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IN REPLY REFER TO:
J&A_11_2034

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.

The Naval Air Warfare Center Weapons Division (NAWCWD), Pt. Mugu, CA, intends to award on an other than full and open competition basis (FAR 6.302-1 Only one responsible source), a 3 year Cost Plus Fixed Fee contract to AeroMech Engineering, Inc., 888 Ricardo Ct., San Luis Obispo, CA, for the development of a Joint Interoperable Target Control System Standard Interface Vehicle Control (autopilot system).

3. Description of Supplies/Services.

This acquisition is for the development of testing and demonstration of a dynamic flight control system and modular data link unit. AeroMech Engineering, Inc. (AME) supplies Unmanned Aerial Vehicles (UAV) Control systems and autopilot equipment for UAVs. These systems are based on AME's Sharkfin control system, and Flight Control Avionics System (FCAS) autopilot which contain some proprietary software and algorithms developed by AME. AME will develop and demonstrate a dynamic flight control system which will be installed in a UAV which has be converted to a Navy target, and will be controlled via the previous AME developed Ground Control System using the standard interface developed by the Navy. AME has experience with this standard interface from previous Navy flight test programs. The standard interface will eventually be used by the Army, Navy, and Air Force to control targets, achieving interoperability. These items will be used primarily for testing not production.

The proposed acquisition will be a Cost Plus Fixed-Fee (CPFF) contract in accordance with FAR 16.306. The requirement consists of technology insertion, system integration/installation, fabrication/prototyping, testing/certification, studies/analyses, training and engineering support, re-engineering and reverse engineering, for a range of target platforms and systems, including aerial and surface vehicles, intelligent autopilots, Target Control Systems, and payloads.

See Appendix A for Estimated Dollar Value

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

5. Rationale Justifying Use of Cited Statutory Authority.

This effort began under an Army contract (DAAB07-03-D-B-010-0187) with Lear Siegler who subcontracted the effort to AME. They were chosen because they had demonstrated their product at a national telecommunications and Information Administration (NTIA), International Test and Evaluation (ITEA) and the Technology Training Corporation Command and Control Conference which included trade show attended by tri-services. OSD determined that the AME product was the best of those demonstrated as it was a low cost alternative that satisfied the requirement. The original effort was for the ground control station, which has been delivered. The second phase, development of the autopilot system, has begun under a GSA task order. The planned contract will continue the effort which was begun under the GSA task order and continue the development and then the fabrication and delivery of the autopilot which will be installed in the UAVs.

The GSA task order did not provide for data rights. As part of the new contract, data rights will be negotiated to either secure the government rights to the software code that controls the vehicle, as in the case of the ground control system delivered under the Army contract or the right to license the software for government use.

The fleet has a planned training exercise in Utah, scheduled for April 2011 with the purpose of training pilots to identify slow moving targets. They have requested a UAV target as part of this training exercise. This testing will demonstrate that this technology can fly in a target environment. The next opportunity for a fleet test is approximately 6 months later. The exercise will help the services learn how to avoid and defeat this type of UAV, increasing the effectiveness and safety of operation for the military.

Two to three of the UAVs using the AME developed autopilot are to participate in the exercise. If this requirement were to be competitively procured, not only would approximately 6 months of development effort for the autopilot be lost, but also the 2-year effort for the development and delivery of the ground control station. There is insufficient time for another company to develop, test and deploy an autopilot system, let alone develop and deliver a ground control system. It would take several years to develop an autopilot system that works with our standard interfaces to the ground control system.

AME possesses an existing body of experience on NAWCWD Targets, target interfaces, and command and control systems from working on past projects with NAWCWD. AME possesses the current understanding of both the Navy Targets and existing interface requirements. They have a unique body of knowledge regarding the operation and performance of NAWCWD's Targets and command and control systems. Based on this market research, the Government has confirmed that AME possesses a significant body of research data which is aligned with the kind of business NAWCWD does. As a result of this market research the Government has determined that in order to avoid delay and significant duplication of costs, a competitive environment does not exist and that AME is the only source who can provide the service.

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

Continuous market survey is ongoing through conferences and symposiums, reviews of technical published literature, obtaining information obtained through competitive procurements in related technical

areas, and discussion with several experts in the field. On 22 September 2010, the Government issued a sources sought in Seaport-e. Based on the responses it appears that there are two companies with potential capabilities to perform similar efforts. However, due to schedule constraints there is insufficient time to permit development of new software. It is anticipated that the time necessary for a new company to develop a working system would be 24 months. This estimate is based on the experience of working with AME and similar suppliers.

7. Determination of Fair and Reasonable Cost.

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. AME'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.

Continuous market research, surveys, and conference attendance to understand potential future competitors are regularly pursued to identify new sources and technology. The Government is working on getting the data rights to the software or be licensed to use the software. The Government's intention is to own the data rights to all the software so this requirement can be competed in the future.

Appendix A

Estimated Dollar Value In Thousands

	FY11	FY12	FY13	FY14	FY15	FY16	FY17	Total
RDT&E	Ex (b)(2) high			0	0	0	0	1600
Total	Ex (b)(2) high			0	0	0	0	$ 1600 k