Max Bernstein, Deputy SARA
Doris Daou, SMD Level R&A and E/PO
Dan Durda, SMD Level R&A
Larry Cooper, SMD Level E/PO
Ruth Netting, SMD Level Public Outreach
Hashima Hasan, Astrophysics Division E/PO
Ming Ying Wei, Earth Science Division E/PO
Eric Christian, Heliophysics Division E/PO
Marilyn Lindstrom, Planetary Science Division E/PO
Our Growing Vision for NASA's Research & Data Analysis Programs

Commitment to:

- Increase R&A funds
- Get more science from our budget through process improvements
- Support data analysis and ensure missions fund their science
- Provide responsive science leadership at all levels
- Increase funding stability
- Increase time researchers spend making discoveries
Changes Already Made That Support R&A:

- Over-budget missions in 2007 did not, will not take from R&A
- Ceased redacting budgets from review panels
- Authorized widespread adoption of 4-year grants
- Accelerated grant win notifications from months to weeks
- Created new opportunities for early career Ph.D.s in panel reviews
- Eliminated a backlog of hundreds of no-cost extension requests
- Resolved ~200 stalled funding issues
- Process improvements for solutions to generic funding issues
- Responsive SMD through SARA (more than 1300 e-mails)
- SARA website launched for information exchange
Changes in Progress:

- Manage R&A programs to eliminate extreme win and loss ratios
- Establish R&A and EPO MOWGs for idea exchange
- Commitment to reinvigorate EPO
- Building strong bridges with the Office of Education, OMB, and NSF to get the most out of our E/PO resources
- Establish easier E/PO funding mechanisms for PIs
- Clarify & strengthen current support mechanisms for research students (undergrads, grads, post-docs)
- Consider creation of larger funding opportunities (PI teams, Institutes such as Lunar Science, etc.)
Guenter Riegler, Ret. NASA Senior Executive (Astrophysics), Chair

Steve Bougher, University of Michigan (Planetary), Co-Chair

Spiro Antiochos, NASA Goddard Space Flight Center (Heliophysics)

Jonathan (Josh) Grindlay, Harvard University (Astrophysics)

Lynne Hillenbrand, California Institute of Technology (Astrophysics)

Everette Joseph, Howard University (Earth)

James (Jim) Kasting, Penn State University (Earth)

Harold (Hal) Levison, Southwest Research Institute, (Planetary)

Adam Showman, University of Arizona (Planetary)

Margaret (Maggie) Tolbert, University of Colorado (Earth)
Communication

• Site Visits, Townhalls, Advisory Group Meetings

• SARA E-Mail (~1300 since April 2007)

• WEBSITE (Google: NASA SARA)
  ➢ (R&A Info in Details next Slide)
  ➢ Division Corners
  ➢ FAQ, EPO & Advisory Group pages
  ➢ Updated Bi-Weekly
  ➢ Opportunity to Provide Feedback
The new SARA (“Senior Advisor for R&A”) website is your one-stop-shop for issues and information about SMD’s R&A programs:

- Information related to SMD Grant Programs
- “How To” Guide for Proposers plus other PI issues
- Bi-Weekly Updates on R&A Process Improvements (subscribe on website)
- Grant Stats for every R&A program
- 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

http://science.hq.nasa.gov/research/sara.html
New to the SARA web page: Division Corners
New to the SARA web page:
Division Corners
Astrophysics as an example

Astrophysics

How does the universe searches for answer to the beginning of time, planetary systems evolving place, govern the series of physical processes passed between stars? NASA seeks to understand these cyclical and now they created the unique conditions that support life.
New to the SARA web page:
Downloadable presentations from events page

