



DEPARTMENT OF THE NAVY
NAVAL AIR WARFARE CENTER WEAPONS DIVISION
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CHINA LAKE, CA 93555-8100 POINT MUGU, CA 93042-5049

IN REPLY REFER TO:
J&A_11_3341

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

1. Contracting Activity.

Naval Air Warfare Center Weapons Division (NAWC-WD) - China Lake, CA

2. Description of the Action Being Approved.

This justification and approval authorizes and approves on a sole source basis a Cost Plus Fixed Fee IDIQ Contract providing Level-of-Effort of 396,501 hours to be expended over a three year period.

3. Description of Supplies/Services.

This proposed contract will provide performance-based engineering and software support services in support of the Airborne Electronic Attack (AEA) Integrated Product Team (IPT) mission at the Naval Air Warfare Center Weapons Division (NAWCWD) at Pt. Mugu. The AEA mission includes systems engineering and operational software support for the EA-6B, EA-18G, and other advanced electronic attack derivatives. The government retains the responsibility of system integrator and retains responsibility for the delivery of all products to the Fleet.

The contractor will be required to participate as an integrated member of the AEA IPT and utilize AEA IPT processes and procedures. As part of the IPT environment, contractor personnel will be responsible for knowing and using specific Government work processes.

The contractor will be required to interface with other Government and contractor team members, using existing NAWCWD special hardware and laboratory facilities, and accessing NAWCWD test aircraft.

To understand the proposed contract tasking, the following history of the AEA mission is provided:

PMA-234 established NAWCWD Point Mugu as the EA-6B Weapon System Support Activity (WSSA) for the Navy and Marine Corp, providing direct fleet support through design and development of updates to the EA-6B and related AEA avionics/weapons systems. As such, the AEA IPT is assigned the responsibility to design, develop, integrate, test and distribute these products to the Fleet, perform final system integration for all improvements and provide independent technical evaluation and testing of changes. An important achievement in that mission is the establishment of the EA-6B Increased Capability (IC/AP) III program which upgraded the existing EA-6B Block 89A aircraft with war-fighting capabilities.

PMA-265 established the AEA IPT as the Software Support Activity (SSA) for the Electronic Attack Unit (EAU) software. This includes responsibility to design, develop, integrate, test and distribute Operational

Flight Programs (OFFPs) to the Fleet, perform final system integration for all improvements and provide independent technical evaluation and testing of changes.

Merging the two charters, PMA-234 and PMA-265 tasked the AEA IPT, as part of their EAU SSA responsibility, to transition the EA-6B ICAP III electronic attack capability to the EA-18G. This responsibility is limited to the EA-18G Airborne Electronic Attack Subsystems.

When the predecessor contract was awarded in 2008, the Navy's mission with the EA-6B was to end in 2012. Since then, the Navy's mission with the EA-6B has been extended to 2014. The Marine Corps' mission with the EA-6B will continue until 2019. NAWCWD Point Mugu will continue to provide support for the Marine Corps' effort on the program.

The EA-18G's achieved initial operational capability in 2009 and is expected to continue to grow over the next several years.

The proposed contract is a follow-on to N68936-08-D-0026 and N68936-09-D-0026.

Contract N68936-08-D-0026 was awarded to Northrop Grumman Corporation (NGC) on 6 August 2008 to provide engineering support for the EA-6B and EA-18G OFFPs. Although the current contract has two years remaining in the period of performance, it is estimated that the ceiling of \$48,548,251 will be expended by January 2011.

Contract N68936-09-D-0026 was awarded to NGC Bethpage on 29 April 2009 after PMA-265 authorized the government to take ownership of the EA-18G Electronic Attack Unit (EAU) software. This contract provides for engineering services for the EA-18G only. Although the contract has two years remaining in the period of performance, it is estimated that the ceiling of \$9,861,389.00 will be expended by January 2011.

See Appendix A for Estimated Dollar Value

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

10 U.S.C. 2304(c)(1), Only one responsible source and no other supplies or services will satisfy agency requirements.

5. Rationale Justifying Use of Cited Statutory Authority.

In accordance with 6.302-1(b)(1)(i), only NGC possesses the unique capability and expertise that can satisfy the minimum needs of the government.

As the sole designer, developer, and manufacturer of the EA-6B aircraft and the ICAP III on-going software products, NGC is the only firm that possesses the requisite knowledge of the aircraft and weapon system. Over the life of the EA-6B aircraft, no other source has acquired the capability to provide the required systems engineering, software development, integration, and testing efforts as described in the Performance-Based Statement of Work (PWS) associated with this proposed procurement.

NGC has the unique combination of engineering and software design, development and integration knowledge needed to perform the required mission support. In the past nine years NGC has been under contract to NAVAIR for the design, development and installation of two major Block upgrades to the aircraft. The first upgrade, Block 89A, was initially released to the Fleet in 2001. The second major upgrade, ICAP III, was released to the Fleet in 2005. The ICAP III upgrade further enhanced the weapon system, including the addition of a new AN/ALQ-218 electronic warfare receiver with selective reactive jamming capability to counter frequency-hopping intercept radars, Link 16 data link and an integrated communications jamming system.

