

National Aeronautics and Space Administration

Planetary Science Research Programs Town Hall

Kathleen Vander Kaaden Director of Planetary Research (Acting)



Overview

- Anticipated Changes to PSD Elements for ROSES-24/25
- FINESST in ROSES-24
- Astrobiology Updates Ahead of ROSES-25
- Q & A

Please submit any questions you have during this Town Hall via the following link:

https://nasa.cnf.io/session s/qfp6/#!/dashboard

You may also upvote questions already posted.



Anticipated Changes to PSD Elements for ROSES-24/25

Thank you!

- We have an incredible team of program scientists who work tirelessly to continuously improve our systems and processes while supporting community needs.
- We appreciate your feedback and we are listening. We appreciate your trust as we modify our programs and processes to best serve the needs of the community and the agency.





Topics that will be covered

- Shared Inboxes for Programs
- Analog Activities Call in ROSES-24
- Fieldwork in ROSES
- Topical Workshops, Symposiums, and Conferences
- Dual Anonymous Peer Review
- No Due Date Programs
- Programs Level Changes in ROSES-25
- New Program: Solar System Science

Shared Inboxes for Programs

- Every PSD program has a Shared Inbox
- This is the best way to reach the program officers currently responsible for the program
- Shared inbox information is found at the bottom of each program element in NSPIRES

Hq-analogactivities@mail.nasa.gov	HQ-LDAP@mail.nasa.gov	HQ-LMAP@mail.nasa.gov	HQ-ECA@mail.nasa.gov	HQ-Exo@mail.nasa.gov
HQ-ANGSA@mail.nasa.gov	HQ-emergingworlds@mail.nasa.gov	HQ-MDAP@mail.nasa.gov	HQ-PSEF@mail.nasa.gov	HQ-H2O@mail.nasa.gov
HQ-CDAP@mail.nasa.gov	HQ-HOTTech@mail.nasa.gov	HQ-MATISSE@mail.nasa.gov	HQ-PSIE@mail.nasa.gov	HQ-PPR@mail.nasa.gov
HQ-COLDTech@mail.nasa.gov	HQ-PSDFINESST@mail.nasa.gov	HQ-NFDAP@mail.nasa.gov	sso@mail.nasa.gov	HQ-XRP@mail.nasa.gov
HQ-dali@mail.nasa.gov	HQ-JunoPSP@mail.nasa.gov	HQ-pdart@mail.nasa.gov	HQ-SSW@mail.nasa.gov	HQ-ICAR@mail.nasa.gov
HQ-ddap@mail.nasa.gov	HQ-YORPD@mail.nasa.gov	HQ-PICASSO@mail.nasa.gov	HQ-LARS@mail.nasa.gov	

C.23 Analog Activities to Support Artemis Lunar Operations - Cancelled in ROSES-24

- Solicited in ROSES-21 and -22, cancelled in ROSES-23 and now -24
- This is a community we are committed to growing in order to meet the needs of the Artemis exploration era
- Unfortunately, an analog test was not identified that would be appropriate for integration with a competed science team in the time frame necessary.
- There are other opportunities for operations analogs
 - PSTAR is being expanded in ROSES-25 to include Lunar analogs
 - SSERVI also supports analog work CAN-5 draft anticipated later this year
- This call will be solicited in ROSES-25 and we are working hard to ensure that we have an appropriate and meaningful test to support next year.





Credit:NASA/Josh Valcarcel Credit: NASA/Robert Markowitz

Fieldwork in ROSES

- Section 3.14 of Appendix C.1 has new requirements for Fieldwork in ROSES-2024
- First year of new requirements, more leniency provided, phased planning like DMPs/OSDMPs
 - Will be reviewed, but not currently part of intrinsic merit
 - Fieldwork resources webpage will continue to be updated
 - Feedback will be provided to proposers via "Comments to Proposers" section of eval
 - Criteria success indicators have been added to the fieldwork resources webpage
- New email <u>HQ-PSDFieldwork@mail.nasa.gov</u> has been created to provide additional support to proposers
- Feel free to share additional resources for inclusion on the Fieldwork resources page
- For ROSES-2025, we will follow the same implementation plan.





Topical Workshops, Symposiums, and **Conferences (TWSC)**

- Reminder that TWSC is no longer part of ROSES •
- Multi-year announcement currently open until November 30th, 2026 •
- Please read the Notice of Funding Opportunity (NOFO) completely and ensure your proposal ٠ submission is compliant
- https://nspires.nasaprs.com/external/solicitations/summary.do?solld={805EEF3B-DC64-A447-• 3EAD-66D23A9501EE}&path=&method=init

