DEPARTMENT OF THE NAVY

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

IN REPLY REFER TO:
CJ&A No. CR-22046.2

AMENDMENT 01 TO
CLASS JUSTIFICATION AND APPROVAL
FOR USE OF OTHER THAN FULL AND OPEN COMPETITION

1. Contracting Activity.

Naval Surface Warfare Center, Crane Division (NSWC Crane), Code 0241

2. Description of the Action Being Approved.

The purpose of this Class Justification and Approval (CJ&A) Addendum is to increase the ceiling amount of the Basic Ordering Agreement (BOA) N0016423GWP87 by $50.9M, from $49M to $99.9M. The establishment of this BOA was on an other than full and open competition basis to procure engineering services and supplies in support of United States (U.S.) and Foreign Military Sales (FMS) Navy new ship construction, U.S. and FMS Land Based Test Sites (LBTS), and U.S. Navy and FMS sustainment, from Lockheed Martin Rotary and Mission Systems (Lockheed Martin RMS), Moorestown, NJ. Authority to act under this CJ&A expires 30 March 2027.

3. Description of Supplies/Services.

Lockheed Martin RMS shall provide supplies, including replacement and upgraded system components, such as the AEGIS Weapon System (AWS) and AN/SPY radar processor components. Lockheed Martin RMS shall provide services, including engineering support for design changes to enhance capability and performance of the AWS; AN/SPY processor and ancillary equipment; engineering analyses and trade studies to define a technology refresh or technology insert support; developing Engineering Change Proposals to fielded systems for maintenance and obsolescence requirements; design and engineering upgrades for replacement of obsolete system components. U.S. programs for this procurement consists of the AWS, AN/SPY radars, and ancillary equipment.

This contracting effort will deploy these warfighting capability upgrades to the AWS and AN/SPY radar systems at U.S. Navy LBTS, AWS Training Facilities, and to U.S. Navy ships, as well as FMS ships and LBTS. The increase to this BOA ceiling is needed to meet the requirements which have been further defined since the time the BOA was originally executed. This is resulting from decisions made by the AN/SPY-1 Performance to Plan (P2P) Executive Steering Committee (ESC) to provide additional support for the AN/SPY-1 battle sparing requirement and fleet sustainment. Specifically, Lockheed Martin RMS will be increasing supplies including replacement and upgraded system components, such as AWS and AN/SPY-1 processor components, Ordnance Alteration kits procurements and installation. Lockheed Martin RMS will also be providing increased services including engineering support for design changes to enhance capability and

performance of the AWS, AN/SPY-1 processor and ancillary equipment, engineering analyses and trade studies to define a technology refresh or technology insert support, developing engineering change proposals to fielded systems for maintenance and obsolescence requirements, design and engineering upgrades for replacement of obsolete system components.

Lockheed Martin RMS is the current developer of the Baseline 9 (BL9) AEGIS Modernization (AMOD) program for [redacted] as well as new construction [redacted].

Under NAVSEA IWS 1.0 Contract N00024-09-C-5103 and the follow-on contracts N00024-16-C-5102, N00024-17-G-5100, and N00024-20-C-5101, Lockheed Martin RMS is upgrading the AWS and AN/SPY system on new ships, ships undergoing AMOD, FMS Ships, and LBTS with new warfighting capabilities consisting of both hardware and software upgrades. As the AWS Combat System Engineering Agent, Lockheed Martin RMS is developing a Common Source Library (CSL) for all AEGIS platforms, including U.S. Navy Ships, Shore Facilities, AEGIS Ashore, and FMS Ships.

This procurement facilitates the continued synergy between Lockheed Martin RMS-developed baselines (AEGIS Ashore, AEGIS Modernization CG, AEGIS Modernization [redacted], Ballistic Missile Defense (BMD) advances, and FMS) since all are developed with specifications and code maintained in the same CSL. Requirements will include modifications phase with all of the other BL9 upgrades, leveraging a consolidated testing program (including Missile Defense Agency-funded BMD live events).

