

**TAS: 14 0803**

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**ATN: SV0004G**  
**American Recovery and Reinvestment Act (ARRA)**

## **JUSTIFICATION AND APPROVAL**

### **Justification for Other than Full and Open Competition**

**1. Contracting Agency and Activity.** The Department of the Interior, United States Geological Survey (USGS), Yellowstone Volcano Observatory (YVO) plans to contract by means other than full and open competition. This document sets forth the justification and approval for use of one of the exceptions to full and open competition allowed under Federal Acquisition Regulation (FAR) 13.106-1(b)(1).

**2. Nature of Action Being Approved.** The USGS under the American Recovery and Reinvestment Act (ARRA) is seeking to improve its ability to collect, process, and analyze information regarding volcanic activity and hazards. Toward this end, the USGS seeks to upgrade the telemetry at several of the existing Yellowstone GPS stations to support 1 Hz data. This will be achieved through a purchase order and the proposed awardee, UNAVCO, a non-profit membership-governed consortium, facilitating geoscience research and education using geodesy. The facility is located in Boulder, Colorado. The estimated dollar value for this requirement is \$60,000.

**3. Description of Supplies or Services.** The USGS operates the YVO in partnership with the University of Utah and Yellowstone National Park. One of the primary volcano-monitoring tools used by the USGS is Global Positioning Receivers (GPS), whereby small (cm- to mm-scale) ground movements can be monitored. At Yellowstone National Park, GPS receivers are owned by both the University of Utah and the National Science Foundation's (NSF) Plate Boundary Observatory (PBO). They are not owned by the USGS. UNAVCO is currently the sole contractor allowed by NSF to operate this equipment, which was authorized through Cooperative Agreement EAR0735156 issued by NSF. In recent years, maintenance and operation of all GPS receivers, including those formerly operated by the University of Utah, have been taken over by UNAVCO. The data are transferred to UNAVCO's headquarters in Boulder, CO, where it can be distributed in real-time to the USGS and other groups.

Under the current telemetry system, data from Yellowstone GPS stations are collected every 15 seconds and sent back to UNAVCO in 1 hour batches. The upgrade requested through this action will have two effects: (1) data will be collected every second, and (2) these data will be transmitted to the UNACVO facility in Boulder, CO in real-time with minimal delay. The USGS would then receive the data and process it to measure second-by-second ground movements at Yellowstone for comparison with other data streams (strain, seismic).

The requested telemetry upgrade will improve the USGS capability for making short-term forecasts of potential volcanic hazard. Moreover, the rest of the Volcano Science Center will benefit from a 1 Hz capability at Yellowstone because the deformation there is fairly large and quite dynamic. This makes Yellowstone an ideal testing environment for a high-rate GPS processing and analysis. Routinely available 1 Hz data will also benefit other research projects by improving the quality of kinematic GPS measurements used, for example, to track animals or study rapid geologic processes at Yellowstone. Furthermore, the incorporation of 1 Hz data into the standard processing could result in significant improvement to daily solutions because the high rate data can be used to model and partially remove time-varying noise sources such as multi-path.

#### **4. Identification of Statutory Authority Permitting Other Than Full and Open**

**Competition:** The proposed action may be awarded without full and open competition under 41 U.S.C. 253(c)(1) as implemented in FAR 13.106-1(b)(1).

**5. Rationale Supporting Use of Citation in No. 4.** The National Science Foundation (NSF) has exclusive cooperative agreement with UNAVCO to upgrade GPS receivers at YVO. The GPS receivers the USGS seeks to upgrade are owned by NSF. As outlined in Cooperative Agreement EAR0735156, all of the GPS receivers at YVO are currently operated by UNAVCO on behalf of NSF and the University of Utah. This Cooperative Agreement was established between NSF and UNAVCO to support the continued management and operation of the UNAVCO GPS and geodetic technology support facility, including the YVO telemetry system. Theoretically, another contractor could provide a proposal to perform the GPS receiver upgrades; however, UNAVCO would need to be involved in this work with this other contractor because UNAVCO is currently under agreement with NSF and the University of Utah to operate this telemetry system. UNAVCO personnel would have to be paid on a full-cost recovery basis, as a subcontractor to the successful contractor. This would be a cost duplication to the Government, as the NSF has already incurred costs, such as permitting for access to the Park, and the USGS would pay again for these same services. The spirit of the full and open competition process would be circumvented because the USGS would need to inform competing contractors that direct involvement with UNAVCO will be required.

