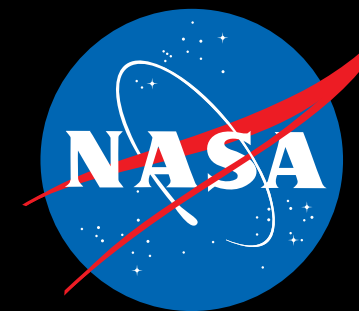




Educator Ambassador Program

Sonoma State University



<http://epo.sonoma.edu/>

A Bit About the Program...

The Universe Educator Ambassador Program consists of 20 educators who work in conjunction with NASA scientists and E/PO team members at SSU to develop workshops and curriculum materials. These educators were selected via a nation-wide competitive application process. Part of the selection process included not only the qualifications of the candidates, but also their plans to disseminate educational materials and information in their local, state, and regional areas. In addition, particular attention was paid to applicants with special abilities to reach underserved communities.

This year's training for the teachers includes a five-day (July 10- July 14, 2006) intensive seminar at SSU to immerse the educators in NASA's Universe division science. During the training, the EAs also test Universe educational materials. In between training sessions, additional training occurs via Internet learning-at-a-distance modules created by the SSU E/PO team members.

The Success of the Program

The past few years of this program have been a success. During 2004-2005, our EAs did 161 workshops that directly reached 28,874 teachers in 27 different states.

Who are these people?

- 20 Universe Educator Ambassadors now chosen
- Award-winning educators who help review, test and disseminate Universe E/PO materials
- Funded by GLAST (10), Swift (5), XMM-Newton (2), Astro-E2 (1), HEASARC (1), and one general Universe EA.



Jeff Adkins is a physics and astronomy teacher at Deer Valley High School in Antioch, California. Jeff is the director of the school's ESPACE Academy (Earth, Space and Astronomy Center for Education) and has secured grant funding to build a planetarium and radio telescope for his school. Jeff maintains a web site for astronomy educators called AstronomyTeacher.com. He is a graduate of the University of Arizona, where he majored in astronomy, and has participated in many astronomy education programs such as Hands On Universe, Teacher Leaders in Research Based Science Education (TLRBSE), and many others. As a participant in TLRBSE he got to use large telescopes at Kitt Peak National Observatory while participating in a project to search for novae in the Andromeda Galaxy. Jeff requested and received an image taken for him by the Mars Global Surveyor currently orbiting Mars. Most recently Jeff was chosen to observe on the Spitzer Space Telescope to study the characteristics of far-infrared blazars. Jeff lives in Antioch, California with his lovely wife Lori and twin sons Benjamin and Jonathan.

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Swift Ambassador	Teaches at ...	Location
Tom Arnold	State College High School	University Park, PA
David Beier	Lee's Summit School District	Kansas City, MO
Bruce Hemp	Fort Defiance High School	Fort Defiance, VA
Rae McEntyre	Grant County High School	Dry Ridge, KY
Robert Sparks	National Optical Astronomy Observatory	Tucson, AZ

