

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
LYNDON B. JOHNSON SPACE CENTER**

Limited-Sources Justification

Pursuant to Federal Acquisition Regulation (FAR) 8.405-6

Advanced Technology & Integration Contract (ATIC) Bridge Order

1. This document is a Limited-Sources Justification (LSJ) under FAR 8.405-6 prepared by the NASA Johnson Space Center (JSC).

2. The nature and/or description of the action being approved:

The proposed action is to award the ATIC Bridge Order for a value of \$4,500,000 and for a period of performance of 1 year and 4 months. This acquisition is being conducted under the authority of the General Services Administration (GSA) Schedules Program. This bridge order consists of the current work for the Research Development and Advanced Technology Support (RDATS) Contract and the current work for the Program Control and Configuration Management Support (PCCMS) Contract. The bridge order is necessary because the current RDATS is utilizing the contract ceiling early and will reach the maximum limit in May 2013. In addition, the PCCMS Contract will end November 30, 2012. In order to fulfill the current RDATS and PCCMS requirements and provide adequate time for the procurement process and transition of the bridge order to the subsequent ATIC award, this bridge order with a period of performance from December 1, 2012, through March 30, 2014, is required.

The projected schedule for a new award of the new ATIC order is February 1, 2014, with a contract start date of April 1, 2014.

3. Description of the supplies or services required, include an estimated value:

The procurement will include support that is critical to maintain and ensure the current and long term program support capabilities of Mission Operations Directorate (MOD) facilities for mission operations. MOD must continuously seek out new and advanced technologies for improving effectiveness and efficiencies, maintain or seek out highly specialized custom software engineering, and research development of newer software to improve operations. This includes, but is not limited to, defining system and process requirements; consideration of proposed system life/cycle; opportunities for economy and efficiency; performance measurement and monitoring, expandability, and upgradeability; systems integration/migration; and cost/benefit analysis support.

The contract will perform research and development for three major facility upgrade projects: Mission Control Center (MCC) for the 21st Century, Training Systems for the 21st Century, and User Applications for the 21st Century. In addition, the contract will perform research and development for the Operations Technology Facility (OTF) Project Support. The OTF is a prototyping facility that supports the evaluation, development, and testing of new technologies, tools and systems for the Mission Operation Facility Division (MOFD) within the MOD.

This task includes analysis of the MOFD architectures and associated processes used to support the International Space Station flight control team and future programs. Investigating alternative architectures, approaches, processes, and tools, then providing recommendations on performance and capabilities, enables the MOD to reduce the lifecycle cost of MOFD facilities. Systems engineering integration and coordination of development and delivery of MCC applications are also required. This support will focus on development of techniques, processes, tools, and systems that will better accommodate the requirements of ground operations support tools. This effort also provides external technical support for the installation/configuration of MOD application tools and may include the development of user's guides and training documentation with travel to support these efforts in other locations.

Software engineering support for space vehicle systems reconfiguration prototyping using Extensible Markup Language (XML) Telemetric and Command Exchange (XTCE) is also required. XTCE is an international standard language for the description of Mission Operations Databases developed by the Object Management Group. XTCE provides an XML schema for use in the development and validation of XML files containing telemetry and command metadata. Software engineering support for the establishment of a NASA software repository in cooperation with the NASA OpenGov initiative is also included as required.

The subject procurement also includes managerial, administrative, and technical support needed to provide the functions, and products and services in support of the MOD and NASA's human spaceflight programs. The subject procurement support is vital to MODs project management processes, policies, and integration of MOD requirements, which includes tracking and administration of MOD contracts and technical baseline requirements, configuration and data management, information technology resource management, and office automated systems support. All project management activities are focused to ensure the efficient performance of the organization's strategic and operating plan correlated with cost, schedule and technical performance, make adjustments to align MOD resources, capitalize on new opportunities, and most importantly, help the MOD leadership team create a culture of commitment and high performance.

JSC is proposing to contract through GSA with Tietronix for a 16-month period from December 1, 2012, to March 31, 2014. The contract type is a Blanket Purchase Agreement with an estimated value of \$4.5 million.

