



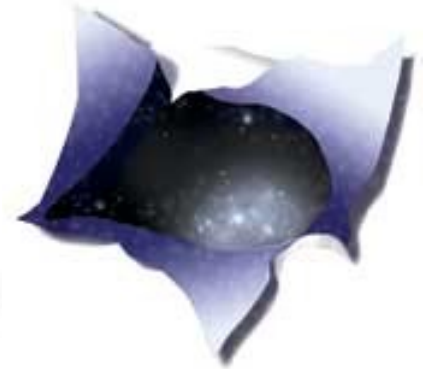
SEU E/PO at Sonoma State University

Swift

GLAST

UNIVERSE!

SEU Forum
Support
Activities



Lynn Cominsky

*Sonoma State
University*



Swift/GLAST EPO

- **Goal:** to use the observations and scientific discoveries of the Swift and GLAST missions to improve the understanding and utilization of science and mathematics concepts for grades 7-12 (Swift) or grades 9-12 (GLAST)
- **Major Program Elements in common:**
 - EPO Web Sites – both newly redesigned for LHEA CD
 - > <http://swift.sonoma.edu>
 - > <http://www-glast.sonoma.edu>
 - Monthly NASA Quest WebChats (8 so far)
 - Poster and Teacher's Guide sets, Manipulatives
 - > Swift will focus on concepts (e.g., EM spectrum)
 - > GLAST will focus on objects (e.g., AGN)
 - Educator Training at National and Regional Conferences
 - > Gamma 2001: sponsored by GLAST
 - > NSTA, NCTM, CSTA, CMC, NBSP
 - Independent Assessment by WestEd
- ***From the K-12 viewpoint – a gamma-ray is a gamma-ray!***





Swift/GLAST EPO

- **Space Mysteries** – a planned series of 6 interactive, web-based modules that teach physical science and math at the high school level
- **Major Partners: Videodiscovery, Inc., NASA LEARNERS program**
 - Alpha release of our first module now available!!
 - <http://perry.sonoma.edu/learners>
- **LEARNERS is funding 3 modules in 2000-2002**
- **Swift will fund one module in 2003**
- **GLAST will fund two modules in 2004-2005**

- Alien Bandstand – try it!
- Escape from the Doomed Planet – coming soon
- Star Market Scandal





Swift Unique Program Elements

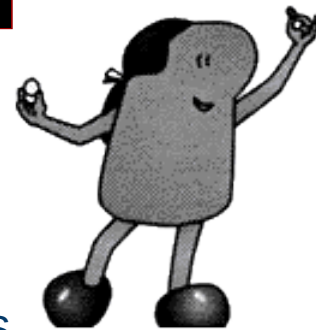
- **Major partners: Pennsylvania State University, NASA/GSFC, Lawrence Hall of Science (GEMS)**
- **What's In the News?**
 - Multi-media current events program produced at Pennsylvania State University that reaches over 5 million middle-school students
 - > First 15 minute show aired January, 2001
 - > Second segment in progress – taped in April
- **Appalachian Regional Project**
 - Astronomy teacher in-service workshops held every summer at PSU
 - Swift content of workshops will increase → Space astronomy workshop
- **Great Explorations in Math and Science (GEMS) Guide**
 - Printed lesson plans and activity guides used by thousands of teachers
 - Beyond the Visible Universe – now being tested in pilot schools





GLAST Unique Program Elements

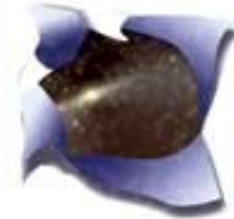
- Major partners: TL Productions, SEU Forum, Hands On Universe, AAVSO, Maryland Science Center, SLAC, TOPS Science, NASA/GSFC, NASA/MSFC
- PBS Television Special with Tom Lucas Productions
- Museum Exhibit with SEU Forum
- Telescope Network
 - High schools and amateurs
 - Will observe GRBs and AGNs
- SLAC Virtual Visitor's Center
 - Web site upgrade
 - Gamma-ray detector interactive pages
- TOPS Science Printed Lesson Plans and Activities
- GLAST Ambassadors Program
 - 10 educators who will help develop, test and disseminate materials
- Planetarium Show with Maryland Science Center (on hold)





SEU Forum Support Activities

- **Started in March, 2001 to work with SEU Forum at Harvard-Smithsonian Center for Astrophysics to plan and coordinate mission EPO activities**
- **Produced 5000 folders of mission EPO flyers (in 2 weeks!)**
 - Feature mission information, EPO information and educational activities representing 9 current or planned SEU missions
 - Promote Cosmic Journeys idea
 - 2500 distributed at NSTA on 3/22/01
 - 1000 distributed at NCTM on 4/3/01
 - Some are being shipped to individual missions, NASA/GSFC HEASARC and Forum at CfA for dissemination at regional workshops (e.g., CSTA)
- **Lesson plans and classroom activities developed to accompany PBS show Live from the Edge of Space and Time (aired 4/3/01)**
 - Five new activities about Cosmology by Dr. Laura Whitlock, high school teacher Kara Granger (Swift) and Lindsay Clark (MAP)
- **All materials available through <http://universe.sonoma.edu>**





Backups Follow



12 Months of Educator Workshops

<u>When</u>	<u>Who</u>	<u>Where</u>	<u>Attendees</u>	<u>Mtg Size</u>
April 12,000	NSTA	Orlando	15, 25	
April 13,000	NCTM	Chicago	25	
July	NBSP	Rohnert Park, CA	16, 12	-
October 3,000	CSTA	Sacramento, CA	30, 14	
November	HEAD	Honolulu, HI	35	-
December 3,000	CMC - North	Asilomar, CA	65, 117	
March	NSTA	St.Louis. MO	30, 30	



What's in the News?

