

Planetary Science R&A Process and Status



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July 24, 2014

PSD R&A Program List

Program Name	Step-1 Due Date	Step-2 Due Date
Emerging Worlds	<i>03/31/2014</i>	<i>06/04/2014</i>
Solar System Workings	<i>05/23/2014</i>	<i>07/25/2014</i>
Habitable Worlds	11/24/2014	01/23/2014
Exobiology	<i>04/14/2014</i>	<i>06/03/2014</i>
Solar System Obs.	<i>04/14/2014</i>	<i>06/06/2014</i>
PDART	<i>07/17/2014</i>	09/17/2014
Lunar Data Analysis	08/29/2014	10/24/2014
Mars Data Analysis	08/04/2014	10/03/2014
Cassini Data Analysis	07/28/2014	09/26/2014
Discovery Data Analysis	<i>07/21/2014</i>	09/19/2014
LARS	<i>04/28/2014</i>	<i>06/27/2014</i>
Exoplanets	<i>03/31/2014</i>	<i>05/23/2014</i>

Due date has passed

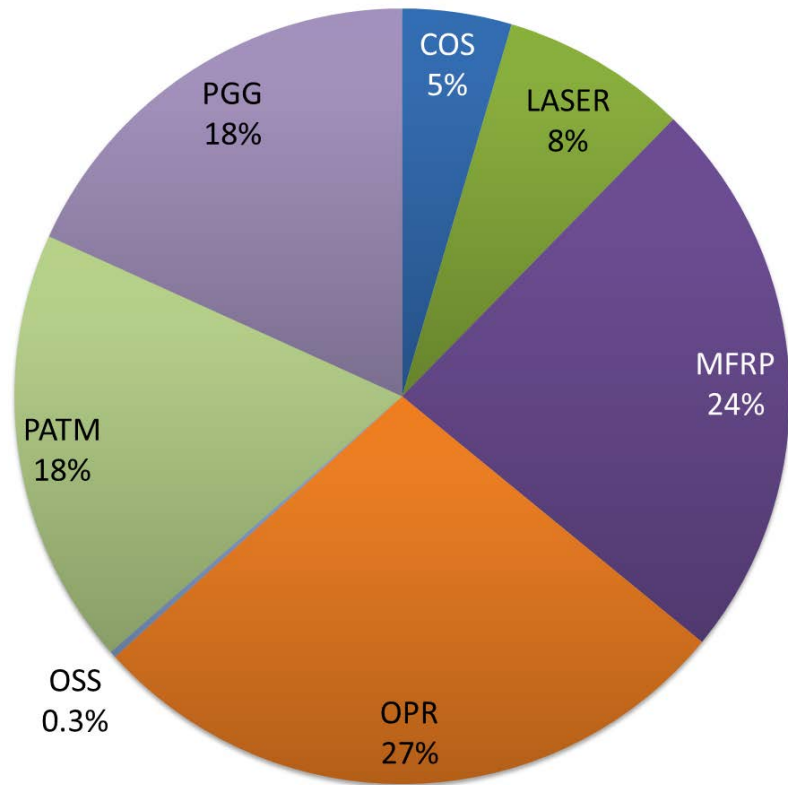


SSW Basics (1)

