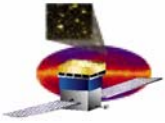


GLAST Large Area Telescope: Education and Public Outreach

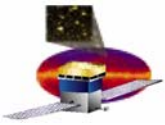
Lynn Cominsky
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E/PO Lead

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707-664-2655



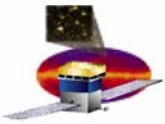
Contents

- **Recent Accomplishments**
- **Schedule and Budget**
- **Next 6 months**
- **Summary**



Recent Accomplishments

- **Web-based materials**
 - <http://glast.sonoma.edu> being upgraded in response to evaluator's report
 - New Space Mystery in progress
 - SLAC Virtual GLAST LAT interactive activity in progress
- **Printed materials**
 - TOPS curriculum guides – second in review, third in development
 - Active Galaxy worksheet and educator's guide widely distributed through educator workshops
 - New GLAST Public Brochure in final review
 - New AGN Popup book in development
 - New GLAST trading card game in development
 - Many other brochures, flyers, posters, etc.



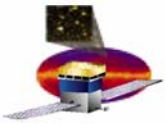
Miniplots and Stickers



MiniPlot Image

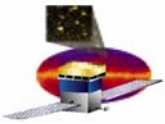


Sticker Image



Recent Accomplishments

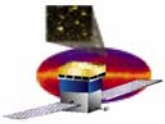
- **PBS NOVA hour-long black hole TV show**
 - **Produced by Tom Lucas**
 - **Seeded with GLAST E/PO funds, now includes commitments for over \$1M from NSF, PBS and foreign distributors**
 - **Features High Definition simulations of black holes**
 - **Includes large format planetarium show at Denver Museum of Nature and Science**
 - **Educator's guide to accompany both television and planetarium shows**
 - **Cominsky is science director, member of advisory committee**



Recent Accomplishments

- **Global (formerly GLAST) Telescope Network**
 - <http://gtn.sonoma.edu>
 - **New robotic observatory at Pepperwood in partnership with California Academy of Sciences**
 - **AAVSO and HOU partnerships**
 - **Pepperwood facility is now ready for the telescope to be moved from SSU (scheduled for 4/5-10 spring break)**

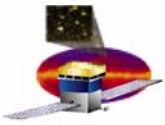




Educator Ambassadors

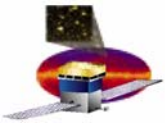


- **23 SEU Educator Ambassadors now chosen**
- **Master teachers who help review, test and disseminate any SEU E/PO materials**
- **Funded by GLAST (10), Swift (5), XMM-Newton (2), GALEX (2), LISA (2), Astro-E2(1), HEASARC (1)**
- **Will be trained in all SEU science in Summer 2004 at Sonoma State University**
- **Previous cohort of 11 EAs did 104 workshops that reached 14,512 teachers during 2002-2003**



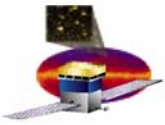
Schedule and Budget

- Education and Public Outreach is a Level of Effort program – i.e., we spend the funds allocated and do not overspend
- We are not on the critical path but we do have several Level 4 milestones
 - TOPS module creation
 - PBS Nova show creation
 - Space Mystery implementation
- All of these program elements are well underway and will be completed prior to launch
- We have received some additional funds (about \$30K per year) from a reallocation of GSFC E/PO funds that were not being used
 - Support for Santa Cruz Institute of Particle Physics E/PO activities
 - Increased support for the Global (formerly GLAST) Telescope Network



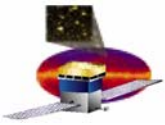
Next 6 months

- **Pepperwood telescope will come on line**
- **CCD and filter calibration for telescope**
- **Standardize blazar data analysis**
- **Complete the upgrade of GLAST and GTN websites**
- **Initial production work on PBS Nova show**
- **Initial implementation of one new Space Mystery**
- **Initial implementation of GLAST LAT SLAC Virtual Visitor Center**
- **Revise TOPS Module #2**
- **Print the GLAST Public Brochure and stickers**
- **New AGN Pop-up book for kids in final review**
- **New GLAST Trading card game in final review**



Recent and planned workshops

- Cominsky and Simonnet - Expanding Your Horizons (8th grade girls) – *Monster in the Middle* and booth – SSU – March 2004
- EA Mary Garrett - MACUL 2004 Conference - *Out of This World Mathematics*, Grand Rapids, Michigan – March 2004
- Sarah Silva and EA Mike Ford *Huge Black Holes: Measuring the Monster in the Middle* – NSTA April 2004
- Silva with SEU Education Forum *Modeling the Universe: An Exploration in Space and Time* - NSTA April 2004
- EA Jeff Adkins *Building a Classroom Planetarium* – NSTA April 2004
- EA Jeff Adkins *A Project-based Space Academy at Deer Valley High School* – NSTA April 2004
- EA Daryl Taylor - *APAST / SEPA: You're invited to Steal Teaching Ideas from Presidential Awardees!* - NSTA – April 2004
- EA Daryl Taylor - *PASCO "Just Physics" workshop* – NSTA April 2004
- EA Mike Ford - *Integrating Portable Planetariums into the Curriculum* NSTA April 2004
- EA Teena Della - Catalyst Conference Richmond, BC, Canada May 2004
- EA Mary Garrett – NECC 2004 – *Active Galaxies* – New Orleans, Louisiana- June 2004
- SSU Group - Educator Ambassador training – July 21-29, 2004
- Silva and Mike Ford- AAPT GLAST AG workshop and booth– August 2004



E/PO Summary

- GLAST E/PO is exciting the public and students of all ages
- We are on budget and moving ahead on all scheduled items
- Many E/PO products are now widely available
- Over 14,000 teachers have been trained in 20 states through Educator Ambassador program
- GLAST E/PO materials are in the hands of over 10,000 teachers nationwide