# JUSTIFICATION AND APPROVAL FOR OTHER THAN FULL AND OPEN COMPETITION JA-00707

1. **Contracting Agency:** Army Contracting Command - Detroit Arsenal (ACC-DTA)

2. **Description of Action:** ACC-DTA proposes to award a new five-year Cost-Plus-Fixed-Fee (CPFF) Service Requirements contract to Sechan Electronics Inc, Commercial and Government Entity (CAGE) 7Z941, to provide repair services for the Paladin Digital Fire Control System (PDFCS) on the M109A6 Self Propelled Howitzers using Army Working Capital Funds (AWCF).

3. **Description of Supplies/Services:** The PDFCS is a set of Line Replaceable Units (LRUs) used to perform Fire Control (FC), Situational Awareness (SA), Prognostic/Diagnostic (PD), and power conditioning and distribution functions in the M109A6 Self Propelled Howitzer. Repair may include unpacking, disassembly, inspection, diagnosis, removal and replacement of subassemblies and component parts, reassembly, cosmetic work, calibration, final testing and inspection, and packing for shipment. The PDFCS is comprised of the Keypad (NSN: 7025-01-524-8671; PN: 12999112), Paladin Digital Computer Unit (PDCU) (NSN: 7010-01-524-8672; PN: 12999106) or Digital Computer [redacted] (NSN: 7021-01-707-1529; PN: 12999106-1), and Power Conditioning Unit-2 (PCU-2) (NSN: 6130-01-524-8673; PN: 12999108). The estimated total value of this contract is $31,350,275.93.

| **Item Name** | KEYPAD UNIT AND CONTAINER | PDCU AND CONTAINER | PCU-2 AND CONTAINER | DIGITAL COMPUTER |
|---|---|---|---|---|
| **NSN** | 7025-01-524-8671 | 7010-01-524-8672 | 6130-01-524-8673 | 7021-01-707-1529 |
| **Government Part Number** | 12999112 | 12999106 | 12999108 | 12999106-1 |
| **Contract Type** | LTC, CPFF | LTC, CPFF | LTC, CPFF | LTC, CPFF |
| **Estimated Repair Cost** | $4,138.76 | $50,546.29 | $12,451.92 | $50,546.29 |
| **Estimated Yearly Usage** | 45ea | 88ea | 38ea | 23ea |
| **Estimated Total Quantity** | 225ea | 440ea | 190ea | 115ea |
| **Estimated Value** | $931,221.56 | $22,240.366.50 | $2,365,864.80 | $5,812,823.06 |
| **Total Estimated Value** | **$31,350,275.93** | | | |

4. **Authority Cited:** The statutory authority permitting other than full and open competition for this effort is 10 United States Code (U.S.C.) 3204(a)(1) as implemented by FAR 6.302-1(a)(2)(iii)(A) "Only One Responsible Source and No Other Supplies or

Services Will Satisfy Agency Requirements." Services 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 any other source would result in (A) Substantial duplication of cost to the Government that is not expected to be recovered through competition.

**5. Reason for Authority Cited:** Sechan Electronics, Inc., as the Original Equipment Manufacturer (OEM) of the PDFCS, a major component of the M109A6 vehicle, owns the technical data package (TDP), maintains the design of the PDFCS, has the engineering and manufacturing knowledge, and capability with specialized test equipment and software necessary to perform the required repairs. The United States Government (USG) does not have the pertinent technical data to enable competitive re-procurement. As of 03 August 2023, the USG sent a request via email to enter negotiations with Sechan Electronics, Inc., the OEM for these products, in order for the Army to obtain a Specifically Negotiated License. [redacted] Sechan Electronics, Inc. is the only contractor with the expertise necessary to repair the PDFCS without incurring a substantial duplication of cost.

