

JUSTIFICATION FOR OTHER THAN FULL AND OPEN COMPETITION

Upon the basis of the following justification, I as Contracting Officer hereby approve use of the other than Full and Open competition for the proposed contractual action pursuant to the authority of 10 USC 2304(c)(1), only one responsible source and no other supplier or servicing activity will satisfy agency requirements, as implemented by FAR 6.302-1.

1. Contracting Activity

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Department of Contracting and Logistics
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Monterey, CA 93943

2. Description of the Action Being Approved

This justification covers the procurement of new instruments, replacement parts for existing instruments and the calibration/service of existing NPS-owned instruments from Sea-Bird Electronics, which includes Sea-Bird Electronics (SBE) Models SBE 37SM and 37SMP MicroCAT instruments and Model SBE 39 Temperature sensors (some with pressure sensors and some without).

3. Description of Supplies/Services

All items required on this purchase request are in support of the procurement of new instruments which can measure ocean conductivity (C), temperature (T), and pressure (P), standard replacement parts and the calibration/service of existing Models SBE 37SM and 37SMP MicroCAT conductivity (C), temperature (T), and pressure (P) instrument sensors and SBE 39 Temperature sensors with or without pressure sensors. These instruments are moored beneath ocean buoys and used to sample the C, T and P at specific depths and record the data internally. The existing units require calibration/service of sensors before their next use to ensure accuracy. The following is a list of products and services required:

Products:

- Item 1: P/N: SBE 37SMP, MicroCAT Instruments, Qty. 5
(select 350 meter depth rated plastic housings and 350 db pressure sensors)
- Item 2: P/N: 50261, SBE37SM/SI Cable Clamp Set, Qty. 14
- Item 3: P/N: 50465, SBE37 V3 MSM/MSI Cable Clamp Set, Qty. 10
- Item 4: (OPTION 1) P/N: SBE 37SMP, MicroCAT Instruments, Qty. 5
(select 350 meter depth rated plastic housings and 350 db pressure sensors)

Calibration/Service:

- Item 1: P/N: SERVICE 37, calibration service for SBE 37SMP instruments, Qty. 24
- Item 2: P/N: PCAL 37, calibrate P channel on SBE 37SMP instruments, Qty. 24
- Item 3: P/N: SERVICE 39, calibration service for SBE 39 instruments, Qty. 47
- Item 4: P/N: PCAL 39, calibrate P channel on SBE 39 instruments, Qty. 22

The estimated cost is [REDACTED]

4. Statutory Authority Permitting Sole Source

FAR 6.302 -- Circumstances Permitting Other Than Full and Open Competition.

- 6.302-1 -- Only One Responsible Source and No Other Supplies or Services Will Satisfy Agency Requirements.

5. Rational Justifying Use of Cited Statutory Authority

Criteria for new instruments which can measure C, T and P and instrument replacement parts:

The instruments must be capable of making stable conductivity, temperature and pressure recordings, at user-defined intervals, for a period of up to two years. The instruments must be designed to be moored at a fixed location in the ocean, and must be capable of internally recording the data. The internal-field conductivity cell must be internally pumped and allow use of anti-foulants which provide long-term external fouling protection. This results in more accurate and stable data. The resolution and accuracy of the sensors is critically important. The conductivity sensor must have a resolution of 0.000001 S/m and accuracy of +/- 0.0003 S/m. The temperature sensor must be pressure-protected with a resolution of 0.0001° C and accuracy of +/- 0.002°C. The pressure sensor, with a selected range (chosen at the time of purchase for inclusion in the instrument), must have a resolution of 0.002% of the full range and an accuracy of +/- 0.1% of the full range. The pressure sensor must be a strain-gauge type with temperature compensation. With the SBE 37SMP MicroCAT instrument, all the above criteria are met.

In addition, new instruments must be compatible with existing inventory. OC Technicians are experienced with the use, programming, downloading, deployment and recovery of SBE 37SMP MicroCAT units. The OC Dept. Moored Equipment Lab presently has 24 SBE 37SMP MicroCAT instruments and has a selection of custom frames and specialized buoys specifically designed for mounting the SBE 37SMP MicroCATs during deployment in the ocean. Designed for precise dimensions, no other instruments will fit in these mounting devices.

Sea-Bird Electronics is also the only manufacturer of replacement parts for these instruments, such as specialized mooring wire clamps which mount to the instrument housing for securing the devices to mooring cable.

Calibration/Service of existing instrument sensors:

The instrument primary sensors (C, T and P) must be calibrated at Sea-Bird Electronics to ensure any electronic drift, inherent in all electronics, is measured and accurately accounted for in the data and to ensure the instruments are making stable and accurate conductivity, temperature and pressure observations when moored in the ocean, and are capable of internally recording the data. Models

SBE 37SM and 37SMP instruments require C, T and P sensor calibrations. All Model SBE 39 instruments require T calibration. Some SBE 39 units have P sensors which also require calibration.

