Suzaku
Education and Public Outreach

Jim Lochner
Suzaku E/PO Lead

May 3, 2007
E/PO Team

GSFC Team
• Dr. James Lochner (Lead)
• Drs. Koji Mukai, Ilana Harrus (Suzaku GOF)
• Beth Barbier, Sara Mitchell (E/PO specialists)
• Pat Keeney (Education Consultant)

Partners
• SEU Educator Ambassadors (Sonoma State Univ.)
• Cornerstone Evaluation Associates
Budget and Leveraging

• Procurement Budget
  – FY07: $126K

• Efforts also leveraged off of HEASARC E/PO resources.
  – Sharing of personnel and expertise.
Suzaku Learning Center

Learning Center includes

- Science and technology about mission and instruments.
- Lesson plans and resources for teachers.
- “XRS Road Trip” - blog of the XRS while in Japan.
“Building the Coolest X-ray Satellite”

• Video tells story of Astro-E2, fabrication of mirrors, development of XRS. Science as it’s really done.
• Distribute DVD and Teacher Guide at Workshops and Conferences.
  – NASA Education Product Review: “Broad Distribution”
Teacher Workshops

• Since 2004, we’ve presented Astro-E2/Suzaku workshops:
  – At NSTA National and Regional conferences
  – At New York State Science Teacher Conference
  – At GSFC, e.g. for NASA Explorer Schools and Anne Arundel Co. Earth/Space Science Teachers

• We present a variety of topics depending on audience.
  – X-ray Optics
  – Spectroscopy
  – Results from the mission
  – International collaboration
  – Science/Engineering careers.
Educator Ambassador

• Educator Ambassador: Marie Pool
  – Our EA develops and conducts Suzaku Educator Workshops at national and regional teacher conferences.
    — She goes to meetings we can’t
  – Entire team of 25 EAs (administered via Sonoma State) review our materials.
Extreme Universe Toolkit

• Astronomical Society of the Pacific develops kits for amateur astronomy clubs in their Night Sky Network.
  – Clubs use them in their outreach efforts.
• ASP has system in place for testing content and activities with amateurs.
• In collaboration with Suzaku E/PO team and NASA E/PO group at Sonoma, ASP is developing kit on the powerful explosions and forces that shape the universe:
  – Supernovae and GRBs are normal processes.
  – SN and Black Holes shape universe and sow seeds for life.
  – X-rays and γ-rays are released from death of stars.
  – Earth’s atmosphere protects us from this radiation.
• Candidate activities being developed for α-testing with us and amateurs.
Suzaku News You Can Use (Suznuz)

• A newsletter for teachers featuring information, discoveries, and news about the mission.
  – Also includes history of X-rays and X-ray astronomy
  – Focus on team members: Jean Cottam, Randall Smith, Kai-wing Chan
    (UG members ??)
• Written by Pat Keeney
  – Science verified by E/PO team
  – Edited by Beth Barbier
• E-mail Subscription list of ~ 500
Spectroscopy Video

- Explains spectroscopy through analogy with music.
- Target Audience: high school
- Video ~ 10 minutes in length
- Script in penultimate draft
- Project headed by Ilana Harrus
Give Students Tools for Science Literacy

• Trace different ways science is communicated
  – Scientist to Scientist
  – Scientist to the Media
  – The Media to the Public

• Science Lessons based on chosen science topic.

• Students develop comprehension skills using various expository pieces.

• Students role-play scientists and media to hold a press briefing. “Press” students write articles for various audiences.