**Duplication of Cost:** The USG does not own competitive TDPs, Tech Manuals, Depot Maintenance Work Requirements (DMWR), or other repair instructions for the items in this J&A. In order to support a competitive solicitation for the required repair services the USG would have to develop those documents through a reverse engineering process. Even with those documents there is no guarantee that vendors would be able to source the necessary subcomponents as we cannot control the production and supply these components. However, to develop the documents to support a competitive procurement, the USG would need to engage in the following process which is based on efforts to develop Paladin hardware and software of similar complexity. The Product Support Integration Directorate (PSID) based its duplication of cost estimate on engineering estimates for the non-recurring engineering involving Functional Baseline Analysis, Baseline Design, Prototyping and Integration, Design Verification Testing, and Final Qualification Testing shown in the table below.

| Effort | Total System Development Cost |
|---|---|
| Functional Baseline Analysis | $800,000 |
| Baseline Design | $800,000 |
| Prototyping & Integration | $2,400,000 |
| Design Verification Testing | $1,600,000 |
| Final Qualification | $4,800,000 |
| Total | $10,400,000 |

i. Functional Baseline Analysis. To identify the baseline function and requirements of the system, roughly 1 man-year at $800,000.

ii. Baseline Design. Perform a reverse engineering study and develop models for

the hardware and software, 1 man-year at $800,000.

iii. Prototyping & Integration. To test the design in a representative environment to ensure all operational requirements have been met, 3 man-years at $2,400,000.

iv. Design Verification Testing. To certify that all requirements and functional parameters have been met and addressed with the design and that the Technical Data is robust enough for competitive procurement, 2 man-years at $1,600,000.

v. Final Qualification. In addition to engineering analysis and development costs, final qualification testing of each item would entail costs totaling at least $4,800,000 for engineering review, Low-Rate Initial Production (LRIP), testing, documentation and other program and logistics requirements. Qualification includes performing all testing per the Performance Specification which includes, but is not limited to, gun shock, gun vibration, environmental, electrical, and PDFCS operation testing.

The process to approve another contractor to perform this work would result in a duplication of costs of $2.6M per unit for a total of $10.4M. The Government would not be able to recover through subsequent competition the additional costs involved in reverse engineering the item to create a new and competitive TDP. At each item's contractual repair rate, multiplied by the unit repair cost, multiplied by a generous 25% cost savings through competition, reduces the time to recover the reverse engineering cost to a little over 6.5 years. The total system would have a potential savings of $1,567,513.84. [redacted] Therefore, the Government is not expected to recover the cost of developing a technical package for the Keypad, PDCU / Digital Computer [redacted], or the PCU-2 through competition on this contract or on contracts in the foreseeable future.

**6. Efforts to Obtain Competition:**

a. Effective competition: The Government intends to solicit only Sechan Electronics, Inc. for these acquisitions based on the rationale provided in section 5 above. The Government will post all notices required by FAR 5.201, and any responses from responsible sources will be considered.

b. Subcontracting competition: The solicitation and resulting contract will include all applicable FAR and DFARs subcontracting clauses to maximize small business opportunities and utilization.

**7. Actions to Increase Competition:** The USG will continue to make attempts to acquire a Specifically Negotiated License for competition from Sechan Electronics, Inc. There are no additional plans to increase competition for future procurements due to the reasons cited above.

**8. Market Research:** A Sources Sought Notice was posted to SAM.gov on 24 April 2023 and was open for 30 days in order to obtain the latest information concerning the availability of contractors that could meet the repair requirements of the Keypad, PDCU, PCU-2, and Digital Computer [redacted]. In response to the Sources Sought, no contractors expressed an interest in repairing these items to meet the Paladin system requirements and Sechan Electronics Inc. already meets these requirements with no issues.

On 17 January 2024, a search through SAM.gov revealed that previous repair services for the PDFCS LRUs including the Keypad, PDCU, (PCU-2), and Digital Computer [redacted] were all sole source actions with Sechan Electronics, Inc.

On 29 January 2024, ACC-DTA also conducted internet searches, utilizing Google for other sources that could potentially perform repair services for this effort using the terms, "Keypad", "12999112 (P/N for Keypad)", "Paladin Digital Computer Unit", "12999106 (P/N for PDCU)", "Power Conditioning Unit-2", "12999108 (P/N for PCU-2)", "Digital Computer" and "12999106-1 (P/N for Digital Computer)". No contracts or other sources were found using the search criteria. The same search terms were used to search contractdirectory.gov, and Procurement Integrated Enterprise Environment (PIEE); searches on the databases did not result in locating additional sources for the requirement.