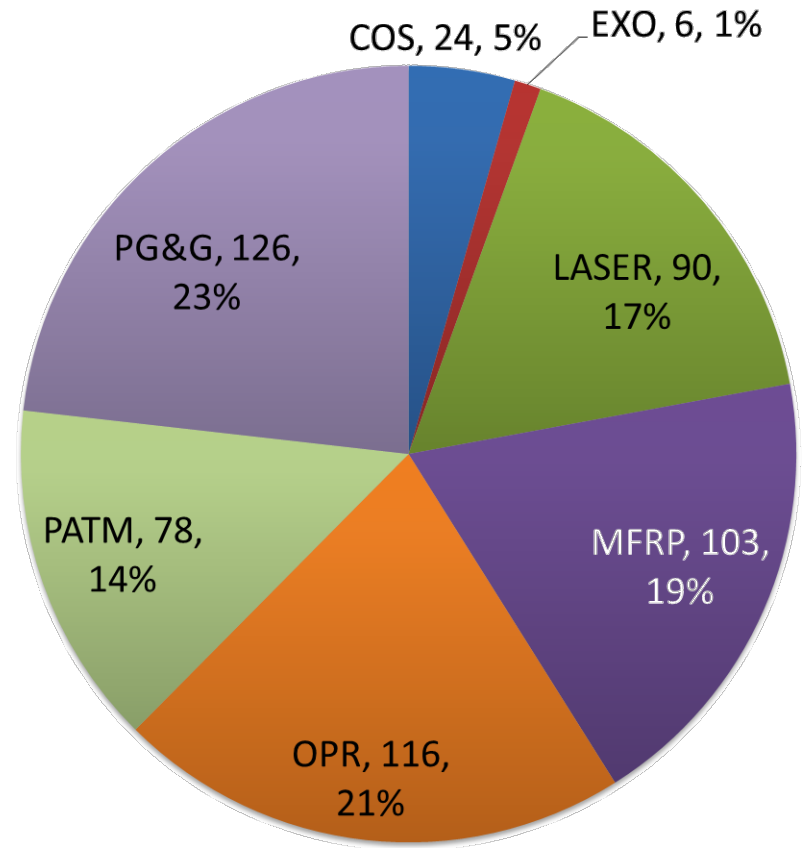
The Solar System Workings program element supports research into atmospheric, climatological, dynamical, geologic, geophysical, and geochemical processes occurring on planetary bodies, satellites, and other minor bodies (including rings) in the Solar System. This call seeks to address the physical and chemical processes that affect the surfaces, interiors, atmospheres, exospheres, and magnetospheres of planetary bodies. A wide range of investigations will be covered, including theoretical studies, analytical and numerical modeling, sample-based studies of extraterrestrial materials, field work, laboratory studies, and data synthesis relevant to the physical and chemical processes affecting planetary systems.

WHAT GOES INTO SOLAR SYSTEM WORKINGS?

Activities (\approx Grants)



Proposals





SSW Basics (3)

- Mary Voytek Lead POC
- Doris Daou-DS
- Lindsay Hays-DS
- Jared Leisner-DS
- Sarah Noble-DS
- Mitch Schulte-DS

- Christina Richey-ADS
- Jeff Grossman-ADS

Division-Level Information

Review Process

Two-Step Review Process

- All reorganized PSD R&A programs use the Two-Step process this year
- To ensure that all proposals this year get reviewed
 - A proposal that appeared responsive and was Encouraged to submit to Program A in Step-1 but was deemed responsive to Program B in Step-2 will be reviewed by Program A and Program B will consider it for funding



