



Education and  
Public Outreach

# **The Swift Education and Public Outreach Program**

Lynn Cominsky  
Sonoma State University

October 20, 2003



# Program Overview

- Swift E/PO Web site (<http://swift.sonoma.edu>)
- Printed materials
  - Teacher's activity booklets and posters
- Educator training
  - Conference workshops
  - Educator Ambassadors
- Informal Education
  - What's in the News? (PSU)
- Program Evaluation
- Future Plans



# Swift

Education and  
Public Outreach

## Swift mini-plot pads

- Newest Giveaway –at Santa Fe GRB meeting



Graphic is going to be used for new Swift educational wallsheet that accompanies GRB Educator's Guide



# Swift

Education and  
Public Outreach

## Swift spacecraft poster

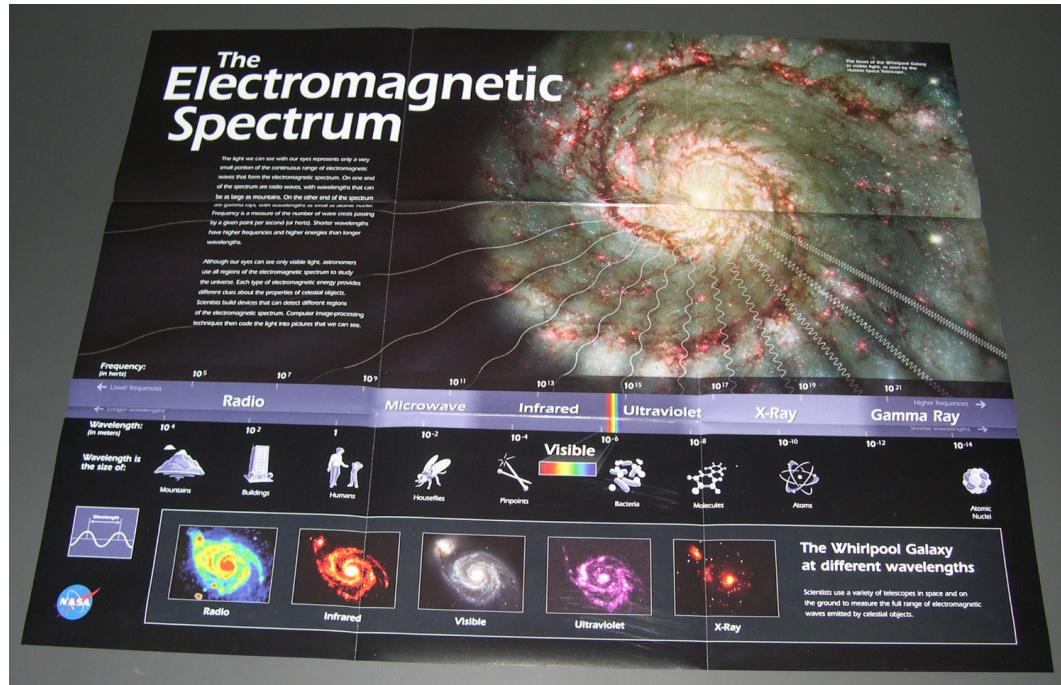


- Produced by Spectrum Astro
- Debuted at Santa Fe GRB meeting



# EM Spectrum poster

- Produced by Origins Education Forum
- Has Swift GEMS #2 activity on the back



- Distributed in the 10/03 NSTA Science Teacher (High School)
- Distributed in the 5/03 NSTA Science Scope (middle school)
- 40,000 teachers!



Education and  
Public Outreach

## Swift T-Shirts

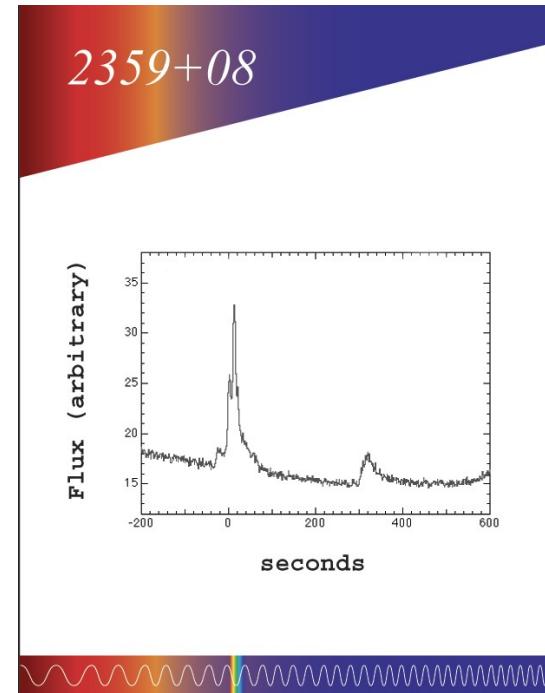
- Ready for launch
- Will be available at cost
- We need to finalize design!





