



Research, Data Analysis & EPO Update

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Science Mission Directorate

www.nasa.gov

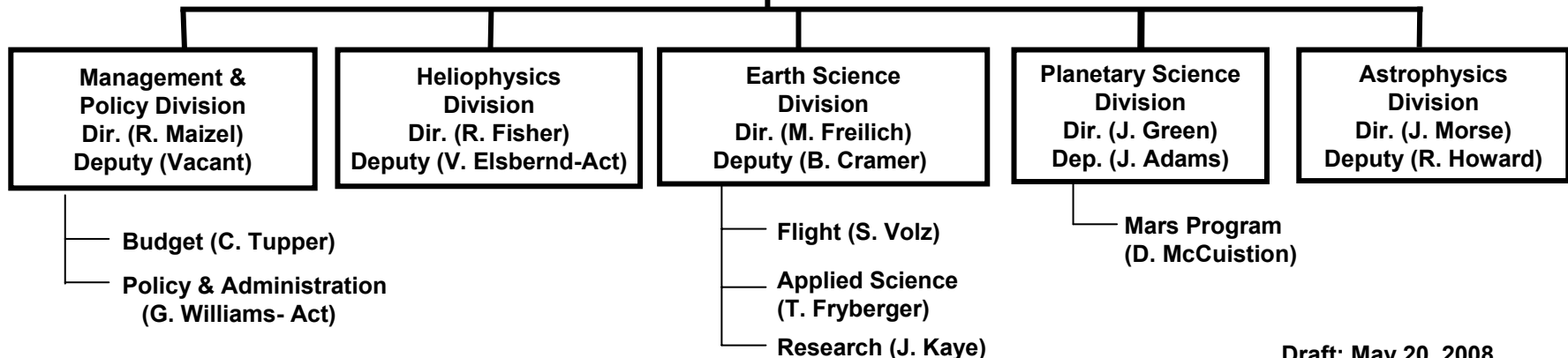


SMD Organization

Associate Administrator (AA) (Ed Weiler) Deputy AA (Chuck Gay)	
Deputy AA for Programs (Mike Luther)	Deputy AA for Management (Roy Maizel)
Chief Scientist (Paul Hertz)	AAA for Strategy, Policy & International (Marc Allen)
Senior Advisor for R & A (Yvonne Pendleton)	Special Asst for NEOs and Exploration (Dan Durda)
Senior Advisor (Colleen Hartman)	Executive Officer (Jens Feeley)

Chief Engineer
(K. Ledbetter)

Safety & Mission Assurance
(P. Martin)



Blue dashed boxes denote individuals who report to other organizations, but support SMD

Draft: May 20, 2008



R&A CHANGES HAVE BEEN MADE

Increased information exchange between SMD and the scientific community regarding all R&A issues.

Established R&A MOWG to study cross directorate community needs.

Adopted widespread funding of 4-yr grants.

Budgets completely revealed to review panels in ROSES-08.

Grant win/loss notifications accelerated, from months to weeks.

Resolved several hundred stalled funding issues in 2007.

Eliminated backlog of hundreds of no-cost extension requests in 2007.

The top of the slide features a banner image. On the left, the word "SARA" is written in a bold, white, sans-serif font against a dark blue background. The rest of the banner shows a satellite in orbit over a planet's surface, with a molecular model and a DNA double helix structure on the right side.

SARA

SMD Research and Data Analysis Website

<http://nasascience.nasa.gov/researchers/sara>

- The previous SARA site has been incorporated into the SMD Website (under “For Researchers”) and there is an E/PO link within that page to the “For Educator” site
 - “How To” Guide for Proposers plus other PI issues
 - Updates on R&A Process Improvements (subscribe on website)
 - Grant Stats for R&A programs
 - Contact Info for each Program Officer
 - Research Highlights Across SMD’s R&A Programs
 - Direct Communication with NASA for anything R&A related

Please Send Us Your Ideas and Concerns. We are listening.

