GIS ✍ GPS ✍ REMOTE SENSING ✍ SPATIAL ANALYSIS

In the Field with GIS

GIS/GPS WORKSHOP ANNOUNCEMENT

The New Jersey Department of Agriculture, Office of Agricultural Education (NJDE registered provider #847) will host an outstanding, multi-state, two-day Spring Professional Development GIS/GPS Conference on Friday/Saturday, May 4-5, 2007. The conference will begin with registration at 9:00 am on Friday and conclude at 4:00 pm on Saturday and will be held in the new, state of the art, Enterprise Center in Mt. Laurel, NJ. Meals, transportation, lodging, substitute teacher coverage and GPS units will be provided to every New Jersey grant participant, much like last year. Because of the type of training and computer equipment needs, the conference will be limited to the first 20 New Jersey agriculture teachers who register.

The conference will be regional in nature and include agriculture teachers from out-of-state. Terry Brase, Principal Investigator, AgrowKnowledge, National Center for Agriscience and Technology Education, will conduct the conference. Terry is a professor at Kirkwood Community College in Cedar Rapids, IA.

This workshop, worth 13 professional development hours, will provide introductory skills in GPS and GIS as applied to agriculture. Participants will learn the use of GPS for simple data collection and GIS for displaying maps of this data. The workshop will focus on fundamental exercises that can be used in the classroom to teach these concepts.

Grants to New Jersey schools with approved agricultural education programs include: all conference meals and materials, lodging at the Wyndham Mount Laurel, 1111 Route 73, Mt. Laurel, GPS units, round trip mileage to the Enterprise Center, and substitute teacher pay (up to $100) for Friday of the conference. The total grant for each approved Agriculture, Food and Natural Resources Education program participating will be approximately $2,000.

Use the attached Excel registration form and email to: ag.ed.registration@ag.state.nj.us

Registration Deadline:	April 13, 2007
Conference Date:	May 4-5, 2007
Registration/Continental Breakfast:	9:00 am
Conference Schedule:	10:00 am – 5:00 pm Friday; 8:00 am – 4:00 pm Saturday
Location:	Enterprise Center, Rt. 38 & Hartford Rd. at Rt. 295
Fee:	Free for in-state ag teachers; $50 out-of state teachers

If you have any questions, please call me at 1.877.Ag Ed FFA.

Spring Grants Issue

Where's the Money? GIS-Related Grant Opportunities

Note: This special issue of In the Field with GIS brings you information on current GIS/technology-related grant opportunities that might be of interest to support your programs in this area. You might have to think creatively as to how to tailor/apply some of these programs to GIS initiatives for agricultural education, but there is much potential here—and once you get one grant, it is easier to get others! If you're not ready to apply for any of these grants for the upcoming cycle, consider keeping a file of grant opportunities that will likely be offered again in the future and revisit these later.

Advanced Learning Technologies (ALT) - National Science Foundation

PROGRAM GUIDELINES
06-535 Solicitation

DUE DATES
Full Proposal Deadline Date: April 25, 2007

SYNOPSIS
Through the Advanced Learning Technologies (ALT) program, the National Science Foundation (NSF) supports research that (1) enables radical improvements in learning through innovative computer and information technologies, and (2) advances research in computer science, information technology, learning, and cognitive science through the unique challenges posed by learning environments and learning technology platforms. Integrative research approaches that build across disciplines and establish tight linkages among theory, experiment, and design are strongly encouraged. Technology goals may include systems for tutoring or assessment, modeling and sensing of cognitive or emotional states, context awareness, natural language interfaces, collaboration, knowledge management, and non-traditional goals that redefine the roles of technology in learning. Educational foci for ALT projects must include an area of science, technology, engineering, or mathematics (STEM), or general cross-cutting skills directly relevant to STEM.

Link: Abstracts of Recent Awards Made Through This Program

Advanced Technological Education (ATE) - National Science Foundation

PROGRAM GUIDELINES
07-530 Solicitation

DUE DATES
Preliminary Proposal Deadline Date: April 26, 2007
Full Proposal Deadline Date: October 11, 2007

SYNOPSIS
With an emphasis on two-year colleges, the Advanced Technological Education (ATE) program focuses on the education of technicians for the high-technology fields that drive our nation's economy. The program involves partnerships between academic institutions and employers to promote improvement in the education of science and engineering technicians at the undergraduate and secondary school levels. The ATE program supports curriculum development; professional development of college faculty and secondary school teachers; career pathways to two-year colleges from secondary schools and from two-year colleges to four-year institutions; and other activities. A secondary goal is articulation between two-year and four-year programs for K-12 prospective teachers that focus on technological education. The program also invites proposals focusing on applied research relating to technician education.

