

*Limestone  
County Commission*

*Chairman  
Mark Yarbrough*

*Administrator  
Pam Ball*



*Commissioners:  
Stanley Hill  
Steve Turner  
Jason Black  
Ben Harrison*

**January 25, 2016**

**INVITATION FOR BIDS  
Proposal No. 22559**

**SATELLITE ANTENNA SYSTEM REPLACEMENT FOR  
MOBILE COMMAND CENTER  
Emergency Management Agency (EMA)**

Notice is hereby given that the Commission of Limestone County, Alabama will receive competitive bids on the following item: **Satellite Antenna System Replacement for Mobile Command Center. Please see the attached specifications.**

**TAX: All applicable tax must be included in the bid price.**

**F.O.B.: Athens, AL.**

**Date of Installation no later than: June 1, 2016.**

**Terms: Net 30 days.**

You are invited to bid on the attached specifications. Any substitutes offered must be submitted in detail. The right to reject any items or materials not of quality or under any provisions of this act is reserved.

**Requirement:** Pursuant to Alabama Code 31-13-9, as a condition of the award of any contract, the business entity or employer, and any of its subcontractors, shall provide a sworn affidavit and documentation that it will not knowingly employ, hire for employment, or continue to employ an unauthorized alien; that it is enrolled in the E-Verify program; and, during the contract period, it will participate in the E-Verify program and will verify every employee that is required to be verified under applicable state and federal laws. During the performance of the contract, the business entity or employer shall participate in the E-Verify program and shall verify every employee that is required to be verified according to the applicable federal rules and regulations.

Bids will be opened on **Thursday, the 11<sup>th</sup> day of February 2016 at 10:00 a.m.** and awarded on **Tuesday, the 16<sup>th</sup> day of February 2016, at 10:00 a. m.**

**All bids must be sealed, and the word "BID," name of item, proposal number, and opening date must be marked on the outside of the envelope.**



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**MARK YARBROUGH, Chairman  
Limestone County Commission**

**LIMESTONE COUNTY EMERGENCY MANAGEMENT AGENCY  
ATHENS, ALABAMA  
256-232-2631**

**REPLACEMENT SPECIFICATIONS  
SATELLITE ANTENNA SYSTEM FOR MOBILE COMMAND CENTER**

**BACKGROUND:** The agency has in place a .75 Satellite Antenna and related equipment mounted on and in the mobile command center. The mobile command center is equipped with Satellite Internet Communications, Wireless Connectivity in and around the command; Telco Services provided via Satellite Connectivity through the mobile antenna, Interoperability with both Radio and Telco via Raytheon ACU1000, among other emergency equipment located within the command.

**OPPORTUNITY:** This upgrade will on completion replace the complete Mobile Satellite Antenna, Controllers, Modem, etc. described above and replace with a 1.2m Auto-Deploy Drive-Away system.

**RESPONSIBILITY:** Although the EMA has in every effort attempted to cover every aspect of this project. It is the responsibility of each participating Vendor /Contractor if desired to schedule an appointment prior to responding to this request for bid proposal and determine what is needed to make your proposed equipment work with the existing equipment within the command. The contact for this is Daphne Ellison 256-232-2631. All equipment with the exception of the mobile antenna, modem and its related equipment are only to be removed and replaced. All other equipment will stay in place and is to function properly after completion.

It is the responsibility of the vendor / contractor to remove the existing antenna without damage and turn over to the Emergency Management Agency for this is an inventoried item.

**SPECIFICATIONS:**

The system shall be a 1.2m Ku-band antenna. It shall be considered a low-stow as related to height and positioner.

The system shall be an auto-deploy system which will allow personnel with minimal experience to configure and operate.

**SYSTEM FEATURES:**

- Rugged, reliable 1.2m Ku band drive-away antenna
- Low stow height of 15" or less
- Solid Resin Fiber Composite Reflector: High EIRP, High-Performance
- Mechanical Drive Systems including Zero-backlash Az/El Cable Drive, and Precision Polarization Drive
- WR-75 Flex WaveGuide to BUC Interface
- Inclined orbit satellite tracking
- Manual override capability for emergency use

**OUR APPLICATIONS INCLUDE BUT NOT LIMITED TO:**

- Continuity of Emergency Operations for the Emergency Management Agency
- Remote Videoconferencing
- Internet Cloud Services: Voice, radio, Data, fax, live broadcast

**REFLECTOR SPECIFICATIONS:**

SIZE:	1.2 METER SINGLE-PIECE RESIN FIBER COMPOSITE
OPTICS:	OFFSET, PRIME FOCUS, 0.8 F/D

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MOUNT GEOMETRY	3-AXIS, ELEVATION OVER AZIMUTH
POLARIZATION	MOTORIZED ROTATION OF FEED

