

## Request for Information

### ATCALS Sustainment Branch

This is a market research Request for Information (RFI) only, being issued in accordance with (IAW) Federal Acquisition Regulation (FAR) subpart 15.201(e). This is NOT a solicitation. NO CONTRACT shall be awarded as a result of this RFI. NO SOLICITATION will necessarily result from this RFI. **The Air Traffic Control & Landing Systems (ATCALS) program office (AFMC AFLCMC/HBAA) will not pay respondents for information provided in response to this RFI.** Do not include pricing information, any pricing information received will be REMOVED and DISCARDED by the Government.

**DESCRIPTION:** AFMC AFLCMC/HBAA located at Tinker Air Force Base, Oklahoma is requesting industry information on their remote tower system capabilities to assist in the analysis of alternatives for a system that would provide a remote Air Traffic Control (ATC) tower capability as a potential replacement for standard 'brick and mortar' towers (fixed based). The system would consist of a sensor suite combining enhanced optical (including pan, tilt and zoom), Infrared, motion, sound detection and tracking capabilities mounted on an elevated platform on any airfield environment that sends inputs for display, selection and manipulation in a secure, separate, but geographically close ATC operations center. A smaller footprint sensor suite and ATC operations center could also be leveraged as a deployable system for use in managing ATC tower operations in a forward operating location in response to a military or natural disaster contingency. The Government desires to conduct an operational utility evaluation test of such a system at little to no cost in order to determine technical readiness and military ATC mission use capabilities for follow-on development and potential procurement actions.

Required Parameters:

1. **Power:** The system shall operate using standard power (110 V) with a minimum of four (4) hours on included rechargeable batteries at zero degrees Celsius (0°C) and be able to be connected to and operate with a commercial or generator power source.
2. **Comparability:** The system shall be comparable to visual operational performance found in current deployable air traffic control systems and fixed based control towers currently in use.
3. **Performance:** The system shall have the following performance characteristics:
  - a. Sensors : Visual (camera providing panorama view); 360 degrees Azimuth 60 degrees Vertical (-10 degrees to +50 degrees)
  - b. Pan: 360 degrees
  - c. Tilt: 100 degrees (- ? to +?)... (probable threshold) > 100 degrees for beyond -10 degrees (below/beyond the other cameras and the sensor platform – perhaps -45 degrees), as well as higher than 90 degrees (straight up from level/horizon) to view overhead (esp. fighter) patterns.
  - d. Zoom: 28 cm @ 1 km or 30X equivalent to binoculars.

- e. Focal length of camera: IR Field of View: 360 Azimuth X 18 degree Vertical (steerable) Motion and IR signature detection with range finding (laser) capability to identify "objects of interest" - Filter capability for known areas/objects not of interest (roads/vehicles, non-controlled movement areas, etc.) Maximum number of moving objects Tracked simultaneously: 13 in 360 degrees Azimuth X 60 degrees vertical
  - f. Displays: Minimum number and size; ~10 screens (in vertical orientation) X 65 inches diagonal screen size with Zero/minimum bezel in UHD and minimum 4K resolution.
  - g. Frame rate minimum = 5/second
  - h. Visual Acuity/Visual Angle in display: 1.0 or 20/20 vision (correlates to spatial resolution of 0.28 milliradians which equals resolving 28 cm details at 1 km range)
  - i. Other/Associated Capabilities: Bandwidth provided in Mb/second  
Recording capability (30 days for everything - both sensor and display) Seamless picture integration with graceful degradation of various sensors
  - j. Steerable Light "gun" signal capability for NORDO aircraft
  - k. Ergonomic work space with minimal footprint operations center and sub-system/equipment room. Flexible/scalable Operations Center (Controller positions) that could support expansion between 1-4 operator positions (for varying traffic density/complexity – 3 active controllers/1 supervisor with space for trainees)
  - l. Mitigation for environmental factors (wind, rain, ice, snow, condensation, etc.) and organic factors (bugs, birds, mold, etc.)
  - m. Microphones for detection
  - n. Alarms when given conditions met
4. **Monitoring:** The system shall provide continuous (24/7/365) performance monitoring for sensors and displays and cause graceful degradation of the system in the event any one of the parameters fall outside of its specified tolerance as well as providing an indication to the operator of the malfunction that identifies the defective major components.
5. **Adjustments:** The system shall require no adjustments subsequent to being placed in operation.
6. **Physical Characteristics: Environmental Conditions:** The system shall be operable globally and in all environmental conditions currently experienced by ATC. Some of the more extreme operating conditions include minus fifty four degrees Celsius (-54°C) to seventy one degrees Celsius (+71°C), up to ninety five percent (95%) humidity, rain/snow/ice, sea level to thirteen thousand one hundred (13,100) foot altitude and fifty six (56) mile per hour winds.
7. **Innovation:** Potential vendor may provide innovative solutions that meet or exceed the requirement.