# New Educator's Guide

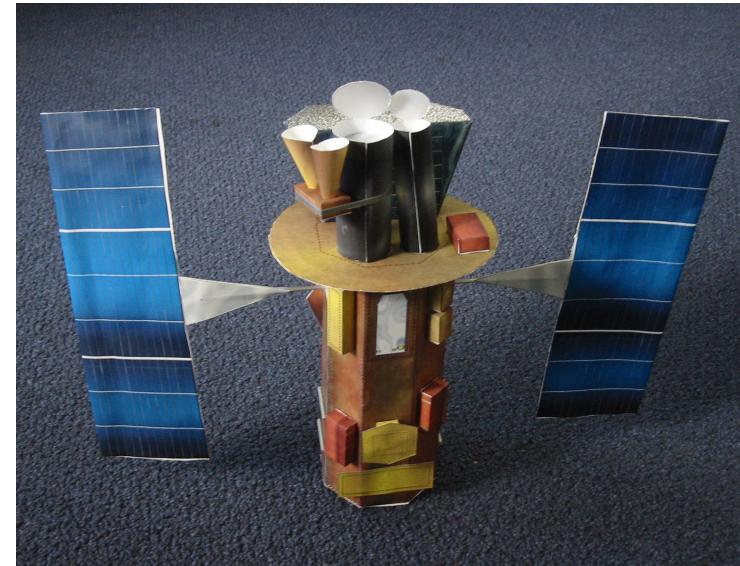
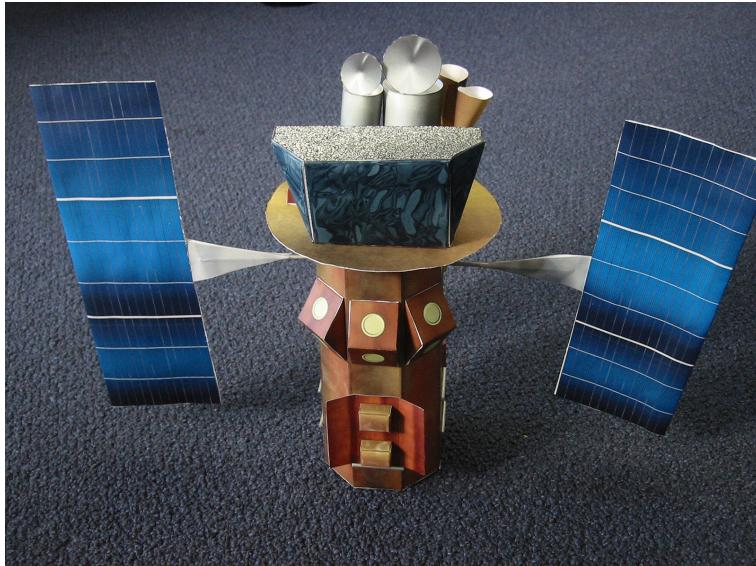
- Gamma-ray Burst Educator's Guide in progress
- Aligned with mathematics standards
- All activities now tested in classrooms or by SwEC – revisions underway





## Swift model booklet

- Based on Monica Sperandio's concept (Italian)
- Now ready for review





## Reaching OUT - CSTA 10/03



Beier's students doing  
GEMS #2 activity

- GEMS #2 presented 10/11/03 by Cominsky and Silva
- Cosmic Zoo presented 10/12/03 by Plait and Silva
- About 40 teachers in attendance for each
- Both workshops evaluated by WestEd (Cathy Ringstaff)
- Swift materials handed out at CSTA booth



## Reaching OUT

- Swift/GLAST booth at:
  - AAS (Nashville) (5/03)
  - GRB conference in Santa Fe (9/03)
  - California Science Teachers Association Meeting (10/03)
- Totals for FY2003
  - 15 Presentations to students and the public → 1569 participants
  - 26 Teachers workshops → 2369 participants
  - Origins EM posters → 40,000 teachers
  - 4 Swift WITN? → 20,000,000



- **Materials Distributed (FY2002-FY2003)**
  - Newton's Laws Poster Sets 4500
  - Spin A Spectrum Booklets 7300
  - Spin a Spectrum Wheels 4850
  - Waves booklets & Slinkies 5000
  - Who's got the power booklets and card sets 5000
  - Mousepads 1950
  - Miniplots 300
  - GEMS 1700
  - E/PO Flyers 800
- Our web order form has sent 10,903 Swift items to date



Education and  
Public Outreach

# **Educator Ambassador Presentations (since 04/03)**

**04/05/03:** McEntyre presented, "NASA's Swift Mission and Gamma Ray Astronomy" to the National Congress on Aviation and Space Education in Cincinnati, National HQ Civil Air Patrol /TW to ~16 K-12 teachers.