Two-Step Review Process

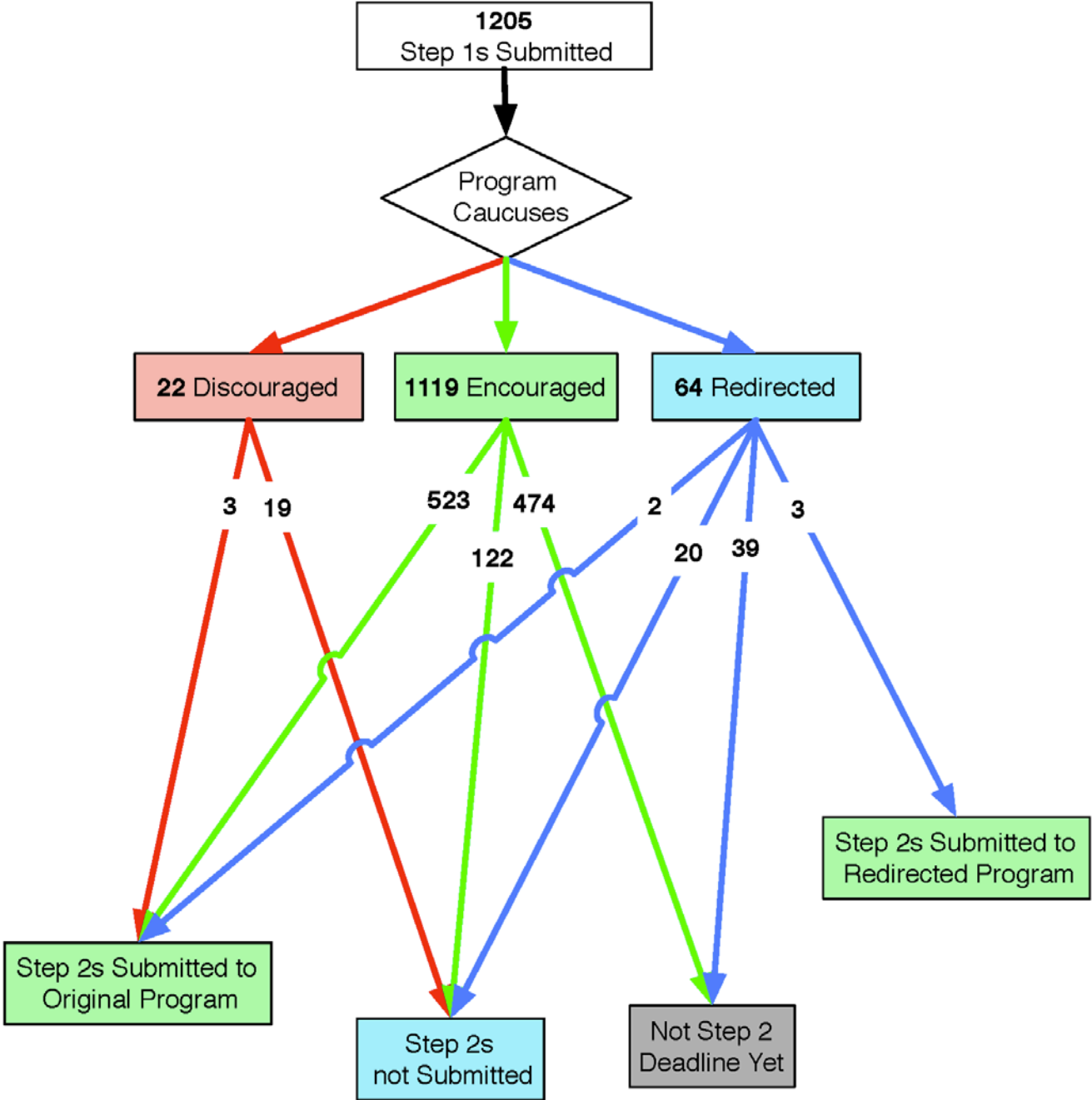
- What goes into a Step-1 proposal?
 - Science objectives: What do I want to do and why?
 - Methodology: What combination of data analysis, lab work, theory, etc. will I use?
 - Relevance: Justification (not just an assertion) that the work responsive to this program's solicitation and not to another's
- The Step-1 proposal is for an evaluation of relevance, not scientific merit or impact

Two-Step Review Process

- Program caucus reads and reviews Step-1 proposals, and identifies the proposals that appear to fall outside of program scope and the programs for which they may be appropriate
- Program caucus discusses potential redirects with other caucuses
 - Discussion will lead to an Encourage to the first program, a Discourage with redirect to the second program, or a Discourage with no redirect recommendation (for those Step-1 proposals that are not responsive to any PSD program)
- Program caucus sends decision notifications

