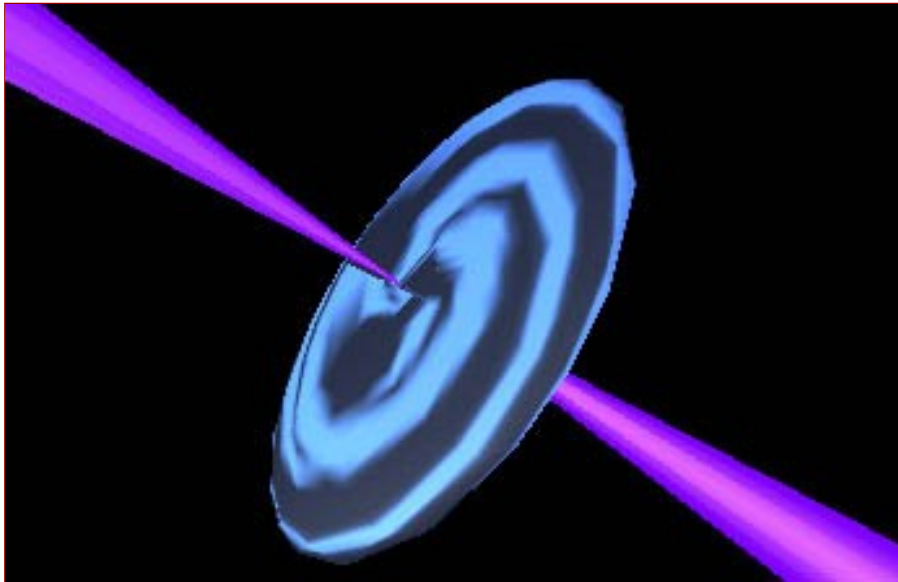




## E/PO Program

---

### Education and Public Outreach Goal



*We will utilize the observations and scientific discoveries of the GLAST mission to improve the understanding and utilization of science and mathematics concepts for grades 9-12.*



# LAT E/PO Program

---

- Web-based materials
  - Space Mysteries (2004-2005)
  - GLAST Outreach Web Site (ongoing)
- Printed materials
  - TOPS Learning Systems (2002-2004)
  - Teacher's activity booklets and posters (bi-yearly)
- Educator training
  - New teacher's workshops yearly at NSTA, NCTM
  - GLAST Ambassador Master Teachers (2002-2005)



# LAT E/PO Program

---

- Informal Education

- NASA Quest Space Scientists Online Web Chats
- SLAC Virtual Visitor's Center  $\gamma$ -ray Exhibit (2004)

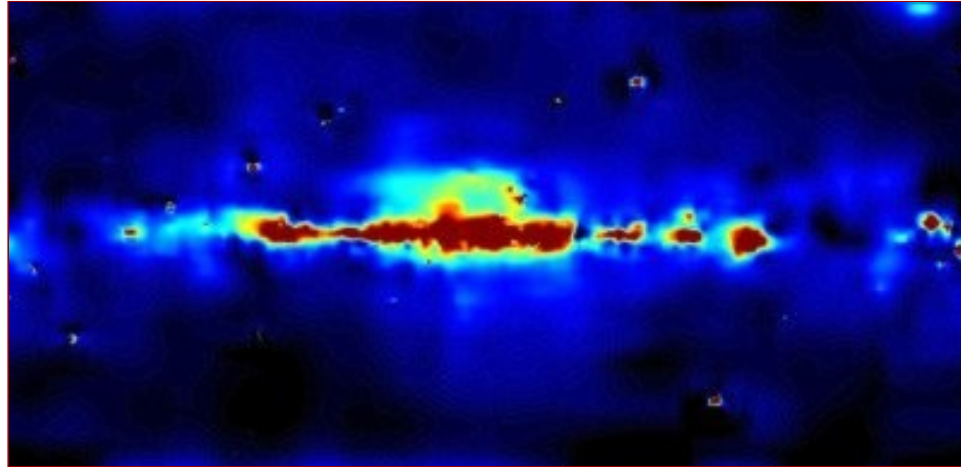
- Evaluation and Assessment

- Space Mysteries has team of high school teachers for front-end assessment
- Formative and summative evaluation of entire program will be performed by WestEd
- Swift evaluation also being done by WestEd (subcontract negotiations in progress- 7% of E/PO \$)



# Space Mysteries

---



- Funded by NASA Learners grant to SSU for 3 modules (to be released during 2001-2)
- Swift module planned for 2003 release
- Two modules planned for GLAST (2004-5)
- Developed with Videodiscovery, Inc.