- **Email: sara@nasa.gov**

NASA Science Mission Directorate web page:
<http://nasascience.nasa.gov>

Research and Data Analysis Info:
<http://nasascience.nasa.gov/researchers/sara>

or Google NASA SARA

Confidential Hotline for Questions/Concerns:
SARA@nasa.gov

In Progress:

- **Strengthen Panel Review Process**

 - Define, Document, & Distribute SMD Best Practices**

 - Increase Community enthusiasm for panel participation**

- **Senior Reviews for R&A programs within each division**
(in development)

 - Content, Balance, Performance**

 - Interdisciplinary Gaps**

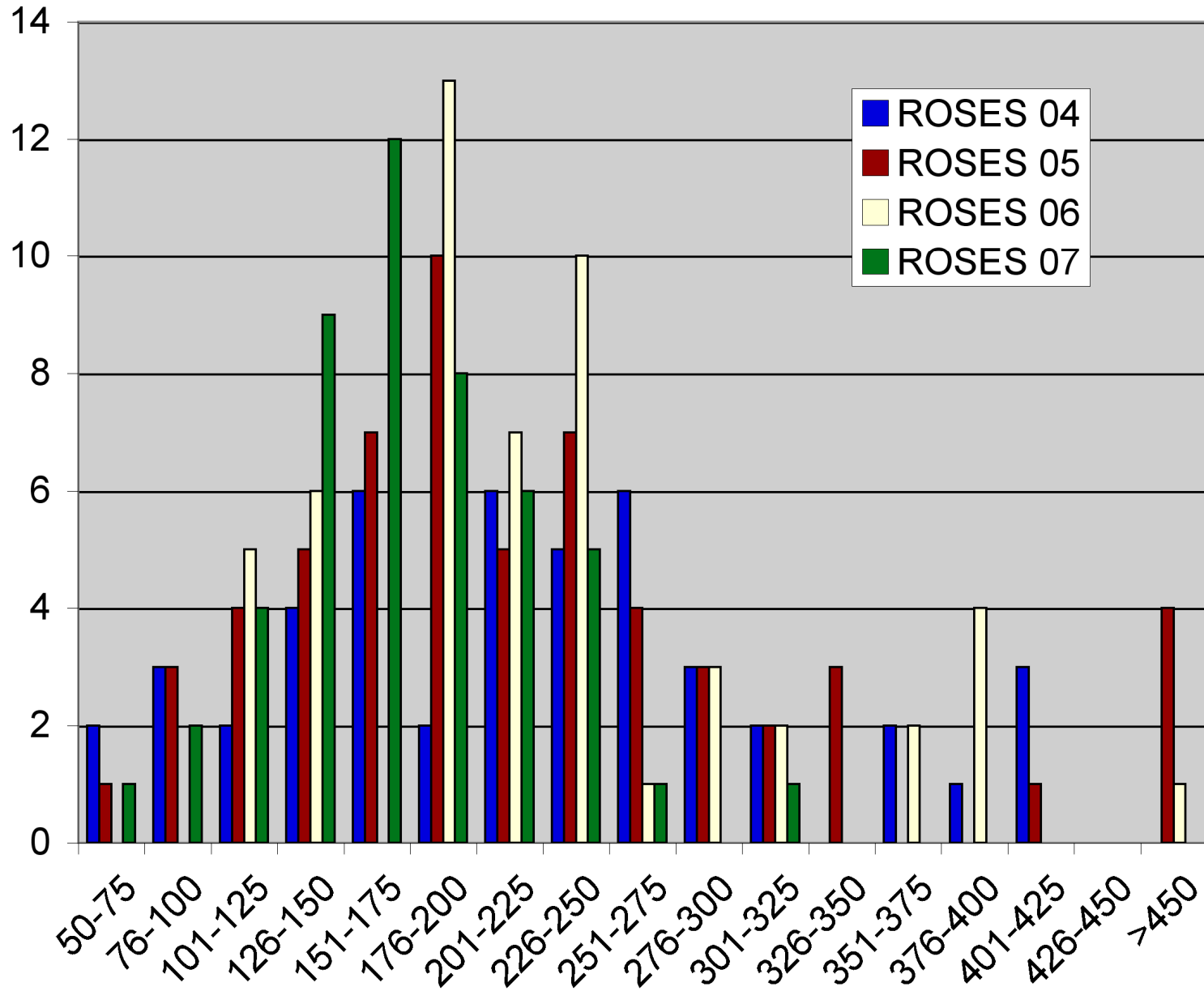
- **Continue to improve time from proposal to funding**

