



DEPARTMENT OF THE NAVY

NAVAL SURFACE WARFARE CENTER
DAHLGREN DIVISION
6149 WELSH ROAD, SUITE 203
DAHLGREN, VIRGINIA 22448-5130

IN REPLY REFER TO

J&A #: DL 13053
CXS12
N00178-11-R-2008

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

JUSTIFICATION

1. Contracting Activity

The Naval Surface Warfare Center, Dahlgren Division (NSWCDD), Contracts Division, Code CXS12.

2. Description of the Action Being Approved

This justification proposes to limit the number of sources for the acquisition of AN/USQ-82(V) Gigabit Ethernet Data Multiplex System (GEDMS) hardware along with the repair of units during Installation and Checkout (INCO) to the only two qualified sources, The Boeing Company, Huntington Beach, CA and DRS Defense Solutions, LLC, Buffalo, NY.

3. Description of Supplies/Services

This procurement will provide AN/USQ-82(V) Gigabit Ethernet Data Multiplex System (GEDMS) hardware for Aegis Ashore, a Land Based Engineering Site (LBES) in support of DDG 113, SRQ-4, and ACO modules to support DDG modernization. The AN/USQ-82(V) GEDMS is covered under Acquisition Plan (AP) number D1-07-07 REV 4. Specifically, the procurement components will consist of the following:

Description	Qty	Option Qty	Total
Input/Output Units (IOUs)	13		13
Backbone Switch Enclosures (BSEs)	8		8
BSE Switch Assemblies	5		5
User Switch Enclosures (USEs)	5		5
USE Switch Assemblies	10		10
Input/Output Modules (IOMs)	2		2
Maintenance Support Kits (MSKs)	1		1

On Site Spares	1		1
Installation and Checkout Spares	1		1
Gigabit Ethernet Modules (GEMs)		36	36
ACO Modules		27	27
Installation and Checkout Repair		1	1
Total			110

The Government's minimum needs have been verified by the certifying technical and requirements personnel. The delivery requirements for the firm fixed price hardware are 8 to 14 months after contract award, including Options. The period of performance for the time and material repair work is Feb 2013 - Jan 2014. The following table is a breakdown of anticipated funding and estimated total value associated with this action.

	FY10	FY11	FY12	Total
SCN				
OPN				
RDTE				
Total				

4. Statutory Authority Permitting Other Than Full and Open Competition

10 U.S.C. 2304(c)(1), Only one responsible source or only a limited number of responsible sources and no other type of property or services will satisfy the needs of the agency.

5. Rationale Justifying Use of Cited Statutory Authority

The use of full and open competition is not feasible. GEDMS is a mission critical shipboard network for DDG 51 Class Destroyers. This network transfers inputs and/or outputs for the Machinery Control System, Damage Control System, Steering Control System, Aegis Combat System, Navigation Displays, and Interior Communications Alarms & Indicators. It is an upgrade to a third generation shipboard network in support of the DDG Modernization Program that incorporates Commercial Off The Shelf Gigabit Ethernet switches and a single mode fiber optic cable plant into two independent active redundant network backbones arranged in a mesh architecture. GEDMS performs the same functions as its two predecessors, Data Multiplex System (DMS) and Fiber Optic Data Multiplex System (FODMS), but with greater bandwidth and throughput.

Currently, there are only two qualified sources for the AN/USQ-82(V): The Boeing Company and DRS Defense Solutions, Inc. Based on its past experience in developing a second manufacturing source, the Program Office estimates that it will take at least 30 months and an additional \$9.93M to qualify another manufacturing source. The following summarizes the history of the qualification of these two sources.

Rockwell International (subsequently purchased by Boeing) was the original producer of the DMS, having won a competitively awarded Advanced Development Model contract in 1974 and a Full-Scale Development contract in 1978. Boeing was subsequently awarded sole source Initial Production contracts through the late 1980's. Soon after the first DMS production contract in 1987, Congress mandated competition, and a full and open competition was held for a second source. LTV, Sierra Research Division, (subsequently purchased by DRS) won the competition and Rockwell was issued a Technology Transfer contract. Sierra was tasked with producing a trainer with a 24 month production lead time. It took approximately 36 months for Sierra to produce the trainer and Rockwell to test and certify that Sierra was ready to produce. In Fiscal Year (FY) 90, Sierra Research Division was qualified as a second source producer of DMS under DOD's leader-follower program by producing and delivering the DMS trainer. The first limited competition between Boeing and DRS occurred on the FY91 DMS for DDG 64-67 and has continued through the production of all FODMS and GEDMS.

