

**STATEMENT OF OBJECTIVE**  
**FOR**  
**INSTALLATION OF**  
**GIANT VOICE SYSTEM (GVS)**  
**AT**  
**Scott AFB, IL**

**23 February 2023**

**Prepared By**  
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**1.0 SCOPE.** The statement of objective (SOO) defines the requirements for the contractor to Engineer, Furnish, Install, and Test (EFI&T) to replace and update the existing Federal Signal Giant Voice System (GVS) at Scott AFB, IL. The existing Federal Signal GVS is unable to receive the existing AtHoc-EMNS alerts, tones, voice messages, and warnings automatically in order to forewarn personnel outdoors throughout the base. Some of the existing GVS parts are no longer supported by the manufacturer which is creating RTS delays, as the equipment is at least 12+ years old. Pole 004 currently operates but has equipment degradation from the missing cover of the top speaker. This requirement shall replace the current GVS with an updated GVS that will be integrated with the internal AtHoc Emergency Mass Notification System (EMNS) and will communicate with a two-way UHF/VHF J/F-12 radio frequency communication infrastructure. This will include new Omni directional antenna and LMR 400 cabling. The system shall incorporate a pre-defined library of signals and messaging appropriate to Force Protection Conditions (FPCONS), Information Operations Conditions (INFOCON), terror threats, watches, warnings, evacuation routes, battle staff directives, recall and other alerting information to meet Federal, "Sister Services" and Post specific warning and notification requirements.

## **2.0 REQUIREMENTS.**

**2.1 General Requirements:** The contractor shall provide all equipment, tools, materials, supplies, transportation, labor, supervision, management, and other incidentals necessary to EFI&T the requirements as stated in this SOO. All materials shall be new and not refurbished. The Contractor shall utilize pre-proposal walk-through information to analyze the project requirement, sound propagation analysis, perform engineering design tasks, and develop deliverables.

**2.1.1 Base Support:** The laydown and dry storage areas will be provided upon request. The contractor shall secure this area if needed.

### **2.1.2 Safety Requirements:**

**2.1.2.1 Site Coordination:** The Contractor shall comply with all Federal, State, Country and Base security and safety laws, regulations, policies, and requirements. If at any time it is determined that equipment is unsafe and/or work is being performed in an unsafe manner, all work will be immediately suspended until the Contractor has corrected the problem to the satisfaction of the base. The Contractor shall meet with the base safety officer immediately upon arrival on site for review of the specific safety requirements prior to installation.

**2.1.2.2 Confined Space:** The Contractors and Subcontractors entering spaces on Scott AFB are responsible for the Safety of their personnel and for their own permit space program as outlined in OSHA 1910.146. All confined space operations must be coordinated with the Base Safety office, prior to start of work. The primary contractor is responsible for all sub-contractor confined space operations.

**2.1.2.3 Permits:** The Contractor shall complete and process all permits as required to complete the installation. For example:

- Digging permit, AF Form 103 shall be submitted through base civil engineering 21 calendar days in advance of digging activities.

- Confined space entry permit, AF Form 1024 shall be coordinated through base safety office 6 calendar days in advance. The Contractor shall be prepared to provide proof of their Confined Space Entry Safety training program, along with the AF Form 1024, to base safety.
- Base Civil Engineering Work Clearance Request (AF 332) required to complete the installation shall be submitted through base civil engineering 21 calendar days in advance of construction activities.

**2.1.2.4 Accident/Incident Reporting and Investigation:** The Contractor shall record and report all available facts relating to each instance of injury to either Contractor or Government personnel to the Base Safety Office unless otherwise stated in the SOO. The Contractor shall secure the scene of any accident and wreckage until released by the accident investigative authority through the Base Safety Office. If the Government elects to conduct an investigation of the incident, the Contractor shall cooperate fully and assist the Government personnel until the investigation is completed.

**2.1.2.5 Work Area(s):** At day's end, the Contractor shall remove all debris and surplus materials from the work place. Equipment and materials required to complete the work effort may remain on site as long as they are organized/stored in a manner that does not cause a safety hazard.

### **2.1.3 Base Access and Security Requirements.**

**2.1.3.1 Security Clearances:** There are security requirements for performance of this Task Order. Some of this work will take place in secure areas where Contractor employees must be escorted at all times. The Contractor must coordinate access to secure areas at least five (5) calendar days ahead of time. It is the Government's responsibility to provide escorts. The primary contractor shall provide adequately cleared personnel for the performance of this task order.

