

**National Aeronautics and Space Administration
Ames Research Center
Moffett Field, California 94035-1000**

Justification for Other than Full and Open Competition
[FAR 6.303-2(b)(1)]

Summary Information:

Initiating Office: NASA Ames Research Center
Aeronautics Projects Office, Code AT

Purchase Request No.: 4200550173

Procurement Title: LSTAR V(2) Radar Refurbishment

Total Estimated Value: **FOIA Ex. 5**

Period of Performance: Six months from date of award

Statutory Authority: 10 USC 2304(c)(1), *Only One Responsible Source and No Other
[FAR 6.303-2(b)(4)] Supplies or Services Will Satisfy Agency Requirements*

This Justification for other than full and open competition has been prepared in accordance with the requirements of Federal Acquisition Regulation (FAR) 6.303 and NASA FAR Supplement (NFS) 1806.303.

Detailed Information:

A. Nature and/or description of the action being approved. [FAR 6.303-2(b)(2)]

NASA Ames Research Center (ARC) proposes to negotiate a sole source contract with SRC, Inc. of North Syracuse, NY. SRC designed and built the LSTAR V(2) radar systems for the US Army for military use. SRC is the only source available to provide the original equipment manufacturer parts and software for the radar systems. The proposed contract will last for the length of time needed to refurbish and replace broken and missing hardware on the radar systems as well as to replace the military version of the operational software to a version designed for non-warfare use. The Government estimates that six (6) months will be necessary to complete these tasks on the eight (8) radar systems.

B. Description of the supplies or services required to meet the agency's needs (including estimated value). [FAR 6.303-2(b)(3)]

The Safe Autonomous Systems Operations (SASO) Project is one of the projects within the Airspace Operations and Safety Program in NASA's Aeronautics Research Mission Directorate. One of the areas of research in SASO is Unmanned Aerial Systems (UAS) Traffic Management (UTM). The near-term goal of the UTM project is the development and demonstration of a traffic management system for the Federal Aviation Administration (FAA) to safely enable low-altitude UAS operations within five years. Further in the future (approximately 10 to 15 years), the goal is to safely enable the anticipated dramatic increase in density of all low-altitude airspace operations. Working alongside many committed government, industry and academic partners, UTM will lead the research, development, testing, and implementation needed to

explore the functional designs, concepts and technology development necessary to enable safe low-altitude UAS operations.

One of the technologies required to test UAS operations in the national air space (NAS) is a radar system. A radar system is required to perform surveillance and tracking of uninvited aircraft in a test region so that “sense and avoid” tactics can be utilized to prevent contact.

To accomplish this purpose, the U.S. Army sent eight (8) decommissioned LSTAR (V)2 radar systems, at no cost, to the Aeronautics Projects Office at NASA ARC. The systems sustained significant mishandling and no longer operate properly.

In order to bring all of the LSTAR (V)2 radar systems up to an operational performance level, the hardware first requires inspection as to their usability. Any parts that are unusable or missing must be replaced with original equipment manufacturer (OEM) parts.

In addition, the military software used to operate the radar systems for combat use must be replaced by the LSTAR Air Surveillance Software, which provides a tracker, classifier, and display tailored for air surveillance operations. This software also enables 3-D detection of traditional aircraft (e.g., commercial, small/private, and rotary wing) as well as birds.

After refurbishing the hardware and replacing the software, the contractor must test each of the radar systems to ensure operational integrity.

SRC, Inc. tentatively estimated that the necessary inspections, software replacement with the LSTAR Air Surveillance Software, and functional testing would cost **FOIA Ex. 5** per radar system, for a total estimated cost of **FOIA Ex. 5**. Hardware replacements with OEM parts may be priced separately, and on an as-needed basis depending on the results of inspections, and may be included as options in the resulting contract.

C. An identification of the statutory authority permitting other than full and open competition. [FAR 6.303-2(b)(4)]

The statutory authority for this procurement is 10 U.S.C. 2304(c)(1), Only One Responsible Source and No Other Supplies or Services Will Satisfy Agency Requirements.

