

Swift Education and Public Outreach Program

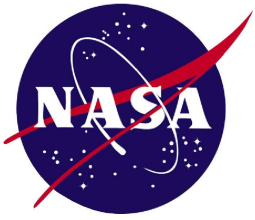


Presentation at the Swift Team meeting

Lynn Cominsky

Sonoma State University

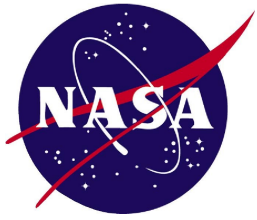
December 6, 2002



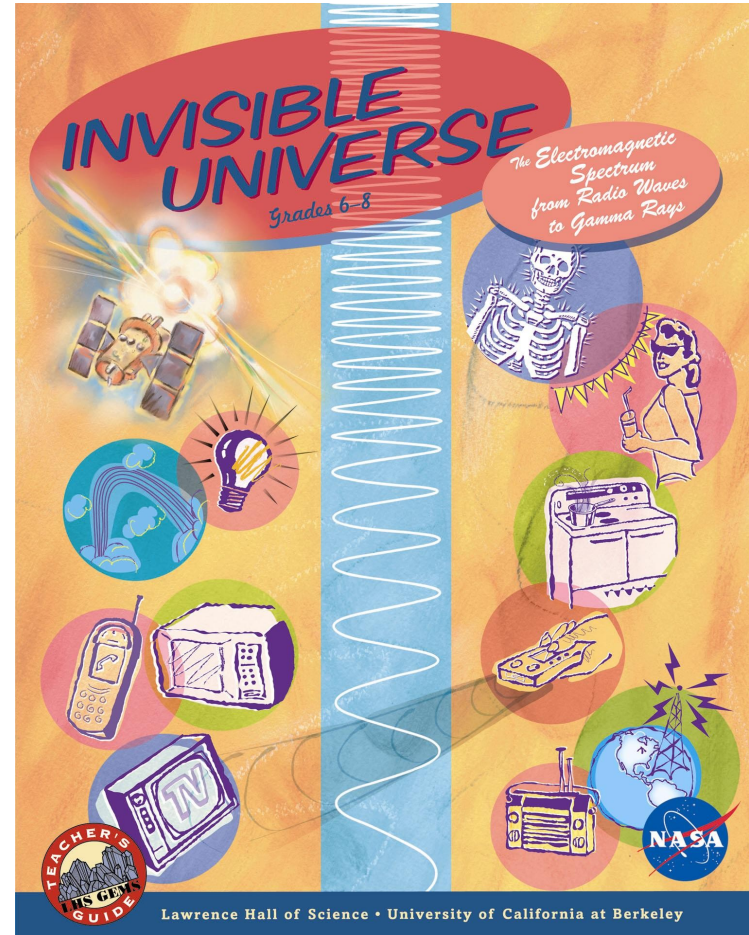
Program Overview

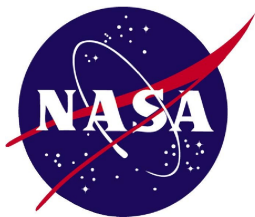


- **Swift Web site (<http://swift.sonoma.edu>)**
- **Printed materials**
 - **GEMS guide (Lawrence Hall of Science)**
 - **Teacher's activity booklets and posters**
- **Educator training**
 - **Conference workshops**
 - **Educator Ambassadors**
- **Informal Education**
 - **What's in the News? (PSU)**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



- Now in print!
- Copies available through materials@universe.sonoma.edu
- Includes short story “The Swift and the Astronomer” by Monica Sperandio

