

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

**LIMITED SOURCE JUSTIFICATION**

I recommend that NASA George C. Marshall Space Flight Center negotiate with Lockheed Martin Space System Company (LMSSC) only, for a follow-on requirement to maintain specialized engineering expertise for the Test Laboratory (ET) and their respective development and testing needs. The specialized engineering support required by this procurement is a continuation of effort that has been performed by LMSSC under task order NNM10AA53T. This will serve as a bridge effort and be competed under the Marshall Engineering Technicians and Trade support (METTS) re-competition which is anticipated to be awarded by March 1, 2013. The total estimated ceiling amount of the proposed order is \$1.8M and the estimated period of performance is approximately 12 months.

LMSSC is instrumental in providing the ET Laboratory with unique testing support at the MSFC Materials Environments Test Complex facility (METCO) and other ET facilities in support of the SLS Program Thermal Protection systems (TPS) materials and sub-components development and testing. LMSSC has exclusively provided continuous support of the Improved Hot Gas Facility (IHGF) since 1986, which has been used to perform development and certification testing of TPS materials for the Space Shuttle and Ares. LMSSC support extends into test engineering, hands-on technician support, and test data report preparation.

This acquisition will be conducted under the authority of the Multiple Award Schedule (MAS) Program in accordance with Title III of the Federal Property and Administrative Services Act of 1949 (41 U.S.C. 251, et seq.) and Title 40 U.S.C. 501, Services for Executive Agencies. Accordingly, it is proposed that an order for the required supplies or services be placed under General Services Administration (GSA) Federal Supply Schedule (FSS) Contract GS-10F-0317W, to acquire specialized engineering support.

This recommendation is made pursuant to FAR 8.405-6(a)(1)(i)(B) which authorizes limiting the number of sources from which the government may place orders for supplies or services from GSA FSS contracts when a Limited-Sources Justification (LSJ) has been approved demonstrating that only one source is capable of providing the supplies or services required at the level of quality required because the supplies are unique or highly specialized.

The circumstances limiting consideration to one GSA FSS source are as follows:

1. LMSSC possesses unique experience in human rated space vehicles, and engages that knowledge base to support characterization test capabilities that address physical, mechanical, thermal, cryogenic, and chemical/analytical properties necessary to support SLS TPS development. LMSSC personnel have complete knowledge of all test facilities and techniques within the Test Laboratory where TPS material testing would take place which ensures that support to NASA MSFC will meet critical SLS schedules. LMSSC provided critical support of the IHGF used to perform development and certification testing of TPS materials for the Space Shuttle and for Ares. LMSSC possesses a full complement of support personnel with crucial certifications to meet the above stated requirements for the ET laboratories. The government would realize an estimated \$1.5M in learning curve skills and re-certification requirements that

would result in a 6 to 18 month delay, to replace and resume the current level of support provided by LMSSC.

2. The Hot Gas Facility is currently undergoing a major refurbishment by replacing the 1986 vintage combustor with a new design which should be more robust and stable. The LMSSC personnel have been intimately involved in the design process of the new combustor and a loss of their knowledge of the new combustor and the existing facility hardware would jeopardize the refurbishment effort. In addition, if there are any issues with the new combustor, then the old combustor will have to be re-installed and LMSSC possesses the unique knowledge of the old combustor as they have been the sole operators of the facility since it came on line in 1986.

3. LMSSC, working in close cooperation with FLIR Systems, Incorporated, manufacturer of infrared (IR) cameras and software, has gained extensive hands-on experience and critical skills as the sole engineering and technical support for IR Thermography operations at MSFC. LMSSC technicians and operators hold mandatory certifications and a steadfast understanding of the technology needs and requirements integral to FLIR IR cameras, and software. LMSSC support was predominately for the Space Shuttle Program; however, LMSSC's specialized knowledge will transition to critical support to the SLS Program. Substantial learning curve skills and re-certification requirements to replace and resume successful IR support would result in a minimum 8 month break in service provided by LMSSC.

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. Therefore, ordering activities are not required to make a separate determination of fair and reasonable pricing, except for a price evaluation as required by 8.405-2(d), which states, "The ordering activity is responsible for considering the level of effort and the mix of labor proposed to perform a specific task being ordered, and for determining that the total price is reasonable."

Market research among FSS holders was conducted. This research revealed few potential sources for the proposed effort and none with the requisite knowledge, expertise, and depth of experience to replace LMSSC. Estimates of duplication of cost to the Government if LMSSC does not continue as the supporting contractor have been presented in the body of the recommendations above. The estimate for cost of duplication to the Government is based on historical rate and cost data and MSFC engineering estimates for the same or similar work. This research shows that the services required by this acquisition are not available from any other contractor for the time frame of this bridge effort.

There are no known actions which the agency may take to remove or overcome barriers to competition before any subsequent acquisition for the services required.

I hereby certify the facts in this justification and any supporting data which form the basis for this justification are complete and accurate.

/s/ Original signed by

01/18/2012

\_\_\_\_\_  
Melvin R. Carruth  
Director  
Test Laboratory

\_\_\_\_\_  
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.

/s/ Original signed by

01/18/2012

\_\_\_\_\_  
David A. Iosco  
Contracting Officer

\_\_\_\_\_  
Date

Concurrence:

/s/ Original signed by

01/27/2012

\_\_\_\_\_  
Kim E. Whitson  
Procurement Officer

\_\_\_\_\_  
Date

Approval:

/s/ Original signed by

01/31/2012

\_\_\_\_\_  
Arthur E. Goldman  
Center Competition Advocate

\_\_\_\_\_  
Date