 - Not just time to selection, but time to fund**

- **Initiated NRC Study to evaluate overall balance in SMD R&A programs**

 - To Begin Summer 2008 (18 month study)**

Progress in selection announcements



- Roles and objectives of NASA mission-enabling activities
- Principles and metrics for determining the appropriate balance of investments between mission-enabling activities and space flight missions
- The role and proper fraction of support that should be devoted to “innovative” (high risk, high payoff) research, and whether this might vary between science areas
- The extent to which current R&A programs support cross-disciplinary and interdisciplinary science

SMD R&A-MOWG



(CHAIR) Guenter Riegler	NASA Senior Executive, retired
(Co-Chair) Steve Bougher,	University of Michigan
Spiro Antiochos	Goddard Space Flight Center
Jonathan (Josh) Grindlay	Harvard-Smithsonian, CfA
Lynne Hillenbrand	California Institute of Technology
Everette Joseph	Howard University
James (Jim) Kasting	Pennsylvania State University
Adam Showman	University of Arizona
Harold (Hal) Levison	Southwest Research Institute
Margaret (Maggie) Tolbert,	University of Colorado
Prasad Gogineni	University of Kansas

SMD Solicitations



TYPE: NAME OF SOLICITATION	RELEASE DATE	PROPOSAL DUE DATE	TARGET SELECTION DATE
<u>OPEN SOLICITATIONS</u>			
NRA: RESEARCH OPPORTUNITIES IN SPACE AND EARTH SCIENCES - 2008 (ROSES-2008) NNH08ZDA001N 12 Amendments (as of 6/2/08) 7 Proposal due dates have passed 42 Proposal due dates upcoming	02/15/08	05/09/08 thru 03/27/09	Goal: ≤ 150 d after due date
CAN: NASA LUNAR SCIENCE INSTITUTE NNH08ZDA008C dates tentative	06/02/08	11/29/08	
<u>CLOSED SOLICITATIONS</u>			
AO: SMALL EXPLORER PROGRAM AND MISSIONS OF OPPORTUNITY NNH07ZDA003O Amendment 1: Focused Opportunity for Solar Orbiter Amendment 2: Investigations on the Int'nat'l Space Station	09/28/07 10/22/07 11/27/07	01/15/08 02/01/08 02/12/08	May 29, 2008 June 2008 June 2008
CAN: NASA ASTROBIOLOGY INSTITUTE – Cycle 5 NNH08ZDA002C	01/08/08	04/11/08	Aug/Sep 2008
<u>PLANNED SOLICITATIONS</u>			
AO: Stand Alone Mission of Opportunity Notice (SALMON) Draft AO for community comment in Spring 2008	Summer 2008	Fall 2008	
AO: Joint Dark Energy Mission (JDEM)	Fall 2008		
AO: New Frontiers Draft AO for community comment in Fall 2008	December 2008		

ROSES 2008 Amendment 9. New Research Area for Appendix D.2. Astrophysics Data Analysis



- **ADP will accept proposals for the development of publicly accessible compilations of fundamental atomic, molecular, and nuclear parameters and associated computational tools necessary to apply those data to the analysis of astronomical observations.**
- **New Program Officer: Douglas Hudgins,
Douglas.M.Hudgins@nasa.gov**
- Issued to improve availability and utility of experimental and theoretical data produced through Laboratory Astrophysics research programs.
- Amendment is NOT intended to support Laboratory Astrophysics research (e.g. experimental or theoretical programs to determine fundamental atomic, molecular, or nuclear parameters); such programs continue to be supported under the Laboratory Astrophysics element of NASA's Astronomy and Physics Research and Analysis (APRA) program.
- Proposal submission deadline is June 20, 2008.



Astrophysics Research Budget

For *FY2008*, the following aggregates the competed Astrophysics research budget excluding flight hardware development

Core Astrophysics R&A.....	\$72M
Mission Guest Observer.....	\$70M
Mission Science Teams.....	~ \$60M
• PI teams for missions and instruments selected through AO	
• Additional team members selected through competition	
• Participating scientists	
• interdisciplinary scientists	
• science working group members	
Total Astrophysics research and data analysis funding.....	~ \$200M

Core Astrophysics R&A Elements



\$68M in FY2008

- **Astronomy & Physics Research & Analysis (\$39M)**

- **Categories of Investigations**

- Suborbital Investigations
- Detector Development
- Supporting Technology (Optics, Coatings, Coronagraphs, ...)
- Laboratory Astrophysics
- Ground-based

