



DEPARTMENT OF THE NAVY
NAVSUP FLEET LOGISTICS CENTER SAN DIEGO
3985 CUMMINGS ROAD
SAN DIEGO CA 92136-4200

J&A Number:
240-16-0003

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

Upon the basis of the following justification, I as Contracting Officer hereby approve use of the other than Full and Open competition for proposed contractual action pursuant to the authority of 10 USC 2304(c)(1), "Only one responsible source and no other supplies of services will satisfy agency requirements."

1. **CONTRACTING ACTIVITY:**

The contracting activity is the NAVSUP Fleet Logistics Center, San Diego, CA, (NAVSUP FLCSD). The Contracting point of contact is Ms. Sheri K. Bunn-Markryd, Contract Specialist, Code 240, (619) 556-7856, sheri.bunnmarkryd@navy.mil. The requiring activity is the Fleet Readiness Center Southwest (FRCSW), San Diego CA.

2. **DESCRIPTION OF THE ACTION BEING APPROVED:**

This Justification and Approval (J&A) authorizes and approves a Sole Source, Firm Fixed Price (FFP) award for Siemens Corporation (Siemens) NX, version 10, NX Mach III Advanced Design/Simulation, version 10 and TC Visualization version 10.1 software (NX) Licensing and Support to be used by the Code 4.3 Structural-Mechanical Analysis Laboratory, FRCSW, NAS North Island, for the Design and Finite Element Analysis of Repairs and Modifications of F/A-18 Airframe Structure. Siemens is the Original Software Developer (OSD) and is the only supplier able to provide the specific software updates and patches that are developed and provide required technical support. In Fiscal Year 15 NAVSUP Fleet Logistics Center, San Diego, CA, (NAVSUP FLCSD) processed and awarded contract number N00244-15-P-0596. This follow-on acquisition will be conducted in accordance with procedures located in FAR 13.5 (Test Program For Certain Commercial Items) and FAR 12 (Acquisition of Commercial Items).

3. **DESCRIPTION OF SUPPLIES:**

Requirement is for one year software licensing with nominal technical support, sold as a single, non-severable software package. The estimate total contract value for this contract is funded with Navy Working Capital. The period of performance required for this year's requirement is from September 30, 2016 through September 30, 2017. The support does not involve any custom software or periodic (preventative) maintenance services. The software licensing Computer Aided Engineering NX application is required by the original software developer (OSD) SIEMENS CORP (to include non-severable, updates patches and limited technical support). It is one of the principal 3D CAD Design and Finite Element Analysis (FEA) applications that is used by the OEM manufacturer (Boeing & Northrop Grumman Corp (NGC) and FRCSW Engineering to design, analyze and modify the F/A-18A-D, F/A-18E/F, and EA-18G Airframe Structure. Software licenses will be delivered to FRCSW via electronic means.

4. **STATUTORY AUTHORITY PERMITTING OTHER THAN FULL AND OPEN COMPETITION:**

The statute authority permitting other than full and open competition is FAR 6.302-1(a)(2)(ii); supplies may be deemed to be available only from the original source in the case of a follow-on contract for the continued development or production of a major system or highly specialized equipment, including major components thereof, when it is likely that award to another source would result in substantial duplication of costs to the Government that is not expected to be recovered through competition.

5. RATIONALE JUSTIFYING USE OF CITED STATUTORY AUTHORITY:

SIEMENS Product Lifecycle Management DBA SIEMENS CORP, 5800 Granite Parkway, STE 600, Plano, TX 75024-6612. The subject Computer Aided Engineering application software and its related services are the primary Finite Element Analysis (FEA) applications that are only developed and maintained by the OSD, and used by Boeing, Northrup (Aircraft OEM's) and FRCSW Engineering to design, analyze and modify the F/A-18A-D, F/A-18E/F, and EA-18G Airframe Structure.

The Navy is driven to use this software to make use of the Government owned CAD & FEA technical data developed with OSD Advanced Analysis Programs both by NAVAIR Engineering, OEM Boeing and Northrup. The Navy continues to utilize this software because of the extensive archival model and answer files now stored on the NAVAIR NI RDT&E Structural-Mechanical Analysis Lab's multi-terabyte Data Store & Storage devices. It also seamlessly supports newly created OSD FEA model data coming from F/A-18 A-D Service Life Extension Program (SLEP), F/A-18 E/F Service Life Assessment Program (SLAP), and the next generation EA-18G Growler weapon's platform. This advanced and resource intensive application software requires high power IT hardware that is uniquely defined, procured and maintained by the NAVAIR NI 433 Structures Engineering Division.