D. Demonstration of the proposed contractor’s unique qualification or the nature of the acquisition requires use of the authority cited. [FAR 6.303-2(b)(5)]

The current radar systems were made for military use only, contain military operational software, and are ITAR-compliant (International Traffic in Arms Regulations). The LSTAR V(2) radar systems have never been sold to civilian companies and have not been sold or provided to foreign governments without the permission of the Department of Defense and the Department of State. The LSTAR V(2) radar systems that were decommissioned by the U.S. Army were provided only to U.S. government agencies and they all require hardware and software refurbishment.

An internet search for LSTAR V(2) OEM parts identified only SRC, Inc. as a potential source. Additionally, SRC informed ARC that the U.S. Army never obtained a technical data package, so SRC is the only company with the documentation to do the hardware and software maintenance. Therefore, SRC is the only source of OEM parts and software.

In addition, award to any other source would result in unacceptable delays in fulfilling the agency's requirements. The time required for NASA to purchase the data package from SRC and for another contractor to gain the knowledge and proficiency to be able to accomplish the hardware and software refurbishment would be much longer than the estimated six months for SRC to complete the work. The Safe Autonomous Systems Operations Project requires the radar units to be fully functional as soon as possible so that its research in UAS traffic management can fully utilize the radar units to develop and demonstrate a traffic management system for the FAA to safely enable low-altitude UAS operations.

Furthermore, to procure these refurbishment services from any source other than SRC would create substantial duplication of cost. The procurement of another source would require that source to reverse engineer the existing radar system, write new operational software, and then repair the radar system hardware and software. It is unlikely that those additional costs would be recovered through competition.

E. Description of efforts made to ensure that offers are solicited from as many potential sources as is practicable, including whether a notice was or will be publicized as required by FAR Subpart 5.2 and, if not, which exception under 5.202 applies. [FAR 6.303-2(b)(6)]

On May 5, 2015, NASA ARC posted a Sources Sought Notice on the NASA Acquisition Internet Service (NAIS) and the Federal Business Opportunities (FedBizOpps) portals to request information from potential sources capable of performing the hardware and software refurbishment and replacement. The notice provided instructions for interested firms to submit their capabilities and qualifications to the Contract Specialist. The Contract Specialist received three (3) responses, including from SRC, Inc. Of these firms, the Contract Specialist determined one as not viable because it did not address the capabilities requested in the RFI. Another company expressed interest in the work, but it did not identify any ability to obtain replacement parts. The technical organization determined that SRC, Inc. was capable to provide the required services (See paragraph I below.)

On June 2, 2015, NASA ARC posted a synopsis on the NAIS and FedBizOpps portals to inform industry of NASA's intent to award a sole source contract with SRC, Inc. to perform the services detailed herein. The Contract Specialist did not receive any responses to the synopsis.

F. A determination by the Contracting Officer that the anticipated cost to the Government will be fair and reasonable. [FAR 6.303-2(b)(7)]

The Contracting Officer's signature on this document indicates that the Contracting Officer has determined that the anticipated cost to the government will be fair and reasonable. Prior to execution of the contractual instrument, a proposal analysis will be performed in accordance with FAR 15.404. The proposal analysis will ensure that the final agreed-to price for the contract is fair and reasonable. Analysis will include price evaluation techniques. In accordance with FAR 15.405, pre-negotiation objectives will be prepared and approved prior to the initiation of negotiations.

G. Description of the market research conducted and the results or a statement of the reason market research was not conducted. [FAR 6.303-2(b)(8)]

NASA ARC conducted market research, and the Contract Specialist documented the results on JA Form 007, Market Research Report. Additional information can also be found in Sections D and E above. SRC, Inc., the manufacturer of the LSTAR V(2) radar systems stated there is no other manufacturer of replacement parts for these radar systems. Since market research identified several companies that provide radar repair services, the Contracting Officer posted a Sources Sought Notice/Request for Information (RFI) on May 5, 2015, to identify any business concerns that could provide replacement parts for the LSTAR V(2) radar system, specifically. Two companies other than SRC responded to the RFI, but neither company demonstrated an ability to provide replacement parts.

