EDUCATION-COMMUNICATIONS REPORT AND RECOMMENDATIONS

Attendee's Name and Report Writer:

Joseph Kerski, Geographer:
Education/GIS, USGS, Denver, Colorado.

Location/Date: Denver, Colorado, 1-3 October 2003

Event:

2003 GIS In the Rockies Conference

Other USGS Attendees: Lee Aggers, Jeff Simley, Carol Giffin, Barbara Ray, Richard Jimenez, Sharon Shin, Doug Nebert, Kathy Covert, Michael Domeratz, and others.

Summary:

For 15 years, people have looked forward to the GIS in the Rockies conference as one of the highlights of the year in Colorado. GISITR is a regional GIS conference, attracting participants primarily from Colorado and Wyoming. The USGS has participated in the GIS in the Rockies conference since its inception in 1988, making it one of the longest-running events in which we have continuously participated. We have seen it evolve from its days in Fort Collins to the Colorado School of Mines, to the Regency Hotel, to the Chambers Road Holiday Inn, to the University of Denver, and to its present site at the Denver Merchandise Mart. We have been involved in the Colorado GIS community during the same period of time, and the conference provides us with an excellent opportunity to network with our existing partners and forge new collaborations. The GISITR conference is one that extends beyond the USGS in Denver: Last year, Karen Siderelis, USGS Geographic Information Officer, gave a keynote address, and this year we were pleased to have participation from Michael Domeratz, Doug Nebert, and Kathy Covert from USGS headquarters in Reston.

Activities:

1) USGS Exhibit, featuring The National Map, How to Use USGS Data in ArcGIS, GeoMac Wildfires Mapping ArcIMS application, USGS mapping partnership activities in Colorado and Wyoming, USGS participation in GIS Education activities in Colorado, and more.

L-to-R: Joseph Kerski, Carol Giffin, and Lee Aggers "pose" with items they distributed from the USGS exhibit.

2) USGS workshops and presentations, including:

Joseph Kerski—How to download, format, and use USGS spatial data within ESRI GIS software.

Lee Aggers—Homeland Security.

Joseph Kerski—Vendor presentation:

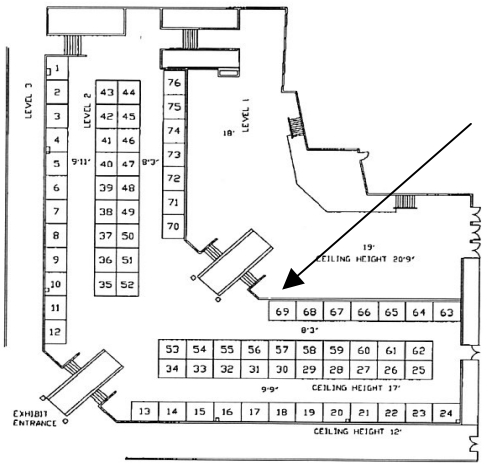
USGS role in GIS research, development, and education.

Jeff Simley—The National Hydrography Dataset.

Acknowledgements

I thank my USGS colleagues Richard Jimenez, Carol Giffin, Barbara Ray, Jeffrey Simley, and Lee Aggers for their expertise at the USGS exhibit and workshops, Mary Wadding for her help with the materials we distributed, Steve Reiter for loaning me the GPS units for the middle school students, Richard Jimenez, Gene Jackson, Steve Reiter, Dave Hester, Dana Shippy, Jim Wilkinson, Ted Schulz, and others who helped with our USGS tour, and these folks and others who contributed to our presence at the conference. I thank Rena Brand, Mark Hess, Tina Cary, and the rest of the GISITR organizing committee for hosting a conference that we all look forward to, for supporting the effort to have the students at the conference, and for being a pleasure to work with.

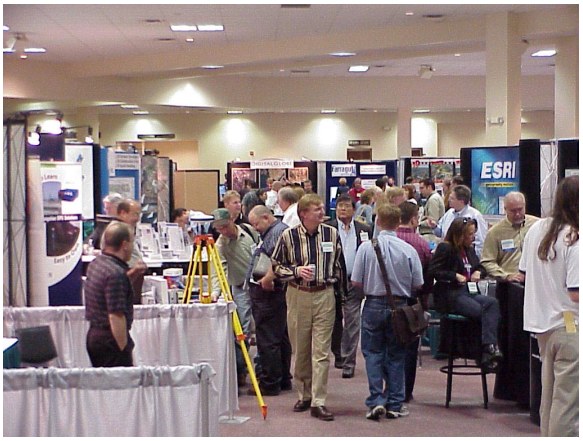
Exhibits



Our exhibit was in an excellent location in the exhibit hall, and we were able to use a bit more than our "allotted" space for distributing the many free maps and materials we brought. See exhibit hall layout below with arrow to USGS exhibit location.

