

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
GEORGE C. MARSHALL SPACE FLIGHT CENTER

JUSTIFICATION FOR OTHER THAN FULL AND OPEN COMPETITION (JOFOC)
PURSUANT TO TITLE 10 U.S.C. 2304(c)(1)

1. This document is a Justification for the Other Than Full and Open Competition (JOFOC) prepared by the NASA Marshall Space Flight Center (MSFC) in accordance with Federal Acquisition Regulation (FAR) Part 6.3, Other Than Full and Open Competition, and NASA FAR Supplement (NFS) Part 1806.3, Other Than Full and Open Competition.
2. Description of the action being approved: This procurement is for the purchase of discrete cards and cables; Analog-to-Digital (A/D) and Digital-to-Analog (D/A) cards and cables; and PCI (Peripheral Component Interconnect) Mezzanine Card (PMC) adapters in support of the Space Launch System Program (SLSP) avionics system testing and development within the Integrated Avionics Test Facilities (IATF) which includes the System Integration Labs (SIL), the Software Development Facilities (SDF), and the System Integration Test Facilities (SITF). These labs perform the integration and testing of the avionics systems and flight software for the new launch vehicles.
3. Description of the supplies or services required to meet the agency's need, including estimated value: General Standards discrete, analog I/O, digital I/O, and PMC products to support MSFC IATF labs. The General Standards products provide the necessary simulated electrical interfaces for the SLSP avionics integration, development, and test. The total estimated cost of this effort is \$273,771.15.
4. Statutory authority permitting other than full and open competition: This recommendation is made pursuant to FAR 6.302-1, which implements the authority for 10 U.S.C. 2304(c)(1) for acquisition of supplies or services from only one source and no other supplies or services will satisfy agency requirements, full and open competition need not be provided for.
5. A demonstration that the proposed contractor's unique qualifications or the nature of the acquisition requires the authority cited: General Standards provides true PCI Express form factor boards with the ability to do simultaneous conversions and direct memory access (DMA). Their A/D and D/A boards provide independent convertors per channel allowing simultaneous operation which allows the software to pull the data from the cards or write data to the card as fast as possible. General Standards' discrete boards provide avionics differential discrete capability for both input and output discrettes in a true PCI Express form. General Standards products are deployed throughout the IATF labs used to simulate SLSP avionics electrical interfaces in order to test the avionics system and flight software. General Standards' products have a proven and established compatibility within the real-time environment of the IATF labs that is well documented.
6. Description of the efforts made to ensure that offers are solicited from as many potential sources as practicable: Pursuant to NFS 1804.570, this proposed contract action will be published on the NASA Acquisition Internet Service (NAIS) and pursuant to FAR 5.201; this proposed contract action will be synopsisized in the Federal Business Opportunities. The results received in writing will be added to this document by addendum.
7. A determination by the contracting officer that the anticipated cost to the Government will be fair and reasonable: Based upon previous purchases.

8. Description of the market survey conducted, and the results, or a statement of the reasons a market survey was not conducted: Market research and product evaluations were conducted by the simulation development engineers. General Standards' products were compared against other vendors providing discrete, A/D and D/A products. The thorough evaluations resulted in General Standards being the only vendor to meet the real-time environment requirements while demonstrating the functionality, compatibility and performance required for the SLS avionics integration and test support.
9. Other facts supporting the use of other than full and open competition, such as technical data packages, specifications, engineering descriptions, statements of work, or purchase descriptions suitable for full and open competition are not viable due to the fact that these discrete, A/D, D/A and PMC products are proprietary to General Standards and already deployed in multiple products – System Integration Test Facility in support of Core Stage avionics integration and test; and Software Development Facility 1,2, 3 in support of SLS Flight Computer Flight Software development and test. Guaranteed performance, functionality and compatibility across products must be maintained. Choosing another vendor would require extensive re-writing of existing code and re-design of the existing products. This would be time consuming and costly delaying schedules and hardware delivery.
10. Sources, if any, that expressed an interest in writing in the acquisition: See addendum
11. The actions, if any, the Agency may take to remove or overcome barriers to competition before any subsequent acquisition for the supplies or services required: There are no known actions which the agency may take to remove or overcome barriers to competition before any subsequent acquisition for the systems required.

For the above reasons, full and open competition is not feasible. Therefore, purchase of the supplies or services from General Standards is the only practical approach.

I hereby certify the facts in this justification and any supporting data used for this justification are accurate and complete to the best of my knowledge.



Linda Brewster
Avionics & Software Ground Systems Test
Branch
ES53

7-29-14

Date

I hereby certify that the above justification is complete and accurate to the best of my knowledge and belief. In addition, I hereby determine that the anticipated cost to the Government will be fair and reasonable.



James W. Bailey
Contracting Officer
Office Chief, Engineering Lab Support Office

7-31-2014

Date

Approved:



Roxanne C. Melton
Contracting Officer
Office Manager, Engineering Support Office

8-14-14

Date