



Orienteering and Technology

□ GREG SACK, OCIN

Early in the month of March, West Clermont School District in Southwest Ohio sponsored a two day seminar introducing Geographic Information Systems (GIS). Two instructors from the Earth Observing System (EOS) Education Project of the University of Montana were invited to present GIS to about 20 high school teachers.

EOS is also partnered with NASA. Our instructors, Jeff Crews and Niels Maumenee, treated us to ever higher resolution images of our state, county, school district and school as they introduced us to some of the satellites that circle the globe.

There were discussions on GPS usage and linkage to maps. And we got to play with GPS units in the rain. This information seemed like the natural lead into map making for orienteering.

But the fun was just beginning. It seems that the mapping program that they were utilizing for their programs is ArcView 3.2. This program allows many types of data to be linked to the map, including Excel charts.

As one of the learning exercises we charted incidences of the flu in the county. With this information we were able to see and predict the virus' spread.

As we brainstormed the many cross curricular applications this seminar was going to inspire, it became apparent that this was going to take some research. This has much greater implications for orienteering than just mapping.

Schools and school boards across the country are scrambling to find ways to update the curriculum. Technical training and use of high-tech equipment is in big demand since the reauthorization of the Elementary and Secondary Education Act (ESEA).

As pointed out in the April issue of *NEA Today*, the Ed-Tech initiative goes beyond technology accessibility issue to include provisions about how teachers and students use it. Teachers are now expected to integrate it into the curriculum.

But there is a problem. Many kids are far less computer savvy than the media would have us believe. Many are either afraid of or turned off by computers because they have no bridge.

Here is another area where orienteering can be of service to the education community. By presenting maps and their uses as a hands on educational activity, we can develop the conceptual bridge-work for high tech learning.

It will be summer before I can properly dig into this new realm. First, I plan on recruiting some students to create a new school map. Then I will taking an online course in GIS through University of Montana (www.umtonline.net). ▲

Mission Statement: The Earth Observing System (EOS) Education Project disseminates Earth imagery, develops interdisciplinary programs, and deploys advanced technologies for use in our global society. The EOS Education Project provides various innovations and training opportunities for the interpretation, utilization and relevancy of geospatial and technology-related information. The EOS Education Project's primary focus is to serve the needs of the international preK-16 educational community.

In addition to capitalizing upon and cooperating with NASA's extensive educational resource programs, we work with other education programs such as the GLOBE Program, The JASON Project, and the TALEs Project to provide unparalleled educational opportunities for students and teachers. In order to achieve our objectives, The EOS Education Project operations encompass these four primary elements:

The EOS Education Project utilizes emerging technologies such as map, image and document services to deliver geospatial and multimedia information directly into the classroom. EOS provides many teacher development programs in the form of on-site and internet based classes in relevant technologies such as Geographic Information Systems (GIS) at little or no cost to the educational Community;

2) The EOS Education Project develops outreach programs combining teacher in-service and pre-service workshops in various curricula and emerging technologies. These local, regional, and national workshops are supported by expanding Web-based programs utilizing EOS provided imagery, interactive electronic lesson plans and classroom activities;

3) The EOS Education Project provides thematic education programs, public key-note addresses, and a variety of additional materials such as the EOS Newsletter to increase public awareness about NASA's extensive educational resources. The EOS Education Project maintains and expands cooperative relationships with our private sector partners and other institutions in order to maximize NASA resources;

4) The EOS Education Project makes available the resources required to create, develop and share materials through a computer based communications system capable of providing easy access to information and curricula.

The above Mission Statement can be found at:

<http://dev.bigskynt.com/eoscenter/development09242002/index.cfm?fuse=mission&MainID=1&SubID=0>

To get more information about EOS, go to: <http://www.eoscenter.com>

For lesson plans see: <http://esri.com/industries/education/arclessons/arclessons.cfm>

Other sites worth visting are **The Remote Sensing Core Curriculum** at:

<http://www.research.umbc.edu/~tbenja1/>

Satelite tracking in real time can be viewed at:

<http://liftoff.msfc.nasa.gov/realtime/jtrack/eos.html>

To make a map based on varing criterion: <http://nationalatlas.gov>