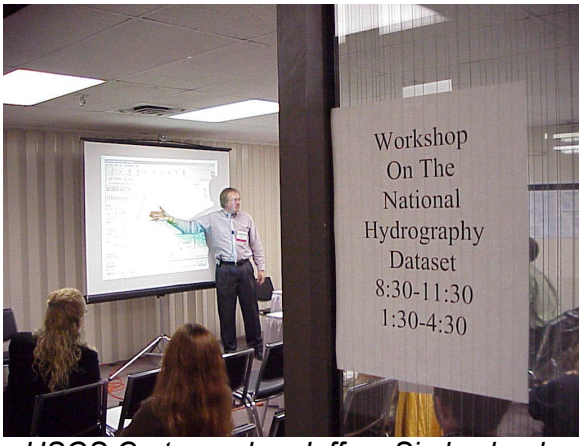
We displayed the following products and information in our exhibit: Spatial and Temporal Land Use Change in Front Range of Colorado, GeoMac wildfires poster, Colorado map from the NED data, flyers on USGS base spatial data, satellite imagery, Colorado mapping liaison activities, Front Range Infrastructure project, GIS in Education, How to Use Terraserver images in a GIS, How to Use USGS Spatial Data in a GIS, How to Find information at the USGS, USGS web sites, land cover program, NED, NHD, and other items. I brought several Colorado geologic, land use, satellite image, shaded relief, and other maps, and as usual, the response to these was tremendous. I donated some of these maps as door prizes.

The exhibit area of GIS in the Rockies conference provides an excellent opportunity to network with colleagues, as well as to learn about new tools, data, training, and partnerships.



Exhibitors included professional societies (GITA, URISA), government organizations (USGS, FGDC), universities and colleges (University of Denver), and private companies (Digital Data Systems, Digital Globe, Space Imaging, ESRI).

Morey Middle School students gathered at the Denver Merchandise Mart for a GIS meeting with Joseph Kerski, geocaching on the Mart grounds, and a tour through the exhibit hall. Thanks to the efforts of their teacher, these students spend nine weeks in Grade 7 doing hands-on work with GIS.



USGS Cartographer Jeffrey Simley leads two workshops on the National Hydrography Dataset.

Joseph Kerski, waving, left, with students from Morey Middle School after their geocaching adventure!

Morey Middle School

Those who know me won't be surprised to discover that one of the highlights of the conference for me was to work with the middle school students from Morey Middle School.

I was not only impressed by the answers the students gave in the GIS session I held with them (above), but also in the questions they were asking. I showed them applications of GIS, including a DOQ of their school in Denver, held a discussion about why GIS is used, about georeferencing, latitude, and longitude, how GPS works, and about the goals of our geocaching activity.

Geocache #1 was a box that I hid near the front of our USGS van, containing GIS Day buttons (courtesy of ESRI) and our own USGS Landsat image cards (courtesy of USGS EDC).

Joseph Kerski, right, works with students in geocaching, which required them to find two objects I had hidden on the Mart grounds with a GPS unit.

I was a little concerned about the students

safety in roaming around the parking lot and near the railroad tracks, above, looking for the geocaches, but we had several parent volunteers and moreover, the students did an excellent job staying on task. Geocaching is an engaging activity that we have also used several times in our teacher training events.

Geocache #2 contained GIS Day pencils, courtesy of Maria Jordan, ESRI.

Audience

Attendance totaled over 450, including planners, engineers, and scientists in environmental science, hydrology, GIS, satellite imaging, parcel mapping, transportation, and land use. Also attending were educators, marketers, private mapping, GIS, and remote sensing companies. The GIS in the Rockies program covers a variety of topics, and includes professionals from business, government and academia. I suspect that the attendance seemed a bit lower because of the economy.

By participating in this conference, we demonstrated the leadership that the USGS has in geospatial data that professionals can and have used in their work. In so doing, we made contacts that will help us meet our customers' needs as well as encouraged future cooperative agreements. These professionals will see the value in what the USGS does. Students and researchers familiar with our data will form an expanded future USGS customer base.

