

NATIONAL PARK SERVICE FINANCIAL ASSISTANCE: NOTICE OF INTENT TO AWARD

This announcement is not a request for applications.

This announcement is to provide public notice of the National Park Service's intention to award financial assistance for the following project activities. *Refer to Section 2. Grants.gov Posting Determination.*

ABSTRACT	
Grants.gov Opportunity Number	P20AS00053
Project Title	Monitoring Glacier Change in Alaska's National Parks
Recipient	University of Alaska Fairbanks
Anticipated Federal Funding	\$125,740
Non-Federal Cost Share	0.00
Total Anticipated Award Amount	\$130,000
Award Instrument	☐ Task Agreement ☒ Cooperative Agreement ☐ Grant Agreement
Anticipated Period of Performance	April 18, 2020 - April 17, 2021
Legal Authority	54 USC §101702. Cooperative agreements
CFDA # and Title	15.945 Cooperative Research and Training Programs
Single Source Justification Criteria	Unique Qualifications
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Section 1. Project Summary

PROJECT GOALS AND OBJECTIVES

- A. Project Goals – To inventory the status (surface elevations, areas, and other metrics) and trends (rates of shrinkage or growth) of glaciers in the Alaskan National Parks, with potential additional focus on glaciers of high interest.
- B. Project Objectives –
- Update an existing time series of glacier surface elevations, using aircraft-based laser altimetry measurements, to assess modern rates of change of a subset of park glaciers.
 - Develop, document, and implement a methodology for incorporating satellite-based glacier surface elevation measurements into ongoing monitoring efforts, with particular focus on use of ICESat-2 data
 - Report delivery of electronically archived data, a technical report, and an internal whitepaper.

STATEMENT OF PUBLIC PURPOSE

This project addresses a fundamental public purpose as it seeks to utilize science for a better understanding of factors affecting both the conservation and visitor use mandates of the NPS. Within Alaska, over 7500 glaciers are partly or wholly within lands administered by the National Park Service; together they comprise 30,910 km² of glacierized park land. Between the 1950s and about 2010, collaborative work by UAF faculty and NPS researchers confirmed that these "park glaciers" thinned significantly, and collectively shrank by 3725 km². Because glaciers are a central component of the visitor experience for many Alaskan parks, because the complicated relationship between glaciers, humans, and the climate system constitutes a significant interpretive challenge for NPS staff, and because glacier changes affect hydrology, wildlife, vegetation, and hazards to persons and infrastructure, these ongoing—and in most cases accelerating—glacier changes pose diverse challenges throughout the Alaska Region. The information gathered from this project will be shared with many scientists, park managers, and through interpretation specialists—the public.

STATEMENT OF WORK SUMMARY

Under this agreement, NPS and University of Alaska Fairbanks (UAF) scientists will work together to develop a comprehensive understanding of modern rates of glacier surface elevation change. They will analyze existing data, collect new data, and develop new workflows for use in future monitoring. The work described here is part of a larger effort to inventory the status and trends of glaciers throughout the Alaskan National Parks. This effort deemed Glacier Status and Trends 2.0 (GST2.0), follows on the heels of the successful prior collaboration between NPS scientists and UAF Geophysical Institute (GI) staff on an earlier glacier inventory (GST1.0).

RESPONSIBILITIES OF THE PARTIES

A. The recipient shall be responsible for the following items under this agreement:

1. Recruit and retain a technician to assemble all existing aircraft-based lidar (and Structure from Motion Data (SfM), where applicable) measurements of surface elevations collected by UAF researchers for glaciers within the Alaskan National Park boundaries ("park glaciers"). These will include historic data (presented within Glacier Status and Trends 1.0) and all measurements made since that time, up to and including the summer of 2020. These data will be processed, quality-checked, and organized into an electronic directory with appropriate metadata.
2. In collaboration with NPS, develop a workflow and code (using matlab, python, or other software mutually agreed upon) to analyze aircraft-based surface elevation data, conduct change analysis, and estimate errors using the time-series of available measurement epochs for each glacier. Data and code used for this analysis shall be documented with metadata sufficient for archival purposes.
3. Assemble all existing satellite-based elevation data determined suitable for measurement of glacier surface elevations of park glaciers.

