

Update on Solar System Workings 2014

Outer Planet Assessment Group

NASA Ames

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New for 2015

SOLAR SYSTEM WORKINGS

SSW requires an explicit statement of relevance, which will be collected in a mandatory (4000-character) text box on the cover pages via the NSPIRES web interface. This section is outside of the 15-page Scientific/Technical/Management Section and replaces Section 2.3.5.

Proposers to SSW must provide a data management plan (DMP) or an explanation of why one is not necessary given the nature of the work proposed. DMPs must be submitted using the text box provided via the NSPIRES web interface and has an 8000-character limit.

The Planetary Science Division will not accept or evaluate duplicate Step-2 submissions for the same or essentially the same work. If it is unclear to which program a proposal should be submitted, proposers should contact either the technical officer of the current award or the point of contact for the program element most likely to be appropriate for the proposal.

	PDART	CDAPS	DDAP	LDAP	MDAP	SSW
Science Investigation	No "does not accept proposals in which the main focus is hypothesis-based science"	Yes	Yes	Yes	Yes	YES
Laboratory Studies	Yes "may be performed to validate any generated products"	Yes "greatly increase the use of, or significantly facilitate the interpretation of, data from the mission"	Minor "not intended to support investigations whose primary emphasis is ... laboratory measurements"	Minor "provided that the requests are clearly described and that the observations or measurements are essential to the success of the work proposed" and "does not exceed 20% of the proposal's total effort"	Minor	YES
Field Work	No	Yes "greatly increase the use of, or significantly facilitate the interpretation of, data from the mission"	No	Minor "provided that the requests are clearly described and that the observations or measurements are essential to the success of the work proposed" and "does not exceed 20% of the proposal's total effort"	Minor	YES
Comparative Planetology	Yes "may be performed to validate any generated products"	Yes As long as all Cassini Data	Yes As long as all Discovery mission data	No	No	YES "If the proposal analyzes data within the scope of more than one of the [DAPs] in order to perform comparative studies across the Solar System, but is not appropriate to any one [DAP]"
Data Products	Yes	Yes must include a science investigation	Yes must include a science investigation	Yes must include a science investigation	Yes must include a science investigation	YES must include a science investigation
Modeling	Minor "may be performed to validate any generated products"	Yes "greatly increase the use of, or significantly facilitate the interpretation of, data from the mission"	Minor "not intended to support investigations whose primary emphasis is ... the development of numerical models"	Minor	Minor "Improved atmospheric models..." and "Improved models for the Mars gravity field and global topography and planetary figure."	YES
Mission Data Analysis	No "PDART does not support scientific investigations whose primary emphasis is data analysis"	Yes Cassini-Huygens "Proposals to work with Cassini data and also use ground-based or other data are acceptable, provided that the success of the proposal, as written, is dependent upon the Cassini data."	Yes NEAR Lunar Prospector Stardust Genesis Deep Impact MESSENGER Dawn EPOXI Startdust-NEXT	Yes LCROSS M3 LRO GRAIL ARTEMIS LADEE non-US Lunar missions "data analyses that require the use of older mission data sets are allowable in the context of enhancing the analysis and understanding of the data from the missions listed above."	Yes MPF MGS MO MERs MEX MRO PHX MSL	YES "Although this program encourages the utilization of data from planetary missions ... it does not accept proposals eligible for funding by the Data Analysis Programs"

SSW will continue to use a two-step process

- **Notice of Intent is replaced by a required Step-1 proposal submitted by an organization Authorized Organizational Representative.**
- **No PDF upload is required for the Step-1 proposal. Step-1 proposers merely must fill in the Proposal Summary text box on the NSPIRES cover pages.**
- **Only proposers who submit a Step-1 proposal are eligible to submit a Step-2 (full) proposal.**
- **Submitting a Step-1 proposal does not obligate a PI to submit a Step-2 proposal and a discouraged Step-1 does not prevent a PI from submitting a Step-2 proposal.**