# Ambassadors Program

---

- 10 educators
  - Selected in national competition in 2002
  - Work with GLAST Science Team
  - Develop workshops and curriculum materials
  - Must have own dissemination plan
  - Attend GLAST launch in 2005
  - Help staff exhibition booth at educator conferences
  - Paid modest annual stipend, plus travel



# Outreach Web Site



*Gamma-ray Universe*

*Mission Details*

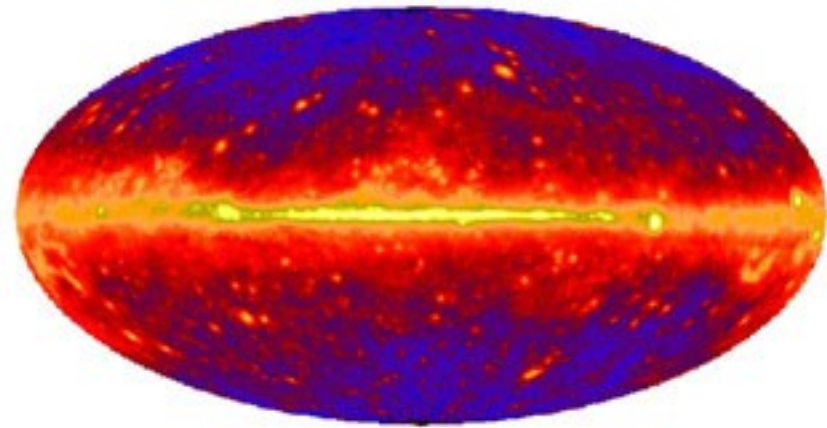
*Instrumentation*

*Ask - A - Scientist*

*Links*

*Public Outreach  
and Education*

New!



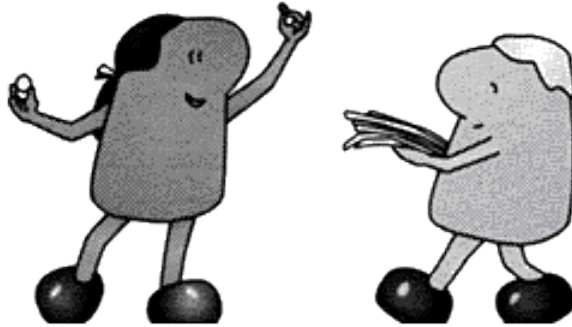
IDS section, new  
VRML model in  
progress

<http://www-glast.sonoma.edu>





# TOPS Learning Systems



These are fun-loving folk of no particular age, race, political affiliation, or size. Because they are clever and brave, can change sizes and defy gravity, we let them demonstrate the "how to's" in all the books we publish. Their purpose in life is to help young people achieve success one step at a time.



<http://www.topscience.org/>



# SLAC Virtual Visitor's Center



EXPLORE THE VIRTUAL VISITOR CENTER



<http://www2.slac.stanford.edu/vvc/home.html>





# NASA QuestChats



<http://quest.arc.nasa.gov/ltc/>

A QuestChat is an opportunity for students and the general public to meet and ask questions of scientific experts using the Internet. From their own desktop, people can type comments and questions into a "chat room" and receive live responses.

First QuestChat is scheduled for 9/27/00. More GLAST SWG volunteers needed!

Chats will be held monthly during the academic year.

