Restructuring Planetary Science’s Research & Analysis Program

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January 2014
Timeline: Planetary R&A Restructuring

Past


2010: Community R&A survey 2010

2011: Planetary Decadal Survey

2011: Supporting Research and Technology Working Group of the PSS

2011: R&A Discipline Scientists Retreat

2012: Reorganization of Instrument Development Programs

2012: Planetary Workforce Survey

2013: December 3, 2013: Virtual Town Hall on R&A Restructuring

Future
2014 Mid-January: Draft ROSES 2014 release for comment

2014 Mid-February: ROSES 2014 release

2014 Early to Mid-March: Pre-proposal Briefing
Guiding Principles in the Restructuring

• To make the structure of the R&A program explainable to those outside of NASA.
• To make it easy for those outside of NASA to compute the amount of money spent on grants.
• To reduce the time between proposal submission and award announcement.
• To encourage interdisciplinary research.
• To enable PSD strategic decision making.
• To be more flexible in responding to changing research priorities.
• To reduce overlaps between program elements.

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• To provide bridge funding, where appropriate, to cover funding gaps resulting from this restructuring
• Ensure program restructuring will be revenue neutral; removing overlap will not decrease the R&A budget
Every funded FY13 activity and every ROSES-11* proposal has a home in the new R&A portfolio.

The following pie charts show how these activities and proposals would have mapped onto the new program elements, had the new structure been in place last year.

Subcharts show:
1. Counts of individual activities funded in FY13 (left), divided into their most likely homes in the new structure;
2. Counts of proposals submitted to ROSES-11 (right), divided into their most likely destinations, had they been submitted to the new program elements.
3. Caveats – diagrams not predictive of program size in FY15 and proposals submitted to ROSES-11 program elements may not be a good predictor of proposal pressure in ROSES-14

*ROSES-11 was chosen because it was most recent, complete set of proposals
WHERE DOES COSMOCHEMISTRY GO?

Activities (≈Grants)
- Wkgs: 15%
- EW: 83%
- Support: 0.9%
- PME: 2%

Proposals
- Wkgs: 28%
- EW: 72%

WKGS: Solar System Workings
EW: Emerging Worlds
PME: Planetary Major Equipment
WHERE DOES ORIGINS GO?

Activities (≈Grants)

- Wkgs: 2%
- XP: 20%
- EW: 78%

Proposals

- Hab: 4%
- XP: 10%
- EW: 86%

WKGS: Solar System Workings
EW: Emerging Worlds
XP: Exoplanets
Hab: Habitable Worlds
WHERE DOES EXO/EVO GO?

Activities (≈Grants)

- **WKGS:** Solar System Workings
- **EW:** Emerging Worlds
- **Exo:** Exo/Evo Biology
- **Hab:** Habitable Worlds

- **PME:** Planetary Major Equipment
- **PSTAR:** Plan. Sci. & Tech. from Analog Res.
- **LDAP:** Lunar Data Analysis

Proposals

- **Wkgs:** 4%
- **Exo:** 63%
- **EW:** 7%
- **PSTAR:** 7%
- **LDAP:** 1%
- **Hab:** 19%

Exo: 75%

Hab: 9%

PME: 2%

PSTAR: 4%

EW: 11%

WHERE DOES EXO/EVO GO?
WHERE DOES LASER GO?

Activities (≈Grants)

- Wkgs: Solar System Workings
- EW: Emerging Worlds
- Exo: Exo/Evo Biology
- Hab: Habitable Worlds
- HX: Human Exploration

Support

- EW: 2%
- PSTAR: 2%

Proposals

- Wkgs: 36%
- LDAP: 49%
- HX: 1%

- PSTAR: 8%
- PDART: 8%
- EW: 3%
- Tech: 1%
WHERE DOES PG&G GO?

Activities (≈Grants)

- Wkgs: Solar System Workings (79%)
- EW: Emerging Worlds (1%)
- PDART: Plan. Data Archiv., Restor. And Tools (7%)
- MSS: Mission Science Support (13%)

Where does PG&G go?

Proposals

- Wkgs: Solar System Workings (89%)
- PDART: Plan. Data Archiv., Restor. And Tools (6%)
- MSS: Mission Science Support (2%)
- Hab: Habitable Worlds (1%)
- LDAP (1%)
WHERE DOES MFRP GO?

Activities (≈Grants)

- Wkgs: Solar System Workings (89%)
- EW: Emerging Worlds (1%)
- Hab: Habitable Worlds (7%)
- PME: Planetary Major Equiplent (1%)
- PDART: Plan. Data Archiv., Restor. And Tools (2%)

Proposals

- Wkgs: Solar System Workings (85%)
- EW: Emerging Worlds (1%)
- Hab: Habitable Worlds (13%)

WKGS: Mission Science Support
PME: Planetary Major Equiplent
WHERE DOES OUTER PLANETS RES. GO?

Activities (≈Grants)

- WKGS: Solar System Workings
- EW: Emerging Worlds
- Hab: Habitable Worlds

Proposals

- Hab: 4%
- EW: 7%
- Wkgs: 89%

WKGS: Solar System Workings
EW: Emerging Worlds
Hab: Habitable Worlds
WHERE DOES PLN. ATMOSPHERES GO?