**2.1.3.2 Contractor Consent to Background Checks:** The Contractor and, as applicable, subcontractor shall not employ persons for work on this contract if such employee is identified as a potential threat to the health, safety, security, general well-being or operational mission of the installation and its population, nor shall the Contractor or subcontractor employ persons under this contract who have an outstanding criminal warrant as identified by Law Enforcement Agency Data System (LEADS) through the National Crime Information Center. LEADS checks will verify if a person is wanted by local, state, and federal agencies. All Contractor and subcontractor personnel who do not consent to a LEADS check will be denied access to the installation. Information required to conduct a LEADS check includes: full name, driver's License number, and/or social security number, date of birth of the person entering the installation, and completion of a background check questionnaire. The Contractor shall provide this information, Contractors Consent for Background Check, and shall submit it in conjunction with the Contractor's request for either base or vehicle passes. Completion of a successful LEADS check does not invalidate the requirement for an escort when Contractor or subcontractor personnel are working within controlled or restricted areas. Contractors shall ensure their employees and those of their subcontracts have the proper credentials allowing them to work in the United States.

**2.1.3.3 Base Passes:** The contractor shall obtain base identification and vehicle passes, if required, for all contractor personnel who make visits to or perform work on the Air Force installation(s) cited in the contract. Contractor personnel are required to wear or prominently display installation identification badges or contractor-furnished, contractor identification badges while visiting or performing work on the installation.

During performance of the contract, the contractor shall be responsible for obtaining required identification for newly assigned personnel and for prompt return of credentials and vehicle passes for any employee who no longer requires access to the work site.

Upon completion or termination of the contract or expiration of the identification passes, the prime contractor shall ensure that all base identification passes issued to employees and subcontractor employees are returned to the issuing office.

**2.1.3.4 Visit Request Letter:** The contractor shall submit a written request on company letterhead to the contracting officer listing the following: contract number, location of work site, start and stop dates, and names of employees and subcontractor employees with social security numbers, driver's license numbers and state of issue, birth date and security clearance of the personnel who will be performing work on this SOO and need access to the base. The letter will also specify the individual(s) authorized to sign for a request for base identification credentials or vehicle passes. The contracting officer will endorse the request and forward it to the issuing base pass and registration office or Security Forces for processing. When reporting to the registration office, the authorized contractor individual(s) should provide a valid driver's license, current vehicle registration, and valid vehicle insurance certificate to obtain a vehicle pass.

**2.1.4 In-brief/Out-brief:** The Contractor shall conduct an in-brief and an out-brief with the site 375 CS/SCX and 375 CP POCs or designated representative at the beginning and conclusion of the implementation. The implementation out-brief shall inform the customer of implementation results and necessary maintenance issues (including warranties).

**2.2 SPECIFIC REQUIREMENTS.** The contractor shall upgrade/replace the current GVS with a new GVS, including all required support infrastructure such as Radio Frequency (RF) equipment, Omni-directional Speaker on existing Pole 004 Speaker cluster, antennas, pole mounts, and control station equipment and software.

#### Removal of old Control Stations, Radios, and GV Speaker:

Contractor shall remove old CDM-750 Radios and all mounting hardware on the existing poles (identified by 375 CS and 375 CP personnel) in order to not interfere with a new GVS installation. The existing Giant Voice Control Stations (SS2000) in the Command Post (CP), Alternate CP building, and the Radio/LMR Shop shall be reset to "factory default settings" in order to be appropriated for DRMO. Contractor shall remove Pole 004 Speaker and all mounting hardware on the existing poles (identified by 375 CS and 375 CP personnel) in order to not interfere with a new Omni-directional Speaker and wiring.

#### New GV Omni-directional speaker, RTU upgrades, Radio's, Omni-directional antenna, PC Computers and Controller's/Encoder's:

- Contractor shall make certain the new GV Omni-directional speaker is placed on the existing pole 004; e.g. to replace the inoperable Omni-directional speaker on top. The new GV Omni-directional speaker shall be capable of withstanding the heat, rain, snow, ice, and wind (weather) associated with the local area. Replace existing speaker with new speaker (Omni-directional) with the same watts and range of the existing speaker audible output.
- The new GVS Controller Stations shall be programmed and integrated with the existing AtHoc-EMNS.
- The new Controller's shall have a user interface central station control encoder/decoder, auxiliary board for remote activation, noise canceling microphone, and status option capability.
- The communication shall be through RF connectivity and the new radio's shall be J/F 12 compliant with an Omni-directional antenna capable of transmitting at M142.350 and LMR400 cable.
- The new Omni-directional antenna shall be mounted on the roof of building 859 with a 360 degree line of sight. The cabling will penetrate the building into room 134 and run directly to the controller station. The antenna must be grounded with lightning protection.  
Note: The actual mounting location of antenna and cabling will be provided by 375 CS personnel and must be approved by airfield manager.
- The upgraded GVS will have redundant control/user interface capability with each new Controller locations.
- The new GVS shall be connected to new PC computers, LED monitors, and Windows OS (at least Windows 11) for each new Controller/Encoder station with two-way communications software package, communication links, remote controller unit with battery backup power.
- The new PC computers will be connected to the base network which must be Standard Desktop Configuration compliant.
- Status options will at a minimum inform the user of alarms, system operational or non-operational status, and battery/power information.
- The GVS shall also have remote station digital voice, voice recording and programming capabilities to include all the features to integrate with the existing AtHoc-EMNS.