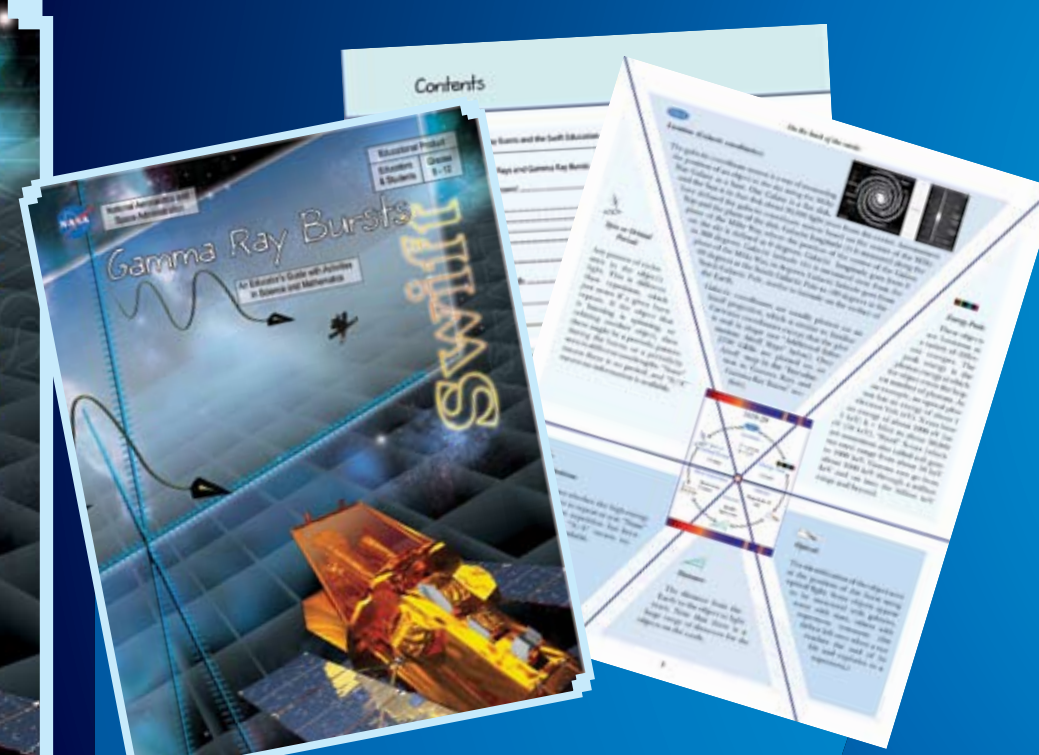
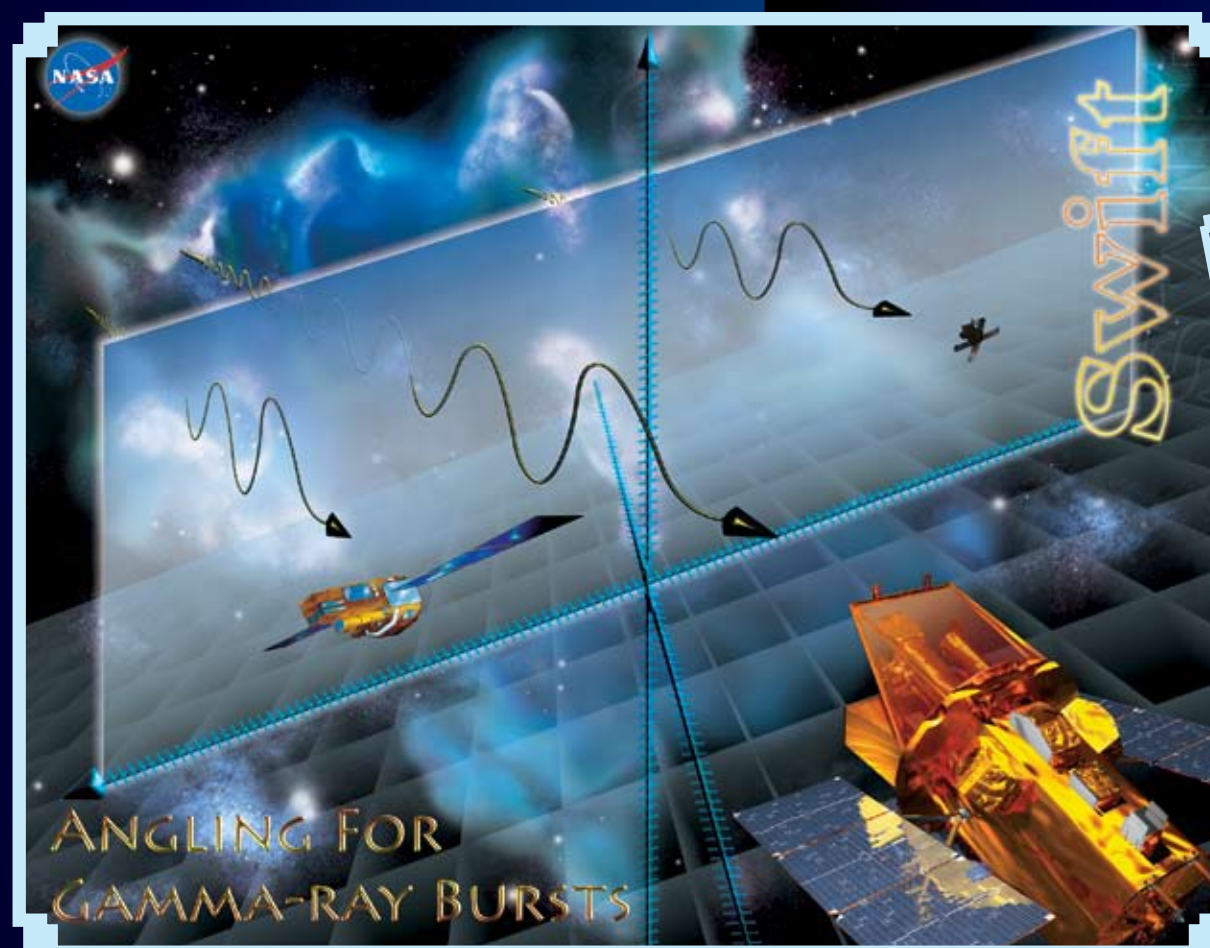