Proposal for SSW2015

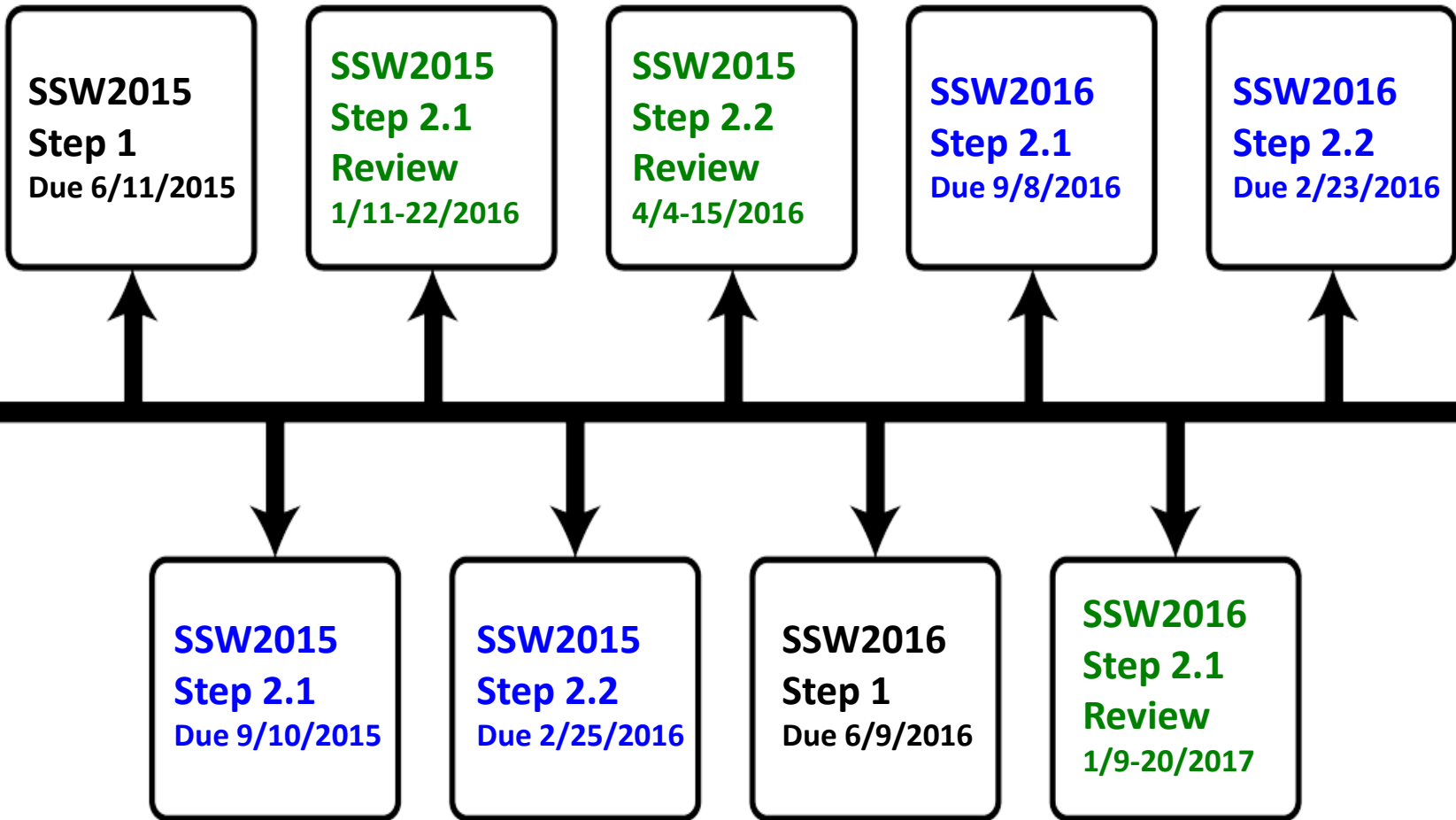
- **Two Step 2 Deadlines**
- **Fed by a single Step 1**
- **All proposals will be directed to one of two Step-2 deadlines**
- **The assignment of a proposer to one of the two Step-2 deadlines is binding; no Step-2 proposal will be accepted after the deadline to which it was assigned.**