**9. Interested Sources:** To date, no other sources have written to express an interest in producing or repairing the PDFCS.

**10. Other Facts:**

a. Procurement history. The USG's most recent procurement history, as it pertains to the requirements contained herein, is provided below:

(1) Contract Number: W56HZV-15-D-0081
Award Date: 31 July 2015
Contract Value: $599,841.00

Contract Number: W56HZV-11-D-0034
Award Date: 15 July 2011
Contract Value: $319,740.00

(2) The actions listed above were non-competitive and sole source to Sechan Electronics, Inc.

(3) Both contracts listed above were awarded under the statutory authority permitting other than full and open competition. Title 10 U.S.C, Section 3204(a)(1) as implemented by FAR 6.302-1, "Only One Responsible Sources and No Other Supplies or Services Will Satisfy Agency Requirements. Specifically FAR 6.302-1(a)(2)(iii)(A) and (B).

(4) The previous J&A for W56HZV-15-D-0081 stated, that no action was taken to increase competition. It was stated that, "if the requirement continues beyond the five-year contract the Government will look into possibility of competing this requirement in the future, however, there is no apparent need at this time."

(5) No prior awards were accomplished using Full and Open Competition.

(6) No unusual patterns have been revealed by the procurement history.

(7) There have been no significant changes since the most recent award. The previous justification was non-competitive in nature.

**11. Technical Certification**: I certify that the supporting data under my cognizance, which is included in the justification is accurate and complete to the best of my knowledge and belief.

Name: Smith, Andrew
Title: Chief, Configuration Management Division DEVCOM Armaments Center
Email: andrew.d.smith11.civ@army.mil
Signature:

2/26/2024

X Robert Waetke

Signed by: USA

**12. Requirement Certification:** I certify that the supporting data under my cognizance, which is included in the justification is accurate and complete to the best of my knowledge and belief.

Name: Hawotte, Todd
Title: TACOM ILSC Supply Chain Integration Director
Email: todd.c.hawotte.civ@army.mil
Signature:

2/14/2024

X /S/ Todd C. Hawotte

Signed by: USA

**13. Fair and Reasonable Cost Determination:** I hereby determine that the anticipated cost to the Government for this contract action will be fair and reasonable. The contractor will be required to submit certified cost and pricing data as the expected value of this procurement falls within the threshold. This item is non-commercial.

Name: Jones, James Roy III CIV USARMY ACC (USA)
Title: Contracting Officer
Email: james.r.jones3.civ@army.mil
Signature:

2/12/2024

X

Signed by: JONES.JAMES.ROY.III.[redacted]

**14. Contracting Officer Certification:** I certify that this justification is accurate and complete to the best of my knowledge and belief.

Name: Jones, James Roy III CIV USARMY ACC (USA)
Title: Contracting Officer
Email: james.r.jones3.civ@army.mil
Signature:

2/12/2024

X

Signed by: JONES.JAMES.ROY.III.[redacted]

## Approval

Based on the foregoing justification, and as Senior Contracting Official pursuant to Army Material Command Head of the Contracting Activity Delegation of Authority #21-21 I hereby approve the repair services of Keypad, Paladin Digital Computer Unit, Power Conditioning Unit-2, and Digital Computer to Sechan Electronics, Inc. on an other than full and open competition basis pursuant to the authority of 10 United States Code (U.S.C.) 3204(a)(1) as implemented by FAR 6.302-1(a)(2)(iii)(A), "Only One Responsible Source and No Other Supplies or Services Will Satisfy Agency Requirements." This procurement is subject to the availability of funds, and provided that the property herein described has otherwise been authorized for acquisition. The total estimated value of this acquisition is $31,350,275.93.

Name: Gallagher, Daniel J SES USARMY ACC (USA)
Title: Senior Contracting Official
Signature:

27 Feb 24