Official Mississippi State University Logo


# INVITATION FOR BIDS OFFICE OF PROCUREMENT & CONTRACTS

## INSTRUCTIONS FOR BIDDERS

* 1. Sealed bids will be received in the Office of Procurement & Contracts, Mississippi State University, for the purchase of the items listed herein.
  2. All bids must be received in the Office of Procurement & Contracts on or before the bid opening time and date listed herein. Delivery of bids must be during normal working hours, 8:00 a.m. to 5:00 p.m. CST, except on weekends and holidays when no delivery is possible.
  3. Bidders shall submit their bids either electronically or in a sealed envelope.
     1. Sealed bids should include the bid number on the face of the envelope as well as the bidders’ name and address. Bids should be mailed to: 245 Barr Avenue, 610 McArthur Hall, Mississippi State, MS 39762.
     2. At this time we only accept non-ITS bids electronically. For electronic submission of bids, go to: <https://www.ms.gov/dfa/contract_bid_search>  
        and use the RFX number on the next page as your reference number.
  4. All questions regarding this bid should be directed to the Office of Procurement & Contracts at 662-325-2550.

## TERMS AND CONDITIONS

* 1. All bids should be bid “FOB Destination”
  2. Bidders must comply with all rules, regulations, and statutes relating to purchasing in the State of Mississippi, in addition to the requirements on this form. General Bid Terms and Conditions can be found here: <https://www.procurement.msstate.edu/procurement/bids/Bid_General_Terms_May_2019_V2.pdf>
  3. Any contract resulting from this Invitation for Bid shall be in substantial compliance with Mississippi State University’s Standard Contract Addendum: <https://www.procurement.msstate.edu/contracts/standardaddendum.pdf>

### Bid Number/RFX Number: ****19-83/RFX #3160003266**** Opening Date: November 20, 2019 @2:00 p.m. Description: Autonomous Boat

#### Vendor Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Vendor Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Telephone Number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Days the Offer is Firm: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Authorized Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Title: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| **Item** | **Quantity** | **Description** | **Unit Price** | **Total Price** |
| --- | --- | --- | --- | --- |
| 1 | 1 | Autonomous Boat |  |  |

Autonomous boat that can be used for environmental monitoring/ aquatic data collection research. This system shall meet or exceed the following requirements:

* Functional in all marine (salinity independent) environments
* Self-righting hull
* Less than 5 meters in length
* Less than 1.5 meters in width
* Solar powered (750W generated with 1 kW/m2 irradiance)
* Large battery storage (at least 6.5 kWh capacity)
* Provides up to 500 W for payload power
* Supports payloads up to 150 pounds
* Supports payloads up to 40 inches in length
* Electric 500W brushless motor
* Maximum draft at full load of less than 2 feet
* Autonomously operated with control software allowing supervised mode and full autonomy
* Can be programmed for missions up to several months in duration
* Supports manual remote control and manual interception while in autonomous mode
* RF control within line of sight (waterproof handheld remote controller)
* Control software supports NOAA charts and satellite displays
* Control software allows waypoint/route inputs, including speed, turning radius, loitering time
* Provides current monitoring and correction to stay close to the track between waypoints
* Control software displays and allows control of system parameters, including telemetry
* Control software provides mission playback and power management.
* Auto pilot cross track error +/- 5 meters maximum
* Collision avoidance capability
* Provides satellite communications (Iridium SBD)
* Apparent wind speed and direction sensor, air temperature and pressure sensors onboard
* Water temperature sensor onboard
* Boat heading reported within +/- 1°
* Boat speed through water reported within +/- 0.1 knots
* Marine Grade GPS system with 3m position accuracy 90% of the time
* Cellular 3G and 4G modem
* Automatic Identification System (AIS) Transceiver
* Live feed for telemetry using relay service through data server
* On-board data server - local/remote enterprise class cloud-based database.
* Camera for situational awareness for remote operator
* Provide speeds up to 4.5 Knots
* Center Lift Bracket for single-point lift
* Bow and Stern holding brackets.
* Trailer with straps and class II trailer coupler with 2” ball size.
* Cradle/Dolly/Harness kit for crane launch/recovery
* Payload bay for multiple payloads with hatch
* Payload mounting capability for multiple payloads