

Justification Review Document
for Sole Source - FAR Part 13.501

Program/Equipment: Supply of Universal Testing Machine Upgrade and Replacements.

Authority: 41 United States Code 1901 as implemented in Federal Acquisition Regulation 13.501(a)(1)(ii), sole source (including brand name) under the authority of the simplified procedures for certain commercial items

Amount: [REDACTED]

Prepared by:

[REDACTED]

Contracting Officer:

[REDACTED]

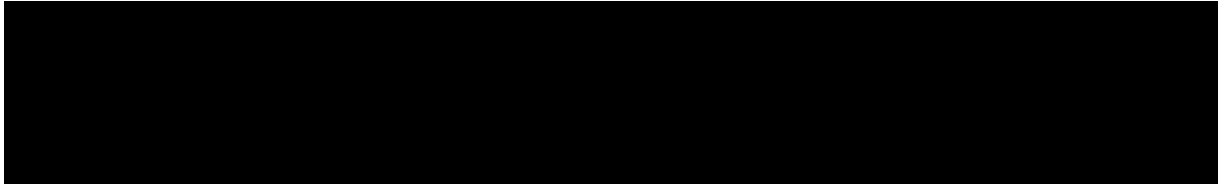
Technical Representative:

[REDACTED]

Controlled By: ATC
Controlled By: ATC
CUI Category: SP-SSEL
Limited Dissemination Control: FED

[REDACTED]

Requirements Representative:



Sole Source Justification and Approval
Under FAR 13.501

1. Contracting Activity: Army Contracting Command – Aberdeen Proving Ground (ACC- APG), Installation and Technology Division, 6401 Integrity Court, Aberdeen Proving Ground, Maryland 21005-3013

2. Description of Action:

The United States Army Aberdeen Testing Center (ATC) request a new firm-fixed priced contract with [REDACTED] for repair/upgrade of an existing [REDACTED] LoCap 602 universal testing machine and two new machines capable of separating projectiles from cartridge cases while recording pull force measurements. The Government projects award for March 2025 and fiscal year 2025. Procurement of Base Support 2034 procurement funding, 3-year appropriation, expiration of 9/30/2027 funds will be used.

3. Description of Supplies/Services: Contract is to repair one (1) each Universal Testing Machine and to provide a complete replacement for two (2) separate obsolete machines. The repair involves retrofit of the main control panel from an obsolete manual control to a Virtual Machine Control (VMC), which also comes with a new load cell that interacts with the VMC. The full replacements come with a machine base that holds the dies and fixtures which secure the projectiles and cartridge cases, a remote-control panel that actuates the hydraulics, and an electronic controller with the latest software package to collect pull force measurements. One of the new machines will also be operated from the newly constructed remote operating center that provides personnel full protection from the operation.

Quantity: 1 Each

- Retrofit, Electromechanical Testing Machine (ETM) 602 Manual control to VMC
- Strain module for US type loadcell to fit VMC, installed and calibrated

Quantity: 2 Each

- Model 300SL, Rack & Pinion, 2ft longer columns, standard screws, 230 voltages, custom engineered for remote operation, installed and calibrated
- Horizon software materials testing primary platform with metals library
- Horizon closed loop Additional Functionality Module (AFM)

Completion Date: 120 days after award

Total Value: [REDACTED]

4. Authority Cited: 41 United States Code 1901 as implemented in Federal

Acquisition Regulation 13.501(a)(1)(ii), sole source (including brand name) under the authority of the simplified procedures for certain commercial items.

5. Reason for Authority Cited: Universal Testing Machines at ATC are used to separate projectiles from cartridge cases in calibers ranging from 5.56mm small arms cartridges to 120mm tank rounds. The force required to complete this separation is a critical data point for ammunition testing and is a requirement of various research, development, testing, and evaluation programs. Due to the specialized nature of the operation, there is limited demand, resulting in scarce commercial availability. Furthermore, the need to conduct this process from a remote, protected position adds to the challenge of finding a system that meets all the required specifications.

The market research indicates that [REDACTED] is the only manufacturer capable of providing machines that are compatible with existing tooling and can perform the required operations across the full range of calibers specified by ATC. Using the current tooling offers a significant cost savings, as designing and fabricating new tooling for a different machine would incur substantial additional expenses of approximately [REDACTED]. Additionally, the repair to the existing LoCap 602 machine, which was manufactured and installed by [REDACTED], incorporates proprietary software and control technology. There are no resellers or other vendors available that could meet agency's needs.

