



## DEPARTMENT OF THE NAVY

CRANE DIVISION  
NAVAL SURFACE WARFARE CENTER  
300 HIGHWAY 361  
CRANE INDIANA 47522-5001

N REPLY REFER TO:

J&A Number: 11-051  
Code: CXMQ  
N00164-09-D-GP24 P00003

### JUSTIFICATION AND APPROVAL FOR USE OF OTHER THAN FULL AND OPEN COMPETITION

#### JUSTIFICATION

1. Contracting Activity.

Naval Surface Warfare Center, Crane Division

2. Description of the Action Being Approved.

The use of other than full and open competition to increase the contract maximum ordering quantity on contract N00164-09-D-GP24 on a sole source basis to ITT/EDO Western Corporation, 2645 South 300 West, Salt Lake City, Utah for the production of TR-343 Transducer Ceramic Stacks for the AN/SQS-53 Hull Mounted Sonar Array. Contract N00164-09-D-GP24 was awarded via competitive procedures on 15 SEPT 2009. The awarded total maximum ordering quantity was 1800 units over a 5-year ordering period. Due to a change in maintenance procedures and unanticipated requirements, the Government has an immediate requirement for 1800 units more than originally solicited. The purpose of this J&A is to support increasing the maximum quantity on the contract without competition.

3. Description of Supplies/Services.

The transducer ceramic stack assembly is a critical component of the TR-343 Transducer used in the AN/SQS-53C Hull Sonar Array Subsystem, AN/SQQ-89(V) Anti-Submarine Warfare (ASW) System. This system is used on [REDACTED]

[REDACTED] (each ship contains [REDACTED] and each transducer contains one ceramic stack). The ceramic stack assembly provides the required piezoelectric characteristics to produce mechanical motion in the water for generation of sonar signals when a large voltage is applied.

The total estimated cost of this procurement action is \$1,751,400. FY11 Navy Working Capital Funds (WCF) will be utilized for this requirement.

The Government's minimum needs have been verified by the certifying technical and requirements personnel.

4. Statutory Authority Permitting Other Than Full and Open Competition.

10 U.S.C. 2304(c)(2), Unusual and compelling urgency.

5. Rationale Justifying Use of Cited Statutory Authority.

NSWC Crane is tasked by NAVICP to maintain an on-going refurbishment schedule for the TR-343 Transducers. The ceramic stacks are required units for the refurbishment efforts.

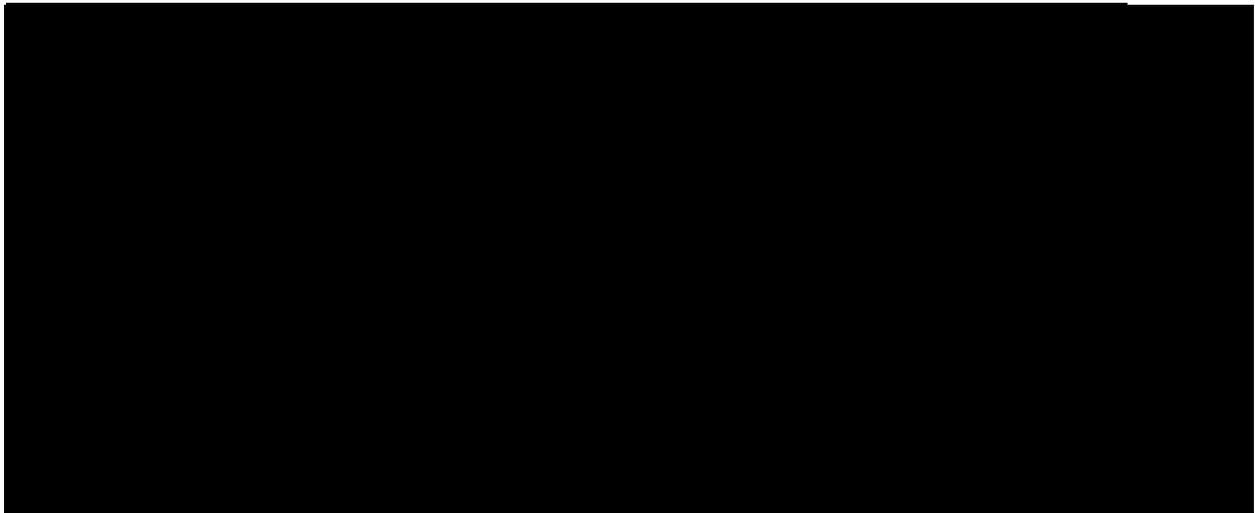
Contract N00164-09-D-GP24 was for a maximum ordering quantity of 1800 units over a five-year ordering period. The total quantity was based on expected demand during procurement planning/contract execution. After the award of the contract, the Navy changed the maintenance philosophy of the transducers. The maintenance philosophy at the time of initiating this contract was to replace only the transducers identified as faulty using the WQM-9 System Test Set. This could be any number, but historically was typically less than half of the total units. The current maintenance philosophy is to replace all transducers during dry dock, which approximately doubles the amount of ceramic stacks required during a dry dock. Furthermore, ships have been taking longer than expected to return carcasses for repair. As a result, NSWC Crane was tasked with an immediate one-time new-build requirement in FY11, which requires 100% new ceramic stacks (██████████). The combination of the unexpected demand due to the changed maintenance philosophy, the increased dry-docks and the unanticipated new-build requirements resulted in ordering the contract quantity ceiling much sooner than planned.

