

# United States Department of the Interior

U. S. GEOLOGICAL SURVEY, Office of Acquisition and Grants  
Reston, VA 20192

## JUSTIFICATION & APPROVAL FOR OTHER THAN FULL & OPEN COMPETITION (FAR 6.302-1)

**1. Contracting Agency and Activity.** The Department of the Interior, United States Geological Survey Office of Acquisition and Grants Reston plans to contract on a sole source basis. This document sets forth the justification and approval as required by FAR 6.302-1.

**2. Nature of Action Being Approved:** The U.S. Geological Survey (USGS) Water Mission Area, Hydrologic Instrumentation Facility (HIF) requests an award of a non-competitive indefinite delivery, indefinite quantity (ID/IQ) contract to Teledyne RDI for hydroacoustic instruments used to discharge in streams. The HIF supports collection of hydrologic data throughout the USGS by evaluating, procuring, and quality-assuring a wide variety of specialized instruments and equipment. USGS hydrologic data is collected, maintained, and interpreted by USGS State Water Science Centers throughout the United States and its territories. In aggregate, these Water Science Centers operate networks of over 7,500 continuous record stream gages, 10,000 ground water level monitoring stations, and 2,500 water quality stations. Data collected from these monitoring sites are widely used by resource managers, regulators, scientists, engineers, consultants, and the general public to effectively and responsibly use and manage the nation's water resources. All data are collected using standard techniques and methodologies, are subjected to rigorous quality assurance checks, and are maintained in a national database containing records that date back to the late 19<sup>th</sup> century. These data are publicly available via the internet, and are extremely valuable because they can be directly compared across broad spatial and temporal scales. Because of the high quality of the data, they are almost universally accepted as the best available information by all parties in matters such as legal proceedings, compact disputes among sovereign entities, and scientific investigations by outside parties. The HIF contributes to the overall quality of these data by procuring and supplying instruments and equipment to Water Science Centers across the U.S. HIF ensures that the instruments and equipment meet any applicable USGS specifications, and performs quality assurance testing on the instruments and equipment. WSC's that obtain instruments and equipment from the HIF are assured that the instruments and equipment will provide reliable, high-quality data.

**3. Description of Supplies or Services:** This request is for Acoustic Doppler Current Profilers (ADCP's) and velocity meters used to measure discharge and stream velocity in a variety of environmental settings. ADCPs have completely changed the way that USGS measures discharge at its network of streamgaging stations by ushering in new levels of accuracy and much more detailed cross sectional information about velocity distributions. ADCP's are significantly more complex and expensive than the mechanical current meters they have replaced, and they require a unique set of skills and ancillary equipment in order to be successfully deployed and operated. ADCP's represent a substantial investment for USGS WSC's and it is expected that they will continue to be purchased and employed in even greater numbers for the foreseeable future. The proposed supplier of these ADCP's is **Teledyne RDI**. The company provides several models that are widely used across the USGS and one new generation instrument whose development included collaboration with, and funding from, USGS.

**4. Estimated Dollar Value.** The estimated dollar value is based on a minimum of \$ [REDACTED] and a maximum of \$ [REDACTED]. This J&A does not replace any previously approved J&A's for this contract.

**5. Statutory Authority.** The proposed action may be awarded on a sole source basis under the authority outlined in FAR 6.302-1.

**6. Rationale Supporting Use of Citation in No. 5.** All of the equipment that will be procured with this contract are commercially available items. These items play a key role in the operation of the USGS national streamgaging network described in section 2. The network, and the data it produces, is a major element of the overall mission of the USGS. The equipment and instruments required for the operation of this network are highly specialized and must meet rigorous requirements for accuracy, operation in demanding field conditions, and interoperability with existing network infrastructure. This equipment is essential to the effective operation of the streamgaging network; periodic measurements of discharge must be made through time at each streamgaging station in order to ensure that realtime estimates of discharge are of the highest possible quality and accuracy.

Data from the streamgaging network are used for multiple purposes, including decision-making during flooding that can affect life and property. Consequently the USGS may be face legal liability should a key station's data not be available or of compromised quality. Appropriate equipment must be readily available to meet national network needs, and it is essential that it be available to meet urgent needs when flooding occurs. It is precisely during these times of high visibility and time-critical information flow that equipment problems or failures have the potential to be most damaging to the agency's reputation. It is not straightforward to estimate overall time or dollar costs associated with these issues. However, it is easy to understand that under conditions where new information is requested and scrutinized by customer agencies as often as every five minutes in order to protect life and property, any time delays associated with network components have the potential to damage the agency's reputation, or worse, leave it legally liable for flood related damages.