B. The NPS Responsibilities:

- ☐ A task agreement is proposed;
- ☒ A cooperative agreement is proposed;

therefore substantial involvement by NPS is anticipated during the period of performance of this agreement. In support of this agreement NPS will:

1. In consultation with the Recipient, document Inventory and Monitoring Program goals, resources, and constraints pertinent to glacier surface elevation change monitoring. This documentation will include provision of existing historic glacier surface elevation data, assessment of regulatory requirements and constraints on use of open-source data and code, and collaborative determination of the best practice for balancing use of emerging technologies against strategic development of stable long-term protocols.
2. Monitor data collection, quality control, and documentation, and provide feedback to the Recipient, as needed. The NPS shall participate actively in data analysis, change detection, and evaluation. Such activities will require travel to Fairbanks to meet with the Recipient; NPS will cover costs of travel and provide meeting and computing resources at the Fairbanks NPS office, as needed.

- ☐ A grant agreement is proposed, therefore no substantial involvement on the part of the NPS is anticipated for the successful completion of the statement of work. It is anticipated that involvement will be limited to actions related to monitoring project performance and technical assistance at the request of the recipient.

Section 2. Grants.gov Posting Determination

- ☐ The National Park Service intends to award a task agreement under a previously competed or single source justified award.
- ☒ The National Park Service intends to award a single source justified cooperative agreement. *Refer to Section 3 Single Source Justification.*
- ☐ The National Park Service intends to award a single source justified grant agreement. *Refer to Section 3 Single Source Justification.*

Section 3. Single Source Justification

NATIONAL PARK SERVICE SINGLE SOURCE POLICY REQUIREMENTS

National Park Service Policy FAP&P 1443-2015-06 requires a written justification which explains why competition is not practicable. The justification must address one of the following criteria.

In order for an assistance award to be made without competition, the award must satisfy one or more of the following criteria:

- (1) Unsolicited Proposal – The proposed award is the result of an unsolicited assistance application which represents a unique or innovative idea, method, or approach which is not the subject of a current or planned contract or assistance award, but which is deemed advantageous to the program objectives. The unsolicited proposal must demonstrate an innovative capability or concept not currently available to the government, and prepared without Government involvement. ;
- (2) Continuation – The activity to be funded is necessary to the satisfactory completion of, or is a continuation of, an activity presently being funded, for which competition would have a significant adverse effect on the continuity or completion of the activity;
- (3) Legislative intent – The language in the applicable authorizing legislation or legislative history clearly indicates Congress' intent to restrict the award to a particular recipient of purpose;
- (4) Unique Qualifications – The applicant is uniquely qualified to perform the activity based upon a variety of demonstrable factors such as location, property ownership, voluntary support capacity, technical expertise, or other such unique qualifications. Successful past performance, familiarity with existing requirements, capabilities that can be obtained or matched by a competitor, or a positive reputation, are not considered to be unique qualifications.
- (5) Emergencies – Program/award where there is insufficient time available (due to a compelling and unusual urgency, or substantial danger to health or safety) for adequate competitive procedures to be followed.

NPS did not solicit full and open competition for this award based the following criteria:

- ☐ Task Agreement issued under previously competed or single source master cooperative agreement per Section 2 above. Single Source Justification not applicable.
- ☐ Unsolicited Proposal ☐ Continuation ☐ Emergency
- ☐ Legislative Intent ☒ Unique Qualifications

Explanation of the proposed recipient's qualifications or the criteria of the proposed project which requires use of the single source criteria cited.

Since the first NPS glacier inventory was completed in 2010, Dr. Larsen has continued (with NASA IceBridge funding) to collect sub-decadal lidar measurements along 59 glaciers. This proposed project will determine elevation changes on NPS glaciers by comparing new surface profiles with historic data and will rely heavily on data already collected by Dr. Larson. Working with Dr. Larson provides the advantages of comparable datasets and established workflows. Dr. Fahnestock, a colleague of Dr. Larsen's, specializes in satellite-based observations of Alaskan glaciers. He has a significant body of work pertinent to this proposal which he has in the past voluntarily shared components of with NPS. Dr. Fahnestock's role in this project builds on his existing skills, workflows, and data.