Internet searches and conversations with various SRC representatives and the technical requestor provided confirmation that this is a noncommercial acquisition. The LSTAR V(2) radar systems have never been acquired by, nor offered to, nongovernmental entities. Other radar systems are available as commercial items, but they do not satisfy the 3-D tracking requirement. In addition to the refurbishment of the LSTAR radar systems offering better technical performance, purchasing new commercial radar systems would not be as cost-effective as refurbishing these decommissioned radar systems, as described in Section J, below.

H. Any other facts supporting the use of other than full and open competition. [FAR 6.303-2(b)(9)]

Facts supporting the use of other than full and open competition are set forth in Section D of this document and the above market research. The U.S. Army did not obtain the technical data package during the development of the radar systems. SRC developed the LSTAR software at its own private expense and it only makes the software available to the Government through the purchase of individual licenses. A review of performance evaluations contained in the Past Performance Information Retrieval System (PPIRS) indicates that SRC has received "Very High" ratings. Based on these performance ratings and its status as the only manufacturer of replacement parts, it is reasonable to conclude that these services are available only from the original source (SRC) under the authority of FAR 6.302-1(a)(2)(iii) and as applied pursuant to FAR 6.302-1(b)(1)(ii).

I. Listing of the sources, if any, that expressed, in writing, an interest in the acquisition. [FAR 6.303-2(b)(10)]

NASA ARC posted a Sources Sought Notice from May 5, 2015 until May 12, 2015 and it resulted in three responses. SRC submitted a response that met all of the requirements contained in the notice. Global Technical Systems submitted a response and expressed interest, but it did not address the requirements listed in the notice. Five Rivers Services submitted a response in which it described the ability to conduct radar repair services; however, it did not address the ability to provide replacement parts or software. The technical representative reached out this firm in order to clarify their capabilities but received no response. On June 2, 2015, a synopsis was posted on NAIS and FedBizOpps to inform industry of NASA's intent to negotiate a sole source contract with SRC, Inc. to perform the required services. As of July 2, 2015, no responses have been received in response to the synopsis.

J. Statement of the actions, if any, the agency may take to remove or overcome any barriers to competition before any subsequent acquisition for the supplies or services required. [FAR 6.303-2(b)(11)]

This requirement exists due to the unique circumstances of ARC receiving decommissioned U.S. Army radar systems. These one-time repairs are expected to keep the systems functional until the equipment is obsolete and is either retired or replaced in an acquisition using full-and-open competition. Refurbishing these radar systems is significantly more cost-effective than purchasing new radar systems (costing greater than \$200,000 each). Because of the limited number of LSTAR V(2) radar systems needing repair (eight in total), it is unlikely that purchasing the necessary technical data package to allow greater competition would result in significant cost savings to the Government. Therefore, a sole source award shall be made to SRC, Inc. for the refurbishment of hardware and the replacement of software associated with the eight LSTAR V(2) radar systems.

Signature Page

Requirement Initiator:

Lynda Haines
Chief, Aeronautics Projects Office

I certify that the facts presented in this justification are accurate and complete.

LYNDA HAINES

Digitally signed by LYNDA
HAINES
Date: 2015.07.23 14:03:42 -07'00'

July 23, 2015

Signature

Date

Contracting Officer:

Marianne Shelley

I hereby determine that the anticipated cost to the Government will be fair and reasonable and certify that this justification is accurate and complete to the best of my knowledge and belief. [FAR 6.303-2(b)(12)]

MARIANNE SHELLEY

Digitally signed by MARIANNE SHELLEY
DN: c=US, o=U.S. Government, ou=NASA, ou=PIV,
0.9.2342.19200300.100.1.1=mshelley, cn=MARIANNE
SHELLEY
Date: 2015.07.24 08:17:28 -07'00'

July 24, 2015

Signature

Date

cc:

JA Admin Asst: 241-1