Delivery requirements will be identified in each individual job order. The estimated value of all orders for services and supplies placed under this BOA shall not exceed $99.9M. This value is based on historical pricing for requirements under the previous agreement, N00164-18-G-WP04, and projected requirements over the period of performance of this potential agreement. The increase from $49.0M to $99.9M is based on the projections of AN/SPY-1 P2P ESC to support the requirement for battle sparing and fleet sustainment. The Government's minimum needs have been verified by the certifying technical and requirements personnel. Services are estimated to comprise approximately 90% of the total dollars; supplies are estimated to account for the remaining approximately 10% of the total dollars.

The table below identifies the projected funding for this BOA:

Estimated Dollar Value ($M)

	FY23 – 27 Totals
SCN	[redacted]
FMS	[redacted]
O&MN	[redacted]
OPN	[redacted]
R&D	[redacted]
Total	**$49**

Estimated Dollar Value ($M) (CJ&A Increased Amounts)

	FY23 - 27 Totals
SCN	[redacted]
FMS	[redacted]
OMN	[redacted]
OPN	[redacted]
R&D	[redacted]
Total *	**$51**

*Total amount inconsistencies are due to rounding to the nearest million.

Estimated Dollar Value ($M) (CJ&A Addendum Totals)

	FY23 - 27 Totals
SCN	[redacted]
FMS	[redacted]
OMN	[redacted]
OPN	[redacted]
R&D	[redacted]
Total*	**$100**

*Total amount inconsistencies are due to rounding to the nearest million.

The contract type for the orders to be placed under this BOA will be selected based upon the degree of refinement of the requirements for the order under development. Fixed priced orders may be used for well-defined requirements such as procurement of assemblies/subassemblies or depot repair on items with adequate pricing history. Cost reimbursement orders may be used for efforts that are less defined such as engineering or technical support efforts.

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

10 U.S.C. 3204(a)(1), Only one responsible source and no other supplies or services will satisfy agency requirements.

5. Rationale Justifying Use of Cited Statutory Authority.

Lockheed Martin RMS is the only responsible source capable of satisfying the Navy's requirements for the AWS, AN/SPY, and ancillary equipment, because the Government does not own the complete Technical Data Packages (TDPs) for these systems, including testing and integration procedures, that would enable competition of these requirements. Inquiries in 2021 to Lockheed Martin RMS by the program office (IWS1AP) in conjunction with the N00024-21-R-5129 solicitation indicated that Lockheed Martin RMS was not willing to sell any of their proprietary intellectual property used in the development of these TDPs. Any redesign or high-level engineering improvement efforts for these systems would require Lockheed Martin RMS support.

Developing a second source would cause substantial duplication of costs for the Government, that is not expected to be recovered through competition, and unacceptable delays in fulfilling the Navy's requirements.

Lockheed Martin RMS, as the original equipment manufacturer, developer, and Combat System Engineering Agent for the AWS, including the AN/SPY signal processor and ancillary equipment, holds all the proprietary design and document rights. They have been the sole manufacturer of the AEGIS system, including the AN/SPY, for more than 40 years.

Additionally, Lockheed Martin RMS has developed an extensive infrastructure at its Moorestown, NJ, facility to support AWS development, capability improvements, production and system tests. This infrastructure, including Production Test Facility, AEGIS SubSystem Engineering Test Station, AEGIS Near-Field Antenna Systems Test, AN/SPY antenna column test station, qualified supplier base, special test equipment, data networks, system test environments, producible engineering workstations, etc. also supports the separate Lockheed Martin RMS contractual responsibilities for AEGIS development, FMS AWS production, U.S. Navy and FMS in-service engineering, and other depot operations. The U.S. Navy invested over $22M in capital; including construction of a 3800sf ElectroMagnetic Interference shielded facility in 1996, Non-Recurring Engineering, and Special Test Equipment for development, testing and integration for classified AEGIS development and testing. The cost of replicating this infrastructure at another supplier could not be recouped through a competitive award.