4. Statutory authority permitting limiting sources and if applicable a demonstration of the proposed contractor's unique qualifications to provide the required service:

The statutory authority for proceeding with this acquisition under FAR 8.405-6 (a)1 or "Circumstances justifying limiting the source" is (i)(B) "Only one source is capable of providing the supplies or services required at the level of quality required because the supplies or services are unique or highly specialized." Under RDATS, Tietronix delivers design, development, testing, integration of highly specialized custom software engineering, and research development of applications and solutions into mission control operations systems and other systems within MOD as it pertains to NASA programs. This includes situational awareness displays, web based workflow systems, computer simulation and modeling, data visualization and virtual reality,

intelligent systems, training systems, and flight crew operations applications for MOD and for advanced technologies into Mission Control Center Systems (MCCS) and its operations. This highly specialized research explores new technologies for improving the effectiveness and efficiencies for NASA as it relates to mission operations within the MCCS.

Tietronix is the only responsible source with the qualifications to provide these highly specialized services within the required timeframe which necessitates an award before December 1, 2012. Pursuant to a bridge order, Tietronix will retain the highly skilled incumbent workforce. This will assure completion of the extremely specialized PCCMS requirements which call for the testing and use of the Athena project information system. Since Tietronix was the developer of this system, they will be able to support this system under the PCCMS requirements. These facts, together with the very real potential for the interruption of critical Mission Control services adds to the conclusion that Tietronix is the only source that can provide these highly specialized services in the timeframe required.

5. A determination by the Contracting Officer (CO) that the order will be the best value consistent with FAR 8.404(d).

Pursuant to FAR 8.404 (d), GSA has already determined the prices of supplies and fixed-price services, and rates for services offered at hourly rates, under schedule contracts to be fair and reasonable; however, prior to the award of the proposed order, pricing information will be obtained from Tietronix. A price analysis will be performed and documented to sufficiently determine that the order represents the best value and results in the lowest overall cost alternative to meet the Government's needs. The price analysis will include a comparison of the existing efforts performed by Tietronix on the RDATS Contract as well as the efforts performed on the PCCMS Contract. The labor hours, skill mix, material, and travel will be evaluated and approved by the CO's Technical Representative. Although GSA will negotiate fair and reasonable pricing, ordering activities may seek additional discounts before placing an order (see FAR 8.405-4).

6. A description of the market research conducted among schedule holders and the results or a statement of the reason market research was not conducted.

A Request for Proposal (RFP) was posted to FedBizOps on February 9, 2012, for the MOD Support Contract (MSC). (MSC was the new name for the follow-on PCCMS contract.) Three proposals were received on March 19, 2012. These three proposals were found to be unacceptable for the award of a prospective contract, so the Source Selection Official made the decision to cancel the RFP.

On February 17, 2012, a Request for Information (RFI) for the RDATS effort was posted to FedBizOps. Ten responses were received on March 06, 2012. A second RFI for RDATS was posted to FedBizOps on April 24, 2012, in which three additional responses were received. There were no 8(a) firms that were found that could do the work. In the interim, the acquisition team had several meetings with Industry Assistance discussing possible strategies to proceed with this procurement. During that time, the Procurement Officer reached out to the Houston Small Business Administration Office to discuss the 8(a) status of the requirements moving

forward. In September of 2012, it was recommended by Industry Assistance to place a bridge order on the GSA schedule. Due to the time required for the competitive procurement process and with approximately 60 days until the PCCMS contract expiration, it is in the best interest of the government to proceed with this bridge contract. Attempting to award a competitive or other sole-source bridge contract would put JSC in jeopardy of having a break in service. Any disruption in service would pose unacceptable risk to the agency.

7. Other facts supporting the use of limiting sources:

Conducting a competitive procurement for the bridge period would be cost and schedule prohibitive. With approximately 60 days until the expiration of the current PCCMS contract, there is not sufficient time to carry out the process of advertising, soliciting, evaluating competitive proposals, obtaining the necessary reviews and approvals, and awarding the contract for these services. This support is vital to MODs business/project management processes, policies, and integration of MOD requirements, tracking and administration of MOD contracts and technical baseline requirements. If NASA elects to bring in another contractor on a sole-source basis, it could expect to incur additional costs ranging from \$50,000 to \$200,000 for phase-in alone. Due to the limited time available, the requirements to compete this short term effort would jeopardize the government's ability to procure these services prior to December 1, 2012.

8. A statement of the actions, if any, the Agency may take to remove or overcome any barriers that led to the restricted consideration before any subsequent acquisition for the supplies or services is made.

The Agency will take the necessary steps to compete these services. The Agency will issue a sources sought synopsis that will describe clearly the primary and vital functions needed to perform the work. This will ensure that the government receives the greatest number of viable responses in order to promote competition.