Most importantly, the GPS receiver sites are in restricted areas of the park and currently, only UNAVCO personnel have permits allowing them to be on-site during all work performed on the telemetry systems. According to UNAVCO, it took them **(redacted)** to obtain the necessary permits for these 7 locations throughout the Park. Each permit cost **(redacted)**, for a total cost of **(redacted)**. New permits would need to be created for any new vendor, if NSF agreed to allow another contractor to upgrade their equipment. As in UNAVCO's case, obtaining such a permit could take many, many months to complete, which would jeopardize successful and timely completion of this ARRA project which is required to be completed by 30 September 2011. The start date of the project cannot be defined if the successful contractor does not currently maintain a permit to restricted areas of Yellowstone National Park. Currently, UNAVCO is the only contractor that has a valid permit to work on the telemetry systems at YNP.

#### **6. The Efforts to Identify Additional Sources.**

Initially, this procurement began as a competitive, open market requirement. In accordance with open market procedures, both the synopsis (posted from 10 March 2010 through 17 March 2010) and the solicitation (posted from 23 March 2010 through 12 April 2010) were posted at [www.FedBizOpps.gov](http://www.FedBizOpps.gov). While the solicitation was open, an interested party contacted the Contracting Officer (C/O) and requested additional information on the statement of work. The C/O deferred these questions to the USGS YVO technical liaisons, Peter Cervelli and Jake Lowenstern. As a result of the questions posed to the technical liaisons, they realized only UNAVCO could provide to the needed permits to conduct the work. Therefore, an amendment was issued to cancel the solicitation. The interested party was notified of the cancellation. No party protested the cancellation, and no further requests for additional information about the procurement were received.

The National Science Foundation was contacted to see if they would be interested in entering into an Interagency Agreement with the USGS for this work, thinking NSF could modify their existing Cooperative Agreement with UNAVCO to add this work. However, NSF could not agree to this Interagency Agreement because their Cooperative Agreement was awarded with non-ARRA funds. A requirement of Recovery Act funding is that it cannot be commingled with regular appropriated funding. As a result, the Interagency Agreement was not an option.

**7. Determination by the Contracting Officer.** The anticipated cost to the Government is considered to be fair and reasonable based on the independent government estimate as well as a comparison of similar telemetry upgrade services recently procured. A comprehensive price analysis will be conducted prior to award.

**8. Market Research.** The Government attempted to obtain competition on this requirement, but could not do so due to the permit issue previously discussed. Market research is considered to be satisfied through the original solicitation (#10WRQQ0148) since it was posted to FBO for all interested vendors to see and provide comment. As noted above, only one company other than UNAVCO provided comment.

**9. Other Facts.** N/A

**10. Sources Interested in this Acquisition.** UNAVCO of Boulder, CO.

**11. Actions to Overcome Barriers to Competition.** If the USGS has another requirement to upgrade the telemetry systems at Yellowstone National Park, competition will be sought. The Contracting Officer will work with the National Science Foundation, the National Park Service at Yellowstone National Park, and all interested parties so that they may obtain the necessary permits and approvals.

**12. Recommendation and Certification from Program Office.**

Based on the above, I recommend this acquisition be conducted on the basis of other than full and open competition. I certify that technical data which form a basis for this justification that are the responsibility of technical or requirements personnel are complete and accurate.

**Signature Redacted**

\_\_\_\_\_  
Jacob Lowenstern, Scientist-in-Charge  
Yellowstone Volcano Observatory

\_\_\_\_\_  
Date

**13. Certifications from the Contracting Officer.** All of the requirements of the Competition in Contracting Act, (41 U.S.C. 253), as implemented in the Federal and Interior Acquisition Regulations, have been considered in preparing this justification. This justification is accurate and complete to the best of my knowledge and belief.

**Approvals**

**Approval Recommended:**

**Signature Redacted**

\_\_\_\_\_  
Sasha L. Klingler, Contracting Officer  
WR Branch of Acquisition and Grants

\_\_\_\_\_  
Date

**Signature Redacted**

\_\_\_\_\_  
Nancy V. Miller, Chief  
WR Branch of Acquisition and Grants

\_\_\_\_\_  
Date

**Signature Redacted**

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Jennifer K. Farrell, Bureau Competition Advocate

\_\_\_\_\_  
Date