6. Efforts to Obtain Competition: Market research for the full replacement involved internet searches for similar machine capabilities and polling manufacturers on the machines they use to conduct similar operations. [REDACTED] uses a United STM-50KN-E which is manufactured and sold by a [REDACTED]. This machine is limited to 105mm ammunition and would not have the appropriate dies and fixtures for other calibers required by ATC. It is also not used from a remote, protected position. [REDACTED] and the ATC Measurements Lab use [REDACTED]. No alternative machines were found on GSA Advantage. Joint Munition Command (JMC) has an Ammunition Peculiar Equipment (APE) program but the machines they offer cannot be operated remotely and do not record pull force measurements. The Contracting Specialist will publish the notices required by FAR 5.201 and any bids or proposals received shall be considered. Based on the information provided outlined in Sections 5 (Reason for Authority Cited) and Section 8 (Market Research), effective competition for this effort is not expected, as the only known equipment available to effectively satisfy the government's needs is only available through the [REDACTED]. As required by FAR 5.301 the notices will also be posted as required. A notice of intent to sole source to [REDACTED] will be posted through the webpage at www.sam.gov.

7. **Actions to Increase Competition:** Aberdeen Test Center will continue to research and make every effort to identify similar resources that will not be limited to sole source only but instead compete these requirements to the maximum extent possible, within current policy. Future efforts will include contacting various publishers, providers, distributors, etc. Ensuring the widest dissemination of opportunity among these entities will maximize the possibility of competition and cost savings for the Government

8. **Market Research:** In accordance with FAR Part 10, extensive market research was conducted for this acquisition was a collaborative effort by the requiring activity, ATC and reviewed as well as supplemented by ACC-APG from February 2025. Research was conducted via internet searches for similar machine capabilities and polling manufacturers on the machines they use to conduct similar operations. [REDACTED] uses a United STM-50KN-E which is manufactured and sold by a [REDACTED]. This machine is limited to 105mm ammunition and would not have the appropriate dies and fixtures for other calibers required by ATC. It is also not used from a remote, protected position. [REDACTED] and the ATC Measurements Lab use [REDACTED]. No alternative machines were found on GSA Advantage.

Additional Market Research was conducted, and an email was sent to [REDACTED] on 29 January 2025 to acquire more information about the hydraulic 300SL Bullet Pull machine, 60K LoCap Components mechanical tensile/compression machines, retrofit components, as well as Horizon software. Research showed that [REDACTED] is the original equipment manufacturer (OEM) and proprietor of these items. [REDACTED] stated there are no resellers of these items due to the proprietary software and control technology that comes with the equipment for purchase.

A sole source letter was provided by [REDACTED] on 30 January 2025 which states that they are the sole source provider of the new hydraulic and mechanical universal testing machines as well as the retrofit components for the LoCap 602 machine.

9. **Interested Sources:** [REDACTED]

10. **Other Facts:** Universal Testing Machines are used at ATC to separate projectiles from cartridge cases in calibers ranging from 5.56mm small arms to 120mm tank rounds. Measurements of the force required to complete the separation is a unique data point requested by various RDT&E programs.

a. *Procurement history.* The LoCap machine that requires repair was purchased in 2007 at a cost of [REDACTED], with a later change order of [REDACTED], and custom dies and fixtures were locally made which doubled the cost of preparing the machine for operation. Replacement of this machine, not including the custom dies and fixtures, would be approximately [REDACTED] assuming exact 2007

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(Source Selection Information - See FAR 2.101 and 3.104-4)

pricing and calculating for inflation with the Bureau of Labor Statistics inflation calculator. Repair/upgrade of the machine is about [REDACTED]. No suitable alternative has been found for the full replacement of the existing capability, which is quoted at approximately [REDACTED]. The original machines were procured in the 1960's and upgraded in the 1980's but no contract documentation could be located. The date ranges are based on drawings that were found of each machine.

(1) (i) Contract number, awarded contractor: [REDACTED],

Description of requirement: LOCAP 30,000LB. CAPACITY

Method of procurement: Purchase Order

Contract type: Fixed Price

Delivery requirements: Machine delivered, installed and calibrated.

Period of performance: 04/23/2007-09/17/2007

Total awarded amount: [REDACTED]

Number of Offerors: 1

Source Selection Method: Full and Open Competition after exclusion of sources

Basis for fair and reasonable pricing: N/A

(2) (i) Contract number, awarded contractor: Change Order [REDACTED],

Description of requirement: LOCAP 30,000LB. CAPACITY

Method of procurement: Purchase Order

Contract type: Fixed Price

Delivery requirements: Machine delivered, installed and calibrated.