NGC is the only source that maintains the required knowledge and expertise for the development of the ICAP III software, specifically the Information Manager (IM), Mission Manager (MM), Tactical Display System (TDS), and Central Mission Computer (CMC). These software systems function as an extended Mission Computer by managing the Jammer and Response functions of the ICAP III aircraft. Additionally, these software systems interface with and control the receiver subsystems. Collectively these software operations represent the core of the EA-6B's mission as a stand-off jammer and are necessary to meet mission requirements.

NGC is the only source that provides the development of the mission planning system, specifically the ANTSQ-142 Tactical EA-6B Mission Support (TEAMS) and the core ICAP III Unique Planning Component (UPC) mission planning function on the Joint Mission Planning System (JMPS), including serving as the primary system integrator for other components and UPCs that integrate with the EA-6B UPC. Each EA-6B OFP release requires a corresponding ICAP III UPC release. Accordingly, NGC is the only source capable of providing the UPC updates required to support corresponding OFP releases.

As the sole developer of the ICAP III Block 1 upgrade to the EA-6B, NGC is the only source with the expertise and knowledge required to maintain configuration control of ICAP III Block software products. ICAP III Block 1 was approved for Fleet release in July 2005. NGC developed the ICAP III Block 2 OFP and mission planner utilizing the ICAP III Block 1 software as the baseline. The ICAP II Block 2, 3, and 4 upgrades were approved for Fleet release in 2006, 2008, and 2010 respectively. Although the government has taken formal delivery and configuration control of the ICAP III Blocks 1 through 4 software products, it has not taken delivery of current ICAP III Block 5, 6, and Jammer Management Rewrite products.

The EA-6B's mission is being transitioned to the EA-18G. Boeing is the sole designer, developer, integrator, manufacturer, and supplier of all variants of F/A-18 aircraft. Boeing was under contract to NAVAIR for the System Design and Development (SDD) of the EA-18G. Boeing chose to divest some of the efforts associated with the SDD contract to subcontractors.

NGC was one of the subcontractors assigned by Boeing with the responsibility for the development of the Airborne Electronic Attack (AEA) avionics/software systems. The ICAP III software baseline established for the EA-18G SDD program was ICAP III OT-52. Functional software capabilities and changes beyond the OT-52 baseline (ICAP III Block 3) incorporated into the ICAP III software need to be incorporated into the EA-18G software.

The EA-18G successfully passed Operational Test and Evaluation in July 2009. NGC, as the developer, possesses data that has not been received by the government and data that is in the state of being changed to support on-going EA-18G efforts.

NGC is the sole designer and developer of the EA-18G Airborne Electronic (AEA) operational flight program (OFP) software, including the ALQ-218, ALQ-227, and Electronic Attack Unit (EAU). NGC has provided AEA IPT support for the past 30 years beginning with the EA-18G's predecessor - the EA-6B. They alone have the unique knowledge, skills, and experience needed to perform the required mission support. Because the services required are in support of pre-production and production aircraft, only NGC has the corporate knowledge and information required for the EAU WSSA mission.

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

As of the date of signing this document, no other sources have been located that possess the unique capability and expertise required to perform the required effort. The AEA IPT Lead has performed extensive research by participating in communications among industry and other government aircraft platform program specialists as well as interchange meetings and searches on the Internet. Historical FedBizOps announcements have yielded no other sources that possess the unique capabilities (that equal those of NGC).

7. Determination of Fair and Reasonable Cost.

The negotiation and establishment of a fair and reasonable price will be conducted in accordance with FAR 15.4. As stated in FAR 15.402, the Contracting Officer shall purchase all supplies and services at a fair and reasonable price. Based upon historical cost data from the previous contracts, the Contracting Officer, Defense Contract Management Agency, and Defense Contract Audit Agency auditors have adequate information and background to determine a fair and reasonable price.

In accordance with FAR 15.402, the Contracting Officer shall ensure that all supplies and services provided under this contract are procured at a fair and reasonable price. The Contractor will submit a formal price proposal with certified cost or pricing data and sufficient information to support the accuracy and reliability of the estimate. NGC's proposal will be reviewed by experienced technical analysts, cost analysts and contract specialists with the aid of necessary field pricing support. The Contracting Officer will utilize cost and price analysis as the basis for negotiating a fair and reasonable price.

8. Actions to Remove Barriers to Future Competition.

While the Navy began replacing the EA-6B Prowler in 2009 with EA-18G, USMC EA-6B sustaining efforts will still be required to be performed by NGC through 2018. As those sustaining efforts reduce and the aircraft ages, total dependence on the contractor will decrease. The training and expenses required to develop an organic capability is not warranted for a program in the sundown. Limited opportunities are affected by limited availability of the data package suitable for a competitive procurement.

Appendix A

Estimated Dollar Value In Thousands

	FY11	FY12	FY13	FY14	FY15	FY16	FY17	Total
(b)(2)High				0	0	0	0	(b)(2)High
				0	0	0	0	
				0	0	0	0	
Total (b)(2)High				0	0	0	0	54379245 k