USM SSP 22 008 Notice of Proposed Sole Source Purchases of the following:

RFx: 3150004060: Kistler 9027C Piezoelectric Triaxial Force Sensors and Supporting Devices.

http://www.ms.gov/dfa/contract_bid_search/Bid

Comments/objections will be received as required per Section 31-7-13 (C) of the Mississippi Code until 8:00 a.m. (Central Time) on February 8^{th} , 2022.

Any person or entity that objects and proposes that the commodity listed is not sole source and can be provided by another person or entity shall submit written notice, by 8:00 AM CST, February 8th, 2022, to:

Steve Ballew

Director of Procurement & Contracts 118 College Dr. Box 5003 Hattiesburg, MS 39406 bids@usm.edu

Phone: 601-266-4131

Subject Line must read "Sole Source Objection - USM SSP 22_008"

The notice shall contain a detailed explanation of why the commodity is not a sole source procurement. Appropriate documentation shall also be submitted if applicable.

If after a review of the submitted notice and documents, USM determines that the commodity in the proposed sole source request can be provided by another person or entity, then USM will withdraw the sole source request publication from the procurement portal website and submit the procurement of the commodity to an advertised competitive bid or selection process.

If USM determines after review that there is only one (1) source for the required commodity, then USM will appeal to the Public Procurement Review Board. USM will have the burden of proving that the commodity is only provided by one (1) source.

Run Dates:

01/22/2022

01/29/2022

The University of Southern Mississippi Notice of Proposed Sole Source Purchase SSP 22_008

The University of Southern Mississippi anticipates purchasing the item(s) listed below as a sole source purchase. Anyone objecting to this purchase shall follow the procedures outlined below.

1. Description of the commodity that USM is seeking to procure:

Kistler 9027C Piezoelectric Triaxial Force Sensor and supporting devices: The Kistler 9027C is a piezoelectric triaxial force sensor. These sensors will be integrated into custom-designed and custom-machined bicycle pedals and allow for the measurement of applied force about the mediolateral, anteroposterior, and vertical axes. Bicycle pedals that measure triaxial forces which also integrate with traditional motion capture technologies (through the DAQ) require custom design and build. Most importantly, due to the size and dimensions of these sensors, they are the only commercially available piezoelectric sensors compatible with the design of our custom-built instrumented bicycle pedals housed in the School of Kinesiology and Nutrition at USM.

2. Explanation of why the commodity is the only one that meets the needs of the agency:

Each Kistler 9027C sensor records forces applied in three dimensions using independent channels. The signal from each channel is fed directly to an industrial charge amplifier (Kistler 5073A211) which is then tied directly into most Data Acquisition devices (DAQ) as an analog signal. These signals can then be recorded with advanced motion capture systems for the simultaneous recording of kinematic trajectories and force profiles. Furthermore, these sensors require proprietary multi-wire high insulation cables 5 meters in length to connect to industrial charge amplifiers such that the signal can be amplified for computational recording. These charge amplifiers then send the amplified signal to a Data Acquisition device (DAQ) as an analog signal using a 15-pin connecting cable. In this manner, biomechanical variables can be computed during cycling. These force sensors will integrate with our in-house Qualisys motion capture system. Furthermore, these sensors are compatible with the proprietary ManuWare software for force calibration and sensitivity corrections.

3. Explanation of why the source is the only source is the only person or entity that can provide the required commodity:

Kistler is the sole manufacturer and vendor of the 9027C 3-component force sensors and connectors, which, due to the specifications described above, are the only sensor

The University of Southern Mississippi

Notice of Proposed Sole Source Purchase

SSP 22_008

applicable to the construction and operational requirements of the custom instrumented bicycle pedals.

4. Explanation of why the amount to be expended for the commodity is reasonable:

Kistler 9027C sensors (4) = \$15,000

Kistler 9461 Set of pre-loading elements (4) = \$1,364

Kistler 1698AA5 Connecting cable, multi-wire, high insulation (4) = \$2,324

Kistler 5073A211 2 channel BNC Input Connector (2) = \$2,420.00

Kistler 5073A311 3 channel BNC Input Connector (2) = \$3,120.00

Kistler 1500A41A5 Connecting cable (4) = \$736

Kistler 9475 Socket Wrench w/four cylindrical pins (1) = \$344

Less 10% discount of \$2,530.80 for total cost of \$22,777.20

This price is reasonable due to the functionality, quality and compatibility of the custom-made sensors and connectors to the in-house equipment at the School of Kinesiology & Nutrition, USM.

5. Efforts that the agency went through to obtain the best possible price for the commodity:

Researcher and School staff performed internet searches to locate sensors and accessories for the purpose of research. Further, researcher requested quotes from other vendors with no response. Kistler Instrument Corp was the only one that offered this as compatible equipment to fulfill the needs of the School of Kinesiology & Nutrition.

Advertisement Schedule	Date
1st scheduled	January 22, 2022
2 nd scheduled	January 29, 2022

Any person or entity that objects and proposes that the commodity listed is not sole source and can be provided by another person or entity shall submit a written notice to:

Steve Ballew

Director of Procurement & Contracts

The University of Southern Mississippi Notice of Proposed Sole Source Purchase SSP 22_008

steve.ballew@usm.edu

Subject Line must read "Sole Source Objection"

The notice shall contain a detailed explanation of why the commodity is not a sole source procurement. Appropriate documentation shall also be submitted if applicable.

If after a review of the submitted notice and documents, USM determines that the commodity in the proposed sole source request can be provided by another person or entity, then USM will withdraw the sole source request publication from the procurement portal website and submit the procurement of the commodity to an advertised competitive bid or selection process.

If USM determines after review that there is only one (1) source for the required commodity, then USM will appeal to the Public Procurement Review Board. USM will have the burden of proving that the commodity is only provided by one (1) source.