Period of performance: 04/23/2007-09/17/2007

Total awarded amount: [REDACTED]

Number of Offerors: 1

Source Selection Method: Full and Open Competition after exclusion of sources

Basis for fair and reasonable pricing: N/A

Details pulled from FPDS.gov so no documentation is available other than reported details.

(2) The sole source justification for repair is because the existing LoCap 602 machine was manufactured and installed by [REDACTED]

Company and contains proprietary software and control technology. The ATC already has all fixtures and dies that are compatible with the LoCap machine as well as those for the replacement unit.

The sole source justification for the replacement machines is that [REDACTED] is the only source that can provide a machine compatible with existing tooling, and that can perform the operation on the full range of calibers required by ATC. Utilizing existing tooling represents a significant cost savings because all new tooling would require design and fabrication for use with a differently designed machine.

(3) No unusual patterns were found in the history.

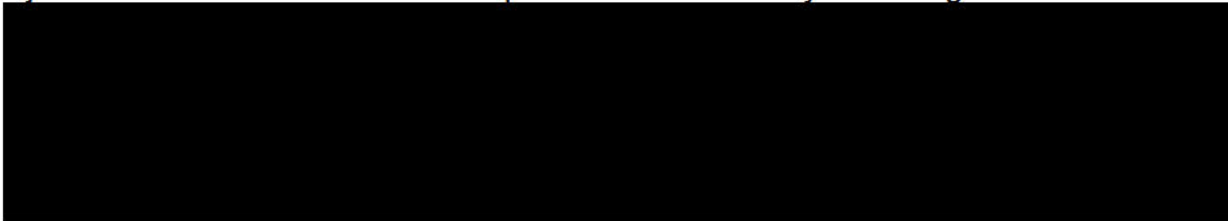
11. Technical Certification:

I certify that the supporting data under my cognizance, which are included in the justification are accurate and complete to the best of my knowledge and belief.

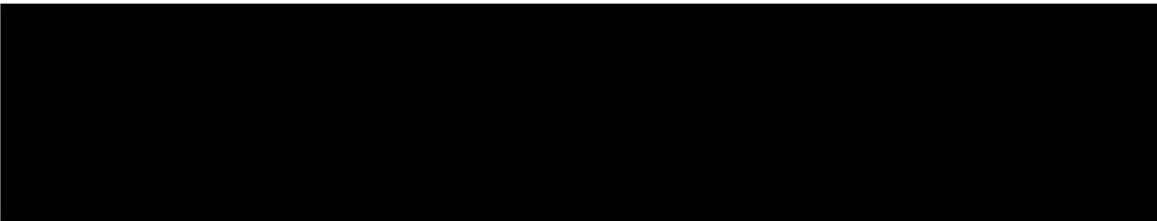


12. Requirements Certification:

I certify that the supporting data under my cognizance, which are included in the justification are accurate and complete to the best of my knowledge and belief.

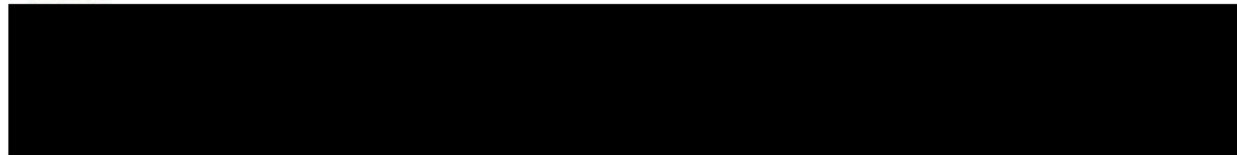


13. Fair and Reasonable Cost Determination: I hereby determine that the anticipated cost to the Government for this contract action will be fair and reasonable. This determination will be made using the following: Price Analysis and the Independent Government Estimate (IGE). As part of this basis, certified cost or pricing data will not be required based on the commercial item exception at FAR 15.403-1(c)(3)".



14. Contracting Officer Certification:

I certify that this justification is accurate and complete to the best of my knowledge and belief.



Approval

Based on the foregoing justification, I hereby approve the procurement of 2 each Model 300SL Universal Testing Machines and Retrofit of the ETM 602 for a total value of [REDACTED] on other than full and open competition basis pursuant to the authority of 41 U.S.C. 1901 as implemented by FAR 13.501(a)(1)(ii), sole source (including brand name) under the authority of the simplified procedures for certain commercial items subject to availability of funds, and provided that the services and property herein described have otherwise been authorized for acquisition.

[REDACTED]

