

EDUCATION EVENT REPORT AND RECOMMENDATIONS

Attendee's Name: Joseph J. Kerski Denver RMMC Geographer - Outreach Staff
Location: Dallas TX
Other USGS Attendees: none
Trip Date(s): 24-27 January 2001
Purpose of Travel: **Geo-Tech 2001 Conference**
Purpose of Event: Educational Technology Conference

My Activities at Conference:

- (1) Conduct keynote address on GIS in education.
- (2) Deliver radio address on KEOM radio, Dallas.
- (3) Help train teachers in the use of GIS in the curriculum.
- (4) Conduct workshop on the use of DRG, DEM, NED, NHD, LULC, NLCD, DOQ, and Landsat imagery in the curriculum.
- (5) Conduct workshop on the use of topographic and thematic maps in the curriculum.
- (6) Operate USGS exhibit.
- (7) Attend meeting on GIS education at the University of North Texas.
- (8) Receive training from ESRI Education Staff in ArcView GIS.

Approved Highlight:

USGS Shares Spotlight with Sally Ride at GeoTech Conference in Texas. USGS geographer Joseph Kerski, and astronaut Sally Ride will present keynote addresses at the 2001 GeoTech conference in Dallas, Texas on January 26. More than 700 teachers from primary to university level will gather for this annual conference, to exchange ideas on the integration of technology into geography and science curricula. Dr. Kerski will analyze the implementation and effectiveness of geographic information systems (GIS) technology and methods in education. GIS has been linked to improvements in students' ability to conduct inquiry-based investigations and solve environmental problems through the use of computerized aerial photographs, databases, satellite images, and maps. USGS participants will also train teachers in the use of GIS and will distribute information on hazards, mapping, water resources, and biology. (Joseph Kerski, Denver, CO, 303-202-4315).



Media

For this conference, I scheduled an interview for a "Community Focus" spotlight on KEOM radio, 88.5 FM, Dallas, Texas. This interview will be broadcast on the radio approximately 3 times per day, 3 days a week, over the next six months. I discussed what the relevance of the USGS to everyday life and citizens, our history, and why we do what we do. I provided examples of our water quality assessments, maps, and biologic and geologic studies. I provided many samples to the station director before the interview, so that he would be familiar with our organization. This provides us with continued publicity in the Dallas-Fort Worth metropolitan area. I also provided the station with a news release about the

GeoTech conference, which was played on the radio for several days prior to the conference.



My emphasis for attending this conference was several: First, capitalize on USGS strength in technology. The explosion in educational technology presents one of the best opportunities that the USGS has ever had to introduce our data and products to students and educators across the country. Educators who are trained in the types and applications of our data are a powerful lobby for the USGS. Students familiar with our data will form an expanded future USGS customer base. Another objective was to "train the trainers"--teachers--to magnify our effectiveness and maximize our limited resources. These trainers will themselves network with and train other teachers, administrators, and students.



By participating in this event, the publicity generated from teachers and students across the country for the USGS is far-reaching, particularly with high media attention on both the need for geographic skills as well as the need for educational technology by students in the USA. This is the fourth time I have participated in this conference, and each time, the benefits and the publicity increase (see below for description of radio address). Dr. Sally Ride, astronaut and the first American woman in space, gave the other keynote address (below). She emphasized the importance of keeping students, especially middle school girls, interested in science.



The Geo-Tech conference should remain on our list of participating in each year as one of the few educational conferences we are involved in. This is especially pertinent as we seek to concentrate efforts on targeted audiences and de-emphasize "general public" events where the benefit is questionable for the resources expended. This is a strong candidate for a conference we participate in each year, but some handouts should rotate.



Dr Sally Ride, first female American astronaut in space, spoke at the GeoTech conference as the first keynote. She is pictured aboard her first shuttle mission.



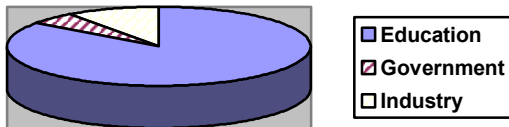
She attended Stanford University where she earned a Bachelor of Arts degree in English, a Bachelor of Science degree in Physics, a Masters degree in Physics and a Ph.D. in physics. She entered the astronaut corps in 1978 and completed her training in 1979. She left NASA in 1987 to teach at Stanford University. Since 1989, she has been at the University of California at San Diego as a professor and as head of the California Space Institute. At left, Dr Sally Ride is on the space shuttle Challenger. It was a privilege to listen to Dr Ride and note the commitment she has to education.



At left, the strand “3” teachers I helped train from across the USA (advanced GIS) hold up the number “3” as they complete a day of training. I also learned a great deal from these teachers, who I consider to be among the very best teachers in the nation. We worked through projections, hotlinking, GPS input to GIS, flythroughs, and more.

Conference web page:
<http://www.bdhs.org>

Outreach Focus Area



We need to remain involved in education as an agency. Education shows our relevance to Congress and the general public. Education affects future generations of scientists who will support our agency and work for the USGS. Education serves the needs of diversity, recruitment, and retention. Education ties into all six major outreach audiences. Education forms partnerships that are far-reaching. Education is the right thing to do.



The Geo-Tech conference is unique for several reasons. It brings in well-known educators and associated potential publicity. Dr Sally Ride, as well as persons from NASA and Lockheed Martin, attended this year’s conference. During other years, Dayton Duncan, the biographer of a book on Lewis and Clark and the director of the PBS special on the explorers, Ann E. Bancroft, the first woman to ski to both the N and the S poles, and Bob Ballard, the discoverer of the Titanic and the Bismarck, have spoken at the conference. I have had personal contact with all of these individuals after the conference has ended. The conference site, Bishop Dunne High School, is where principal Kate Collins Dailey is one of the foremost leaders of educational technology in geography. At left are some of the students at the school.

GeoTech Mission

For over a decade, the GeoTech Conference has provided a forum to inspire and motivate educators to teach about the Earth - its structure, societies, environments and their interplay - using a wide range of technologies. GeoTech brings together innovative presenters and teachers in all disciplines to share academic and technology innovations. Educators come to this conference seeking the latest in curriculum area content, technology information and training, and teaching ideas.



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GIS In Education Meeting

On 24 January, a group of secondary and university educators, two members of the ESRI Education staff, and I met at the University of North Texas. We discussed strategies for teaching with GIS in education at all levels.

ESRI will hold an educational GIS conference prior to their User Conference, in San Diego, from 6-8 July 2001. I plan to participate in both conferences, and the USGS will operate an exhibit at the user conference.



Keynote

It was a true privilege to give one of the two keynote addresses at this conference. Dr Ride gave the other keynote. She emphasized the importance of the retention of female students in science, particularly at the middle school level.

At left, I give part of the keynote address on GIS in education. I emphasized a study I conducted in GIS in education, as well as the USGS role, and the importance of inquiry-based learning experiences using real-world data.



My keynote and one workshop used a laptop computer with slideshows and examples of digital data and applications.

Exhibit

450 teachers attended the conference. I displayed and handed out GIS-related data information, miscellaneous Texas topographic maps, teachers packets, information sheets, hazards posters, water education posters, GIPs, and other items. The eight exhibitors included National Geographic, ESRI, Click and Learn, and the Texas Alliance for Geographic Education.



Awards ceremony, at left.

Acknowledgements

I thank Christine Voigt for inviting me to this conference, and Mark Eaton and Lee Aggers for supporting my travel for this event.

*** end of report ***