opical Workshops, Symposiums, and Conferences (TWSC-24) in Space and Earth Sciences and Technology								
lumber: INH24ZDA002N	Directorate: Science Mission Directorate	Type: NASA Research Announcement	Status: Open					
 Dates 							▼ Documents	
Label			11	Date	Option	11	Announcement Documents (1)	
Release		Oct 13, 2023			Title	11		
TWSC24 last day to submit proposals		Nov 30, 2026	Create		Topical Workshops, Symposiums, and Conferences (TWSC-24) in Space and Earth Sciences and Technology corrected November 13, 2023 (.PDF)			
							Other Documents (2)	
							Title	1L
Notices				Link to page hosting the NASA Proposer's Guide				
 Notice November 13, 2023: The October 13, 2023 Notice of Funding Opportunity (NOFO) entitled "Topical Workshops, Symposiums, and Conferences (TWSC-24) in Space and Earth Sciences and Technology" misidentified points of contact for the astrophysics and planetary science divisions in Section 7.1; and in Section 8.4 part 1 has a misnumbered list and part 2 cited "sustaining research, communities of practice, or other networks/professional societies in number 6 incorrectiv. These "misprints" have been corrected. Proposers may still rely on the NOFO downloaded prior to November 13. 2023; however, the original file 				TWSC-24 Release Notice (.PDF)				

Topi

has been removed and replaced with a file that does not show the misprinted tex

Numb NNH^{*}

Dual Anonymous Peer Review (DAPR)

- In dual-anonymous peer review, not only are proposers unaware of the identity of the members on the review panel, but the reviewers do not have explicit knowledge of the identities of the proposing team <u>during the scientific evaluation of the proposal</u>.
- DAPR will be the default for all ROSES programs in ROSES-25.
- Some programs may receive a DAPR exemption, this will be explicitly stated in the program element.
- The goal of DAPR is not to make it impossible to guess the identities of the proposers, but rather to shift the discussion away from people and towards the science.
- NASA is proud to be leading in the implementation of dual-anonymous peer review for federal proposal evaluation and understands that dual-anonymous peer review represents a major shift in proposing.
- Plan adequately, utilize the resources available to you, and please feel free to contact your Program Officer for additional support.

DAPR Resources

Dual-Anonymous Peer Review (DAPR)

DAPR Guidelines for normal ROSES-24 DAPR program elements

DAPR Guidelines for Astrophysics (Appendix D) General Observer / Investigator ROSES-24 DAPR program elements

The appropriate DAPR Guidelines document will be posted under 'Other Documents' on the NSPIRES page for your ROSES program element.

Planetary Science Division DAPR town-hall meeting May 21, 2024

 <u>https://drive.google.com/drive/folders/1gDiviKwcGlyUd6tR</u> <u>A9W-LJ6dubXaTViC</u>



For Planetary Science Researchers

Below are a variety of planetary science resources and references of use to both new Pls ar those who have been through the process before. For more general SMD research information, click on the link below.

Find more SMD research resources

<u>https://science.nasa.gov/researchers/dual-anonymous-peer-review/</u>

DAPR Training for Prop...

🔼 Drive

Name	\uparrow	Owner
PDF	DAPR_Training_for_Proposers_Slides 🚢	Owner hidden
	DAPR_Training_for_Proposers_Video 😀	Owner hidden

- <u>https://science.nasa.gov/researchers/planetary-science-researchers/</u>
- Proposer Tools
- Planetary Science Presentations: May 21, 2024 Town Hall

No Due Date Programs (NoDD)

- ROSES-23 completes the full third year of the No Due Date experiment
- NoDD analysis is underway in coordination with the Deputy AA for Research Office
- Results from the NoDD analysis will determine if NoDD continues in ROSES-25
- For a more complete discussion of the plans to review NoDD, please see the R&A presentation from the July 2024 Planetary Advisory Committee Meeting
 - <u>https://science.nasa.gov/wp-content/uploads/2024/08/23-psd-randa-update.pdf</u>
- Stay tuned! Once we have the results, we will plan to share them with the community as well as the plans for NoDD in ROSES-25.

No Due Date Programs (NoDD) - Metrics

Metric	Success Indicator
What is the decoherence time of proposal submission?	Proposal submissions distributed throughout the year
Does the overall rate (proposals per year) of submissions change?	Less proposals submitted post-NoDD
What is the time to notification from proposal submission to initial notifications?	80% of proposers notified within 180 days
Is there a difference in the quality of proposals selected?	High quality proposals are still being selected
Is there an institution type that we have lost in NoDD programs?	No institution type has been lost due to lower proposal pressure
Is there a field of research that we have lost in NoDD programs?	No type of research has been lost due to lower proposal pressure
Is there a specific career stage that has been lost in NoDD programs?	No career stage of researchers have been lost due to lower proposal pressure in NoDD Programs

Program Level Changes in ROSES-25

Not solicited in ROSES-25

Here To Observe

No longer solicited starting ROSES-25

- Emerging Worlds (See Next Slide)
- Solar System Workings (See Next Slide)
- Solar System Observations (See Next Slide)
- Habitable Worlds (See Later Slides)

Only solicited in even numbered ROSES years

- Maturation of Instruments for Solar System Exploration
- Interdisciplinary Consortia for Astrobiology Research
- Planetary Science Enabling Facilities

New Programs to Be Solicited

- Solar System Science (See Next Slide)
- Artemis III Participating Scientist Program