Timeline for SSW

Single Step 1 per year

Two Step 2 deadlines

Two review periods with subpanels
within two weeks each



C.2	Emerging Worlds [3] [4]	3/31/15 (Step 1)	6/5/15 (Step 2)
C.3	Solar System Workings [3] [4]	6/11/15 (Step 1)	9/10/15 (Step 2.1) 2/25/16 (Step 2.2)
C.4	Habitable Worlds [3] [4]	11/20/15 (Step 1)	1/22/16 (Step 2)
C.7	Planetary Data Archiving, Restoration, and Tools	5/15/15 (Step 1)	7/17/15 (Step 2)
C.8	Lunar Data Analysis [3]	8/28/15 (Step 1)	10/30/15 (Step 2)
C.9	Mars Data Analysis [3]	8/28/15 (Step 1)	10/2/15 (Step 2)
C.10	Cassini Data Analysis and Participating Scientists [3]	6/1/15 (Step 1)	8/18/15 (Step 2)
C.11	Discovery Data Analysis [3]	9/10/15 (Step 1)	11/20/15 (Step 2)

Advantages of this model

- Addresses community comment for some that all proposals due at one time or too close to other deadlines.
- Addresses caucus concern that all proposals due at the same time or close to deadlines for other programs for which they are responsible.
- Staffing- current staff cannot contribute at the level necessary due to other deadlines and duties.
- No proposers unfairly benefit from review feedback for second submission within a ROSES year.
- Small impact on work load to most caucus members.

SSW 2014 REVIEW PANELS

Panel Review Structure

- The sub-panels were assembled based on a combination of science discipline (e.g. magnetospherics), process (e.g. impacts), and involved tasks (e.g. mapping). They were not organized by target body.
- The review used 17 sub-panels distributed across 3 weeks.
- Each sub-panel had an average of 8 voting panelists and handled an average of ~23 proposals.
 - Each panelist had a total of 10 proposals with 3 primary review assignments.
 - Only panelists that had read the proposal voted.
- The majority of proposals had 4 panelist reviewers augmented by multiple external reviews from topical experts.



Sub-Panel Composition

- The SSW review involved ~130 panelists (including Group Chiefs and Executive Secretaries). We contacted >330 members of the community in order to fill the sub-panels.
 - Panelists ranged from early-career to senior scientists and came from a range of institutions.
- The overall acceptance rate was <40%, but four sub-panels had acceptance rates <25% (one person serving for every four contacted).
 - This acceptance rate includes those people that had volunteered to serve. (There were >140 volunteers, but we didn't track whether someone we contacted had volunteered first.)

Panel Review Innovations

- We provided as much information in an as easy-to-access format as possible.
 - Instructions were distributed before the plenary.
 - Each sub-panel had boards with evaluation criteria and the definitions of votes.
 - Scoring spreadsheets, relevant documents, and additional instructions were pre-loaded on the sub-panel computers.
- Each sub-panel had a panel chair or program officer sitting in (at least the first two days) to ensure consistency as the sub-panel began reviewing proposals. They answered questions about the evaluation criteria, program structure, etc. as necessary.
- On the second day, a program officer critiqued a brave panelist's evaluation to the full panel. This reinforced the structure, wordings, and prohibitions from the plenary instructions.

Panelist Feedback (Positive)

- “Overall, the information presented was very comprehensive, and a great improvement over previous panels. Also, the big poster boards in the rooms were extremely helpful during discussions and voting. Finally, the spreadsheet was great.”
- “I loved having a caucus of program officers onsite. If that's how you're going to run the SSW program moving forward, I think it's fantastic. [...] The more input you have for programmatic decisions, the stronger our program will be. And you have some great people in this caucus.”
- “I really appreciated having one of the program officers in the room with us on a regular basis. Having a program officer in the room increased our efficiency, as we could quickly have our questions/concerns addressed without having to track someone down.”
- “The focus of the panels was terrific. I understand that there will always be some unique or odd proposals that don't quite fit, but this week we evaluated proposals that may have never been evaluated together before. You've convinced me that the reorganization will be more of a good thing than a bad thing.”



