TRIP REPORT AND RECOMMENDATIONS

Attendee's Name:	Joseph Kerski Title: Cartographer, PM
Location:	Indianapolis IN
Other Attendees:	Diane Brittle, Rich Sheehey
Meeting Date(s):	11-14 October 1998
Purpose of Meeting:	Conduct 5 workshops and 1 paper presentation at National Council for Geographic Education (NCGE) conference

Background:

After decades of the "doldrums," the field of geographic education has been experiencing a tremendous renaissance since 1985. It began with extensive media coverage of the lack of geographic knowledge by not only K-12 and college students in American schools, but by the American public. The most recent events in this renaissance include the creation of National Geography Standards, published in a document entitled "Geography for Life." It has continued with the inclusion of geography as one of the five core subjects in the President's "Goals 2000: National Education Act." Fueling this resurgence is the reality of actually bringing GIS technology and data into the classroom, due to lower prices and easier-to-use packages.

The NCGE has been promoting and improving the effectiveness of education in geography since 1915. The Council currently has over 4,500 members, including K-12 teachers, university faculty, students, government employees, representatives from private companies, and others interested in geographic education. The NCGE publishes the monthly Journal of Geography, and a newsletter entitled Perspective.

Reasons for attending:

1) As the nation's largest scientific organization, the USGS can and has provided great input to publications, data sets, software, and other items related to geographic education. This is particularly true in the area of bringing GIS to the classroom: the USGS could be a leader in generating data sets that teachers can easily use at all grade levels. In so doing, the publicity generated from teachers and students across the country for the USGS could be enormous, particularly with the amount of media on the need for geographic knowledge.

2) The value-added in our involvement with the lifelong learning focus area of educational outreach is that we work with educators to demonstrate *how* our products can be used in conjunction with national science and geography standards. It is not enough to tell which products are available. Teachers already know how to find resources and they have a great deal of material. When we get involved with teachers--getting their input and working with them--we can understand how to best meet their needs.

3) The USGS outreach program suffers from a chronic lack of funds and partnerships to assist us in our efforts. I believe the NCGE holds tremendous untapped potential for partnership opportunities with the USGS. The NCGE has worked closely with the Association of American

Geographers (AAG), the American Geographical Society, and the National Geographic Society. The USGS should not miss the opportunity to be another link in the cooperative efforts that have already been successful.

4) I wrote an article in *Focus* from the American Geographical Society on using USGS resources to teach about karst landforms and the human impact on these landforms. This article was promoted at the conference and it provided an excellent opportunity to work with the AGS.

5) The Executive Director of the NCGE invited me to this conference to co-conduct a workshop with her (see below). This indicates how well our organization is respected and viewed by professional societies.

My Activities at the Conference:

1) I conducted 5 workshops and 1 paper presentation:

(1) 74,796 Ready-To-Go Lesson Plans: Teaching Cultural and Physical Geography with USGS Topographic and Thematic Maps. In this workshop, I illustrated how USGS maps can be used to teach cultural and physical geography, aligned with the national geography standards, by using a series of "map mysteries" built on topographic and thematic maps. Workshop conducted twice; each with over 50 attendees.

(2) GIS in the Curriculum: Real Examples in Real Schools. I presented several examples of the USGS work with schools in the area of educational technology and GIS, illustrated lesson modules I have developed with teachers, described USGS digital data useful for education, and discussed issues involved with implementing GIS in the classroom.

(3) "Doing Real Geography--Field Work. In this presentation, which I co-conducted with NCGE Executive Director Ruth Shirey, I illustrated how aerials, satellite images, and topographic maps could be used in the field in a variety of projects.

(4) Teaching About Karst with USGS Resources. In this workshop, which I conducted with the American Geographical Society, the American Cave Conservation Association, and the Indiana Karst Conservancy, I illustrated how USGS resources could be used to teach about karst, water resources, pollution, caves, river systems, limestones, and sinkholes. Workshop conducted twice.

2) I assisted in part of the set up of the USGS booth in the vendor exhibit area, which was staffed in an excellent manner by Diane Brittle and Rich Sheehey.

3) I met with the NCGE Executive Director, Ruth Shirey, and National Geographic Society staffpersons to discuss present and potential future USGS activities in education both on our own and in conjunction with these other organizations. For example, the NCGE wants to work with us on a field update with topographic maps project with educators and students from around the country. Our model is "Land Use-UK", where students from all over the United Kingdom created land use maps of the country in 1996. This project, organized by the Geographical Association, brought a huge amount of publicity. Educational reform already receives funding and publicity, starting with the White House. Educators are looking for relevant, real-world field projects. If we were to conduct this program correctly, it would generate tremendous publicity for the USGS, showing the relevancy of our maps and our involvement with the educational community at multiple

levels.

4) I attended a session by and met with Derek Thompson, who has received a FGDC grant to bring the NSDI to the educational community. We should be involved with Dr Thompson and provide input to this activity.

5) I attended the technical sessions with the goal of establishing connections and working relationships between the USGS and other organizations and universities, with the goal of integrating USGS data with GIS in the classroom, and for professional development. I attended a session that re-capped the First National GIS Institute, where I represented the USGS in training 32 teachers from around the USA and Canada in geographic technology. Other sponsors included ESRI, NCGE, Southwest Texas State University, the Texas Alliance for Geographic Education, and the National Geographic Society.

Recommendations:

1) These are exciting times for geographic education, with the resurgence of public interest in the subject, and the new national K-12 standards in geography. I believe that the USGS could play a role in this expansion of geographic education, by producing a modular CD-ROM that includes base and thematic spatial data sets, with one module for each of the national geography standards, and for different grade levels (primary, middle, and high school). Teachers lack the time to find sites for spatial data, and reformat that data to use in a GIS. They need easy-to-use data that can be imported into a GIS such as Idrisi or ArcView.

2) I recommend we pursue the field work project described above with NGS and NCGE.

3) I recommend we remain involved with the NCGE. This is an organization who is coming to us for guidance, telling us how appreciated we are, and wanting to increase its involvement with us. They recently initiated an educational project with NASA which is bringing publicity to both organizations. I believe the USGS is equally suited for such collaboration. It would assist us by more effectively using our limited outreach funding and staff.

Acknowledgements:

I shipped all materials for workshops to and from the Indiana USGS WRD district office, where Lucy Arvin and Sonja Sanders were most helpful and knowledgeable. District chief and state representative Lindsay Swain met with me personally and discussed the USGS outreach program. I took some Indiana materials to my workshops and alerted the Indiana educators as to the data available from the state USGS office. Mr Swain does a great deal of educational outreach, and I commend him for it.

end of report