New Program: Solar System Science

- Will be released with ROSES-25
- Combines Emerging Worlds Solar System Workings Solar System Observations
- Minimize restrictions on scientific creativity
- Allows ability to expand panel topics and minimize requests on community members time for peer review
- Encourages interdisciplinary science, expands collaboration opportunities, and hopefully facilitates new ideas
- Promotes cross-cutting research that tackles systems-level science questions
- Integrates multiple disciplines to enable the best systems-level science
- Review May 2024 townhall slides for additional information:
 - <u>https://science.nasa.gov/wp-content/uploads/2024/05/for-posting-may-2024-town-hall-for-planetary-ra.pdf</u>

Stay up to date on PSD R&A

- Planetary Science Advisory Committee
 - November 12-13, 2024
 - <u>https://science.nasa.gov/researchers/nac/science-advisory-committees/pac/</u>
- Register for Email Subscriptions
 - <u>www.Nspires.nasaprs.com</u>

NSPIRES Links
Solicitations Due in 30 Days Future Open Closed/Past Selected
Account Management
Change Username Change Password Challenge Question Address Book Personal Profile Affiliations
Email Subscriptions Associations
Organization Management
Register a New Organization
Proposals/NOIs
Create NOI Create Prop from Solicitation Create Prop from NOI Create Prop from Prior-phase Prop
Reviews
Getting Started
What is NSPIRES? Getting an Account Using NSPIRES NASA Web Sites

FINESST in ROSES-24

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Changes to FINESST in ROSES 2024

- The Future Investigators in NASA Earth and Space Science and Technology (FINESST) program is a cross-divisional program found in Appendix F.
- Proposals to PSD **must** demonstrate relevance of the proposed work to one of the listed programs
 - Emerging Worlds, SSW, PDART, Exobiology, Solar System Observations, NFDAP, LDAP, MDAP, CDAP, DDAP, PICASSO, Planetary Protection, LARS, Yearly Opportunities for Research in Planetary Defense, Exoplanets Research Program, and Habitable Worlds
- Program element name and number **must** be included in the proposal in addition to explaining how the proposed work is relevant to the program(s).
- Referring only to the Origins, Worlds, and Life planetary decadal shall be declined for noncompliance.
- Proposals that do not demonstrate relevance to one or more of the programs listed above shall be declined for noncompliance.
- Proposals relevant to other program elements or that propose mission concept designs are not solicited by PSD.

Changes to FINESST in ROSES 2024

- FINESST will be reviewed as dual anonymous moving forward
- Anonymous materials:
 - Science/Technical/Management section
 - Open Science and Data Management Plan
 - Mentoring Plan or Agreement
- Non-anonymous materials, to be submitted as a separate Expertise and Resources document:
 - Research Readiness Statement
 - CVs of the Principal Investigator (PI) and Future Investigator (FI)
 - Current and pending support for the PI and FI
 - Statements of commitment and letters of support, if applicable
 - Acknowledgement statement
 - Budget and budget narrative
 - High End Computing appendix, if applicable

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DAPR Training for Prop...

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	DAPR_Training_for_Proposers_Video 👫	Owner hidden

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Astrobiology Updates Ahead of ROSES-25 22

New Astrobiology Program Leadership

Senior Scientist for Astrobiology Strategy (David Grinspoon): "Up and out": expand the astrobiology program within NASA and beyond

Program Scientist for Astrobiology *(Acting)* (Becky McCauley Rench) "Down and in": manage existing Astrobiology research and coordination programs







Congratulations to Lindsay Hays in her new role as Senior Scientist for Mars Exploration!!

Astrobiology Research Coordination Networks

- Going forward, RCN co-leads and the RCN activities will be supported by grants to support each RCN and the NASA Astrobiology Program will provide a support person (details on next slide)
- Individual PIs to ROSES programs can include budget to support their involvement in the RCNs



New RCN Support Liaison Hired!

Major goal with Astrobiology RCNs: Reduce administrative burden on co-leads so they can focus on the intellectual leadership of their networks

Duties include:



Willow Houck, RCN Support Liaison

- Coordinating with co-leads and team leads for the planning and organizing of events and workshops.
- Managing internal and external communications
- Mailing list maintenance
- Maintain and update web pages and social media posting
- Newsletter crafting and dissemination
- Maintaining calendars and spreadsheets for upcoming events, supporting webinars hosted through Zoom, YouTube, Microsoft Teams, etc.
- Working with NASA and RCN members to maintain updated membership lists.

Astrobiology Research Programs

C.5 Exobiology (PO: Alison Olcott, <u>HQ-EXO@mail.nasa.gov</u>) **NEW**

Aim is to understand the origin, evolution, distribution, and future of life in the Universe. Research is centered on the origin and early evolution of life, the potential of life to adapt to different environments, and the implications for life elsewhere.



Aim is to use knowledge of the history of the Earth and the life upon it as a guide for determining the processes and conditions that create and maintain habitable environments and to search for ancient and contemporary habitable environments and explore the possibility of extant life beyond the Earth.