Two-Step Review Process

- A given proposal cannot be relevant to both a Core and a Data Analysis Program. The appropriate program is determined by adherence to the call as evaluated by the POs from Core AND DAP.
- If it seems that the same proposal has been submitted more than once, the PI may be asked to withdraw one of the proposals or (if the PI neither withdraws nor demonstrates how the proposals are not the same) the caucuses may decide to review the proposal only once
- This year, every proposal will be reviewed, but no given proposal will have multiple funding opportunities



Division-Level Information

Proposal Information
and Statistics

Step-1 Proposal Decisions

- The time-to-notify after the Step-1 deadline is consistent across the Core programs
- The dominant factor is not the number of proposals, but this year's discussion between program caucuses

Program Name	Submissions	Days to Step-1 Notifications
Emerging Worlds	217	23
Solar System Wkgs.	505	21
Exobiology	189	22
Solar System Obs.	99	23
PDART		
CDAPS		
DDAP		
LARS	29	3
Exoplanets	168	16

Time-to-notification is given as calendar days between the Step-1 deadline and when the majority of the NSPIRES notifications were sent.

Step-1 Proposal Decisions

Program Name	Submissions	Encouraged	Discouraged (w/ redirect)	Discouraged (w/o redirect)
Emerging Worlds	217	195	19	4
Solar System Workings	505	470	35	0
Exobiology	189	177	9	3
Solar System Obs.	99	86	0	13
PDART				
CDAPS				
DDAP				
LARS	29	29	0	0
Exoplanets	168	162	2	4
	1207	1119	65	24

- EW redirects were primarily to SSW and XRP
- SSW redirects were to PDART (40%), EW, and then the DAPs

Step-2 Proposal Submissions

Program	No Step-1	Encouraged		Redirected		Discouraged	
		Step-2	No Step-2	Step-2	No Step-2	Step-2	No Step-2
EW	3, 8	153	38	1	18	1	3
SSW	0						
SSO	0	69	17	0	0	2	13
EXO	0	144	33	0	9	0	3
XRP	0	133	29	1	1	0	4
LARS	0	24	5	0	0	0	0
All (#)	--	523	122	2	28	3	23
All (%)	--	74.2%	18.2%	0.28%	3.97%	0.43%	3.26%

- “No Step-1” are proposals transcribed from another program
- “Redirected” is Discouraged with a PSD redirect suggestion, “Discouraged” has no redirect suggestion

Step-2 Proposal Team Changes

- PIs could add funded team members by emailing the program lead more than two weeks before the Step-2 due date

Program Name	Increased Proposal Teams	Decreased Proposal Teams
Emerging Worlds	8.3%	7.6%
Solar System Wkgs.		
Exobiology	12%	2.8%
Solar System Obs.	13%	11%
Exoplanets	6.0%	7.4%

- Nearly as many PIs removed Co-Is as added them (except for in Exobiology)

Division-Level Information

Step 2 Review Process



Step-2 Review: Panel Organization

- Proposals are generally divided into panels based on science themes and investigations, not specific targets
 - No: Mars geology, giant planet atmospheres
 - Yes: volcanism, climate change
- Large programs, as has been done in previous years, are split between multiple review weeks
 - Panels will be assigned to weeks so as to enable the occasional “panel hopping” that always happens

Step-2 Review: Conflict of Interest

- To assemble panels, PSD is using the established conflict of interest policy
 - This policy focuses upon blocking a funded team member's ability to influence the outcome of their own proposal or those proposals in direct competition with it; it does not disqualify a funded team member from participating in a review *a priori*.
- PIs and Co-Is have panel-level conflicts and will not be in the room while any proposal in direct competition with theirs is being discussed
 - Further, we will not have PIs or Co-Is at the venue when any proposal in direct competition with theirs is being discussed.
 - This is not a problem for Collaborators as there could not be a financial gain, but they do retain a proposal-level conflict.