**04/05/03:** Sparks presented "Bringing Modern Astronomy Into the Classroom" at the AAPT- Spring Meeting 2003 in Florida to ~51 teachers.

**04/15/03:** Beier presented "Invisible Universe" at Rockhurst University in Kansas City, MO to ~24 teachers.



Education and  
Public Outreach

# **Educator Ambassador Presentations (since 04/03)**

**05/03/03:** Sparks presented "Swift and SEU Missions in Education," at the North Central Region of the Astronomical League Annual Convention in WI to ~31 teachers.

**05/23/03:** Beier presented “Invisible Universe” at Rockhurst University in Kansas City, MO to ~28 teachers

**05/31/03:** McEntyre did a workshop at Challenger Learner Center in KY with ~ 11 teachers.

**07/24/03:** McEntyre did a Space and Astronomy Workshop in Western Kentucky University at Bowling Green, Kentucky with ~22 teachers.



Education and  
Public Outreach

# **Educator Ambassador Presentations (since 04/03)**

**09/12/03:** Sparks presented "Swift: Catching Gamma Ray Bursts on the Fly" at Skokie Valley Astronomy Club in WI to ~31 teachers.

**09/15/03:** Beier presented "Adventures in Air and Space," an Invisible Universe and Gems Workshop in Liberty, MO to ~25 teachers.

**09/20/03:** Sparks attended Astrofest: A panel discussion about the SEU Outreach and the GTN in Kanakee, IL with ~80 teachers.



Education and  
Public Outreach

What's in the  
**NEWS**

*This Week's Show*  
[Home](#)   [Past Shows](#)   [About](#)   [Utilization Guide](#)  
[Behind the Scenes](#)



#2427—Feature:  
**Swift Mission**  
Initial Feed: Friday,  
March 29, 2002  
(check local listings  
for airtimes in your  
area)

**Special Assignment**

 [This Show's  
Materials](#)  
in PDF format.  
Requires the free [Adobe  
Acrobat Reader](#)

[This Week's Script](#)

- **For FY03, 4 pieces focused on GRBs**
  - **05/09/03: Hunt for Gamma Ray Bursts**
  - **05/02/03: The birth and death of stars  
and Swift observations**
  - **04/04/03: Gamma Ray Burst History**
  - **03/21/03: Mapping of Ancient Universe**
- **First segment for FY04 already  
drafted, and under production**
- **Deals with Swift environmental testing**



Education and  
Public Outreach

## Program Evaluation

- **WestEd evaluations during FY2003**
  - AAPT workshop at the AAPT in January 2003
  - The Swift Gamma-ray burst activities draft
  - Newton's Laws Poster set (focus group telecon in 11/03)
  - Preliminary Swift Launch plans
- **SwEC**
  - Met at SSU in 8/03 – report now available
  - Two master teachers have agreed to become Educator Ambassadors, joining existing two EAs



Education and  
Public Outreach

## Program Evaluation

- **SwEC evaluated old Swift E/PO products**
  - Who's got the power? – will not be continued
  - Spin a Spectrum – may be useful for language arts/literacy integration
  - Waves Light Up the Universe – superceded by GEMS
- **Newton's Laws posters**
  - Evaluated by NASA OSS Education Review process
  - 7 reviewers included teachers and scientists
  - Several errors were found in content – not recommended for distribution – Major revisions were required
  - Poster art is very popular, however.
- **SwEC will advise about the future of this product**



Education and  
Public Outreach

## Status of Near-Future Plans

- Draft of Educator's Guide will be circulated for review by 1/04
- Swift Model Booklet now ready for review
- Swift team members needed to review both
- PLEASE HELP!!
- Swift launch plans still in progress – contest?
  - Essay contest for students – winner attends launch?
  - Drawing contest instead?



Education and  
Public Outreach

# Preliminary Launch Plans

- GRB Educator's Guide available
- New Swift poster with GRB activity on back
- Public outreach program that focuses on launch
- Swift model booklet available
- Swift launch filmed for PBS Nova show by Tom Lucas (in conjunction with GLAST)
- Tee-shirts!