Final call in ROSES-2024

C.14 Planetary Science and Technology Through Analog Research (PSTAR) (PO: Becky McCauley Rench, <u>HQ-PSTAR@mail.nasa.gov</u>)

This program solicits proposals for investigations focused on exploring the relevant environments on Earth in order to develop a sound technical and scientific basis to conduct astrobiological research on other Solar System bodies.

C.20 Interdisciplinary Consortia for Astrobiology Research (ICAR) (PO: Becky McCauley Rench, <u>HQ-ICAR@mail.nasa.gov</u>) **NEW**

Proposals that describe a multi-million dollar, five-year project with an interdisciplinary approach to a single, compelling question in astrobiology. For projects larger than the scope of the individual research programs, but within the scope of the Research Coordination Networks.

Exoplanet Research Program (XRP) (PO: John Wisniewski, HQ-XRP@mail.nasa.gov)

This program solicits basic research proposals to conduct scientific investigations that significantly improve our understanding of exoplanets and exoplanet formation.



Redistribution of Habitable Worlds

- ROSES-2024 will be the last year we solicit Habitable Worlds (HW), but this will not change the scope of the proposals being solicited
- Starting in ROSES-2025, the scope of proposals that would have previously been submitted to HW should now be submitted to Exobiology (EXO) or Exoplanets Research Program (XRP)
- In general, we anticipate that ~90% of proposals that would have been submitted to HW will now be submitted to EXO

ROSES-2025: EXO and XRP

Exobiology

 The line between life and the environment that existed previously between EXO and HW will disappear

Habitable Worlds

Exoplanets Research

Program

• The line between observations and theory of habitability of exoplanets that existed previously between XRP and HW will disappear



ROSES-24

ROSES-2025: EXO and XRP (cont)

- Exobiology will continue to be the primary call for astrobiology focused research proposals, including understanding biosignatures.
 - Exobiology proposals **do not require** connection to current or future NASA missions or direct observations from those missions.
- XRP will continue to be the primary call for exoplanet focused research proposals.
 - XRP proposals **do require** connection to current or future NASA missions or direct observations from those missions.
- Proposals that include both topics should be submitted to the program that covers the majority of the proposed research and include a relevance statement that describes this to be the case.

Submitted Qs and As

In the past, I have been funded by, and even served on panels of, both the SSW and SSO programs. A general guideline (good, in my opinion) is that one cannot serve on a panel or be an external reviewer if one is funded in or proposing to a program. Combining SSW and SSO into a single panel runs the risk of disqualifying essentially all the knowledgeable potential reviewers or panel members from participating in the single merged panel. So while I agree that there is substantial overlap in these two programs, I question the wisdom of merging into a single program.

Please take some time to review the presentation that was given to the Planetary Science Advisory Committee in July of 2024. The slides can be found here: <u>https://science.nasa.gov/wp-content/uploads/2024/08/23-psd-randa-update.pdf</u>. There is substantial information in this presentation to address these concerns.

Will the merging of Emerging Worlds (EW), Solar System Workings (SSW), Solar System Observations (SSO) into a single program for ROSES-25 affect currently funded proposals in any of those programs?

There will be no impact to currently funded proposals in these three programs. There is potential that the technical officer for existing awards may change, but utilizing the shared inboxes for these programs will ensure you reach the correct folks for your existing awards.

HQ-emergingworlds@mail.nasa.gov

HQ-SSW@mail.nasa.gov

sso@mail.nasa.gov

The Mars Life Explorer (Decadal and MEPAG) is about subsurface ice on Mars. Why do EXO, PSTAR and ICAR rule out Antarctica?

The costs of doing fieldwork in Antarctica are not only high, but in the past have been extremely unstable, making it difficult for programs to sufficiently support awards selected with plans to complete fieldwork in Antarctica. NASA is interested in working with NSF to determine if the costs for access to Antarctica have become more stable in the past few years, and those conversations are ongoing. In the meantime, there are many field sites with access to ice environments in the Arctic and some high elevation sites that are less costly and more accessible. We encourage researchers focused on ice environments to explore alternatives to Antarctica.

With the merging of SSO, SSW, and HW, are the pots of money that each program had on their own being combined into one large fund?

Yes, the current plan is to combine the funds from these three programs into a single program fund. As always, the actual budget for a program is highly dependent on appropriations.

Is there data on the effectiveness of DAPR in achieving its goals? What sort of metrics are you tracking to understand the impact of DAPR on proposal selection, and will those results be presented to the community in some way?

The Data Analytics Team in the DAAR's office are finishing up an analysis of the impacts of DAPR on the demographics of PIs and institutions. Once complete, the results will be made public. We are looking at changes in the demographics of proposal PIs and awarded PIs as well as looking at several institutional characteristics (e.g., Carnegie Classification).

One of the recommendations of the last planetary Decadal survey was that "To improve the proposal review process, NASA should establish a mechanism to permit PIs to respond to major weaknesses from previous submission rounds." Are you looking into implementing such a mechanism?

