

EDUCATION OUTREACH EVENT REPORT AND RECOMMENDATIONS

Attendee and Report Writer's Name:

Joseph J. Kerski - USGS - Denver
Geographer

Location: Colorado Springs Colorado

GIS Workshop, Pine Creek High School

Event Date: 13-14 June 2005

Purpose of Event:

GIS Workshop for Educators

Co-Instructor:

Esther Worker, ESRI, Denver

Summary

Esther Worker and I taught a GIS workshop for new and existing educators at Pine Creek High School, Colorado Springs. The teachers at the school initiated the request for the training, and we were happy to assist. I expect we will be working with these educators in the Fall as well. I was impressed that the social studies department chair participated and that we had the full support of the IT staff of the school and the principal.



Above, workshop site, showing computers arranged in pods that allowed for interaction and ease of teaching and learning.



The workshop included collection of coordinates that we gathered with GPS receivers that had been donated to the school.

This hands-on workshop was based on ArcGIS 9, and included lessons on analyzing world population, earthquakes and plate tectonics, USA population for the past 100 years, tornadoes, and a field work component.



Esther Worker, right, works with teacher during the field work component. We uploaded the coordinates using the Minnesota Garmin GPS utility on top of a DOQ in ArcGIS. During the workshop, we

discovered a problem with the spatial coordinates of the high-resolution USGS images on Terraserver for Colorado Springs, which I will follow up on.



Summary

This course illustrated the sustained and growing interest that educators have in using GIS and GPS technologies in educational settings. GIS can be used in an innovative, inquiry-driven, problem-solving manner in many different subject areas. As more teachers become interested in these tools, students will ultimately benefit through increased critical thinking, problem-solving strategies, interdisciplinary thinking, and career opportunities.

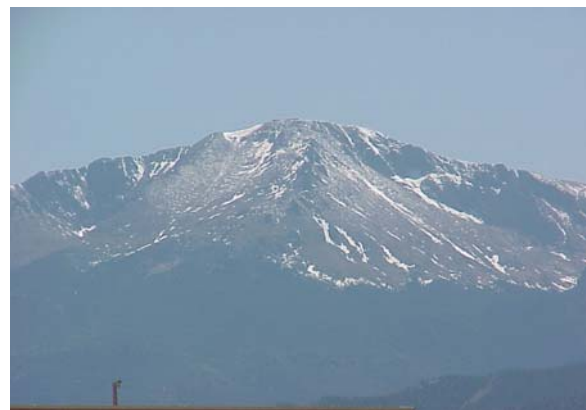
Acknowledgements

I greatly appreciated teaching with Esther Worker, ESRI. We have taught together numerous times in the past and it is always a sincere pleasure. I thank the USGS for their support of the time for my attendance at this event. We appreciated the support of the high school IT staff and faculty. I thank those who participated in the event who made it memorable.

Recommendations

The power of spatial technology and spatial thinking helps students to investigate the world using 3D fly-throughs, maps, images, and databases about topics that are interesting, relevant, and provide good career opportunities. This workshop emphasized interdisciplinary linkages between geography, mathematics, history, and science. It also emphasized examining real-world issues in standards-based education. These tenets, I believe, can continue to transform education to help students to be the problem-solvers we need to solve 21st Century problems.

I believe that the USGS and other federal organizations have a role to play in preparing teachers and students to use our data and products, and spatial data and technologies. It is also our responsibility to do so as a public service agency. Our relationship with ESRI is one of our longest and most fruitful, and I will do all I can to ensure that it continues. We need to remain involved in education as an agency. Education shows our relevance and is tied to our science.



View of Pikes Peak, 13 June 2005, from Pine Creek High School, by Joseph Kerski.

*** End of GIS Workshop Report ***