



## 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 Number: DL 13102.1  
Code: CXS12  
N00178-12-R-2001

### 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

J&A Number DL 13102 approved the limitation of 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 ICAS, LLC, Buffalo, NY. This revised J&A DL 13102.1 replaces the original J&A in its entirety to update a hull number, add one item, and update the total cost.

This revision changes the procurement of a GEDMS Shipset for DDG 75 to the procurement of a GEDMS Shipset for DDG 77. This revision adds Installation and Checkout (INCO) repair for DDG 112 at \$150,000. Although there is this additional cost, the total cost is reduced from \$37,744,000 to \$37,494,000 due to a configuration change in the DDG Modernization Shipsets. The updates are marked in Paragraph 3 below. All other paragraphs remain unchanged from the original J&A.

3. Description of Supplies/Services

This procurement will provide AN/USQ-82(V) Gigabit Ethernet Data Multiplex System (GEDMS) hardware and INCO repair for DDG Flight I & II Modernization, DDGs 112/114/115/116, AEGIS Ashore, Australia Air Warfare Destroyer (AWD), and AN/SPA-25. The AN/USQ-82(V) is covered under Acquisition Plan number DL-07-07 REV 5. Specifically, the procurement will consist of the following:

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Description	Base/ Option	QTY	Total Cost - Original J&A	Total Cost - This Revised J&A
GEDMS Shipset for DDG 54	Base	1	\$3,570,000	<b>\$3,490,000</b>
INCO Repair for DDG 54	Option	1	\$150,000	\$150,000
GEDMS Shipset for DDG 68	Base	1	\$3,570,000	<b>\$3,490,000</b>
INCO Repair for DDG 68	Option	1	\$150,000	\$150,000
GEDMS Shipset for DDG 56	Option	1	\$3,570,000	<b>\$3,490,000</b>
INCO Repair for DDG 56	Option	1	\$150,000	\$150,000
GEDMS Shipset for DDG 72	Option	1	\$3,570,000	<b>\$3,490,000</b>
INCO Repair for DDG 72	Option	1	\$150,000	\$150,000
GEDMS Shipset for DDG 77	Option	1	\$3,570,000	<b>\$3,490,000</b>
INCO Repair for DDG 77	Option	1	\$150,000	\$150,000
INCO Replenishment Kit (FY12 DDG Flight I & II Modernization)	Base	1	\$363,000	\$363,000
INCO Replenishment Kit (FY13 DDG Flight I & II Modernization)	Option	1	\$649,000	\$649,000
GEDMS Shipset for DDG 114	Base	1	\$4,582,000	\$4,582,000
INCO Repair for DDG 114	Option	1	\$150,000	\$150,000
GEDMS Shipset for DDG 115 (Includes INCO replenishment kit for BIW)	Base	1	\$4,708,000	\$4,708,000
INCO Repair for DDG 115	Option	1	\$150,000	\$150,000
GEDMS Shipset for DDG 116	Option	1	\$4,582,000	\$4,582,000
INCO Repair for DDG 116	Option	1	\$150,000	\$150,000
GEDMS for AEGIS Ashore Host Nation (HN) 1	Option	1	\$1,457,000	\$1,457,000
INCO Repair for AEGIS Ashore HN 1	Option	1	\$150,000	\$150,000
GEDMS for AEGIS Ashore HN 2	Option	1	\$1,457,000	\$1,457,000
INCO Repair for AEGIS Ashore HN 2	Option	1	\$150,000	\$150,000
INCO Replenishment Kit (AEGIS Ashore HNs)	Option	1	\$220,000	\$220,000
INCO Repair for Australian AWD Case AT-P-LCQ (FY12 FMS)	Option	1	\$150,000	\$150,000
INCO Repair for Australian AWD Case AT-P-LCQ (FY13 FMS)	Option	1	\$150,000	\$150,000
Backbone Switch Enclosures (BSEs) for AN/SPA-25 Program [FY12 SCN]	Option	2	\$38,000	\$38,000
Backbone Switch Enclosures (BSEs) for AN/SPA-25 Program [FY13 SCN]	Option	2	\$38,000	\$38,000
<b>INCO Repair for DDG 112</b>	<b>Option</b>	<b>1</b>		<b>\$150,000</b>
Data	Base			
<b>TOTAL</b>			<b>\$37,744,000</b>	<b>\$37,494,000</b>

The Government's minimum needs have been verified by the certifying technical and requirements personnel. The delivery requirements for the hardware range from 8 to 18 months following award of contract or option exercise. The last hardware option exercise will occur 3/30/14, with an 18 month delivery date (9/30/2016) for the DDG 116 shipset. The periods of performance (POP) for the INCO repair will be 12 months for the DDG Flight I & II Modernization ships and AEGIS Ashore, up to 2 years for the DDGs 112/113/114/115 and up to approximately 3.5 years for Australia AWS. The last POP will be from 7/17 to 1/19 for the INCO repair of the DDG 116.

The following table is a breakdown of anticipated funding and estimated total value associated with this action.

	FY12	FY13	FY14	FY15	Totals
SCN	\$9,328,000	\$4,620,000	\$300,000	\$150,000	\$14,398,000
OPN	<u>\$7,343,000</u>	<u>\$11,119,000</u>			\$18,462,000
RDT&E	\$1,457,000	\$1,677,000	\$150,000	\$150,000	\$3,434,000
O&MN		<u>\$150,000</u>	\$300,000	\$450,000	\$900,000
FMS	\$150,000	\$150,000			\$300,000
Total	\$18,278,000	\$17,716,000	\$750,000	\$750,000	<u>\$37,494,000</u>

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, the two qualified sources for the AN/USQ-82(V) are The Boeing Company and DRS ICAS, LLC. The following information summarizes the history of the qualification of the 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 Cost Benefit Analysis (CBA) 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 CBA developed industry team specific cost estimates to manufacture GEDMS, 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 Solver) was developed with a focus on minimizing estimated total cost over the ten year period.

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 concluded the cost of qualifying an additional manufacturer(s) beyond the two qualified vendors would not decrease the overall GEDMS production costs because Transition to Production (TTP) costs would exceed material and labor cost savings within this period. The Navy would not recoup the \$5.4M it is estimated would be required to qualify an additional source. 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.

The Program Office performed an analysis in 2009 based on its past experience in developing a second manufacturing source and using actual past costs in qualifying the second source. The 2009 analysis estimates it will take at least 30 months and an additional \$9.93M to qualify another manufacturing source.

The Program Office is working to have Tecolote update the Cost Benefit Analysis. It is anticipated the revised study will be complete by the end of calendar year 2012.

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

The proposed action was synopsisized on the Federal Business Opportunities (FEDBIZOPS) website as a limited source requirement on 23 February 2012 and no additional 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 plans to continue to conduct a limited competition between Boeing and DRS for the types of supplies/services covered by this document 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 representations under my cognizance, which are included in this justification and its supporting acquisition planning data, including Acquisition Plan No. DL-07-07 REV 5, except as noted herein, are complete and accurate to the best of my knowledge and belief.

TECHNICAL/REQUIREMENTS COGNIZANCE:

[Redacted signature block]

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 block]

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 block]

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 Designee of the Head of the Procuring Activity the solicitation of the proposed procurement(s) described herein using other than full and open competition, pursuant to the authority of 10 U.S.C. 2304(c)(1).

[Redacted signature block] James G. Lofgren SEA 025 [Redacted phone number] 8-20-12

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