- **Disciplines**

- Particle Astrophysics
- Gamma-Ray
- X-ray
- UV/Optical
- IR/Sub-mm/Radio

- **Astrophysical Theory & Fundamental Physics (\$11M)**

- **Origins of Solar Systems (\$3M)**

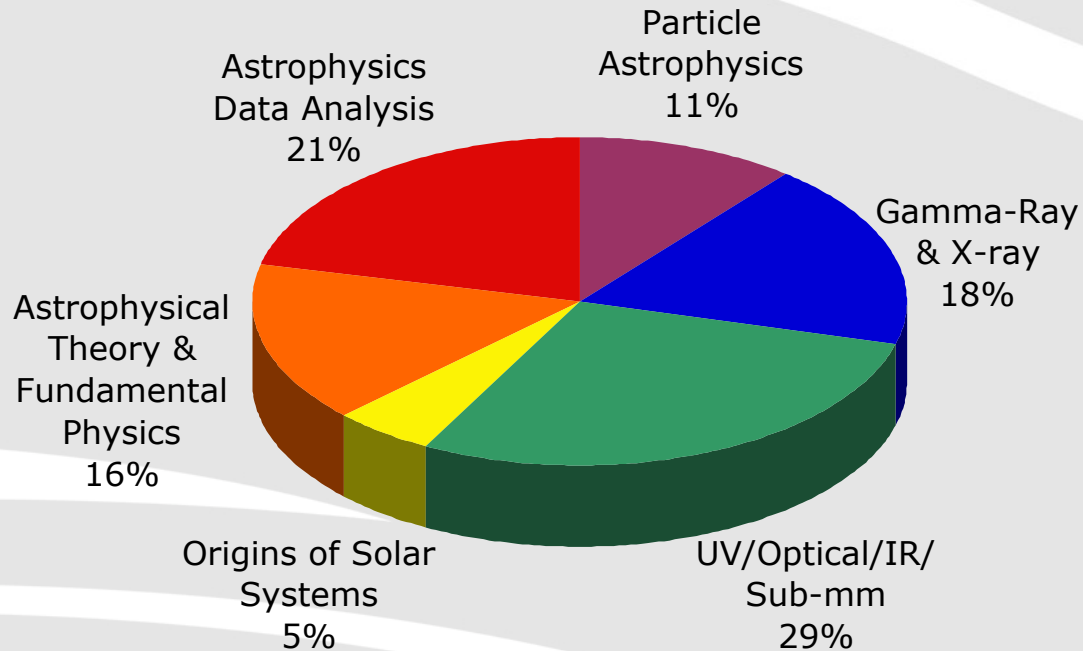
- **Astrophysics Data Analysis Program (\$15M)**