EDUCATIONAL OPPORTUNITY
This program provides educational opportunities for Undergraduate Students, K-12 Educators. This program supports institutions which may provide support to individuals at those institutions.

Link: Abstracts of Recent Awards Made Through This Program

Information Technology Experiences for Students and Teachers (National Science Foundation)

PROGRAM GUIDELINES
07-514 Solicitation

DUE DATES
Full Proposal Deadline Date: May 10, 2007
Preliminary Proposal Deadline Date: January 4, 2008
and the first Friday in January thereafter

SYNOPSIS
Information technologies are integral to both the workplace and everyday activities of most Americans. They are part of how people learn, how they interact with each other and information, and how they represent and understand their world. Attaining a basic understanding of these

technologies and mastery of essential technical skills is a requirement for anyone to benefit from innovation in the modern world. The technological growth of the nation depends on a technologically literate citizenry. ITEST is designed to increase the opportunities for students and teachers to learn about, experience, and use information technologies within the context of science, technology, engineering, and mathematics (STEM), including Information Technology (IT) courses. Supported projects are intended to provide opportunities for middle and high school children and teachers to build the skills and knowledge needed to advance their study, and to function and to contribute in a technologically rich society. Additionally, exposure to engaging applications of IT is a means to stimulate student interest in the field and an important precursor to the academic preparation needed to pursue IT careers. The ITEST program seeks projects that demonstrate innovative and creative applications of IT in school and non-school contexts and is committed to preparing learners to benefit from and contribute to the growing national cyber infrastructure.

ITEST has four components: (a) youth-based projects with strong emphases on career and educational pathways (b) comprehensive projects for students and teachers (c) renewals of existing projects (d) and an ITEST Resource Center.

This solicitation complements and is not intended to overlap with the Advanced Technological Education (ATE) program. Information Technology (IT) is within the scope of the ATE program, so proposals for the development of IT classroom materials for students or teachers, or for professional development of IT teachers in support of technical careers, should be submitted to the ATE program.

EDUCATIONAL OPPORTUNITY
This program provides educational opportunities for K-12 Educators and indirect funding for students at this level or focuses on educational developments for this group such as curricula development, training or retention.

Link: <u>Abstracts of Recent Awards Made Through This Program</u>

Community Atlas Reward/Grant

Working together, students produce a community profile: an electronic project containing 10-20 original static maps plus documents totaling 1000-2500 of their own words, showing important aspects of the community. This will require significant research. Students will need to explore the data and discover patterns and characteristics of their neighborhoods. They'll need to build their spatial and analytical skills.

They will also need to discuss the bounds of "the community," reach consensus on what it is like, and decide the best way to represent its nature within a modest space. Getting an entire class to agree on a vision of "the community" can be a challenge. But sharing expertise, communicating vision, and seeking agreement are essential skills in the world at large.

- Planning a project
- Community Atlas project guidelines
- How to make maps for the Community Atlas
- How to make HTML documents for the Community Atlas
- How to submit or edit Community Atlas projects
- Rewards/Grant

K-12 schools and other eligible groups submitting a complete and approved entry will receive a reward from ESRI. No "pre-application" is necessary; groups just prepare a project according to the guidelines and submit it during the project dates. For more information, send e-mail to communityatlas@esri.com.