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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</thead>
<tbody>
<tr>
<td>04-12-2007</td>
<td>NASA's Goddard Space Flight Center</td>
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<tr>
<td>05-11-2007</td>
<td>UC Santa Barbara</td>
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<tr>
<td>05-16-2007</td>
<td>Space Telescope Science Institute</td>
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<td>05-29-2007</td>
<td>American Astronomical Society Meeting (Honolulu, HI)</td>
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<tr>
<td>06-01-2007</td>
<td>NASA's Ames Research Center</td>
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<tr>
<td>06-21-2007</td>
<td>NASA's JetPropulsion Laboratory</td>
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<tr>
<td>07-17-2007</td>
<td>Bioastronomy conference (San Juan, Puerto Rico)</td>
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<td>08-08-2007</td>
<td>NASA's Langley Research Center</td>
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<tr>
<td>08-16-2007</td>
<td>NASA's Ames Research Center</td>
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<tr>
<td>09-27-2007</td>
<td>Astrophysics in the Next Decade Meeting (Tucson, AZ)</td>
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<tr>
<td>10-07-2007</td>
<td>NAC Planetary Science Subcommittee (Orlando, FL)</td>
</tr>
<tr>
<td>10-08-2007</td>
<td>NAC Heliophysics Science Subcommittee (Telecon)</td>
</tr>
<tr>
<td>10-09-2007</td>
<td>Division for Planetary Science Meeting (Orlando, FL)</td>
</tr>
<tr>
<td>10-12-2007</td>
<td>Astronomy and Astrophysics Advisory Committee (Washington, DC)</td>
</tr>
<tr>
<td>11-15-2007</td>
<td>University of Michigan (Ann Arbor, MI)</td>
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<tr>
<td>12-07-2007</td>
<td>Committee on Planetary and Lunar exploration (COMPLEX) (Irvine, CA)</td>
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<tr>
<td>12-11-2007</td>
<td>American Geophysical Union (San Francisco, CA)</td>
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<tr>
<td>12-13-2007</td>
<td>NASA AMES Research Center (Moffett Field, CA)</td>
</tr>
<tr>
<td>01-08-2008</td>
<td>American Astronomical Meeting (Austin, TX)</td>
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</table>
New to the SARA web page: EPO page

### Education and Public Outreach (EPO) contacts

<table>
<thead>
<tr>
<th>EPO Role</th>
<th>Name</th>
<th>E-mail (@nasa.gov)</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMD EPO (Lead)</td>
<td>Yvonne Pendleton</td>
<td>SARA</td>
<td>202.358.1182</td>
</tr>
<tr>
<td>EPO Rep.</td>
<td>Larry Cooper</td>
<td>larry.p.cooper</td>
<td>202.358.1531</td>
</tr>
<tr>
<td>EPO Rep.</td>
<td>Doris Daou</td>
<td>doris.daou-1</td>
<td>202.358.0422</td>
</tr>
<tr>
<td>Outreach Coordinator</td>
<td>Ruth Netting</td>
<td>ruth.a.netting</td>
<td>202.358.0539</td>
</tr>
<tr>
<td>Lead for NPP, GSRP &amp; NESSF</td>
<td>Dolores Holland</td>
<td>dolores.holland</td>
<td>202.358.0734</td>
</tr>
</tbody>
</table>

#### Heliophysics Division
- EPO Lead: Eric Christian, eric.r.christian, 202.358.1763

#### Earth Science Division
- EPO Lead: Ming-Ying Wei, mwei, 202.358.0771
- EPO Rep.: Ann Coren, ann.l.coren, 202.358.2528

#### Planetary Science Division
- EPO Lead: Marilyn Lindstrom, marilyn.lindstrom-1, 202.358.1254

#### Astrophysics Division
- EPO Lead: Hashima Hasan, hhasan, 202.358.0692

For everyone within the SMD E/PO community to provide input to the MOWG, through community teleconferences, surveys, and one-to-one communication. Anyone interested in providing input to the MOWG or having a presentation by the MOWG to their group, please contact the MOWG Chair, Emily CoBabe-Ammann at ecobabeATlasp.colorado.edu.
Existing Mechanisms for Student Support

- **Undergraduate:**
  - R&A (SMD)
  - USRP (OE)
- **Graduate:**
  - NESSF (SMD)
  - GSRP (OE and Centers)
- **Postdocs:**
  - NPP (SMD)
  - Named Fellowships (SMD)
Outreach opportunities for scientists are more burdensome than need be.

