

Improved Sea Ice Models and Products: Collaborative Proposals to Meet the Needs of Alaskan Communities under the Inflation Reduction Act (IRA)

***Request for Short Proposals
from NOAA Cooperative Institute (CI) Principal Investigators.***

Sponsor: OAR Global Ocean Monitoring and Observing, Arctic Research Program (GOMO-ARP)

December 5, 2023

Due: via email 5:00 pm ET, February 8, 2024.

1. Overview

The OAR Global Ocean Monitoring and Observing, Arctic Research Program (GOMO-ARP) is pleased to announce a call for proposals under the Inflation Reduction Act (IRA). GOMO is committed to providing and supporting high-quality global ocean observations and research, enhancing scientific understanding of the ocean's role in environmental change. This commitment focuses on advancing global ocean knowledge, developing products, and enhancing capabilities that enable NOAA to effectively meet its commitments in climate research, weather prediction, ocean health, and coastal community resilience. Within GOMO, the Arctic Research Program (ARP) helps advance our fundamental understanding of the ocean-ice-atmosphere interactions and marine ecosystems in the Pacific Arctic region. ARP's efforts are directed toward supporting targeted, sustained long-term observations, fostering innovation in observational technologies, ensuring data compliance with FAIR (Findable, Accessible, Interoperable, and Reusable) principles, investing in essential modeling capabilities, and creating pertinent products for both the Alaskan Arctic and the broader pan-Arctic region.

The Inflation Reduction Act (IRA) represents one of the most substantial direct investments to date in our nation's ocean- and climate resilience for coastal communities, encompassing advancements in research, observational systems, and disseminating information and data to the public.

2. Priority Topics

Through this request, we seek short proposals that support coordination, collaboration, and development of improved sea ice models and products in partnership with Alaskan communities, especially those that depend upon sea ice for hunting and transportation. The overarching expectation is to leverage existing observational data and/or cutting-edge data assimilation products to improve sea ice models. These improved models should facilitate safer transportation and hunting activities for Alaskan communities by providing timely and accurate sea ice predictions. Alignment with existing NOAA initiatives to foster synergies across the agency is encouraged to amplify the impact and reach of our collective efforts in the Arctic domain.

The goal of this request is to support and advance innovative and collaborative research projects over a 3-year period that addresses:

- *User-driven sea ice modeling* - Proposals should focus on the development or improvement of sea ice models that could address the needs of Alaskan communities, especially those relying on sea ice for hunting, fishing, and transportation. Emphasis should be on

enhancing usability by producing sea ice information and products at time scales (sub-daily to sub-seasonal) and spatial scales that are most critical in or near ice and at optimal frequency of update delivery (daily to weekly) for intended user(s).

And, should address most of the following key priorities:

- Integration of observation and Indigenous and local knowledge - Maximize the use of in-situ observation, remote sensing (SAR, visible), model output, indigenous knowledge, or citizen science to support process-understanding and model improvement crucial for safety and planning.
- Accessibility and usability of data and model products - There is a need for models and data platforms that are accessible and usable to local communities and stakeholders. Proposals should include activities to ensure effective dissemination and communication with downstream users. They should also maximize knowledge sharing across labs and programs to improve coordination and collaboration.
- Alignment with existing NOAA initiatives to foster synergies across the agency is encouraged to amplify the impact and reach of our collective efforts.
- Collaboration and/or cooperation with Alaskan, national, and international groups and consortia, especially for supporting existing standards and protocols on related research activities, engagement, and the delivery of data and information. Collaboration with these group(s) can help to inform model improvements that facilitate the safety of maritime operations in ice-covered waters, and the sustainability of hunting and fishing.
- Promote the principles of Diversity, Equity, Inclusion, and Accessibility (DEIA) and foster the next generation of Arctic scientists.

3. Scope and Eligibility

This call is open to NOAA Cooperative Institute Principal Investigators (PIs) and collaborators. No funding is available for federal employees or labs.

4. Award Information

Proposals should budget for approximately \$125,000 (on average) per year over 3 years, including Task 1 fees. The total costs should not exceed \$378,000 per proposal. A total of two projects will be awarded.

5. Emailed Application and Submission Requirements

Proposals should have the following elements and should not be more than **six (6) pages**, including figures and tables and excluding the list of references:

- Title Page
 - Full project title
 - Principal Investigator(s) and affiliation(s)
 - Co-investigator(s) and affiliation(s)
 - Period of Performance
 - Total budget amounts, by year, by CI (if applicable)

- Plain-Language Summary
- Motivation, Goals, and Objectives
- Work Plan
- Anticipated Outcomes, including a description of the model improvement and/or improved product
- Budget Table
- Budget Narrative
- References

6. Review Process and Evaluation Criteria

The proposals will be assessed using the following criteria:

- (60%) Technical and Scientific Merit - This criterion assesses whether the approach is technically sound and/or innovative and if the methods are appropriate. The criterion also assesses whether the goals of the competition will be realized through clear project goals and objectives. (i.e., What is the intrinsic value and maturity of the subject and the project proposed as they relate to the specific priorities?)
- (15%) Appropriateness of Budget - This criterion evaluates the budget to determine if it is realistic and commensurate with the project needs and time frame, and the degree of return on investment (i.e., useful results versus proposed costs).
- (25%) Relevance - This criterion ascertains whether there is intrinsic value in the proposed work and/or relevance to NOAA, GOMO and ARP mission and objectives.

7. Contacts and Communication

Please submit proposals via email by 5:00 pm Eastern Time on **08 February 2024**. For submission or questions, email the competition managers: Cynthia Garcia (cynthia.garcia@noaa.gov) and Sandy Lucas (sandy.lucas@noaa.gov).