Under request from the Naval Sea Systems Command Cost Engineering Department (NAVSEA 017), Tecolote Research, Inc. produced a "GEDMS Modernization to DDG-51 Program Acquisition Strategy Analysis" in November 2006 to determine the preferred acquisition strategy for GEDMS. This Acquisition Strategy Analysis focused on the cost to backfit GEDMS onto older DDG-51 class ships during the first ten years of production (FY08 - FY17) and examined variations of sole sourcing, limited competition, and full & open competition. The analysis produced an estimate of the total cost for each option and demonstrated that a limited competition environment between Boeing and DRS would produce the lowest costs. The analysis also demonstrated that the cost of qualifying an additional manufacturer(s) beyond the two qualified vendors will not decrease the overall GEDMS production costs, and would not recoup the \$5.5M it estimated would be required to qualify an additional source.

This cost is due to the large amount of estimated Transition to Production (TTP) cost required to transition a new company into GEDMS production. The TTP costs in the Acquisition Strategy Analysis were based on historical costs for the FODMS program and input provided by the Program Office. In March 2009, an analysis was conducted by the Program Office that indicated the cost to certify a third source for FODMS and GEDMS was \$9.93M.

Tecolote's Acquisition Strategy Analysis concluded that some form of limited competition between Boeing and DRS should be used throughout the initial ten year production schedule. Industry team specific cost estimates to manufacture GEDMS were produced, based on estimated hardware and labor requirements (using FODMS as a basis), known labor rates and material burdens, and an estimated cost of necessary non-recurring activities. Cost estimates were developed for Boeing and DRS and an optimization problem (using Microsoft Optimizer) was developed with a focus on minimizing estimated total cost over the ten year period. The analysis produced an estimate of the total cost to backfit GEDMS onto DMS ships (DDG 51-78) in the first ten years of production and demonstrated that some form of limited competition between Boeing and DRS would produce the lowest overall costs. The Acquisition Strategy Analysis demonstrated that qualifying additional vendors beyond the current two would most likely not decrease the overall GEDMS program costs because Transition to Production costs would exceed material and labor cost savings within this period. Specifically, a third industry team would have to provide a 20% cost savings (estimated) based on the average of Boeing/DRS labor and material rates to offset the high estimated TTP cost required to prepare another company for GEDMS production.

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

The proposed action was synopsisized on the Federal Business Opportunities website as a limited source requirement on 6 May 2011 and no potential sources expressed interest in this requirement. No other market research was conducted because it is not practicable, for the reasons discussed in paragraph 5 above, for any companies other than Boeing and DRS to provide the required supplies and services.

7. Determination of Fair and Reasonable Costs

The Contracting Officer has determined that the anticipated cost to the Government for the supplies/services covered by the J&A will be fair and reasonable.

8. Actions to Remove Barriers to Competition

For the reasons set forth in Paragraph 5, the program office has no plans at this time to compete future procurements for the types of supplies/services covered by this document beyond the two qualified sources due to the costs associated with qualifying another source and the expectation of not recovering that cost. The Navy plans to maintain competition between the two sources as long as is practicable, in accordance with the Office of the Under Secretary of Defense (Acquisition, Technology, and Logistics) Better Buying Power guidance that emphasizes promoting competition.

CERTIFICATIONS AND APPROVAL

TECHNICAL/REQUIREMENTS CERTIFICATION (FAR 6.303-2(b))

I certify that the facts and representation under my cognizance which are included in this Justification and its supporting acquisition planning documents, including Acquisition Plan DL-07-07 REV 4, except as noted herein, are complete and accurate to the best of my knowledge and belief.

TECHNICAL/REQUIREMENTS COGNIZANCE:

[Redacted signature and name area]

Signature Name (Print) and Title (Code) Phone No. Date

LEGAL SUFFICIENCY REVIEW (NMCARS 5206.303(90))

I have determined this justification is legally sufficient.

[Redacted signature and name area]

Signature Name (Print) and Title (Code) Phone No. Date

CONTRACTING OFFICER CERTIFICATION (FAR 6.303-2(a) (12))

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

[Redacted signature and name area]

Signature Name (Print) and Title (Code) Phone No. Date

APPROVAL BLOCK (FAR 6.304 for Approving Official)

Upon the basis of the above justification, I hereby approve, as Competition Advocate for the Procuring Activity, 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)(1).

NSWCDC COMMAND COMPETITION ADVOCATE

[Redacted signature] KRISTOFER E. PARKER CS [Redacted phone number]

Signature Name (Print) and Title (Code) Phone No. Date

13 June 2011