Successful participants may receive one of the following:

- Software

  ArcView for Schools and Libraries Bundle for Windows (ArcView 9 or ArcView 3) or Macintosh (ArcView 3), with a Building License for instructional use
  Spatial Analyst extension to ArcView for Windows to accompany pre-existing software, with campus license for instructional use
  3D Analyst extension to ArcView for Windows to accompany pre-existing software, with building license for instructional use
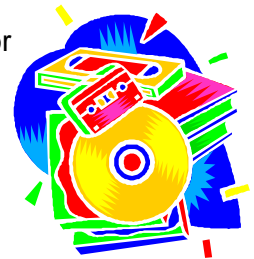
- ESRI Online Training

  Three codes for ESRI-authored Web courses

- Books by ESRI Press

  Mapping Our World (one copy)
  Community Geography (three copies of workbook, one teacher's guide)
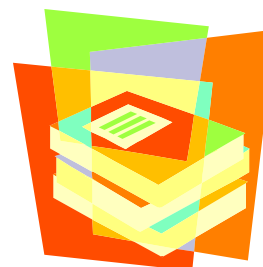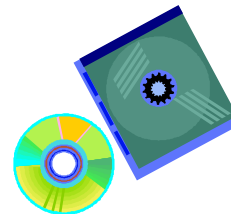 Getting to Know ArcView GIS 3.x (one copy)
  Getting to Know ArcGIS Desktop (one copy)
  GIS Tutorial (one copy)
  ESRI Map Book (four copies)
  Cartography and analysis three-pack:

   - Designing Better Maps
    - ESRI Guide to GIS Analysis (vol.2)
    - ESRI Guide to GIS Analysis (vol.1)

Institute for Global Environmental Strategies (IGES) – 2007 Thacher Scholars Award

PURPOSE

The Institute for Global Environmental Strategies (IGES) announces the 2007 Thacher Scholars Award. This national competition for secondary school students was founded in honor of former IGES board member Peter Thacher, who died in 1999. Peter Thacher was former deputy executive director of the United Nations Environment Program, NASA advisor, and, at the time of his death, president of the Earth Council Foundation/U.S. He was a leader in promoting the use of satellite remote sensing.
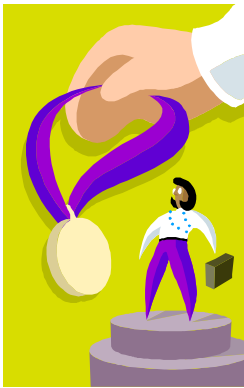
The 2007 Thacher Scholars Award will be awarded to secondary school students (grades 9-12) designing and conducting the best projects using satellite remote sensing of the Earth. Satellite remote sensing has numerous uses in science research, ranging from climate prediction to archaeology. It can improve our understanding of the Earth system, including interactions among the atmosphere, biosphere, geosphere and hydrosphere—and, it can improve the quality of our lives by supporting weather prediction, natural hazards monitoring, transportation, land-use planning, agriculture, coastal management, public health and emergency response. The Thacher Scholars Award is an excellent opportunity for student-designed investigations using satellite remote sensing data and imagery.
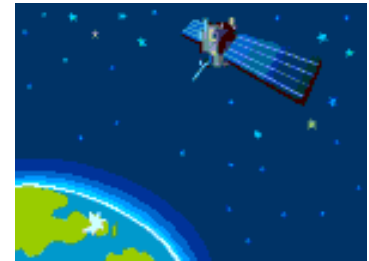
ELIGIBILITY

1. Any student who is enrolled in and attending secondary school (grades 9-12 - public, private, parochial, Native American reservation, or home school) in the United States or U.S. territories; or

2. Any student who is a United States citizen and enrolled in a secondary school (grades 9-12) attending:

   ? Department of Defense Dependents' Overseas School or an accredited overseas American or International School; or
   ? foreign school as an exchange student; or
   ? a foreign school because his/her parent(s) are temporarily working and living abroad.

DEADLINE: April 02, 2007

MAXIMUM AWARD: $200-$2,000

NUMBER OF AWARDS: 6

PERIOD: Award

MORE INFORMATION
Complete entries must be postmarked April 2, 2007 and sent to: Institute for Global Environmental Strategies, Attention: Thacher Scholarship, 1600 Wilson Blvd., Suite 901, Arlington, VA 22209; (703) 312-0823; or, visit:

http://www.strategies.org/education/index.aspx?sub=education&sub2=scholars&sub3=scholars2007#Awards

Got Questions?

For more information on geospatial technologies, or to provide feedback on this newsletter and/or suggestions for future articles, please contact:

- ✍ Nancy Trivette, NJ Department of Agriculture at nancy.trivette@ag.state.nj.us; or
- ✍ Lori Thompson, NJ Department of Education at lori.thompson@doe.state.nj.us.