This mechanism already exists. There is nothing on the NASA side that prohibits proposers from responding to major weaknesses from previous submission rounds within the page-limited Science/Technical/Management (STM) portion of a new submission. The provision of extra pages for resubmissions would be an advantage and contrary to the "even playing field" philosophy of NASA peer review. As described in the ROSES-24 Solicitation, Section 1(f): "Proposers are welcome to resubmit proposals.... Will be peer reviewed and considered with neither advantage nor disadvantage along with new proposals."

Previously, strategic allocation of funds among programs was used to emphasize higher and lower priority lines of R&A. Is there still going to be any prioritization within giant programs?

As with all of our SMD R&A programs, the selection official may take into account programmatic considerations such as impact on current or future missions, balance across: subdisciplines, technologies, methodologies, career stage, risk, innovation, types of institutions (e.g., MSI, PUI, vs. R1), and project size (such as funding several small investigations instead of one large one). These, along with agency priorities and any priorities set forth in an individual program element are continuously discussed prior to selections.

Will PSD request Inclusion Plans with ROSES proposals in the future?

Currently for ROSES-24 and our plans for ROSES-25, there are no PSD programs that require inclusion plans.

If I submit a proposal to SSW by the end of this calendar year, will it be reviewed as SSW or as part of the new program?

It will be reviewed by SSW. The new program element, SSS, will not be announced until ROSES-25, which is set to be released in mid-February. From mid-February until the end of March, proposers will need to choose if they submit to EW, SSW, SSO or the new program element SSS. There is no financial benefit to choosing a R-24 program over the R-25 program.

How will the merged EW, SSW, and SSO programs in ROSES-25 impact proposal evaluation and focus areas?

We do not anticipate an impact to proposal evaluation and focus areas any different than what is implemented for our No Due Date programs. We are already co-reviewing between these programs where topical diversity and conflict of interests allow. We are also utilizing external reviewers to supplement panelist expertise if deemed necessary by the program officers or panelists.

Each Division has a different OSDMP template. Could SMD combine those into a single template?

The DAAR's office will be looking into the commonalities of the OSDMP templates and attempt to craft a universal one to share with all divisions across SMD. Additionally, these are only templates to support the needs of the community and are not required to be utilized.

Will NASA allow proposers to use SciENcv? Can you tell us about the new rules and format for CVs and C&P?

<u>Biographical sketch and current and pending (other) support (CPS) forms</u>: Per requirements in NSPM-33 and the CHIPS and Science Act, NASA has adopted common biosketch and CPS disclosure forms that will be required for all new awards issued on or after October 1. The <u>NASA Pre-award and Post-award Disclosure Requirements</u> table provides information on the activities that need to be disclosed, how that information needs to be disclosed, and whether that information needs to be updated post-award. NASA's new biosketch and CPS policy can be found in GCAM, sections 10.5 and 10.6.

Additional information can be found under the Grant Forms section of the Grants Policy and Compliance Team webpage: <u>https://www.nasa.gov/grants-policy-and-compliance-</u> <u>team/#Regulations</u>

If all R&A programs are moving to DAPR as of ROSES 25, how will a program like the ECA be run, where that program is partially funding the person as well as the science?

Discussions are underway to determine the best approach for programs like ECA with a DAPR implementation. There is potential for the program element to be significantly rewritten, for a portion of the material to be requested as part of the Expertise and Resources (E&R) that is not-anonymized, or for PSD to proceed with a DAPR exemption for this particular program.

I would like to hear about the selection rates and proposer/selected demographics of planetary, astrobiology, and technology programs within PSD.

The SMD Yearbook (<u>https://science.nasa.gov/roses2021yearbook/</u>) is SMD's attempt to provide a single, regularly updated, set of statistics about its research and analysis programs to all interested individuals, acknowledging that privacy considerations may prevent us from publicly releasing results at the granularity requested. We encourage folks to check out this research for demographic based statistics.

Hubble grants (GO and AR) dropped since 2023, and AR is likely to be eliminated in 2025. What ROSES programs can help and how?

Conversations are underway with the Astrophysics Division to fully assess this situation and determine a path forward to support this aspect of the community. To our knowledge, there are no forecasted changes to the inclusion of AR proposals in the next call. We'll continue to work with our colleagues in APD to ensure the needs of the community are met.

How are issues like Planetary Protection policies included in info for applicants? -- the design of new technologies and analogue field research need to consider how treaties and regulatory guidelines apply to their potential impacts-- for feed forward to actual planetary sites.

The <u>Committee on Space Research</u> (COSPAR) recently updated its Planetary Protection (PP) policy, available on the <u>COSPAR PP</u> website. The <u>COSPAR Panel on</u> <u>PP</u> subcommittee proposed and drafted this new policy. Proposers can go here for more information: <u>Restructured COSPAR Planetary Protection Policy Recently Released</u> (nasa.gov)

How can I contribute to astrobiology research? Do I have to be in school?

There are a lot of resources available for folks to contribute to astrobiology research.