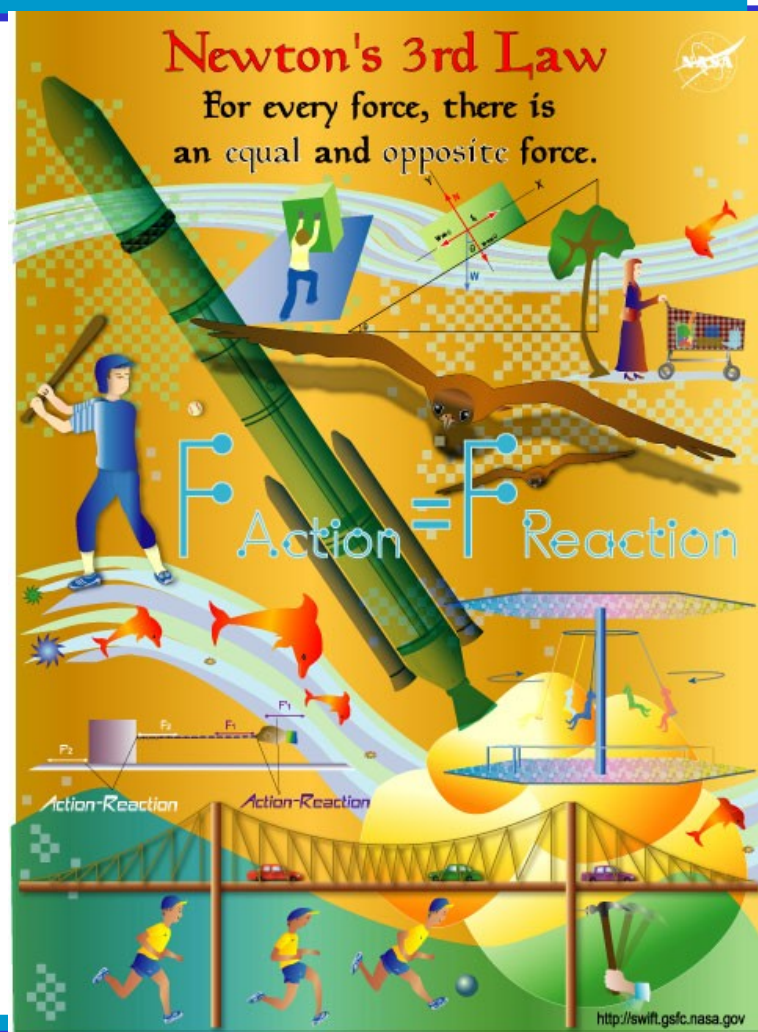


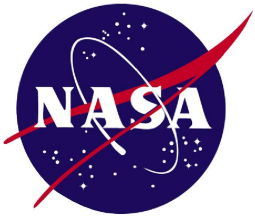


Newton's Laws Posters



- Set of 3 - Now in print!
- Developed by Laura Whitlock
- Copies available through materials@universe.sonoma.edu
- Poster activities on-line at <http://swift.sonoma.edu/education/>

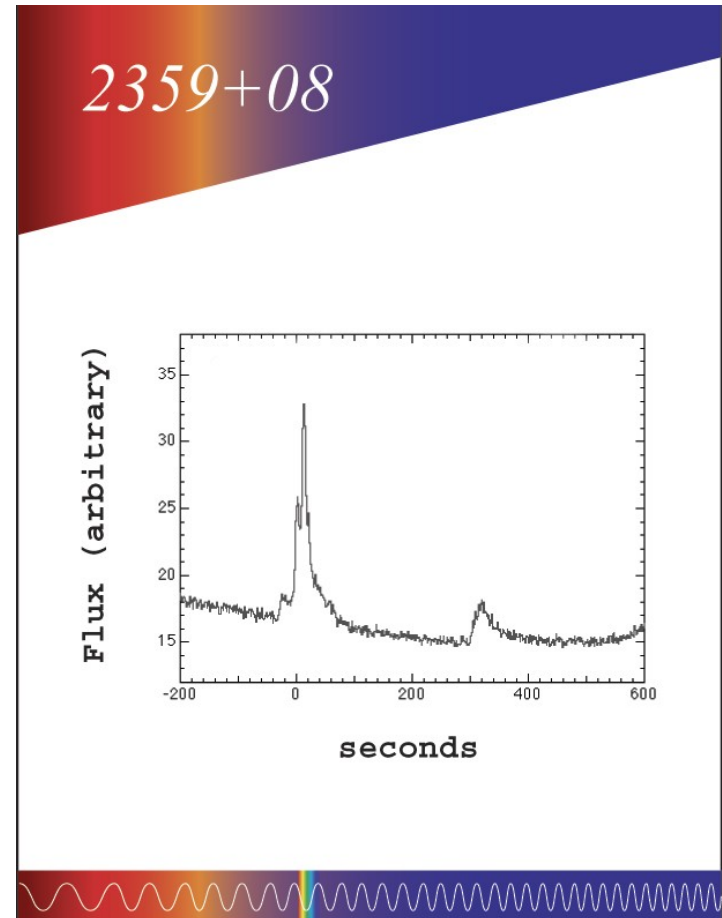


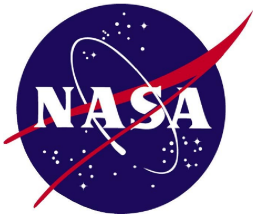


New Educator's Guide



- Gamma-ray Burst Educator's Guide now in progress
- Aligned with mathematics standards
- First activity already classroom tested

