



**MISSISSIPPI STATE**  
UNIVERSITY™

## **INVITATION FOR BIDS**

### **OFFICE OF PROCUREMENT & CONTRACTS**

#### **1. INSTRUCTIONS FOR BIDDERS**

- a. Sealed bids will be received in the Office of Procurement & Contracts, Mississippi State University, for the purchase of the items listed herein.
- b. 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.
- c. Bidders shall submit their bids either electronically or in a sealed envelope.
  - i. 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.
  - ii. 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](https://www.ms.gov/dfa/contract_bid_search) and use the RFX number on the next page as your reference number.
- d. All questions regarding this bid should be directed to the Office of Procurement & Contracts at 662-325-2550.

#### **2. TERMS AND CONDITIONS**

- a. All bids should be bid "FOB Destination"
- b. 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](https://www.procurement.msstate.edu/procurement/bids/Bid_General_Terms_May_2019_V2.pdf)
- c. 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: 19-96/RFX #3160003326**

**Opening Date: December 11, 2019 @2:00p.m.**

**Description: LIDAR VISIBLE IMAGERY PAYLOAD**

Vendor Name: \_\_\_\_\_

Vendor Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Days the Offer is Firm: \_\_\_\_\_

Authorized Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Item	Quantity	Description	Unit Price	Total Price
1	1	LIDAR VISIBLE IMAGERY PAYLOAD		

LIDAR and visible imagery collection payload (both sensors on one payload) to carry on a multirotor unmanned aerial vehicle. This system shall meet or exceed the following requirements:

- Mass of less than 2.5 kg
- Mountable on a DJI M600 UAV
- Self-contained power source, capable of powering total payload for more than 60 minutes
- Dual 20 Megapixel visible bandwidth (RGB) cameras synchronized to the lidar collection, mounted at +/- 20-30° cross-track obliquely and with 28mm focal length, 2.8 maximum F stop, and fixed focus. The cameras should provide a field of view coincident with the laser scanner track.
- Camera trigger: interval or distance
- LIDAR unit with a usable range of 75m
- Usable cross-track field of view of 90° (total cross-track FOV of 120°)
- 8 LIDAR beams, with at least 3 returns detectable per outgoing beam
- Outbound pulse repetition rate of 420 kHz
- Must use high-precision industry standard technology, such as the Applanix APX-15, for positioning and orientation.

- Accuracy of better than 5cm RMSE with flying height of 60m
- Precision of better than 5cm at 1  $\sigma$
- Must write all output data to a single storage device
- Software to allow combining the RGB and LIDAR data into a colorized point cloud, to create breaklines, to create contour lines, and to calculate the volume under all or part of the point cloud.
- LIDAR point colorization must use 3D ray tracing (not colorization from an orthophoto)
- Must include 1 year of software and hardware support