The best place to start would be reviewing the astrobiology webpage: <u>Homepage</u> <u>Astrobiology (nasa.gov)</u>. Early career researchers should also review: <u>Early Career</u> <u>Collaboration Award | Education | Astrobiology (nasa.gov)</u>

Uses of machine learning for the classification and regression problem in planetary science is increases day by day. While submitting the proposal which contains machine learning as a tool, do we need to specifically explain the model and it's working structure? what could be the format that we need to follow and guidelines for reviewer, if work contain machine learning as a tool?

Proposals that include utilization of machine learning techniques should describe the techniques that were used with adequate detail and references for the reviewers to assess its likelihood of success, similar to the expectations for use of an observing or laboratory technique.

Is NASA open to changing its mind about the merger of programs after input from the community or is this decision final?

We have collected input from the community over the last year. We have modified some of the plans for implementation to address the concerns brought forward by the community. We have also spoken to the community on numerous occasions over the last year to continuously hear and address concerns. EW, SSW, and SSO will be merged in ROSES-25.

It is important for the community to be told about selection rates and the amount of money being spent in each program. We're told that PSD is working up to having R&A at 10% of the PSD budget (per OWL rec) but we'd like to see the data. We'd also like to know which programs & spending are being included under the R&A umbrella.

We agree that transparency with the community is not only important, but a necessity. We consistently report on this information to the Planetary Science Advisory Committee: https://science.nasa.gov/researchers/nac/science-advisory-committees/pac/. We also present on this information at various Planetary Science Presentations: https://science.nasa.gov/researchers/planetary-science-presentations/.

How would the merging of SW, SSW, SSO affect the selection rate? Will it be higher or lower than the current rate of each program? Also can you show the current selection rates of these programs?

Given the difference in the selection rates of these three programs, we anticipate the selection rate of the new Solar System Science to be different as well. As always, our goal is to continue to fund the most high-quality science that aim to address the strategic objectives of the Planetary Science Decadal Survey as well as the strategy for Planetary Science Exploration embodied in NASA's Science Strategy as our budgets allow.

Program Name	Number of Submissions	Number of Selections	Selection Rate
Emerging Worlds – 23	42	22	52%
Solar System Workings - 23	113	33	29%
Solar System Observations - 23	14	7	50%

What is the plan for addressing the following OWL recommendation: Recommendation: An appropriately constituted independent group should evaluate the impact of DAPR and NoDD on R&A program outcomes, including proposal pressure, proposer and grantee demographics, proposal review ease and fairness, and overall R&A program functionality, before these policy changes are implemented across the full R&A program.

Dual-anonymous peer review (DAPR) was piloted by the Science Mission Directorate (SMD); the DAPR success metrics were developed with external consultants who continue to be involved in the evaluation process. This process is ongoing and may be used to refine the DAPR implementation. DAPR has been strongly endorsed by multiple advisory bodies. No Due Date (NoDD) just completed its third year of its trial implementation. An internal assessment of the program, utilizing support from the DAARs office is underway. Results of this review will be presented to the community when it is completed.

What is the plan for addressing the following OWL recommendation: Recommendation: For greater transparency, NASA should document and communicate to its civil servants and the broader community how the ISFM is managed, and the processes by which proposals are solicited and evaluated to ensure the most meritorious civil servant science is supported.

The ISFM implementation plan has been presented both within NASA and made public (https://science.nasa.gov/wp-content/uploads/2023/04/ISFM_implementation_v14_TAGGED.pdf). Previously, we have reported on the establishment and management of ISFMs (c.f., Stephen Rinehart's presentation to the PAC on November 15, 2021,

https://assets.science.nasa.gov/content/dam/science/cds/researchers/nac/pac/2024/PAC-RandA-111521-v3.pdf). To ensure that the ISFMs are providing high-quality science, PSD has implemented a higher degree of review than for any other research program: this includes multiple levels of internal review, as well as external review. These reviews focus not only on the scientific merit of the work, but on other success metrics for ISFM, including community service. We also plan to highlight some of the great work our ISFM is enabling at the upcoming PAC meeting in November.

How will programmatic balance be maintained in the new program given that the avg award size differs between SSO/SSW/EW?

Please take some time to review the presentation that was given to the Planetary Science Advisory Committee in July of 2024. The slides can be found here: <u>https://science.nasa.gov/wp-</u> <u>content/uploads/2024/08/23-psd-randa-update.pdf</u>. There is substantial information in this presentation to address these concerns.

With so many forms that require templates, could NSPIRES to updated to have online tools for making uniform OSDMPs, CVs, C&P, etc.?

Consistent with recent changes in government policies, NASA's Grants Policy and Compliance Branch has developed templates for the required biosketches and current and pending support tables. These templates will be universal for all SMD programs and their use will be highly encouraged after October 1st, 2024. The use of these templates will be mandatory for proposals submitted to ROSES-2025 and beyond.

SMD has also recognized that having multiple templates for the required Open Science and Data Management Plan (OSDMP) is inefficient, confusing, and can act as a barrier to submission of proposals by individuals and institutions new to proposing to NASA. In time for ROSES-2025, a new, universal template will be debuted.