Sea-Bird Electronics is the original manufacturer of the instruments and the only authorized facility equipped to perform calibrations on all sensors and instruments and capable of meeting the stated requirements.

6. Description of Efforts Made to Solicit Offers from as Many Offerors as Practicable

See Market Research section (#8) below.

7. Determination of Fair and Reasonable Cost

Costs will be determined fair and reasonable at time of award by the Contracting Officer and based on previous contracts and similar contracting efforts.

8. Market Research

New instruments which can measure C, T and P:

The NPS contacted users from other oceanographic research facilities. A collaborator on research projects from Scripps Institute of Oceanography (part of UCSD) states that there is no other vendor that can supply a self-contained (internally recording) C, T, and P unit designed for long-term deployment on moorings that is capable of the accuracy, sensor resolution and stability of the Sea-Bird Electronics SBE 37SM or 37SMP MicroCATs. Scripps purchased multiple MicroCATs about two years ago for \$6,500.00 each. In addition, other research groups have the same units, SBE MicroCATs, for their moorings. NAVO, in Bay St. Louis, has a large group of SBE MicroCATs as does the USGS in Woods Hole. They also stated there is no alternate vendor for this item. The MicroCATs are commonly used on moorings in the oceanographic research community by many different government agencies and research institutions.

A market survey of other vendors (in addition to Sea-Bird Electronics) that offer similar instruments (often called CTDs for Conductivity, Temperature and Depth) reveals that the Sea-Bird Electronics SBE 37SMP MicroCAT is a unique device in that other vendors offer profiling CTDs, meaning they are lowered and raised from the ship with real-time data output, not moored for long periods, or add-on CTDs which are designed to be incorporated into other instrumentation packages, not self-contained units. Alternately, some vendors offer CTDs designed for microstructure (very small scale) measurements which is not typical for standard CTD moored applications. General Oceanics makes a CTD called the 320Plus WOCE CTD which is strictly a profiler, not for moored use. Similarly, AML Oceanographic has a series of profiling CTDs, but no moored versions. Ocean Sensors makes the OS200 CTD which is also a profiler, not for moored use. Falmouth Scientific, Inc. no longer produces "CTDs" in order to focus their energy on Current Meters. Precision Measurement Engineering, Inc. offers lower resolution microstructure loggers that measure C, T and D. These are designed for small areas, test tanks, labs, etc. and are not comparable with the SBE 37 SM or 37SMP MicroCAT which is designed for open ocean use.

Calibration/Service:

A market survey of other vendors (in addition to Sea-Bird Electronics) that offer similar instruments reveals that the Sea-Bird Electronics SBE 37SM and 37SMP MicroCATs are unique devices that other vendors cannot service or calibrate. Across the board, other vendors (General Oceanics, AML Oceanographic, Precision Measurement Engineering, and Ocean Sensors) verified that the Sea-Bird sensors are proprietary to Sea-Bird Electronics and they are the only facility capable of proper sensor calibration.

9. Other Facts Supporting Use of Other Than Full and Open Competition

The requested calibration services for Sea-Bird Electronics instruments including SBE 37SM and 37SMP MicroCATs and SBE 39 temperature/pressure sensors, are completely compatible with existing Sea-Bird instruments owned by the NPS Oceanography Department. These instruments require calibration for accurate data collection approximately every two years of intermittent service or following a year-long deployment at sea and Sea-Bird is the only company capable of this service. The Oceanography Department currently owns over 70 SBE instruments and they are all routinely sent to Sea-Bird for calibration service when required, based on each unit's deployment history.

10. Actions to Remove Barriers to Future Competition

The NPS Oceanography Department is open to competition from any vendor that can supply new instruments which meet the criteria listed in Section # 4 and can provide calibration/service that is identical to the original manufacturer, Sea-Bird Electronics. As a matter of routine, the NPS keeps up with new technologies and developments in the small oceanographic market place and incorporate other products and vendors as research instrumentation evolves.

CERTIFICATIONS AND APPROVAL

TECHNICAL/REQUIREMENTS CERTIFICATION

I certify that the facts and representations under my cognizance which are included in this Justification and its supporting acquisition planning documents, except as noted herein, are complete and accurate to the best of my knowledge and belief.



CONTRACTING OFFICER CERTIFICATION

To the extent that the LSJ value is between \$2,500 and \$150K for services and between \$3K and \$150K for products, the Contracting Officer's signature below also represents approval of the J&A/LSJ.