WHAT'S IN THE NEWS? is an award-winning multi-media instructional series that uses current events as a springboard for exploring history, geography, government, world cultures, science, language arts, and all other areas of the curriculum.

Utilized in 4th-to-7th grade classrooms around the country, **WHAT'S IN THE NEWS?** is a comprehensive and challenging instructional tool that combines 15-minute television programs with computer-based resources and print materials.

**What's in the
NEWS**



For Kids Only!



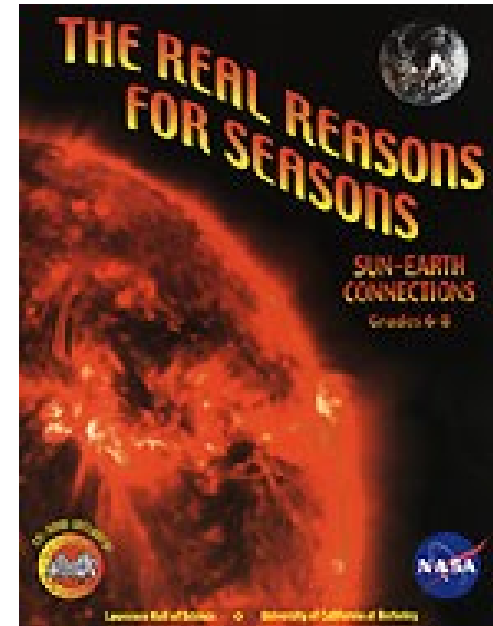
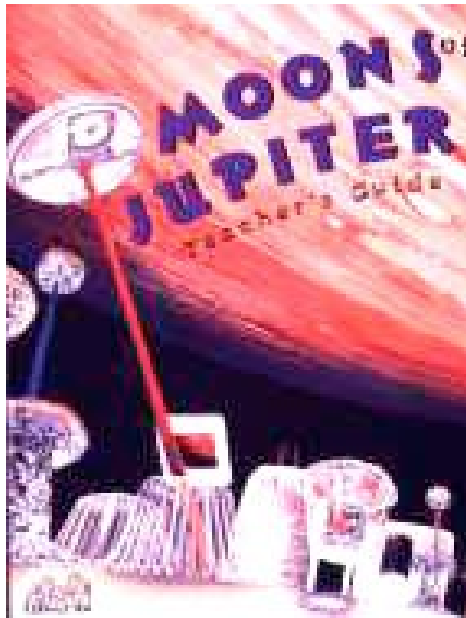
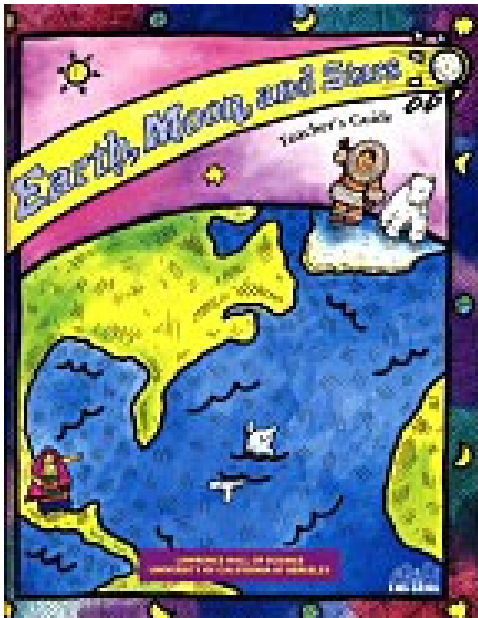
Teacher Materials

<http://www.outreach.psu.edu/EdComm/WITNweb/>



GEMS at the LHS

- Over 70 GEMS teachers' guides and handbooks now available
- Recent new addition – by SEC Forum – Real Reasons for Seasons



<http://www.lhs.berkeley.edu/GEMS/GEMS.html>



SLAC Virtual Visitor's Center



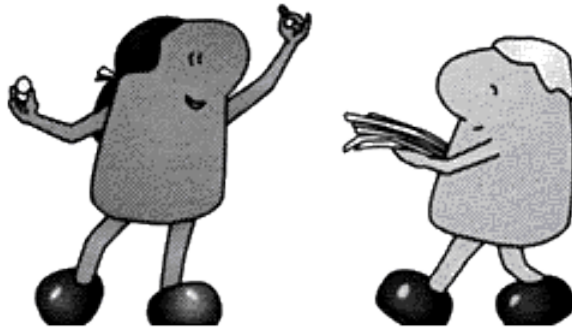
EXPLORE THE VIRTUAL VISITOR CENTER



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



TOPS Learning Systems, Inc.



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.

May 24, 2001
Swift/GLAST/Universe