Given the age and design of NSPIRES, it would be exceedingly costly and time-consuming to update it to provide online tools for the creation of biosketches, current and pending support tables, and OSDMPs. As NASA plans for a successor to NSPIRES, these capabilities will be considered.

With the restructuring of these programs, is there any additional support or awards being established for early career scientists who are beyond the FINESST program but just establishing their research programs?

At this time, the two PSD programs specifically open to early career individuals are the FINESST program and the Early Career Award program. However, as with all of our SMD R&A programs, the selection official may take into account programmatic considerations such balance across career stage when making selections.

Are there any plans to streamline the proposal process? For example, is it really necessary for proposers to include, upon submission, the budget, letters, OSDMP, etc.? It seems that a more streamlined approach would be to initially submit only the STM (or an equivalent document), and only for those proposals that are ranked highly (VG, E) the rest of the documents are requested. Proposals require a lot of work, ~80% of which is wasted if selection rates are ~20%. Would NASA consider a true two-step program, where detailed budgets are only required for proposals that are first deemed selectable based on their merit? This would save on so much work that has to be redone from scratch by administrators, financial folks, etc., for every resubmitted proposal. Does the STM section really need to be 15 pages long? It is an unnecessary burden on both the proposers and the reviewers. It would be more efficient to require the STM be 5 pages long.

The substantial amount of work required to prepare and submit a proposal to NASA is a common theme in the feedback we receive from the community. SMD concurs that the current proposal content requirements are overly complex and time consuming, and we are currently exploring a variety of options for simplifying the required proposal content. For example, "Just in Time" budgets, wherein detailed proposal budgets are requested after merit review and only for proposals that fall in the "selectable" range, is being piloted in some programs such as the Discovery Data Analysis Program and the Astrophysics Data Analysis Program.

However, there are areas where NASA's ability to simplify the proposal process is limited. For example, there are cases where it is required by regulation that particular proposal components be contained in a specified format in submitted proposals.(*e.g.*, the Biosketches and Current and Pending Support tables). In addition, some proposal components are required to evaluate the intrinsic merit, relevance, and cost of proposals (*e.g.*, OSDMPs, Table of Work Effort). Changes to current requirements in those areas are less likely.

Finally, while 15-pages is the standard length for the Science/Technical/Management (S/T/M) section of a ROSES proposal, that page length is not a ROSES requirement and individual program elements have the flexibility to adopt different page limits. Indeed, there are currently a number of ROSES Program Elements that require S/T/M sections of less than fifteen pages; for example: A.26 RRNES; B.4 HGIO; C.18 ECA; D.10 TESS; and F.5 FINESST.

It is worth considering the fact that going to shorter S/T/M involves a fundamental change in the philosophy behind the merit evaluation. With the standard 15-page S/T/M, reviewers reasonably expect proposals to provide significant detail in demonstrating the methodology and feasibility of the proposed investigation. With a much shorter S/T/M, the focus of the review must change to the higher-level goals and objectives of the research with less emphasis on the technical detail of the investigation and, in turn, less accuracy in the estimated probability of success of the research. NASA welcomes a discussion with the community whether this change is a step in the right direction.

What was the rationale for keeping SSW/SSO/EW separate all these years and what changed now that this necessitates a merger?

Please take some time to review the presentation that was given to the Planetary Science Advisory Committee in July of 2024. The slides can be found here: <u>https://science.nasa.gov/wp-</u> <u>content/uploads/2024/08/23-psd-randa-update.pdf</u>. There is substantial information in this presentation to address this question. Additionally, we continue to utilize the Decadal Survey's as guiding documents for our research programs. A major concern for to use DAPR for all SMD program is: How to write a proposal of continuation type, i.e., to propose a study that is the ultimate continuation, a step forward or a step deepening of a previously funded project, but (based on DAPR) without stating the published high impact discoveries from the previous project by the team. DAPR is less good than the open review to support the new field study that needs long term & persistent efforts, for which often 3-4 year is not enough.

The rules for the proper anonymization of proposals prohibit proposers from claiming ownership of past work or using possessive pronouns that indicate ownership while discussing past work. However, that doesn't mean that proposers are prevented from discussing their past work. On the contrary, proposers are free to discuss their past work, including the work conducted under a predecessor award; they simply must do so using neutral, third-person language. This topic is addressed in Section 2.3 of the "Guidelines for Proposers to ROSES Dual-Anonymous Peer Review Programs" and Section 7 provides several examples illustrating proper anonymization of proposal text.