- **Strategic Mission Concept Studies (\$4M)**

FY2008 Core Astrophysics R&A



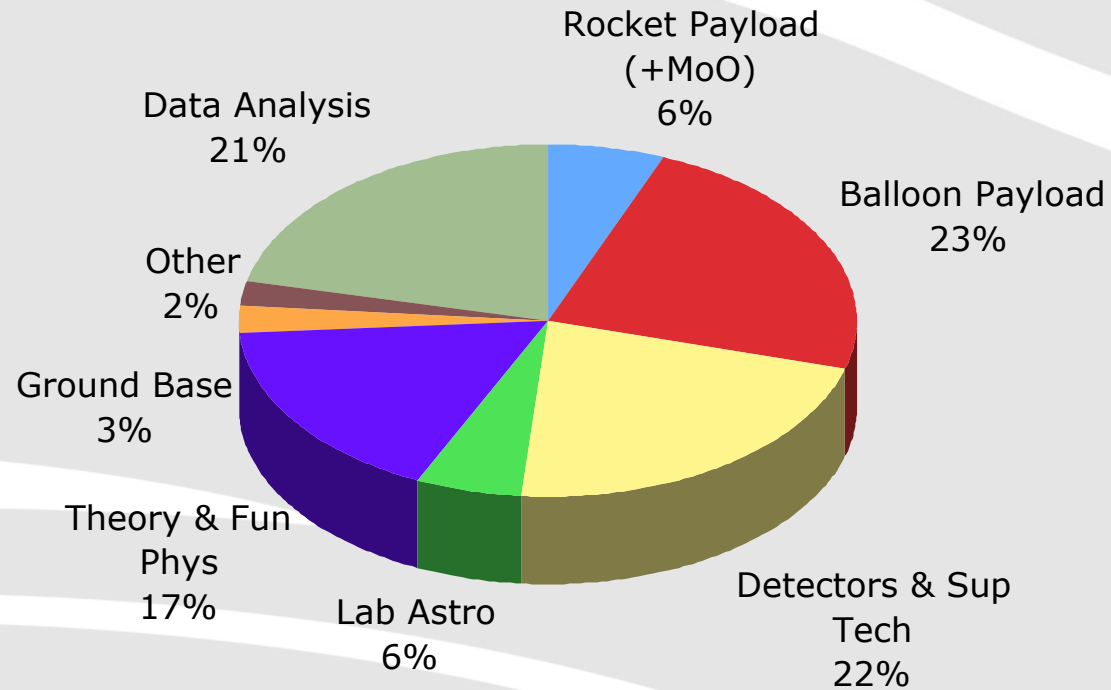
Funding Distribution - *by Discipline*



Total FY08 Funding \$68M (does not include \$4M for concept studies)

FY2008 Core Astrophysics R&A

Funding Distribution - *by Category*



Total FY08 Funding \$68M (does not include \$4M for concept studies)

National Aeronautics and Space Administration



Education and Public Outreach

Science Mission Directorate

Yvonne Pendleton, Senior Advisor for R&A and EPO

Doris Daou, SMD Level E/PO

Larry Cooper, SMD Level E/PO

Ruth Netting, Management & Policy Division E/PO

Hashima Hasan, Astrophysics Division E/PO

Ming Ying Wei, Earth Science Division E/PO

Jeff Hayes, Heliophysics Division E/PO

Marilyn Lindstrom, Planetary Science Division E/PO

~500 projects embedded in 56 SMD missions (~25M/year)

GLOBE (Global Learning and Observations to Benefit the Environment) Program (~5M/year)

15 competitively selected mid-sized projects selected through 2007 EPOESS call (~2M/year)

Need volunteers for late August panel reviews!

15K Supplemental Grants to ~100 R&A PIs/year (~1.5M/year)

Suspended in late 2007, but simplified format coming soon

Plus other elements

SMD is evaluating its entire E/PO program to

- Achieve a balanced, well focused portfolio of projects
- Simplify proposal and reporting requirements
- Ensure that essential project support elements are retained

An EPO-MOWG has been formed from members of the external community and their input is essential as SMD plans the steps forward.

The EPO MOWG will provide perspectives on:

- Program Opportunities
- Gaps and Deficiencies
- Synergies and Efficiencies
- Models for SMD program support
- Simplification for PI involvement

Contact Any EPO MOWG Member to Add Your Input

Review and provide perspectives on SMD
E/PO:

- SMD E/PO Vision
- Range and Nature of Program Opportunities
- Gaps and Deficiencies
- Synergies and Efficiencies
- Models for SMD program support

Membership

Emily CoBabe-Ammann (CHAIR)	UC-Boulder
Edna DeVore	SETI
Jennifer Grier	PSI
Mario Livio	STScI
Leslie Lowes	JPL
Mike Newchurch	UA-Huntsville
Patricia Reiff	Rice University
Stephanie Stockman	NASA GSFC

- EPOESS Solicitation Important Dates:

Proposals Due	July 15, 2008
Reviews	Late August
Selections	Late September

- SMD E/PO Forums will be extended into 2009 to allow sufficient overlap with new Support System.
- Simplified, improved Supplemental grant program to be unveiled soon

Touch the Invisible Sky



Uses Braille, large print, and tactile images from the Hubble Space Telescope, Spitzer Space Telescope, Chandra X-ray Observatory, and ground-based telescopes

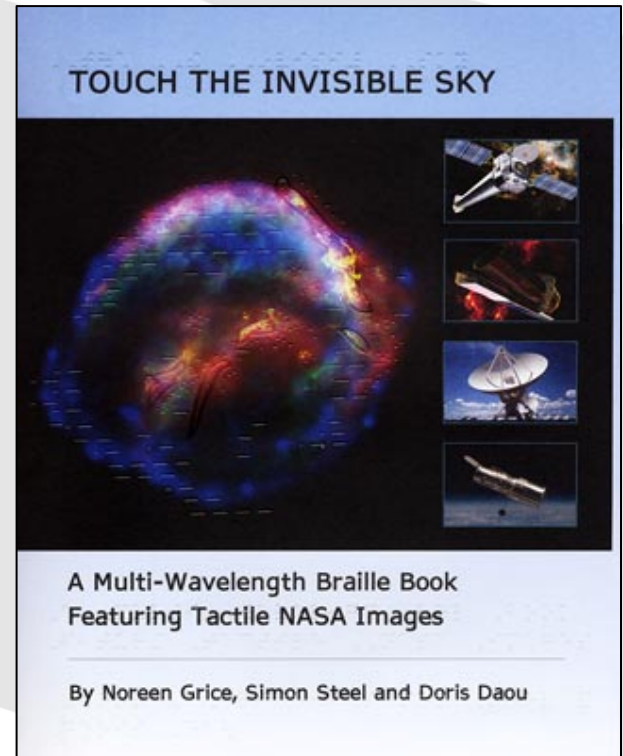
Introduces readers of all visual abilities to the concept of the electromagnetic spectrum