Monthly chats shared between GLAST and Swift



# Dissemination Plan

---

- Educator workshops and exhibits at NSTA, NCTM, CSTA, NTTI, etc.
- GLAST E/PO Web site
- NASA OSS Forums and Broker/Facilitators
- NASA CORE
- NASA Science/Education Gateway
- NASA Quest Web site
- Videodiscovery Web site, marketing, and catalog
- TOPS Web site, marketing, and catalog

Dissemination measured by WestEd



## Exhibit Booth

- Ordered from Joan Carol Design Group
- Ready for HEAD in November 2000
- Mirror image of Swift booth
- When in adjacent locations, booth personnel can be shared
- Shared with PR





## Project E/PO plan

---

- Plan for project E/PO sent to interested parties on August 18
- Includes major role for GSFC personnel
- 5 new proposed elements:
  - 1-2 hour PBS Special with Tom Lucas
  - Maryland Science Center exhibit
  - Planetarium show
  - GLAST video
  - Telescope Network
- Adds educational workshops at GSFC, SLAC, Texas A&M, and MSFC



## PBS TV Special

---

- 1-2 hour PBS Special with Tom Lucas Productions to air in 2004
- Lucas committed to raising \$500K through PBS or Nova
- GLAST adds \$250K
- PBS dissemination = high leverage
- My personal top priority



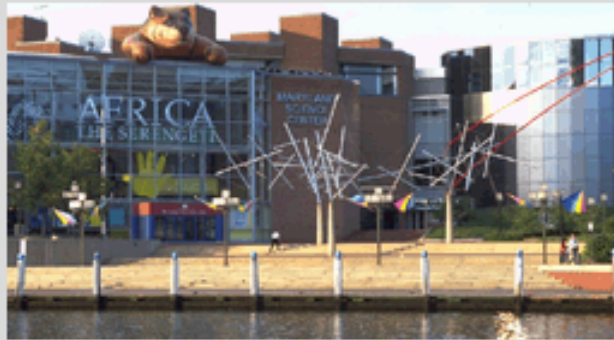


# Maryland Science Center

---

- 250 square foot exhibit in 2003/4, upgraded in 2005/6 to 500 square feet
- @\$300/square foot =\$150K to MSC
- Planetarium show in 2004/5, done with MSC for \$75K, distributed through International Planetarium Society along with colorful brochure

Discover the Wonder at the Maryland Science Center

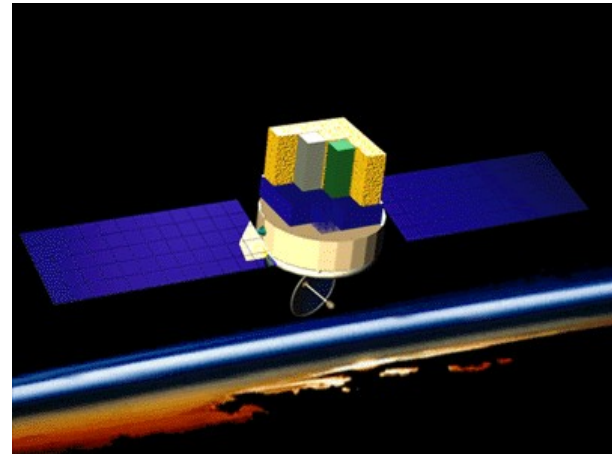






## Video

- Similar to Swift video
- ~ 5 minutes
- Distributable on CD-ROM
- Explains high energy gamma-ray sky
- Can be used by GLAST public speakers
- Can be part of museum exhibit
- \$60K production costs
- Completed by 2002
- Shared with PR
- To be done by GSFC





# Telescope Network

---

- Blazar and GRB observations
- High School students using robotic telescopes through NSF funded Hands-On Universe project
- Amateur astronomers involved through MSFC GBM and AAVSO
- GSFC GCN used to coordinate GRB positions and times with networked observers
- Minimal GSFC personnel costs (\$70K)
- Can start with HETE and Swift, be in place for GLAST



# Educational Workshops

---



NBSP at SSU  
July 2000

- GSFC workshops in 2001/03/05
- MSFC/AAVSO in 2002/04
- Texas A&M Kingsville (HSI) in 2004
- SLAC will train Ambassadors in 2002/04  
(SSU trains Ambassadors in other years)
- @ \$20K per workshop\*8 = \$160K



## Budget Bottom Line\_

---

- Approved GLAST LAT Program Budget: \$1.27M (includes \$565K in sub-contracts)
- Requested GLAST Project Augmentation: \$2.33M (\$700K in subcontracts)
- Total E/PO Program: \$3.6M (99\$ or 1.9% of \$191M total project budget excluding launch)
- Project is willing to support a total E/PO program of \$3.1M (real year dollars)
- This will not fund all proposed new elements
- SWG input requested on priorities for cuts