Panelist Feedback (Negative)

- “A smaller number of proposals, or a larger panel, or only requiring 1 secondary reviewer, would have helped with **the work load.**”
- “**Lack of clarity in program calls made** it hard to rate relevance of many proposals. Overlap with CDAPS was most significant, and it was not clear from SSW call that CDAPS scope has now been expanded. Requirements for ground based telescopic data were particularly unclear (should they be in PDS at the submission time, or only need to be in PDS at the end of work period).”
- “The process of writing up the panel reviews would have been facilitated by providing the electronic materials presented at the Sunday plenary well ahead of time and also by **providing an example review.**”

Lessons Learned

- Need to clarify: potential overlap between programs, data use and archiving policies/requirements.
- The panelists appreciated the additional tools and media that we provided, but there are more ways that we can make their jobs easier.

SSW Initial Decision Letters

- Solar System Workings sent out three initial decision letters.
 - “Selectable”: Selectables at a minimal and a slightly higher selection rate.
 - “Selectable, but by another program”: Selectable, but not relevant to SSW.
 - “Declined”: Not selectable by SSW, or relevant to another program but not selectable by them.
- ~8% of SSW proposals were found to be relevant to another PSD program. Of those, 7 proposals were rated highly enough to be selectable by another program.

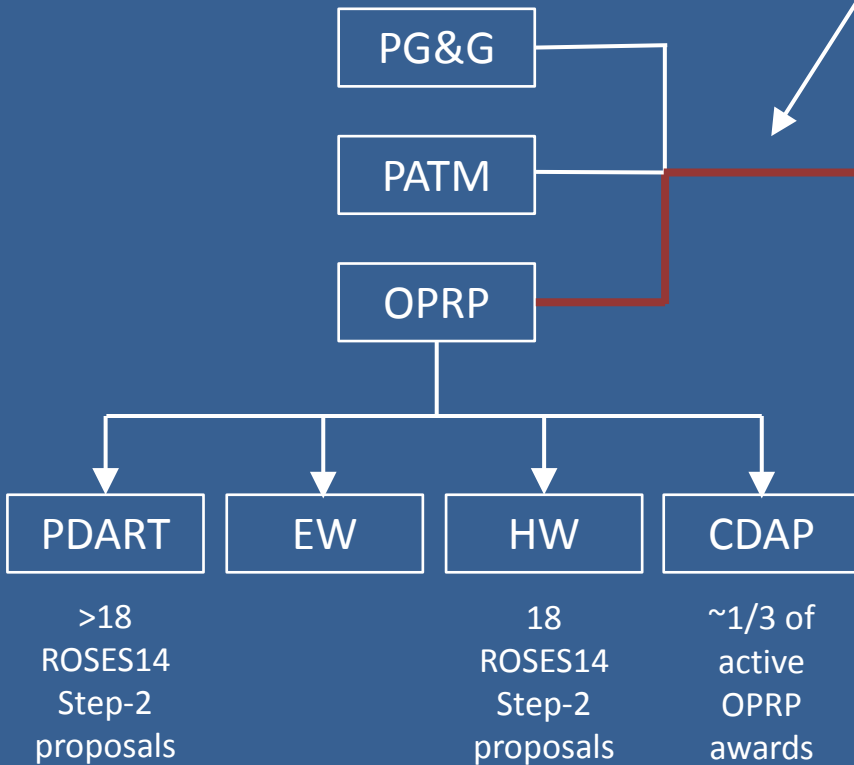


OUTER PLANETS IN SSW

It's complicated...

Some people have been assuming just the OPRP->SSW mapping...