GIS in the Rockies provides a forum for professionals to learn about and to share their experiences with Geographic Information Systems (GIS) technology. GIS in the Rockies is organized entirely by volunteers from the local GIS community and is sponsored by several professional organizations:

- American Congress of Surveying and Mapping
- American Society for Photogrammetry and Remote Sensing
- Geographic Information and Technology Association
- Professional Land Surveyors of Colorado
- Urban and Regional Information Systems Association. Proceeds from the conference are returned to the sponsoring societies. They use these funds to award scholarships and grants and to host technical sessions and seminars. For example, Rocky Mountain URISA sponsored 10 teachers to attend our GeoTech Colorado conference in Copper Mountain in June 2003 (see report on: http://rockyweb.cr.usgs.gov/public/outreach/reports/tie03t.pdf)

I spoke with the folks at Geospatial Experts in Fort Collins, Colorado, who created GPS-Photo Link. This software uses digital still photos and GPS coordinates to automatically hotlink the photos to the map coordinates! I also talked with the excellent staffs of GITA, Digital Data Systems, Digital Globe, Sanborn, Space Imaging, and ESRI, among others.

Recommendations:

1) This was one of the best GISITR conference I have attended, because of the contacts that I made and renewed in GIS educational initiatives.

2) I recommend to the GISITR board that they continue to seek out ways to attract graduate and undergraduate students from the Front Range universities and community colleges. I was pleased to see some faculty and students from Front Range Community College, from the University of Denver, and Metropolitan State College at this year's event. I am teaching at Emily Griffith Opportunity School's new GIS certificate program, about which a flyer was also distributed. However, in my mind, this event should be absolutely packed with students.

I believe we are still barely touching the surface of informing faculty and students at the University of Denver, University of Colorado-Denver, Colorado State University, Colorado School of Mines, University of Colorado-Boulder, University of Colorado-Colorado Springs, and the University of Northern Colorado about this event. I would also like to see ways of getting more middle and high school students and teachers who are using GIS to attend this event. At the Intermountain GIS Conference in Montana and other regional GIS conferences, students have the opportunity to display their GIS-generated maps and discuss their research projects. I believe that the entire GISITR conference would be enhanced through greater student participation at all levels.

I recommend that the GISITR conference offer an even more reduced rate for college students to attend; no more than $20 per day.

3) I was moderately pleased at the attendance at the presentations that I conducted and co-conducted. Our exhibit traffic was light, as expected, but it was still worthwhile for us to host our exhibit,

especially with the mapping liaison work that Lee Aggers and Barbara Ray are doing in Colorado and Wyoming.

4) The GISITR conference is a worthwhile one for the USGS to participate in. The traffic at the exhibit at GISITR is light, except during breaks and during the social event, but nonetheless, the exhibit provides high visibility for the USGS and a place to meet with current and potential data partners.

5) The demonstrations, display, and handouts were suitable and of the correct volume and themes. However, we are OUT OF STOCK on many items, such as many National Map fact sheets.

We could not afford an Internet connection at the exhibit site; we did the best we could without it, and nobody asked us about it.

6) I recommend that the GISITR site remain at the Denver Merchandise Mart. It may not be as fancy as other sites in Denver, but the parking and ease of exhibiting there is much easier than, say, at the Colorado Convention Center. I also recommend that the conference does not occur so close to the fiscal year change (1 October).

Tour of the USGS Rocky Mountain Mapping Center

The USGS Rocky Mountain Mapping Center, along with other organizations, hosted tours on the Friday after the conference ended, 3 October 2003. Above is a poster advertising the tours around the Front Range. We had over 50 people attend the USGS tour.

Mark Hess, GISITR tour coordinator, welcomes participants to the USGS Rocky Mountain Mapping Center.

USGS Information Specialist Steve Reiter explains the mission of the Earth Science Information Center on the first stop of the USGS RMMC tour.

USGS cartographer Ted Schulz, left, demonstrates production of Digital Elevation Models from scanning the contour plates to checking the data in 3D.

USGS Geographer Dave Hester (left, blue shirt) explains how we apply GIS to examine the issues surrounding the Edwards Aquifer and urbanization in South-Central Texas.

Jim Wilkinson explains raster graphic revision to the conference attendees. Dana Shippy also provided a tour of the digital orthophotoquad production unit.

GIS IN THE ROCKIES

***end of report ***