Explores how different observatories complement each others' findings

Available through the National Federation of the Blind, Library of Congress repositories, and a wide range of public institutions

Created through a Chandra E/PO supplemental grant and a collaboration between Spitzer, Chandra, HST, and the Origins and Universe Education Forums

Authored by Noreen Grice, Simon Steele, and Doris Daou

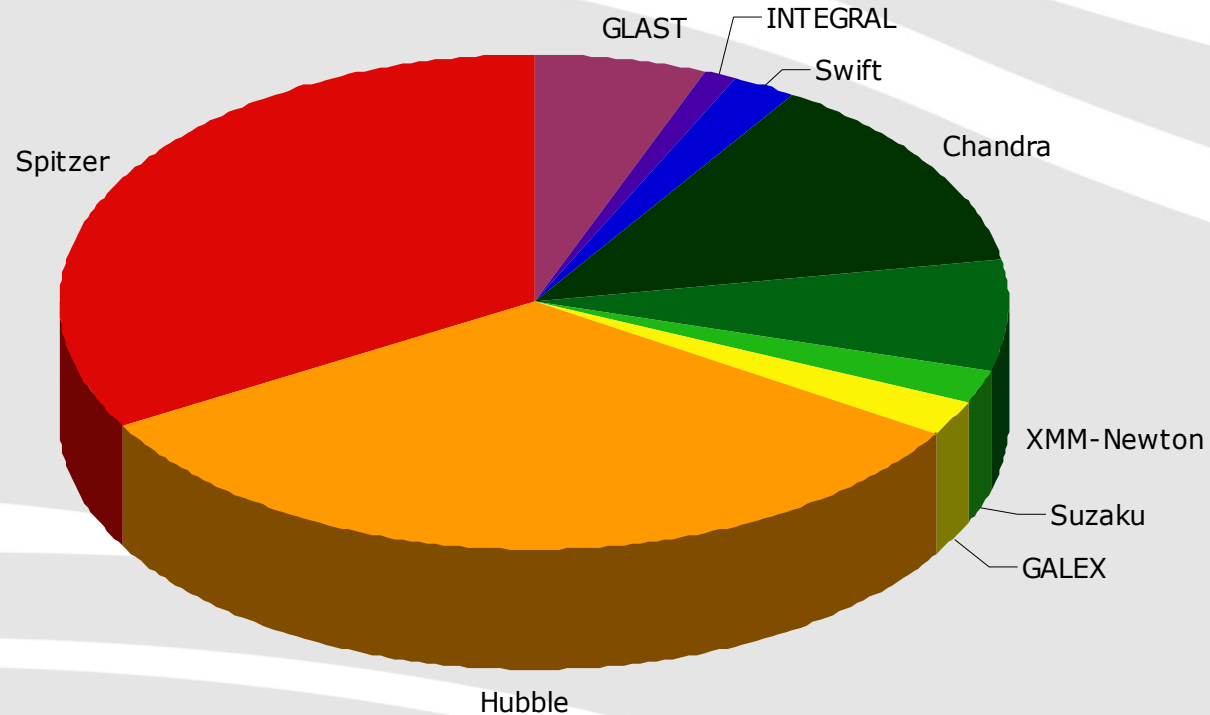


New SMD E/PO Publication: Space Science Is for Everyone: Creating and Using Accessible Resources in Educational Settings



This report is the culmination of over 7 years of SMD effort to collect, analyze, and apply the research base related to techniques for addressing the educational needs of **all** students including those with special needs

FY08 Astrophysics Mission GO Funding



Total FY08 Funding \$70M