Development of a new source would incur significant duplicative costs for somewhat comparative infrastructure and special test equipment, though the Lockheed Martin RMS infrastructure would not be truly replicable. For example, the Government estimates that award of this BOA to a source other than Lockheed Martin RMS would result in approximately $23.1M in duplicative non-recurring costs in the form of Special Tools and Test Equipment (STTE) required for AWS developmental efforts and based on past experience with similar NAVSEA BOA orders and the STTE required in their execution.

In order to offset these duplicative costs through competition for the BOA orders for these requirements, the Government would need to achieve an average savings of more than 46% across all of the orders placed against this BOA within the 5-year ordering period. As it is unrealistic to expect this level of savings to result from competition of these requirements with companies less mature in development of capabilities than Lockheed Martin RMS. As such, the duplicative costs are not expected to be recovered through competition.

In addition to the above significant investments, the infrastructure costs would include the duplication of the classified AEGIS real-time network, equipment for the development and integration facility, various AEGIS AWS stimulators and simulators, as well as recurring expenses associated with, software licenses, test equipment maintenance, site support, and other operation costs which have averaged $1M annually.

A second source, if developed, may eventually gain the level of engineering expertise and proficiency currently found at Lockheed Martin RMS, but the AEGIS infrastructure on-site at Lockheed Martin RMS and the synergistic benefits of Lockheed Martin RMS's role in AWS production, AEGIS system engineering, and Fleet support would not be truly replicable.

Lockheed Martin RMS is the only source with extensive experience in the development of each capability associated with BL9. Because of the concurrent nature of the BL9 capability development and system production, only Lockheed Martin RMS can meet the Navy's requirements without unacceptable delays to the [redacted] upgrade program. The Government estimates 30 months would be required to qualify a second source, including 18 months minimum to conduct the

competition, i.e., issue an RFP and conduct a source selection, and another 12 months minimum to hire experienced staff, develop equivalent capabilities and technical understanding of AWS. This delay in award of the follow-on BOA will delay ship upgrade schedules, degrading the operation effectiveness of the AWS and AN/SPY system leading to potentially catastrophic results against a more capable adversary.

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

There is one known source for this requirement, Lockheed Martin RMS. As part of market research, a Request for Information/Sources Sought was posted to the Government Point of Entry, System for Award Management website on 18 NOV 2021 with a response suspense date of 2 DEC 2021. No potential sources expressed an interest in this requirement.

No additional market research was conducted, because it is not practicable for the reasons discussed in Paragraph 5 above, for any company other than Lockheed Martin RMS to provide the required services.

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 CJ&A will be fair and reasonable.

8. Actions to Remove Barriers to Future Competition.

For the reasons set forth in Paragraph 5, NSWC Crane Division, Spectrum Warfare Contracting Division has no plans at this time to compete future contracts for the types of supplies/services covered by this document. In accordance with FAR 6.303-1(d), the circumstances surrounding the need to obtain the required supplies/services without providing full and open competition will be reviewed annually by the PCO. If another potential source emerges, NSWC Crane Division, Spectrum Warfare Contracting Division will assess whether competition for future requirements is feasible.

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]

[redacted] [redacted] Date

Requirements Cognizance:

[redacted]

[redacted] [redacted] Date

LEGAL SUFFICIENCY REVIEW

I have determined this Justification is legally sufficient.

[redacted]

[redacted] [redacted] Date

CONTRACTING OFFICER CERTIFICATION

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

[redacted]

[redacted] [redacted] Date

SENIOR EXECUTIVE OF THE SCIENCE AND TECHNOLOGY REINVENTION LABORATORY APPROVAL

Upon the basis of the above justification, I hereby approve, as Senior Executive of the Science and Technology Reinvention Laboratory, 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. 3204(a)(1).

[redacted]

Dr. Angela Lewis, SES Technical Director, NSWC Crane Date