Section 4. Department of the Interior Secretary's Priorities

This award will support the following DOI Secretary priority(ies):

Other Key Initiatives:

- ☐ Employment of veterans.
- ☐ Supporting DOI Infrastructure needs.
- ☐ Creating jobs in the American economy.
- ☐ Access to outdoor recreation opportunities.

Priority 1: Creating a conservation stewardship legacy second only to Teddy Roosevelt

- ☒ Utilize science to identify best practices to manage land and water resources and adapt to changes in the environment.
- ☐ Examine land use planning process and land use designations that govern public use and access.
- ☐ Revise and streamline the environmental and regulatory review process while maintaining environmental standards.
- ☐ Review DOI water storage, transportation, and distribution systems to identify opportunities to resolve conflicts and expand capacity.
- ☐ Foster relationships with conservation organizations advocating for balanced stewardship and use of public lands.
- ☐ Identify and implement initiatives to expand access to DOI lands for hunting and fishing.
- ☐ Shift the balance towards providing greater public access to public lands over restrictions to access.

Priority 2: Utilizing our natural resources

- ☐ Ensure American energy is available to meet our security and economic needs.
- ☐ Ensure access to mineral resources, especially the critical and rare earth minerals.
- ☐ Refocus timber programs to embrace the entire 'healthy forests' lifecycle.
- ☐ Manage competition for grazing resources.

Priority 3: Restoring trust with local communities

- ☐ Be a better neighbor with those closest to our resources by improving dialogue and relationships with persons and entities bordering our lands.
- ☐ Expand the lines of communication with Governors, state natural resource offices, Fish and Wildlife offices, water authorities, county commissioners, Tribes, and local communities.

Priority 4: Ensuring sovereignty means something

- ☐ Support tribal self-determination, self-governance, and sovereignty.
- ☐ Solidify mutual interests between the U.S. and the freely associated states and territories.

Priority 5: Generating additional revenues to support DOI & National interests

- ☐ Ensure that the public receives the full market value for the natural resources produced on Federal lands.
- ☐ Ensure that fees or costs levied for DOI services are reasonable and targeted to achieve cost recovery.
- ☐ Consider the impact of DOI decisions on economic development and job creation.

Priority 6: Protecting our people and the border

- ☐ Actively support efforts to secure our southern border.
- ☐ Ensure DOI law enforcement staffing addresses public safety risks anticipated on DOI land.
- ☐ Promote a "public service" demeanor within our law enforcement community.

Priority 7: Striking a regulatory balance

- ☐ Reduce the administrative and regulatory burden imposed on U.S. industry and the public.
- ☐ Ensure that Endangered Species Act decisions are based on strong science and thorough analysis.

Priority 8: Modernizing our infrastructure

- ☐ Support the White House Public/Private Partnership Initiative to modernize U.S. infrastructure.
- ☐ Remove impediments to infrastructure development and facilitate private sector efforts to construct infrastructure projects serving American needs.
- ☐ Prioritize DOI infrastructure needs to highlight:
 1. Construction of infrastructure;
 2. Cyclical maintenance;
 3. Deferred maintenance.

Priority 9: Reorganizing for the next 100 years

- ☐ Improve alignment and integration of the DOI organizational structure. Redistribute organizational resources (people and funding) to enhance mission achievement and improved public service.
- ☐ Improve organizational alignment with Executive Branch counterparts with major land management assets or influence.

Priority 10: Achieving our goals and leading our team forward

- ☐ Senior executives are expected to provide leadership in achieving goals of the President and the Secretary.
- ☐ The Management Team is expected to:
 1. Ensure cost-effective operations and quality service to the public;
 2. Facilitate organizational cooperation and conflict resolution;
 3. Ensure the workplace environment is conducive to employee productivity and safety;
 4. Hold individuals accountable for actions that violate DOI policies and requirements.

The proposed project does not support any of the DOI Secretary priorities, but the project is being funded for the following reasons: