NASA's Cryospheric Sciences Program Newsletter
Winter 2024

What's New in NASA Cryosphere?

ROSES 2024 Released! NASA's annual Research Opportunities for Space & Earth Sciences (ROSES) was released on February 14 and contains **multiple** opportunities for cryospheric sciences (or cryospheric sciences adjacent) research proposals. Some of the relevant solicitations, with their due dates, are posted below. Check them out for more details and be sure to check out the entire ROSES summary for even more opportunities!

This year's A.16 Cryospheric Sciences solicitation has a focus on remote sensing and algorithm development, with an anticipated annual budget of $1.5 million. As was the case last year, this solicitation will use the dual-anonymous peer review (DAPR) process. Please reference the Guidelines for Anonymous Proposals document found on NSPIRES, as well as our town hall presentation from 2022 on our website (https://ice.nasa.gov). While the solicitation mentioned in that presentation is not up to date, the material presented about DAPR remains the same.

Additionally, more and more programs are using DAPR in their solicitations – read them carefully to make sure your proposal is in compliance!

A.12 – Ocean Surface Topography Science Team (due 10/17/2024)
A.14 – Integrated SWOT Water Field Campaign (due TBD)
A.15 – Modeling, Analysis & Prediction (due 7/1/2024)
A.16 – Cryospheric Sciences (due 10/16/2024)
A.23 – Terrestrial Hydrology (due 8/8/2024)
A.24 – Earth Surface & Interior (due 6/21/2024)
A.27 – NISAR Science Team (due TBD)
A.28 – Remote Sensing Theory (due 9/16/2024)
A.31 – Earth Science Analysis from EOS to ESO (due 2/14/2025)
A.36 – The Science of PACE (due TBD)
A.55 – Decadal Survey Incubation Science & Technology (due TBD)

Inclusion Plan Pilot Program. Some solicitations include requirements for an inclusion plan. Please read each solicitation carefully to determine if that program requires it! Broadly speaking, inclusion plans should: (1) clearly state the goals for creating and sustaining a positive and inclusive working environment for the investigation team and describe activities to achieve such an environment; (2) identify barriers to creating a positive and inclusive working environment that are specific to the team carrying out the proposed investigation; (3) address ways in which the investigation team will work to attenuate or reduce these barriers; (4) describe roles, responsibilities, and work efforts for Inclusion Plan activities for team members with specific tasks in said activities; (5) include a timeline for completing or carrying out proposed activities; and (6) contain a plan for evaluating progress towards achieving the proposed Inclusion Plan activities or goals. Inclusion plans are not part of the overall proposal evaluation, though you will receive expert feedback on them and they will be given a rating of "acceptable" or "unacceptable". Selected proposals with an unacceptable inclusion plan will have the opportunity to work with NASA inclusion experts to improve those plans prior to the award start date.More information can be found in the ROSES Summary of Solicitation.

Open Science & ROSES 2024. We wanted everyone to be aware of the following data management/open science policy updates that are in place for proposals submitted under this announcement. ROSES 2024 includes updated requirements to ensure that all data created from ROSES-funded activities are openly available and included a detailed data management plan (DMP). **Going forward, these requirements will be part of all NASA funding solicitations involving data creation.** See below for important resources!

- Updates to the ESDS Open Source Software Policy
- Updates to the Earthdata Engage page
- A new page: Data Management Guidance for ESD-Funded Researchers
- An ESD-specific Open Science and Data Management Plan (OSDMP) template in Word format that is viewable and also downloadable.
- How to Create and Maintain a Data Management Plan for Proposals- Helps researchers fulfill ESD requirements in the new OSDMP Section 1.

UPCOMING EVENTS:

Future of Greenland Ice Sheet Science (FOGSS) Workshop in Moscow, Idaho. The Greenland glaciology community is cordially invited to attend the second annual Future of Greenland Ice Sheet Science (FOGSS) workshop in-person in Moscow, ID or online April 3-5, 2024. FOGSS workshops are the forum where the community maps out actionable priorities for Greenland Ice Sheet Science that inform U.S. funding agency programmatic planning. FOGSS is the mechanism by which interested community members can *openly* self-organize into groups that initiate and carry out prioritized work. Additionally, the workshop will include collaborative field research planning and the sharing of field best practices. Learn more about the 2024 workshop here!

CRYO2ICE Symposium at the HARPA Center, Reykjavik, Iceland. Save the date for the 2024 CRYO2ICE Symposium from September 23-27, 2024! NASA and ESA welcome scientists using ICESat-2 and CryoSat-2 altimetry data to showcase their results in a plenary meeting with science talks, poster sessions, and community social events. Participation in this event will be in-person, with an option to stream the meeting. This event is **not** limited to those studying the cryosphere – any and all applications of IS2 and CS2 welcome. Registration information and website forthcoming.