The EAs and the SSU team took a field trip to visit the Stanford Linear Accelerator Center, where some of the components of GLAST are being constructed.

XMM-Newton Ambassador	Teaches at ...	Location
Tom Estill	Chabot Space & Science Center	Oakland, CA
Chris Royce	Shippensburg University	Shippensburg, PA

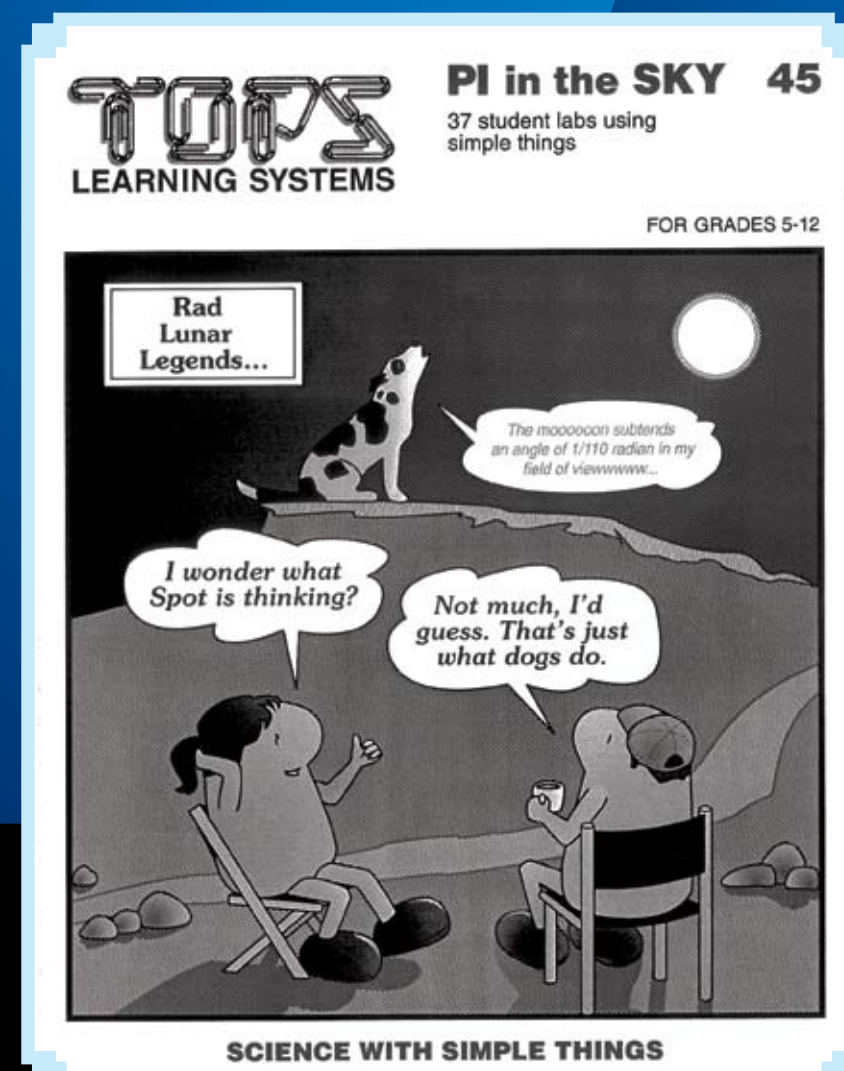


An EA proudly (and carefully!) displays his model of an active galaxy made from food as part of the "Tasty AGN" activity. The models were all subsequently eaten.



The Gamma-Ray Burst Educational Unit consists of a poster and a teachers guide with a set of three activities which teach students about gamma-ray bursts.

