



**National Park Service
U.S. Department of the Interior**

NOTICE OF INTENT TO AWARD

This Funding Announcement is not a request for applications. This announcement is to provide public notice of the National Park Service's intention to fund the following project activities without full and open competition.

ABSTRACT	
Funding Announcement	P13AS00063
Project Title	Development and Testing of Instrumentation and Software for Acoustical Monitoring
Recipient	Colorado State University
Principle Investigator / Program Manager	Dr. Mahmood R. Azimi-Sadjadi
Total Anticipated Award Amount	\$474,662.25
Cost Share	No
New Award or Continuation?	New Task Agreement against the Rocky Mountain Cooperative Ecosystem Studies Units (CESU) Cooperative Agreement
Anticipated Length of Agreement	1.5 years
Anticipated Period of Performance	June 2013 through December 2015
Award Instrument	Cooperative Agreement
Statutory Authority	16 U.S.C. §1a-2(j) and 16 U.S.C. §5933
CFDA # and Title	CFDA No. 15.945 Cooperative Research and Training Programs – Resources of the National Park System
Single Source Justification Criteria Cited	(2) Continuation and (4) Unique Qualifications
NPS Point of Contact	Alicia Broner Contract Specialist (Contractor) National Park Service WASO WCP Contracting and Procurement

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OVERVIEW

Surveys of the American public have documented the vital importance of acoustical environments as a reason for protecting natural areas, as well as the critical role that acoustical conditions play in determining the quality of visitor experience. This project will advance scientific understanding and engineering capabilities to support more effective management of public lands and to provide a higher quality experience for visitors.

Improved data collection capacity amplifies the need for more efficient data processing. These engineering developments require data collection in national park units, to test and evaluate each generation of equipment and software, provide data for comparative analyses of acoustical conditions in natural areas, and inform ongoing planning efforts for natural sounds throughout the U.S.

In order to collect significant sound information to share with public at large, the Natural Sounds Program (NSP) requires new instruments and data processing tools to expand acoustical monitoring capabilities.

This project conducted in collaboration with Colorado State University (CSU) researchers will provide:

- acoustical monitoring instrument designed for indefinite deployments, with array processing and wireless communication capabilities,
- systems for monitoring and displaying vehicle noise levels for transportation monitoring in national park units, which will be used in cumulative impacts analyses in air tour management plans,
- systems for maintaining synchronized timing across widely separated instruments,
- ultrasonic monitoring capabilities,
- instruments for measuring variation in sound propagation, and
- advanced signal processing algorithms for automatic detection and classification of different man-made and natural acoustic events from the collected data.

RECIPIENT INVOLVEMENT

CSU agrees to:

- Collaboratively undertake the project,
- Work with the NPS Technical Expert to identify tasks and develop a schedule for their execution,
- Oversee research and development by CSU engineering students,
- Participate in regular meetings with the NPS Technical Expert and CSU research associates to discuss ongoing research and development efforts and identify the best opportunities to test and evaluate the products of the project in national park settings,

- Present results at scientific conferences, when applicable, and
- Oversee translation of research results in peer-reviewed papers.

NATIONAL PARK SERVICE INVOLVEMENT

Substantial involvement on the part the National Park Service is anticipated for the successful completion of the objectives to be funded by this award. In particular, the National Park Service will be responsible for the following:

- Work with the Recipient to identify tasks and develop a schedule for their execution,
- Provide acoustical data for algorithm development or analyses as needed for research,
- Participate in regular meetings to discuss project results and plans,
- Participate in data analyses, as appropriate,
- Participate in drafting scientific manuscripts, as appropriate, and
- Provide scientific reviews of draft scientific papers that are produced.

SINGLE-SOURCE JUSTIFICATION

DEPARTMENT OF THE INTERIOR SINGLE SOURCE POLICY REQUIREMENTS
Department of the Interior Policy (505 DM 2) requires a written justification which explains why competition is not practicable for each single-source award. The justification must address one or more of the following criteria as well as discussion of the program legislative history, unique capabilities of the proposed recipient, and cost-sharing contribution offered by the proposed recipient, as applicable.
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; (2) Continuation – The activity to be funded is necessary to the satisfactory completion of, or is a continuation of an activity presently being funded, and 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, cost-sharing ability if applicable, technical expertise, or other such 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.

The National Park Service did not solicit full and open competition for this award based the following criteria:

**(2) CONTINUATION, AND
(4) UNIQUE QUALIFICATIONS**

Single Source Justification Description:

With regards to the criterion Continuation, the Recipient has been a highly successful partner in this work since 2008. The cost of educating another partner and successfully migrating the intellectual property of this project vastly outweighs the potential benefits of competition.

With regards to the criterion Unique Qualifications, geographic proximity is critical to foster frequent interaction among the NPS' Natural Sounds and Night Skies Division staff in Fort Collins, CO and the Recipient's graduate students and engineers. Colorado State University is the only Carnegie Doctoral/Research-Very High Research Activity ("RU/VH") university in Northern Colorado. Prior to the 2008 award, scientific publication records were searched for appropriate partners at CSU, University of Northern Colorado, University of Colorado – Boulder, Colorado School of Mines, and Denver University.

STATUTORY AUTHORITY

16 U.S.C. §1a-2(j) Cooperative research and training programs
Secretary of the Interior's authorization of activities - Enter into cooperative agreements with public or private educational institutions, States, and their political subdivisions, for the purpose of developing adequate, coordinated, cooperative research and training programs concerning the resources of the National Park System, and, pursuant to any such agreements, to accept from and make available to the cooperator such technical and support staff, financial assistance for mutually agreed upon research projects, supplies and equipment, facilities, and administrative services relating to cooperative research units as the Secretary deems appropriate; except that this paragraph shall not waive any requirements for research projects that are subject to the Federal procurement regulations.

16 U.S.C. §5933 Cooperative agreements
(a) Cooperative study units - The Secretary is authorized and directed to enter into cooperative agreements with colleges and universities, including but not limited to land grant schools, in partnership with other Federal and State agencies, to establish cooperative study units to conduct

multi-disciplinary research and develop integrated information products on the resources of the National Park System, or the larger region of which parks are a part.

(b) Report - Within one year of November 13, 1998, the Secretary shall report to the Committee on Energy and Natural Resources of the United States Senate and the Committee on Resources of the House of Representatives on progress in the establishment of a comprehensive network of such college and university based cooperative study units as will provide full geographic and topical coverage for research on the resources contained in units of the National Park System and their larger regions.