Activities (≈Grants)

- **Wkgs**: 87%
- **XP**: 10%
- **EW**: 1%
- **Support**: 1%

Proposals

- **Wkgs**: 87%
- **XP**: 11%
- **Hab**: 1%
- **Others**: 1%

EW: Emerging Worlds
XP: Exoplanets
WHERE DOES NEOO GO?

Activities (≈Grants)  Proposals

Obs: Solar System Observations
WHERE DOES PLN. ASTRONOMY GO?

Activities (≈Grants)

- Obs: 91%
- MSS: 6%
- ETIPS: 2%

Proposals

- Obs: 100%

Obs: Solar System Observations
MSS: Mission Science Support
ETIPS: Emerging Topics in Planetary Science
If FY13 activities and ROSES-11 proposals were mapped into the reorganized structure, what might have been the relative sizes and make-up of the core research programs last year?
WHAT GOES INTO EMERGING WORLDS?

Activities (≈Grants)

- OSS: 30%
- COS: 57%
- OPR: 3%
- MFRP: 1%
- LASER: 1%
- EXO: 6%
- PATM: 1%
- PGG: 1%

Proposals

- OSS: 85, 47%
- COS: 61, 34%
- OPR: 9, 5%
- MFRP: 1, 1%
- LASER: 4, 2%
- EXO: 11, 6%
- PATM: 1, 1%
- PG&G: 8, 4%
WHAT GOES INTO SOLAR SYSTEM WORKINGS?

Activities (~Grants)

- PGG 18%
- COS 5%
- LASER 8%
- MFRP 24%
- PATM 18%
- OSS 0.3%
- OPR 27%

Proposals

- COS, 24, 5%
- EXO, 6, 1%
- PG&G, 126, 23%
- PATM, 78, 14%
- MFRP, 103, 19%
- OPR, 116, 21%
- LASER, 90, 17%
WHAT GOES INTO HABITABLE WORLDS?

Activities (≈Grants)
- MFRP: 39%
- EXO: 50%
- OPR: 11%
- OPR, 5: 9%

Proposals
- EXO: 30, 52%
- MFRP: 16, 28%
- OSS, 4: 7%
- PATM, 1: 2%
- PG&G, 1: 2%
WHAT GOES INTO EXOBIOLOGY?

Activities (≈Grants)

Proposals

EXO 100%

EXO, 102
WHAT GOES INTO SOLAR SYSTEM OBSERVATIONS?

Activities (≈Grants)

- PAST: 43%
- NEOO: 57%

Proposals

- PAST, 46, 63%
- NEOO, 27, 37%
WHAT GOES INTO EXOPLANETS?

Activities (≈Grants)

- PATM: 38%
- OSS: 62%

Proposals

- PATM, 10, 50%
- OSS, 10, 50%
Reorganization at a glance

- ROSES13 has 20 calls; ROSES14 will have 18 calls with 8 that remain the same
- All calls address division science goals supporting NASA’s strategic plan
- Strategic programs are more narrow in scope and address certain strategic needs
- Focused programs are narrow in scope and limited in time. They may be called for only one year or several, but not indefinitely. This provides flexibility the previous program did not have.

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<td>ETIPS (emerging topics)</td>
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<td>LDAP (lunar data analysis)</td>
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<td>SSERVI (not solicited in ROSES)</td>
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New program
Not solicited in ROSES 2014
# DRAFT ROSES 2014 Table of Contents

V4 TOC for Appendix C. Planetary Science Research Program

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**Focused Research Opportunities**

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**Cross Divisional Activities**

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Senior Review of the new R&A Program

• PSS Review:
  – Draft language for new program elements will be made publically available before the January 22 meeting of the Planetary Science Subcommittee
  – Community can provide feedback up through Assessment Groups
  – AG Chairs present feedback to PSD management and program officers at PSS meeting

• Peer Panel Review:
  – At the conclusion of the Peer Review Panels, each panel will evaluate how the new program element was implemented & executed
  – Provides feedback to the Discipline Scientist
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Mission Science Support Activities

Astromaterials Curation
Infrared Telescope Facility (IRTF, Hawaii)
Lunar and Planetary Institute (LPI)
National Astronomy and Ionosphere Center
  Arecibo Planetary Radar System
NASA Advanced Supercomputing
Planetary Aeolian Laboratory (PAL, ARC)
Planetary Cartography (USGS, Flagstaff)
Reflectance Experiment Laboratory (RELAB, Brown U.)
Regional Planetary Image Facilities (RPIF)
Venus Chamber (GSFC)
Vertical Gun Range (Ames VGR)
Charge to the PSS

1. Do they correctly map to our science goals? In the mapping from an old Call to a new one(s) did we carry all the appropriate elements with it? Did we leave anything out?

2. Do they address fully the science question?

3. Are there gaps in any of the solicitations?

1. Are the new Calls written clearly or if not, which sections are awkward or are unclear.

1. Only HQ personnel (CS (HQ & Center), IPA’s, and un-conflicted contractors can write solicitations.