Of Ongoing Interest . . .

DAPR Compliance! Now that we have run several solicitations using dual-anonymous peer review (DAPR), we've noticed some common mistakes/hiccups that can confuse and perplex reviewers, or even call into question a proposal's ability to be reviewed due to potentially significant DAPR errors. Here are some tips to make sure your DAPR proposal is compliant:

- Redacted budgets → make sure that your redacted budget included in the body of your proposal does not contain your name or your institution's name.
- References → make sure that you are using a numbered scheme for your references in the body of your proposal, and not listing references by name. Reviewers will be directed to your references list by the numbers used in your proposal.

Where's My Grant?? As a PI, you have access to the NSSC Grants Database to check on the status of your award/next increment of funding after you send us a progress report. Simply go to this link and enter either your name or grant number (it will start with NNX for older grants and 80NSSC for newer grants) and click on "Submit". If it shows "Work in Progress", know that it's on the way!

Progress Reports Due!! NSSC is no longer sending out reminders to PIs about impending award progress report due dates. It is your responsibility as a PI to manage your award anniversary dates to ensure that you get your next increments on time! To get your award anniversary date information, simply go to this link and enter either your name or grant number (it will start with NNX for older grants and 80NSSC for newer grants) and click on "Submit". It will show all previous award increments; your award anniversary is the start date of your period of performance.

NASA's Transform to Open Science (TOPS) Initiative. Within the TOPS mission, NASA is continuing efforts from the 2023 Year of Open Science, a global community initiative to spark change and inspire open science engagement through events/activities that will shift the current paradigm. It's important to recognize that TOPS is only a starting point; NASA is committed to longer-term support for building an inclusive open science community over the next decade. Sign up for TOPS community email updates here!

NASA's open science initiatives and framework development are a work-in-progress. Guidance for PIs will continuously be evolving and improving! **Do you have a great idea about how best to implement these changes, or do you have an open science/open-source science success story? Let us know!**

Planning on proposing to an upcoming Cryospheric Sciences/ICESat-2 solicitation? Proposers are required to include open science in their work plans to achieve the following goals:

- Progress is accelerated to the maximum extent possible by sharing advances during the conduct of investigations, not just at the publication stage. This sharing:
  - Includes scientific results and analytic approaches,
  - Occurs within and across science disciplines, and
  - Happens openly and frequently via team meetings, contributions to open repositories, and other communications with colleagues.
- Workflows are documented to facilitate sharing of advances and validating results by using open-source digital notebooks, regular updates to appropriate open code repositories, and ensuring critical ancillary data sets are available.
- Crediting individuals making similar pre-publication contributions wherever possible.

Earth System Observatory (ESO) Missions Update

Gravity Recovery And Climate Experiment-Continuity (GRACE-C), formerly Mass Change, completed its Key Decision Point-B (KDP-B) milestone in September 2023 and is scheduled to hold its Key Decision Point-C (KDP-C) in May 2024. Key decision points are the events at which the decision authority determines the readiness of a program/project to progress to the next phase of the life cycle (or to the next KDP). The purpose of Phase B, Preliminary Design & Technology Completion, is to develop the preliminary mission, instrument, and spacecraft designs. All preliminary activities must satisfy budget constraints and requirements. Project activities, life cycle gates, and major events for Phase B include updating and/or finalizing the baseline Project Plan, completing a Preliminary Design Review (PDR) and other supporting reviews if applicable, and completing the KDP-C milestone. The project transitions to Implementation once it completes Phase B and the KDP-C milestone.

Atmosphere Observing System (AOS) (AOS-Sky and AOS-Storm) and Surface Biology and Geology (SBG) passed their Key Decision Point-A (KDP-A) and are now in Formulation. The purpose of Phase A is to develop a proposed mission/system architecture that is credible and responsive to program expectations, requirements, and constraints on the project, including resources. During Phase A, activities are performed to fully develop a baseline mission concept, begin, or assume responsibility for the development of needed technologies, and clarify expected reliance on human elements to achieve full system functionality or autonomous system development.

Surface Deformation and Change (SDC) will remain in an extended study phase to take advantage of lessons learned from the NASA-ISRO Synthetic Aperture Radar (NISAR) mission, which will serve as a trailblazer for the rest of ESO.

Questions about the NASA Cryospheric Sciences Program? Comments? Concerns?
Reach out to Thorsten Markus (thorsten.markus@nasa.gov) or Kaitlin Harbeck (kaitlin.harbeck@nasa.gov) at any time!