**MECHANICAL:**

POSITIONAR	CABLE DRIVE
BUC/HPA MOUNTING	FEED BOOM- MAXIMUM WEIGHT 6.7 kg MAXIMUM BUC MOUNTING DIMENSIONS: 56 L x 35 W x 22 H (cm) 22" L x 13.8" W x 8.5" H
TRAVEL VELOCITY AZIMUTH	400° OR +/- 200°
ELEVATION	0-90 ° ANTENNA BORESITE(MECHANICAL) STANDARD LIMITSAR 5° TO 65° (CE APPROVAL) OR 5°-90° (OPERATIONAL)
POLARIZATION	+/-95°
SLEWING & DEPLOYING	2" PER SECOND
MANUAL JOG	1.0" OR 0.2" PER SECOND

**WEIGHTS & MEASURES:**

WEIGHT	NOT TO EXCEED 125 LBS
STOWED DIMENSIONS	70" L x 48" W x 15" H
ANTENNA CONTROL UNIT (1RU)	9" x 10.3" x 2.5" W/ POWER SUPPLY AND TracLRI
HANDHELD DISPLAY UNIT	5.5" x 3.1/4" x 1.3/8"

**ANTENNA CHARACTERISTICS**

*Ku LINEAR*

	RECEIVE	TRANSMIT
FREQUENCY (GHz)	10.95 – 12.75	13.75 – 14.5
ANTENNA GAIN (dBi +/- 0.2)	41.6	43.1
VSWR	1.3:1	1.3:1
CROSS POL ISOLATION (db) ON AXIS	35	35
CROSS POL ISOLATION (db) OFF AXIS	27	28
FEED PORT ISOLATION – TX TO RX (db)	35	80

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**ANTENNA CHARACTERISTICS CONT.**

*BEAMWIDTH (degrees)*

ANTENNA NOISE TEMPERATURE (°K) AT 20° ELEVATION	54°	
-3DB	1.5	1.2
-10BD	2.7	2.2

- The BUC shall be 4 watt

**ELECTRICAL:**

RF	RZ AND TX: TYPE F (75 OHM) CONNECTORS
INFACILITY LINK	9.14M (30') DUAL RG6 COAX, 1 CONTROL CABLE
MOTORS	24V DC SERVO W/OPTICAL ENCODER, CONSTANT TORQUE
CONTROLLER (1RU)	90-264 VAC, 50/60 HZ SINGLE PHASE
POWER SUPPLY	300W
POWER CONSUMPTION	MOTORS ACTIVE – 250 WATTS IDLE – 30 WATTS
BUC MOUNTING	FEED BOOM
WAVGUIDE	90° WR75 WAVEGUIDE ROTARY JOINT @ FEED TX INPUT
EMERGENCY DRIVE	HANDCRANK ON Az \$ EL; KNOB ON POL

**ANTENNA CONTROLLER:**

An industry standard setting (1) button auto deploy operation with automatic satellite acquisition and cross pol adjustment, integrated GPS, GLONASS Compass, level Sensors and a user configurable satellite selection for primary and secondary satellites.

**INTEGRATED GUI INTERFACE:**

The unit shall have available an integrated live remote interface (LRI) which is web based and has a graphical user interface.

**QUALIFICATIONS OF VENDOR:**

- Dealer for the equipment he/she is proposing
- State of Alabama Contractors License
- Experienced radio technicians to interface with current RF Equipment
- IT Staff to interface network and phone System to Satellite system
- Sales and Service within 200 miles of Limestone County for support

**TRAINING:**

The contracted vendor shall provide training on the system he/she is proposing. Detail the training out in your proposal

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**WARRANTY:**

All products provided must have (1) year Parts and Labor Warranty on-site. On-site warranty shall be within 48 hours of notification.

**BID PROPOSAL:**

Each vendor /contractor shall detail out a proposal package including but not limited to:

1. COVER LETTER
2. SYSTEM DESCRIPTION
3. PRICING PROPOSAL (IN DETAIL WITH MAKE AND MODEL NUMBERS)
4. LITERATURE AND SPECIFICATION SHEETS
5. TRAINING DETAILS
6. OPERATORS MANUAL

Note: All proposals shall be valid for 90 days

**TOTAL COST:** \$ \_\_\_\_\_

**NAME OF COMPANY:** \_\_\_\_\_

**SIGNATURE:** \_\_\_\_\_

**PRINTED NAME:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

\_\_\_\_\_

**PHONE:** \_\_\_\_\_

**E-MAIL:** \_\_\_\_\_