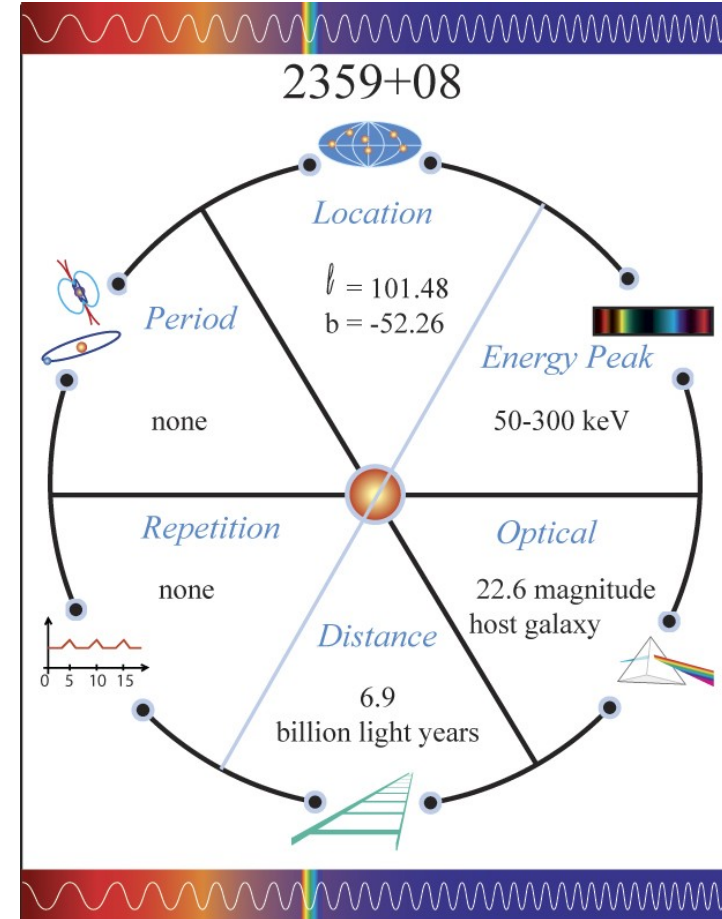


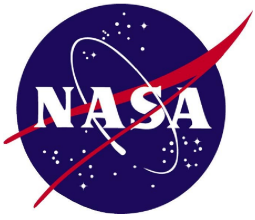


New Educator's Guide



- Sorting & classifying activity using
 - 8 GRBs
 - 4 SGRs
 - 8 XRBs
- Second activity uses 2D version of IPN location scheme
- Third activity based on isotropy



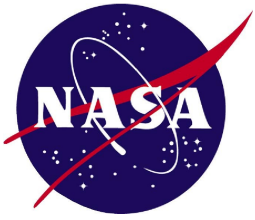


Swift Mouse Pad



- Created by
SSU artist
Aurore
Simonnet,
based on BAT
mask
suggestion by
Presidential
Science
Advisor John
Marburger III

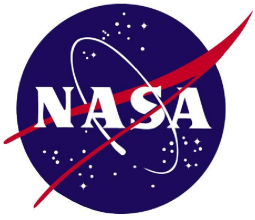




Reaching Teachers



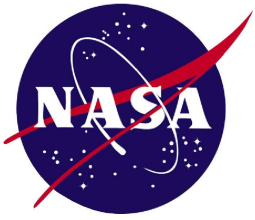
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- Swift/GLAST booth at CSTA in October, 2002 in San Francisco
 - 750 Newton's Laws Posters
 - 504 Slinkies
 - 880 Waves Light Up the Universe booklets
 - 1000 kits with "Spin A Spectrum"
 - Cominsky, Silva and Graves presented GEMS workshop at AAPT-NCN to ~75 teachers in November, 2002
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Educator Ambassador Presentations



