

JUSTIFICATION FOR SOLE SOURCE ACQUISITION  
VALUES \$3,001 - \$100,000  
RECOMMENDATION AND DETERMINATION TO SOLICIT FROM ONE  
SOURCE – PR 4200438701

Items: QTY 5 201564-3 Broadband Omni directional Slant Linear  
Antenna 0.5 – 18GHz

Estimated Price:

Brand Name: TECOM Industries Inc

I recommend that NASA, John F. Kennedy Space Center (KSC), negotiate with TECOM Industries Inc. for the purchase of five (5) Broadband Omni directional Slant Linear Antenna 0.5 – 18GHz. The total estimated cost of this effort is \$89,250.00 and the lead-time is 182 days ARO.

NASA has a requirement and is currently operating the Automated Radio Frequency System (ARFMS) to analyze the electromagnetic environment at KSC. The ARFMS determines the radio frequency (RF) electromagnetic energy levels for interference to KSC operations. KSC has critical operations such as vehicle processing, payload processing, and tracking of launch vehicles. If a vehicle command or communication receiver were degraded due to outside RF interference it would affect processing operations or launch count-down operations at KSC. The TECOM Broadband Omni directional Slant Linear Antenna will identify any RF interference within all vehicle and payload frequency 0.5 – 18GHz bands. These antennas are currently in use and the characteristic are known based on current ARFMS configurations.

This recommendation is made pursuant to FAR 13.106, for the acquisition of supplies or services determined to be reasonably available from only one source. Competition is impractical for the following reasons:

TECOM Industries Inc Sensor Broadband Omni directional Slant Linear Antenna is currently able to meet size, weight, and operational compatibility requirements which will interface with the existing like hardware at KSC to reduce hardware interoperability for the ARFMS project.

The TECOM Broadband Omni directional Slant Linear Antenna already in use and KSC will be expanding an existing system since these are Line Replaceable Units. KSC has invested considerable manpower and materials in the mounting and placement of these units and already have size, weight, and wind-loading design commitments on Pad 39B lightning towers. TECOM Broadband Omni directional Slant Linear Antenna 201564-3 Antenna 0.5 – 18GHz is the only source able to provide the required antenna hardware. Because the TECOM Broadband Omni directional Slant Linear Antenna 201564-3 Antenna meet the physical size, power, VSWR, frequency of operation, connector type, and gain for the specific frequencies as identified below:

Height: Minimum: 3 inches. Maximum: 10 inches.

Diameter: Minimum: 4 inches. Maximum: 12 inches.

Weight: Minimum: 0 lbs. Maximum: 10 lbs.

Power Handling: Min: 0 watts. Max: 2 watts CW.

VSWR: less than 7:1 maximum. No minimum.

RF connector: Single type N socket.

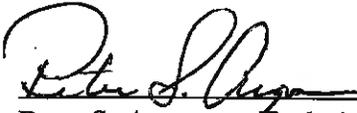
Frequency Range: 0.5 - 18 GHz.

Gain:

Freq (GHz)	Minimum (dBi)	Maximum (dBi)
0.5	-7	+3
1.0	-6	+6
2.0	-3	+7
4.0	-3	+7
6.0	-3	+7
8.0	-3	+7
12.0	-3	+7
18.0	-3	+7

Pursuant to NFS 1805.207 and 1804.570, this proposed contract action will be published on the NASA Acquisition Internet Service (NAIS) and pursuant to FAR 5.201, this proposed contract action will be synopsized in the Governmentwide Point of Entry. The results received in writing will be added to this document by addendum.

Based upon the above, I hereby determine that the circumstances of the contract action deem only one source reasonably available for this acquisition. I certify that the supporting data presented in this justification are accurate and complete.

  
Peter S. Aragona, Technical Officer

6/27/12  
Date

I hereby accept the above stated recommendation and determine that the circumstances of the contract action deem only one source reasonably available.

  
Contracting Officer

6/29/12  
Date