Although there are other suites of robust CAD & CAE application software programs, the conversion of over 18,000 existing complex models would take hundreds of hours to re-create, modify and validate each model. Even if doable, the costs in terms of real dollars and lost mission would be almost incalculable. Costs to re-create 18,000 existing complex models – without validation – would far exceed the cost of the software packages subject of this sole-source acquisition. Because of structural complexity, each individual model would have to be converted with third party application program, which would also have to be procured, and then each model would have to be individually validated as correct by a Senior Design Engineer. Conversion programs do not 100% convert all data. Notes, material properties, structure mold lines and complex surface data do not 100% translate. Accordingly, the alternative is not only cost-prohibitive but its reliability is speculative at best.

6. DESCRIPTION OF EFFORTS MADE TO SOLICIT OFFERS FROM AS MANY OFFERORS AS PRACTICABLE:

At present, Siemens is the sole developer and OSD of the NX software in use by FRCSW. It owns the proprietary data rights to the software and the software engineering environment in which it creates frequent software changes.

It has the requisite technical knowledge and experience to perform all required software updates to the program logic and to ensure that the software is in compliance with US Navy and DOD Information Assurance guidelines. The Contracting Officer will synopsise the Government's requirement and the associated Justification and Approval through the Navy Electronic Commerce Online (NECO) website. Siemens' corporate policy states that any Siemens licensed partners who are authorized to resell Siemens software products must be solely managed by that individual reseller and are assigned a specific identifying number. Siemens PLM software tracks this licensing by utilizing a licensing assignment system known as 'Sold To's. Each 'Sold To' is individually referenced to a reseller and customer. It is not possible to add to or move this particular licensing from one authorized resellers' 'Sold To' number(s) to another, as that violates individual licensing agreements between Siemens and the individual resellers. Siemens will not provide a license file that mixes 'Sold To' ID numbers. An award to a 2nd party Siemens reseller will result in the necessity to issue separate license files. New 'Sold To' licenses would require the setup of a separate licensing Server which would require 1.5 years to procure and install and add an additional cost to the Government of approximately \$10,000.00 in new hardware and \$141,000.00 in unnecessary man hours. This delay could potentially result in disruptions and delays within all FRC Depots that support the F/A-18 Airframe including Production, Manufacturing, Composite Materials, Flight Line and Machine Shops. All Fleet Support O-Level and I-Level (in the field) requests for engineering investigations, request for repairs, request for one time flights, requests for ferry flights, and requests for return to service documents, will significantly impact the FRCSW's ability to perform their stated mission.

7. DETERMINATION OF FAIR AND REASONABLE COST:

The Contracting Officer will determine pricing for the software licenses are fair and reasonable. A complete analysis of the contractor's price will be performed in accordance with applicable FAR provisions. Commercial price lists, procurement history and other available pricing information will be reviewed. A determination of fair and reasonable pricing as required by statute and regulation will be made by the Contracting Officer.

8. MARKET RESEARCH:

No additional market research was performed for the proposed action because it is not practical for the reasons discussed above for anyone other than Siemens to satisfy the Government's requirement. This J&A will be synopsized in FedBizOpps, which is the Government-wide Point of Entry (GPE).

9. OTHER FACTS SUPPORTING THE USE OF OTHER THAN FULL AND OPEN COMPETITION:

The retraining of over 100 Engineers would be wholly insurmountable, prohibitively expensive to the Government, and would immediately create a near work shutdown situation that our Fleet cannot tolerate. In addition, all our initial investment would be lost and new OSD model based definition design models of the next generation F/A-18E/F and EA-18G could not be accurately interrogated and manipulated for analysis by our Engineering Division. Estimated and verifiable sunk costs are in excess of \$1,000,000.00.

10. A LISTING OF SOURCES, IF ANY THAT EXPRESSED IN WRITING INTEREST IN THE ACQUISITION: None.**11. ACTIONS TAKEN TO REMOVE BARRIERS TO COMPETITION:**

While there may be other software products in the commercial marketplace available at present there are no immediate plans outlined by NAVAIR/FRCSW to seek out new software products to perform the functions that the Siemens Corporation products currently perform. The Navy has invested a significant amount of funding in the existing software licenses and Navy personnel are currently trained and in full operational capability with the existing software. A transition to new products would be extremely costly in terms of purchasing new software, and hiring instructors to train Navy engineering personnel. This type of transition would impact the requiring activities ability to perform their stated mission.

Market research will be conducted by the requiring activity for future requirements to identify all possible sources. Effort will be made to obtain information, points of contact and business status for all identified sources. If other potential sources emerge, NAVAIR will assess whether competition for future requirements is feasible. The F/A-18 Fleet Support Team (FST) is not in a position to remove barriers that were imposed by the initial Weapon System Acquisition. A process that was intensely competed and once approved and awarded dictates that we must maintain this weapon systems with the same tools that were used to originally design, modify, and analyze that airframe and components.

12. Contracting Point of Contract:

The point of contact at Fleet Logistics Center, San Diego is Ms. Juana Perez, Code 240 at DSN 526-6763, Commercial (619) 556-6763 or e-mail at juana.perez@navy.mil