In partnership with the EAs, SSU E/PO team members develop at least one new workshop each year that targets national standards in math and science for grades 6-12. The workshops are presented to the EAs during the summer training sessions. They then disseminate these formal curricular materials via workshops and conferences at the national, regional, state, and local levels, affording a high-leverage opportunity to teach additional teachers to use NASA mission materials in their classrooms. Each EA is required to do four workshops per year, but the average number of workshops given is actually about eight. Professionals at WestEd evaluate all curricular materials and many national workshops conducted by EAs. This allows for direct feedback on the quality and effectiveness of the E/PO materials and programs. Evaluation of selected teachers trained by the EAs is now underway in order to see how well the training was implemented, and to determine how effectively the materials have been introduced into classrooms.



TOPS Learning Systems develops lesson modules based on GLAST science and technology.



Rae McEntyre is a ninth grade earth/space science teacher at Grant County High School in Dry Ridge, Kentucky. Rae graduated in 1984 from Morehead State University with a B.S. in Biology. After graduation, she joined the Peace Corps, where she served three years as a volunteer, and five years as a contract teacher in the small country of Lesotho in Southern Africa. While there, she taught mathematics and science. After returning to the United States, Rae attended the University of Kentucky, where she received an M.S. in Secondary Science Education. In November, 2000, Rae received National Board Certification in Adolescent/Young Adulthood Science. She is also the recipient of the 2004 Radio Shack National Teacher Award and was the 2004 Kentucky High School Science Teacher of the Year. She has served on many state science committees including the Content Advisory Committee and the Science Curriculum Committee. Rae is a member of the Kentucky Science Teacher Association, the National Teachers Science Association, and is an Aerospace Educator with the Civil Air Patrol. In her spare time, Rae enjoys reading mysteries and thrillers, bird watching, hiking, watching the night sky, and walking with her dogs Dakota and Delphi.



Cheryl Niemela was born in Seattle, Washington during the era of Apollo and Star Trek. She graduated from the University of Washington in 1983 with a degree in Laboratory Medicine. For the next 17 years, Cheryl worked as a medical technologist and hospital laboratory supervisor specializing in hematology. During this time, she married her husband, Greg, and had three children who, sometimes begrudgingly, now share her interest in science.

It was ultimately a desire to inspire student interest in science careers that led her to pursue a career change to education. In 2000, she returned to the University of Washington and received her teacher certification. She is currently working on completing a master's degree in geosciences from Mississippi State University.

In 2004, she was awarded a grant from the Washington NASA Space Grant Consortium to begin a school-based cooperative effort with the Boeing Employees Astronomical Society and introduce community star parties. Cheryl now teaches high school chemistry and astronomy in Puyallup, Washington, and serves as the advisor for her school's science club. She is a member of Civil Air Patrol and supports the education efforts of both CAP and the local NASA Education Resource Center. She sees opportunities with NASA to help students and teachers to connect real life science with National Education Standards and foster a renewed excitement in science for all students.

HEASARC Ambassador	Teaches at ...	Location
Teena Della	Clinton Public Schools	Clinton, OK



Teena Della experiments with a fabric model of a black hole that demonstrates the warping of space.

ASTRO-E2 Ambassador	Teaches at ...	Location
Marie Pool	Clinton Public Schools	Clinton, OK



Tom Estill, Teena Della, and Rae McEntyre enjoy a brisk round of the Black Hole Board Game.

Your Are Here Mini Course



Linda Smith and Sharla Dowling

GLAST Ambassador	Teaches at ...	Location
Jeff Adkins	Deer Valley High School	Antioch, CA
Teena Della	Terry Fox Secondary	Port Coquitlam, British Columbia
Sharla Dowling	Newcastle High School	Newcastle, WY
Michiel Ford	Holton High School	Holton, KS
Mandy Frantti	Munising Public Schools	Munising, MI
Mary Garrett	Retired	Michigan
Walter Glowgoski	Ridgewood High School	Norridge, IL
Linda Smith	Paulsboro Public Schools	Pittsgrove, NJ
Daryl Taylor	Williamstown High School	Williamstown, NJ
Pamela Whiffen	Palo Verde Middle School	Phoenix, AZ



(L-R) Bruce Hemp, Cheryl Niemela, and Pam Whiffen count colored beads in an activity that models the determination of the chemical composition of an astronomical sample.

Universe Ambassador	Teaches at ...	Location
Janet Lynne Moore	Challenger Learning Center of Central Illinois	Bloomington, IL



The 2004 Educator Ambassador team!

<http://epo.sonoma.edu/ambassadors/>