The following table provides specific information about the unique characteristics of the equipment being procured as required by the Government. No other known vendor manufactures equipment that meets the Government's minimum need.

Equipment Category	Part Numbers	Unique Characteristics
██████████ ADCP		Transducer can be float-mounted or hand-held. Unique design allows for operation in shallow stream environments (0.1 m minimum depth).
██████████		Available in two frequencies – 600 and 1,200 kHz. High resolution mode allows for use in shallow water environments at low velocities.

**7. Other Information.** The HIF carries out its mission work by providing instruments and equipment to USGS technicians and scientists across the country. HIF procures these instruments and equipment in quantities sufficient to meet this national need. WSC's can then purchase or rent these items from HIF taking advantage of discounts associated with buying in quantity and receiving added value from the quality-assurance testing performed by HIF.

It is imperative that HIF be able to procure needed items in a timely and efficient fashion. The WSC's that HIF supports operate in an increasingly time-sensitive environment. A large proportion of the hydrologic data collected by USGS is now made available to all interested parties in near real-time on a variety of USGS web pages. This has created a new set of demands and expectations for timely delivery of high quality data. WSC's rely on HIF to provide a ready supply of instruments and equipment to maintain this real-time stream of hydrologic data. Instrument failure, whether from routine life-cycle events, vandalism, or destruction by flooding or other acts of nature must be corrected by WSC technicians quickly. In order to successfully meet this need, HIF must be able to procure, stock in its warehouse, and then supply to WSC's specific makes and models of equipment and instruments that will be required by its cooperators and partners.

Indefinite Delivery/Indefinite Quantity contracts provide the HIF a highly effective way of anticipating and meeting future equipment needs. HIF staff use the results of instrument evaluations, quality assurance testing data, requests from USGS field scientists, understanding of existing network infrastructure compatibility requirements, knowledge of USGS program goals and priorities, and historical performance data from the rental program to ascertain existing and future needs for specific instruments and equipment.

#### **8. The Efforts to Identify Additional Sources Including the Market Research Conducted.**

An important component of the HIF's overall mission is to actively seek out new vendors and products that meet USGS hydrologic data collection needs as well as identifying new and emerging technologies that may improve or expand agency efforts. Consequently, market research is conducted by HIF staff on a continuous basis. HIF employees maintain numerous contacts with vendor representatives (both sales and technical staff), and are often some of the first to learn of new products and planned innovations from those vendors. HIF staff also provides information to vendors that help them ensure that new products will meet USGS accuracy and performance specifications. HIF staff attends industry trade shows and USGS national meetings annually where they can observe vendor demonstrations and discuss product capabilities. HIF welcomes vendors to visit our facility and provide presentations about, and demonstrations of, their products. Vendor visits to HIF are a frequent and regular occurrence. HIF staff also maintains a network of contacts with WSC technicians, professionals and managers. These personnel will often try a new device or manufacturer, and if they believe the equipment holds promise for USGS-wide usage, will contact HIF with a request to perform a rigorous equipment evaluation. The HIF conducts an annual process to seek input on new equipment evaluations. The process targets the Water Mission Area Discipline Offices (Surface Water, Ground Water, and Water Quality), National Program Managers, WSC staff, and it also offers vendors a mechanism to nominate their products for evaluation by HIF. Details of this process are on the public HIF website at: <http://water.usgs.gov/hif/programs/instrumenteval/index.html>

#### **9. Future Plans to Permit Competition.**

HIF will continue to competitively procure all equipment and instruments that are amenable to this form of acquisition. In addition, as has been noted HIF's practice of procuring instruments and equipment from a variety of vendors whose products meet USGS specifications and requirements results in healthy competition among companies even though products from those companies may have be procured via sole-source mechanisms.

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

Based on the above, I recommend this acquisition be conducted on a sole source basis and certify the above statements are true and accurate.


  
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Frank S. Henry, Assoc. Chief, HIF

5-17-12  
Date

**11. Approval by the Contracting Officer in accordance with FAR 6.302-1 – only one responsible source:**

  
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Daniel J. Stanley, Contracting Officer

5-18-12  
Date

  
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Lisa Womack, Acting Chief, OAG Reston

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Date

  
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Jennifer Farrell, Bureau Competition Advocate

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Date