

## DEPARTMENT OF VETERANS AFFAIRS

### Justification and Approval For Other Than Full and Open Competition

**1. Contracting Activity:** Department of Veterans Affairs, VISN 19, *Eastern Colorado Health Care System* Medical Center Rocky Mountain Acquisition Center. Propose a Justification for Other Than Full and Open Competition for Purchase Request 554-14-3-5103-0070.

**2. Nature and/or Description of the Action Being Processed:** Propose new contract be awarded on a sole source basis to AMTI at a firm fixed price estimated at \$43,226.75.

The purpose of this equipment is to support research in prosthetics development for veterans with lower limb amputation. We are requesting two force platforms to be used to measure forces during over-ground walking and running. It is imperative to understand how Veterans with amputations move while they walk and run. The use of force platforms would allow us to understand how prostheses affect force production, ultimately leading to improved prosthetic devices and functional capabilities for amputees.

**3. Description of Supplies/Services Required to Meet the Agency's Needs:**

The equipment and supplies are required to support the VA funded and approved Career Development Award research program of Dr. Alena Grabowski, PhD.

- 1) BP6001200 Biomechanics Force Platform (600 x 1200 x 102 mm), 2K lb capacity: 2 @ \$18,400
- 2) Cable, 30 feet (9m) long, force sensor to USB amplifier. High Density D-type connector on both ends.
- 3) Mounting Rail for BP6001200 Force Platform: \$5,500
- 4) GEN-5 Six Channel strain gage signal conditioner/amplifier with analog and digital (USB) outputs: \$6,400
  - a. Will integrate directly into Vicon NEXUS through an exclusive AMTI/Vicon plugin
- 5) Thru Top mounting holes for composite top AMTI platforms: \$1,575

*\*prices do not include any applicable discounts*

**4. Statutory Authority Permitting Other than Full and Open Competition:** *41 USC §253(c), as implemented by FAR 6.302-1.*

(1) Only One Responsible Source and No Other Supplies or Services Will Satisfy Agency Requirements per FAR 6.302-1

**5. Demonstration that the Contractor's Unique Qualifications or Nature of the Acquisition Requires the Use of the Authority Cited Above (applicability of authority):**

Only One Responsible Source (FAR 6.302-1) is requested since this source meets all of the below requirements.

The requested AMTI force platform is an upgrade part to increase the capability of the existing VICON system. The original VICON system was purchased in 2011 and cost \$90K. Purchasing a force platform system that does not integrate into the existing VICON system would require purchase of another, redundant motion camera system at much greater cost than the AMTI force platforms. It is important to understand that these individual components work together as an integrated system. The motion cameras are attached to a custom built frame that surrounds the force platforms and other existing equipment including 2 treadmills. As laboratory space is limited it would also be a wasteful use of space to require 2 separate camera systems with essentially redundant capabilities. In addition, data generated from each separate camera system would have to be integrated at a very high cost of personnel time.

The following specifications are unique to the AMTI force platform and amplifier. No other vendor can provide these required specifications.

- 1) Force platform:
  - a. Required dimensions of 600 x 1200 x 102 mm
  - b. Mounted height is 5in, including the mounting assembly
  - c. Onboard memory storage of sensor calibration information accessible by GEN-5 amplifier
- 2) Amplifier/conditioner:
  - a. Fully calibrated and NIST-traceable
  - b. Signal conditioning includes: 1 kHz anti-aliasing filters, oversampling and digital signal processing
  - c. Built-in cable length compensation
  - d. Provides internal crosstalk correction by applying a factory calibrated platform correction matrix
  - e. Tested to medical-grade standards for safety, essential performance and electro-magnetic compatibility
  - f. Provides plug and play interface for AMTI force plates and force sensors
  - g. Applies complete transducer profile stored onboard all new AMTI force plates and force sensors, including bridge resistance, transducer capacity and calibration matrix
  - h. Allows users to order their platforms by simply walking across them in subjects' direction of travel
  - i. Fully software configurable from computer screen
  - j. All calibration and configuration settings stored internally
  - k. Automatic balancing of strain gage bridges initiated by front-panel button or by software
  - l. Supports both genlock data acquisition and external triggering
  - m. Multiple Gen 5's automatically synchronize data sampling - no additional wiring required.
- 3) Digital and analog outputs
  - a. Factory calibrated gain and offset correction constants applied to each output channel
  - b. Each of the six analog output channels has an independent 16-bit DAC conditioned by a low-pass reconstruction filter and amplifier.
  - c. Digital output stream consists of fully processed IEEE floating point numbers presented in their respective engineering units.
- 4) Highly configurable
  - a. Software-selectable excitation (2.5, 5.0, and 10.0 volts)
  - b. Software-selectable gains (500, 1000, 2000, and 4000)
  - c. Software-selectable zero set point
- 5) Flexible integration
  - a. GEN-5 integrates directly into Vicon NEXUS data via a digital USB, AMTI/Vicon, and plug in.

**6. Description of Efforts Made to ensure that offers are solicited from as many potential sources as deemed practicable:**

AMTI is the only vendor capable of meeting the required specifications of the force platform system.

**7. Determination by the Contracting Officer that the Anticipated Cost to the Government will be Fair and Reasonable:**

The proposed award price of \$43,226.75 is to be determined fair and reasonable IAW FAR Part 13: through market research with comparisons of commercial pricing and/or comparison of previous government purchase prices.

**8. Description of the Market Research Conducted and the Results or a Statement of the Reasons Market Research Was Not Conducted:**

Market research was not conducted for these specific items because only AMTI can provide the products that meet the required specifications.

**Any Other Facts Supporting the Use of Other than Full and Open Competition**

The AMTI equipment is the only equipment that integrates directly into Vicon NEXUX data, which is required for integration of this system into Dr. Grabowski's existing VICON motion capture camera system. Novel prosthetic research is a priority for Veterans health care. It requires the analysis of complex biomechanical processes using highly specialized motion capture systems.

**Listing of Sources that Expressed, in Writing, an Interest in the Acquisition:**

See Section VI above.

**A Statement of the Actions, if any, the Agency May Take to Remove or Overcome any Barriers to Competition before Making subsequent acquisitions for the supplies or services required:**

Subsequent acquisitions are not anticipated in the near future.

**Requirements Certification:** I certify that the requirement outlined in this justification is a Bona Fide Need of the Department of Veterans Affairs and 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.



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Pamela Rice  
Administrative Officer  
Eastern Colorado Health Care System

6/6/2014

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Date

**Approvals in accordance with FAR 6.304** *This part filled out by Contracting Staff as part of the Justification*

**Contracting Officer's Certification: (required)** I certify that the foregoing justification is accurate and complete to the best of my knowledge and belief.

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DJ Neal  
Contracting Officer  
National Contracting Office (NCO 19)

Aug 13, 2014

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Date

**NCM/PCM :** I certify the justification meets requirements for other than full and open competition.

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Sarilynn Thomas  
Network/Program Contract Manager  
VISN/PCA X

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Date