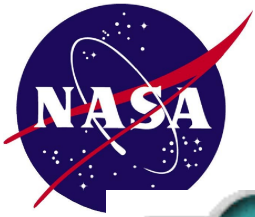
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- 8/29:** Ambassador Rae McEntyre explained the importance of scientific notation to Swift to ~70 high school students at Gallatin HS in Kentucky
 - 10/19:** McEntyre discussed gamma-ray astronomy at the Astronomy and Space Science Workshop at Western Kentucky University with 15 teachers
 - 10/25:** McEntyre led an activity on the electromagnetic spectrum using GEMS materials in the NASA Educational Workshops Aerospace Educators Share-a-Thon at the NSTA/Louisville Conference with ~20 teachers
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Educator Ambassador News



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- **7/31:** Ambassador Rob Sparks explained Swift to ~15 master teachers attending a week-long workshop at Tuft University's Wright Center for Education
 - **9/20:** Sparks gave a public lecture about Swift and gamma-ray astronomy to ~75 attendees during a day-long event hosted by the Geneva, IL astronomy group
 - **11/20:** Sparks discussed Swift and shared Swift materials at Chicago's Physics Northwest with ~30 high school teachers
 - Sparks will be giving workshops on GEMS materials at the upcoming Wisconsin Society of Science Teachers Meeting in March and with McEntyre at the Summer AAPT meeting
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WPSX Public Television



What's in the
NEWS

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**#2427—Feature:
Swift Mission**

Initial Feed: Friday,
March 29, 2002
(check local listings
for airtimes in your
area)

Special Assignment

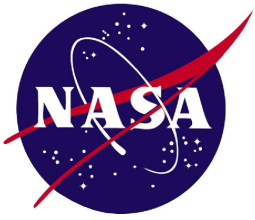


[This Show's
Materials](#)

in PDF format.
Requires the free [Adobe
Acrobat Reader](#)

[This Week's Script](#)

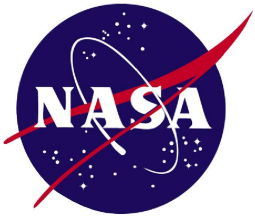
- For FY03, 3 short pieces will focus on Newton's Laws materials
- Subject of 15 minute piece is Swift's space environmental testing
- Pre-production work for 15 minute segment is now in progress



Our Italian Partners



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- **Monica Sperandio reports:**
 - **Swift paper model in Italian is being finalized. (SSU is doing an English version of the model)**
 - **5 three-D models of Swift are being made for educational display in the US and in Italy**
 - **“Magie in cielo e in Terra” - a new Public Outreach and Education conference hall is being inaugurated in January**
 - **a lecture about Swift will be part of the ongoing program**
 - **Swift mirror is being displayed in the entrance, along with other famous X-ray and gamma-ray astronomy mirrors**
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Program Evaluation



- **WestEd**

- Back under contract

- Will assist in formative evaluation of classroom materials, especially Newton's Laws activities

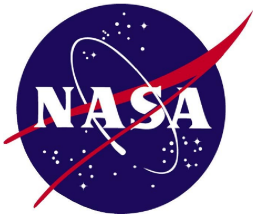
- Will do summative assessment of SSU and Ambassador dissemination activities, including GEMS workshop at AAPT national meeting

- Will evaluate planning for Swift launch outreach

- **SwEC**

- Will be meeting at SSU in 8/03

- Now includes 2 Educator Ambassadors



Status of Near-Future Plans from 7/02



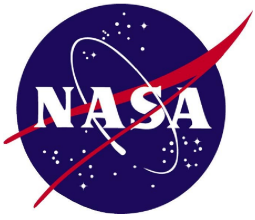
- **Field Testing of classroom materials in classrooms to improve instructional design**
- **Increased scientific review and error correction of existing materials**
- **Increased involvement of Swift team scientists**
- **Improved coordination with GLAST E/PO and EA programs, including participation in the GTN**

New GRB activity #1 already tested – more forthcoming

GEMS reviewed by Brad Schaefer –
Thanks!

More help still needed!

GRBs added to GTN target list – timing issues under study



New Near Future Plans



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- Finish upgrade and re-release of existing Swift instructional materials prior to launch
 - Field-test, finish instructional design and print new GRB activities prior to launch
 - Plan (in conjunction with Educator Ambassadors and SwEC) an exciting public outreach program that focuses on launch
 - Include Swift material in PBS television show now beginning development by Tom Lucas (in conjunction with GLAST E/PO)
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