The ship classes utilizing the TR-343 transducers are reaching their scheduled dry-docks nearly simultaneously which will result in a total of ██████████. This is an atypical, increased requirement - as on an average year, only █ ships enter dry-dock. Specifically, a total of █ ship dry-docks will occur within the ██████ quarter of ██████ and ██████ quarter of ██████. The requested ceiling increase of ██████ units

in this J&A is solely to fulfill urgent, immediate requirements for atypical needs. Based on the projected schedule shown on page 3, the Government anticipates that this increased ceiling will fulfill requirements for the [REDACTED] quarter of [REDACTED] and the [REDACTED] quarter of [REDACTED].

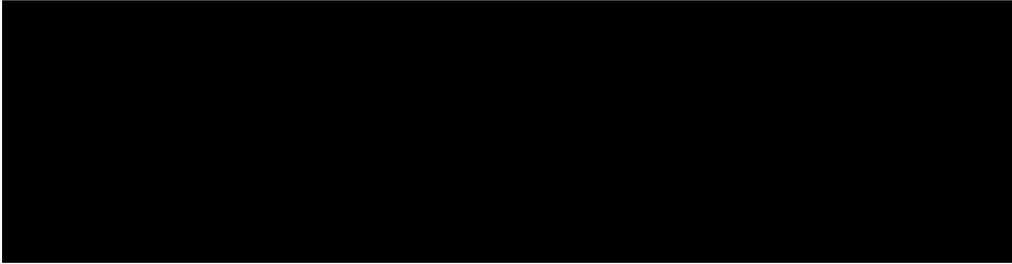
A competitive procurement (N00164-10-R-GP43) for the ceramic stacks is currently underway and is expected to be awarded in the [REDACTED] quarter of [REDACTED]. This will be a three-year contract with a maximum ordering quantity of [REDACTED] units. The Government anticipates receiving production deliverables from this procurement within the [REDACTED] quarter of FY [REDACTED], and that future ceramic stack requirement(s) will be fulfilled via the new contract.

The following table summarizes the projected schedule as described above:



\* To fulfill a shortage caused by the atypical immediate workload requirements (due to the changed maintenance philosophy, the increased dry-docks and the unanticipated new-build requirements), the requested quantity increase per quarter is [REDACTED] units, or [REDACTED] units total.

The quantity increase per quarter is calculated as follows:



Note - under normal circumstances, an average quarter requires an estimated [REDACTED] units or [REDACTED] units/year. This was the basis for establishing the ceiling in the follow-on contract, and is a realistic estimate for future requirements.

ITT/EDO Western Corporation is the current manufacturer and only known source that has passed TR-343 Ceramic Stack First Article testing and the only known source that can meet the Government's immediate urgent requirements.

The use of any other source requires a minimum lead-time of 10 months. This lead-time includes 5 months for first article delivery and Government testing, and 5 months for production once the first article unit passes testing and is approved as the manufacturing standard.

If the ceramic stacks are not procured, the short time window available for the TR-343 installation would be missed. These transducers are needed to be in place [REDACTED] days before the ships enter in to Dry-Docking Selected Restricted Availability. The transducers can only be replaced while the ships are in dry dock so that the sonar dome can be drained of water for installation. If this procurement is not executed, it would result in a shortage of "A" condition transducers and ships would be left without transducers leading to a severe deficiency in a mission critical ASW system (AN/SQS-53 Hull Mounted Sonar Array). Without the TR-343 transducers, the mission of the ASW ships (to find, track and deter, damage and/or destroy enemy submarines) would be at serious risk.

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

N/A - as this is a modification to an existing contract.

7. Determination of Fair and Reasonable Cost. The Contracting Officer has determined the anticipated cost to the Government of the supplies/services covered by this J&A fair and reasonable as the cost is in accordance with the costs established in the respective existing contract.

8. Actions to Remove Barriers to Future Competition.

As discussed in Section 3, a competitive procurement (N00164-10-R-GP43) for the ceramic stacks is currently underway and is expected be awarded in the third quarter of [REDACTED]. This will be a three-year contract with a maximum ordering quantity of [REDACTED] units. The Government anticipates receiving production deliverables from this procurement within the [REDACTED] quarter of [REDACTED], and that future ceramic stack requirement(s) will be fulfilled via the new contract.

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.

~~Technical Cognizance:~~

[REDACTED]

~~Requirements Cognizance:~~

[REDACTED]

LEGAL SUFFICIENCY REVIEW

I have determined this Justification is legally sufficient.

[REDACTED]

CONTRACTING OFFICER CERTIFICATION

I certify that this Justification is accurate and complete to the best of my knowledge and belief.

[REDACTED]

APPROVAL BLOCK (FAR 6.304 for APPROVING OFFICIAL)

Upon the basis of the above justification, I hereby approve, as NSWC Crane Competition Advocate, the solicitation of the proposed procurement described herein using other than full and open competition, pursuant to the authority of 10 U.S.C. 2304 (c) (2).

[REDACTED]

KELLY SIFFIN

DATE

[REDACTED]