Step-2 Review: Conflict of Interest

- When a program's Step-2 review takes place over multiple weeks, funded team members may serve on the weeks when their proposal is not being reviewed
 - There is then no ability to influence the evaluation of their proposal or those in direct competition
 - We will avoid using PIs as panelists
- We can and do use funded team members as external reviewers by noting their panel-level conflict of interest and explicitly telling proposers to note the conflict and that they are free to accept all, some, or none of the review

Program-Level Information

Solar System Workings

Step-2 Proposal Submissions

- We observe no significant deviation between the SSW proposal loads and historical levels for either PIs or their institutions

Step-2 Proposal Submissions

Number of Proposals per PI	Number of Step-1 PIs	Number of Step-2 PIs	2008-2013 Average
8	--		< 1%
7	--		< 1%
6	--		< 1%
5	--		< 1%
4	0.8%		1.4%
3	5.0%		5.7%
2	16%		20%
1	78%		72%

- 2008-2013 programs: LASER, MFRP, OPR, PATM, PGG
- Percentages may not sum to 100% due to rounding

Step-2 Proposal Submissions

Number of Proposals	Number of Step-1 Institutions	Number of Step-2 Institutions	2008-2013 Average
46+	0		< 1%
41-45	1.0%		< 1%
36-40	0		< 1%
31-35	1.9%		1.2%
26-30	0		1.5%
21-25	0		1.4%
16-20	2.9%		1.7%
11-15	4.8%		5.0%
6-10	12%		12%
5 or fewer	77%		76%



Step-2 Proposal Submissions

Average Proposals per PI	Number of Step-1 Institutions	Number of Step-2 Institutions	2008-2013 Trend
8	--		--
7	--		--
6	--		--
5	--		< 1%
4	--		< 1%
3	3.7%		2.7%
2	8.4%		12%
< 2	88%		85%

Program-Level Information

Planetary Data Archiving,
Restoration, and Tools
(PDART)

PDART Overview

- PDART is a new strategic program intended to fill the programmatic gap for those PIs that want to restore, create, or consolidate data, data products, and tools without doing a full, targeted science investigation (or not being able to describe both in the page limit)
- PDART received 140 Step-1 proposals, which is 3 times the number that PMDAP received in previous years

This level reflects a strong community interest and capability for these necessary research tools and resources.

- 14 of these Step-1s were redirects from SSW, so we need to work to getting out the word on PDART
 - We hope that the clarification to the call language means that more people will recognize the reference-information creation aspect next year

PDART Step-1 Proposals

Activity Type**	Submitted	Encouraged	Discouraged
Archiving	69		
Data Recalibration	29		
Data Product Generation	90		
Data Set Restoration	24		
Reference Databases	39		
Data Digitization	16		
Software Tools	60		

**38 submissions proposed single activities and 102 submissions proposed at least 2 activity types.

Questions?



SSW Step-1 Targets of Study

	Asteroid/ KBO	Comet	Dust/ meteorites	Jupiter	Mars	Mercury	Neptune/ Uranus	Non-specific	Satellites/ moons	Saturn	The Moon	Venus	Sole Target	Proposal Totals
Asteroid/ KBO		3	2	0	12	11	1	--	10	1	20	2	44	69
Comet	3		0	0	2	2	0	--	1	0	2	1	11	16
Dust/ Meteorites	2	0		0	1	2	0	--	0	0	4	0	10	14
Jupiter	0	0	0		1	0	3	--	3	10	0	1	8	20
Mars	12	2	1	1		23	0	--	18	1	31	16	108	164
Mercury	11	2	2	0	23		0	--	11	0	31	8	8	42
Neptune/ Uranus	1	0	0	3	0	0		--	2	3	0	0	9	14
Non- specific	--	--	--	--	--	--	--		--	--	--	--	25	25
Satellites/ moons	10	1	0	3	18	11	2	--		4	13	7	83	119
Saturn	1	0	0	10	1	0	3	--	4		0	1	13	24
The Moon	20	2	4	0	31	31	0	--	31	0		8	38	88
Venus	2	1	0	1	16	8	0	--	7	1	8		28	45