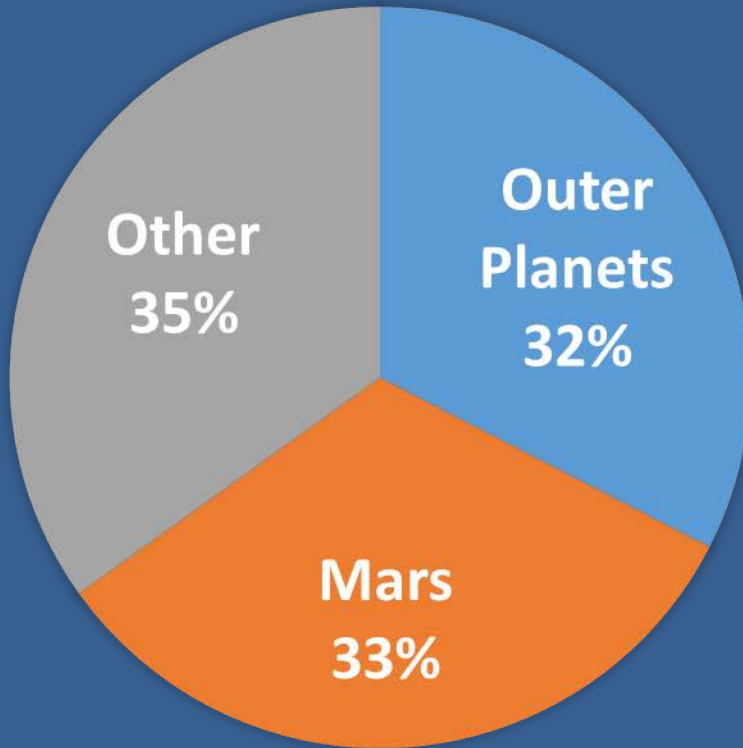
...but these other mappings matters, too. We just won't be able to fully quantify until the end of ROSES 2014.



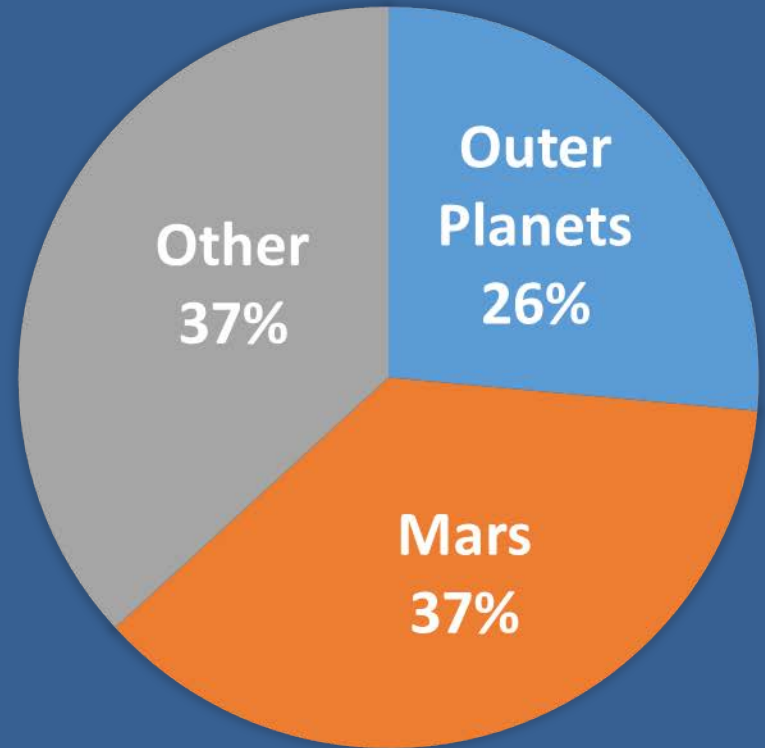
What we can say right now is that SSW's "outer planets" selected/selectable rate (~18%) is comparable to last year's OPRP selection rate (~20%) and greater than the combined outer planets selection rate for ROSES13 PG&G, PATM, and OPRP (~13%).

SSW Proposal Distribution

Proposals



Selectables



These numbers reflect the percent of proposals that listed a certain target, so they capture comparative planetology. For instance, 1/3rd of the “Mars” proposals are actually “Mars and another body” (often Mercury, Venus, and/or the Moon).

Thank you