Diverse education portfolio is vulnerable and unsustainable in the current funding climate.

Increased professionalism of E/PO personnel across the country means that the kinds of support infrastructure needed by SMD E/PO is shifting.
EPO MOWG Charter

- Evaluate the fiscal viability of SMD E/PO programs and support structures.
- Balance the SMD E/PO portfolio to meet the needs of NASA and the SMD directorate.
- Generate pathways to long-term SMD E/PO stability
- Establish more accessible outreach mechanisms for researchers
- Evaluate the model of the SMD Support Groups.
<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
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</thead>
<tbody>
<tr>
<td>Emily CoBabe-Ammann (CHAIR)</td>
<td>UC-Boulder</td>
</tr>
<tr>
<td>Edna DeVore</td>
<td>SETI</td>
</tr>
<tr>
<td>Jennifer Grier</td>
<td>PSI</td>
</tr>
<tr>
<td>Mario Livio</td>
<td>STScI</td>
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<tr>
<td>Leslie Lowes</td>
<td>JPL</td>
</tr>
<tr>
<td>Mike Newchurch</td>
<td>UA-Huntsville</td>
</tr>
<tr>
<td>Patricia Reiff</td>
<td>Rice University</td>
</tr>
<tr>
<td>Stephanie Stockman</td>
<td>GSFC</td>
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</tbody>
</table>
SMD EPO Budget in 2007: (A) + (B) ~50M

(A) Mission E/PO ~30M

<table>
<thead>
<tr>
<th>Area</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
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<td>* Multi-Mission – Alien Earths Traveling Exhibit</td>
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<tr>
<td>Outreach</td>
<td>* Multi-Mission – Night Sky Network</td>
</tr>
</tbody>
</table>

(B) Non-Mission E/PO ~20M

* Mid-Size Grants Program, GLOBE, Support Groups, Supplemental Grants
Another way to look at it: (C)+ (D) ~50M

(C) Education (Mission + Non-Mission) ~25M

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</tbody>
</table>

(D) Public Outreach (Mission + Non-Mission) ~25M
- Night Sky Network
- NASA Family Science Nights
~300 education projects embedded in 56 SMD missions.

15 competitively selected education projects. Mid-sized projects, ~150K/year grants (selected in Nov 2007)

GLOBE (Hands-on Earth Science Projects)
Suspended EPO supplements to ROSES R&A science awards.

Postponed CAN for Division Support Groups.

Selected Mid-sized E/PO Projects

Extended Forums (these connect communities) through calendar year

EPO MOWG Formed
  Weekly telecons started January 14
  In person meeting March 7 in DC
### Recent Developments

Selected 15 proposals for SMD EPO.

<table>
<thead>
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<th>Area</th>
<th>Proposals</th>
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<tr>
<td>E &amp; S Education</td>
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<tr>
<td>Informal Education</td>
<td>5</td>
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<tr>
<td>Outreach</td>
<td>3</td>
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</table>

Abstracts at [http://science.hq.nasa.gov/research/sara_docs/EPO ESS06_Selections.pdf](http://science.hq.nasa.gov/research/sara_docs/EPO ESS06_Selections.pdf)
New Vistas, New Perspectives . . .

You are here
Back-Up Slides
SMD FY08 Education Budget

Mission + Non-Mission ~25M

- Informal Ed-Outcome 3 25%
- Higher Ed-Outcome 1 13%
- E&S Ed-Outcome 2 62%

EXAMPLES

Outcome 1: Center for Astronomy Education – College Teachers
Outcome 2: Spitzer Student and Teachers Observations Program
Outcome 3: Alien Earths Traveling Exhibit
Outcome 1
Higher Ed.
66%

Outcome 2
E&S Ed
24%

Outcome 3
Informal Ed.
10%

Missions + Non-Missions + R&A (~515M)

Outcome 1-- R&A Includes:
Undergraduate, Graduate, and Postdoctoral Programs