### Response Requirements:

Please provide formal responses to the tasks listed below. Address your capabilities to accomplish the below tasks and provide highlights of successful past experience on similar Government contracts within the past five (5) years.

1. Describe your capability to manufacture terminal navigational aid systems or equipment to produce these capabilities. Description of capabilities may include your experience developing and fielding other tactical communications systems.
2. Describe your capability to develop and conduct a terminal navigational aid operator and maintenance training course. Training may be conducted at both Continental United States and overseas bases sites.
3. Provide a list of NAICS that are applicable to this requirement and specify your business size status for each NAICS in your response. Also, potential contractor shall identify any teaming arrangements and whether your company would perform all the services required, and if not, what percentage would be outsourced. Specify whether your teaming partners are large or small businesses. The NAICS code proposed for this requirement is 334511 with a size standard of 1,250.
4. If currently under schedule contract for same/similar supplies/services, please provide the contract information.
5. Potential contractor shall include a point of contact: name, DUNS/CAGE, phone number, e-mail address, and mailing address.
6. Response to the RFI, does the document clearly define the tasks and the responsibilities of the potential contractor.
7. Potential contractor's capability to comply with 52.219-14 Limitations on Subcontracting in consideration of potential small business set-asides.

**Limitations on Subcontracting (Nov 2011)**

(a) This clause does not apply to the unrestricted portion of a partial set-aside.

(b) *Applicability.* This clause applies only to--

- (1) Contracts that have been set aside or reserved for small business concerns or 8(a) concerns;
- (2) Part or parts of a multiple-award contract that have been set aside for small business concerns or 8(a) concerns; and
- (3) Orders set aside for small business or 8(a) concerns under multiple-award contracts as described in [8.405-5](#) and [16.505\(b\)\(2\)\(i\)\(F\)](#).

(c) By submission of an offer and execution of a contract, the Offeror/Contractor agrees that in performance of the contract in the case of a contract for --

- (1) *Services (except construction).* At least 50 percent of the cost of contract performance incurred for personnel shall be expended for employees of the concern.
- (2) *Supplies (other than procurement from a non-manufacturer of such supplies).* The concern shall perform work for at least 50 percent of the cost of manufacturing the supplies, not including the cost of materials.
- (3) *General construction.* The concern will perform at least 15 percent of the cost of the contract, not including the cost of materials, with its own employees.
- (4) *Construction by special trade contractors.* The concern will perform at least 25 percent of the cost of the contract, not including the cost of materials, with its own employees.

(End of Clause)

**Submission Requirements:**

Please provide your response electronically (e-mail) on no more than fifteen (15) single-sided, single-spaced, pages using 12-point, Times New Roman font, and minimum one-inch margins, in Microsoft® Word or compatible format (including Adobe PDF). The fifteen page count shall include ALL documentation (i.e. cover page or table of contents). Responses to this RFI are requested by close of business on 30 SEP 2016 at 1500 hours Central standard daylight savings time. All responses shall be unclassified and reviewed to ensure consideration of operational sensitivities. All RFI responses and correspondence related to this matter shall be e-mailed to:

Richard Fenton  
Contracting Officer  
AFLCMC/ HBSK  
Phone: 405-622-7270  
Email: [richard.fenton@us.af.mil](mailto:richard.fenton@us.af.mil)