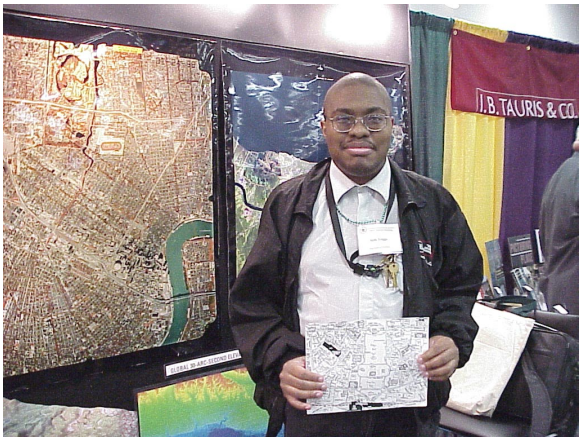
A highlight of the AAG conferences is the rotating series of maps and posters from researchers from all over the world.

Geography Education Specialty Group Meeting

AAG includes at least 40 specialty groups, and I am a member of six of them. I attended the meeting of the Geography Education specialty group, where we discussed future sessions we would sponsor, the listserve, and the budget. We

have over 500 members in the specialty group, making it one of the largest in the AAG.

The AAG includes at least 60 specialty groups representing regions of the world, and topical specialties such as GIS, remote sensing, cartography, cultural geography, historical geography, and geography education. Above, the geography education specialty group meets during the 2003 conference. We discussed student paper competition, organization of the specialty group, specialty group sponsored sessions, education research, and other topics.



I met many fascinating geographers at this year's meeting, including Seth Triggs of the University at Buffalo, above, who is displaying one of his remarkable hand-drawn maps.

Recommendations

1) The Geography In America Timeline is being prepared to celebrate the AAG's centennial in 2004. It will become a website in 2004 and its goal is to provide an "unparalleled gateway to American geography." I would argue that the history of the USGS is in part tied to the history of US geography. I call on all USGS geographers to consider contributing to this effort. The POC is Dr. Donald Dahmann at ddahmann@yahoo.com.

2) The AAG conference is definitely a worthwhile one for the USGS to participate in, particularly with national attention on our spatial data in conjunction with homeland security. I highly recommend that we participate in this conference **each year**. AAG is ***the*** geographic research professional society in the USA and one of the largest in the world.

By participating in the AAG conference, we sought to demonstrate the leadership that the USGS has in data and research. We sought to further our partnerships on many levels.

3) This event showed once again the excellent cross-regional coordination that can be accomplished.

4) I still think we could do better to distribute the USGS biological research materials out of the same distribution facility as other USGS data so data users can access them and so that we may effectively display them at conferences.

5) Once again, it was difficult to advertise for all USGS presentations on our backdrop because we did not receive a list of such presentations by those presenting. USGS staff had several presentations at the

conference, on a wide variety of topics.

6) We should collaborate with the AAG on an educational program. I have spoken with Osa Brand, AAG educational affairs director, about this several times. Both of our organizations are highly respected and it would be mutually beneficial. It would help move the USGS from being viewed by many as just a source of data, to a partner with the academic community.

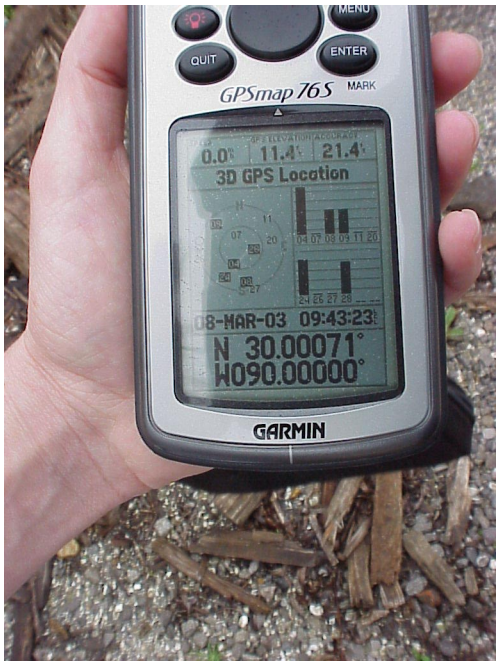
7) Next AAG conference: March 2004 – Philadelphia, Pennsylvania. This is the 100th anniversary of the AAG and the conference will be especially large. We need to be there!

8) At the exhibit hall, I found out about two research tools: socscinet.com from Elsevier Press, and sciencedirect.com as well. I have already used abstracts from both of these for a paper I am writing for the International Geographical Union. I recommend that others take advantage of these research tools.

Acknowledgement

I would like to thank the Colorado Geographic Alliance for largely funding this trip, and to Jay Donnelly at USGS HQ for his assistance in this regard.

Other Activity: Latitude-Longitude Confluence Found!



What better way to end the continent's largest geography conference than with a pilgrimage to the nearest confluence of latitude and longitude lines? Jennifer Rahn of Baylor University discussed geocaching and confluences during her session, and I conducted a confluence/geocaching workshop in January at GeoTech Dallas. And the nearest one was no ordinary confluence, but rather, a 10-degree and a 30 degree, as well as the boundary between UTM zones 15 and 16.

The location of the confluence was in an authentic Louisiana bayou, near the Intracoastal waterway and adjacent to major industry and railroad yards.

Joseph Kerski at the boundary between UTM zones 15 and 16!

I made the pilgrimage with Sophia Linn , program coordinator with the Colorado Geographic Alliance.

Louisiana Superdome adjacent to the Hyatt, the conference site.

Steamboat *Natchez in the misty Mississippi River, 8 March 2003.*

*** End of 2003 Association of American Geographers Annual Meeting Report ***