NASA recognizes the value of long-term research efforts that span two or more research awards and the DAPR is neither designed nor intended to impact the viability of long-term programs. However, the continuity of long-term investments is a programmatic consideration for the cognizant program officer(s) and selecting official. NASA instructs reviewers to evaluate proposals based on their inherent scientific/technical merit, relevance, and cost. Knowledge that a proposal builds on a predecessor award or that it represents a continuation of an ongoing research program is not a consideration. Indeed, that knowledge is a common source of unconscious bias in the peer review process (the so-called "Matthew Effect"). Instead, "renewal proposals" are treated in exactly the same manner as new proposals under most programs. This is specifically called out in the ROSES Summary of Solicitation (Section I(f), p. ROSES SoS 7) as follows:

"Proposers are welcome to submit "successor" or "renewal" proposals that seek to continue a previously funded line of research if it is in scope of the program element to which it is submitted. However, such successor proposals will be considered with neither advantage nor disadvantage along with new proposals that are submitted for that same program."

It is worth noting that the value of preceding work for demonstrating the productivity of the proposing team is not lost under the DAPR process, it is simply separated from the merit evaluation of the proposal. The team's prior work and productivity is considered as part of the "Expertise and Resources" validation stage of the review which occurs after the merit evaluation of the proposal is complete.

Hi, will there be support to help navigate conversations with tribal communities around field work - many unknowns there.

The Fieldwork Resources for Planetary Science Division Proposers (https://science.nasa.gov/researchers/planetary-science-fieldwork/) webpage includes numerous resources to building relationships and collaborations with tribes and indigenous communities. If you cannot find what you are looking for there and need additional support, please reach out to <u>HQ-</u> <u>PSDFieldwork@mail.nasa.gov</u> and our team will work to provide additional support as we can. It seems like requirements are continually increasing (DMP, inclusion plans, DAPR, now fieldwork plans...). Could a reduction in other requirements please be considered to balance out the increased workload for proposers?

We acknowledge the seemingly continuously changing requirements and are dedicated to finding ways to continuously reduce barriers to proposing. Please review the PAC slides from July 2024 (<u>https://science.nasa.gov/wp-content/uploads/2024/08/23-psd-randa-update.pdf</u>) for a current discussion of some ways we are working on this.

For NoDD, can you explain why are fewer proposals being submitted is a success criteria? Seems like that would mean NoDD is not working for people, and they are not able to get their proposals submitted without the pressure of a deadline.

Please refer to the PAC presentation from July 2024 (<u>https://science.nasa.gov/wp-content/uploads/2024/08/23-psd-randa-update.pdf</u>) for a full discussion of this topic. In short, when NoDD was rolled out in early 2021, reduced proposal pressure was an intended impact and perceived advantage of this process as it not only increases the quality of proposal submission, but also decreases the proposal reviewer workload.

When will PSD let the community know if programs are going to transition from NODD back to due dates? It would be very helpful

The analysis of NoDD is currently underway. Once the analysis is completed and a determination is made on if NoDD will continue as is, expand, or return to due date programs will be announced as soon as possible, and not later than the release of ROSES-25.

Unclear, as presented, if PSTAR will require an astrobiological component in ROSES 2025 and beyond in order to support Moon.

We recommend that you read the full program element available on NASA Solicitation and Proposal Integrated Review and Evaluation System (NSPIRES - https://nspires.nasaprs.com/external/) after it is released. Starting in ROSES-25, the PSTAR program will solicit proposals for investigations focused on exploring the relevant environments on Earth in order to develop a sound technical and scientific basis to conduct planetary and astrobiological research on other solar system bodies.

Can a FINESST proposal include a teaching, education, and/or broader impacts component alongside your primary research project?

There is nothing in the FINESST solicitation for ROSES-24 that prohibits inclusion of such information within the page-limited Science/Technical/Management portion of the proposal. Recall that for ROSES-24, FINESST will utilize Dual Anonymous Peer Review (DAPR) so it's important that any inclusion of information follows the required format.

Will the budget for PSTAR be expanded for ROSES25, now that the program will be relevant to all of planetary science?

Yes, the current plan is to expand the budget for ROSES-25 to support this additional scope. The program element provides guidance as to the expected budgets that will be available for astrobiology analog work and additional planetary science analog work.

Is the shared HQ analog activities email address meant to cover PSTAR? What else does it cover?

No. The HQ <u>Hq-analogactivities@mail.nasa.gov</u> is to support C.23 Analog Activities to Support Artemis Lunar Operations. The email address for C.14 Planetary Science and Technology Through Analog Research (PSTAR) is <u>HQ-PSTAR@mail.nasa.gov</u>.

Is it possible that no ssw programs would get funded if there's an overwhelming amount of EW that were submitted to this merged program?

As with all of our SMD R&A programs, the selection official may take into account programmatic considerations such as impact on current or future missions, balance across: subdisciplines, technologies, methodologies, career stage, risk, innovation, types of institutions (e.g., MSI, PUI, vs. R1), and project size (such as funding several small investigations instead of one large one). These, along with agency priorities and any priorities set forth in an individual program element are continuously discussed prior to selections. We will continue to work towards balancing these various considerations in our selection decisions and provide data to the community on a regular cadence.

Will DAPR be used for the astrobiology programs in ROSES-25?

DAPR will be the default for all ROSES programs in ROSES-25. There is no plan to pursue an exemption for any astrobiology programs at this time.