**2.2.1 Radio Frequency (RF) Requirements:** The contractor shall EFI&T the two-way RF communications infrastructure for the new GVS. The base spectrum manager can provide the radio frequency allocated for Giant Voice at each location, as well as maximum power allowed, radio type required, etc.

**2.2.2** The contractor shall comply with all applicable documents including standards in Appendix A "Government Documents and Standards".

**2.2.3** Upon project completion, the contractor shall provide configuration management, as-built drawing documentation of the installed system, including the predicted and tested audible coverage areas (CDRL A001).

**2.2.4 Installation Requirements.**

**2.2.4.1 Restoration:** Any wall penetrations shall be restored to meet NFPA 1, NFPA 70 and NFPA 72 standards.

**2.2.4.2 Grounding and Lightning protection:** The contractor shall provide Grounding, Bonding and Shielding of all site facilities and structures, inside and outside, for personnel safety and equipment protection. Grounding and lightning protection will satisfy requirements as set forth in the following: MIL-STD 188-124C, Grounding, Bonding and Shielding; MIL-HDBK 419A Vol. I and II Grounding, Bonding & Shielding for Electronic Equipment's & Facilities; and R-56, Standards and Guidelines for Communications Sites. Contractor shall properly ground electrical power installs in accordance with (IAW) base, local, state and federal codes, laws and National Electric Code's most recent edition and IAW Appendix A, "Government Documents and Standards."

**2.3 Giant Voice System (GVS) Installation:** The contractor will install a new GVS to provide intelligible prerecorded voice alert messages, informational messages, action to be taken, playing of taps, retreat, reveille, active shooter, warnings, and alerts announcement messages to all RTU's in the event of an emergency, terrorist threats, Force Protection contingencies, and exercises. The new GVS shall comply with the following: UFC 4-021-01, DoD UCR 2013, Change 2, AFI 10-2501, DoDI 6055.17, and Secretary of Defense Memorandum: Final recommendations of the Fort Hood Follow-On Review, Aug 18, 2010. The contractor shall use the most stringent of the directives and standards in Appendix A, "Government Documents and Standards".

**2.3.1 Features and Capabilities:** The contractor shall install the new GVS which will provide the following features and capabilities:

**2.3.1.1** The contractor shall provide a solution to install a new weatherproof omni-directional wide area speaker on Pole 004, new LMR 400 Cable, new J/F-12 compliant Radios, and update the firmware at the current siren locations indicated in Appendix B "Giant Voice Locations". The new siren speaker arrays shall provide adequate and intelligible live voice and prerecorded messages for the entire base populace.

**2.3.1.2** The siren speakers shall deliver alert, warning and informational messages of what to do before, during and after an emergency, exercises or disaster by the operators at the primary central control station at the Command Post (CP) or by operators at the Alternate Command Post in Building 1644. An additional control station will be installed in Bldg. 859 for use of the radio maintenance shop for testing and maintenance.

**2.3.1.3** The Primary and Alternate Control Stations shall transmit emergency announcements as live voice messages to alert and warn base personnel through remote siren speakers via microphone to any individual, group zone or all zone speakers.

**2.3.1.4** Activation and Control subsystems: The radio for all system communications shall be approved by US Military Communications Electronics Board (MCEB) J/F-12 process, and be capable of utilizing a Frequency Shift Keying (FSK) modulation scheme, DTMF and Two Tone Sequential data signals and meet narrow band and AES encryption requirements.

**2.3.1.5** The contractor shall provide two-way communications to the sirens from the central station encoders. The encoder will have the latest software features and be capable of integrating with the existing AtHoc-EMNS. The new GVS shall be capable of future integration with multiple indoor facilities Mass Notification Systems.

**2.3.1.6** The system shall allow operators to activate remote siren controllers independently, in groups or as an entire system. The system shall be equipped with a silent test diagnostic that allows it to test all major system components without producing an audible signal.

**2.3.1.7** The remote siren controllers shall allow for multiple activation sequences to be programmed from the primary or alternate control stations or locally at the site.

**2.3.1.8** Pole 004 Omni-directional speaker replacement shall be installed with the existing equipped Siren Controller Unit, two-way radio UHF/VHF, 128-256 bit encrypted control and status monitoring. The Siren Controller Unit shall utilize a separate battery cabinet that isolates the batteries from the electronic circuitry.

**2.3.1.9** The amplifier shall be a modular component, which is hot swappable or single board amplifier, allowing easier maintenance and increased redundancy, if Pole 004 amplifier needs replaced. TBD

**2.3.1.10** The encoder shall be programmed to perform automatic testing of all speakers in the system, weekly and/or monthly routine report, quiet testing, growl test or a full system test.

**2.3.1.11** A detailed sound propagation analysis shall be performed to determine the exact siren speaker's size and intelligible voice coverage for Pole 004. (CDRL A006)

**2.3.1.12** The frequency used by the radios will be assigned and approved by the base Radio Frequency Spectrum Manager, 375 CS. The contractor shall provide obstruction lights on any pole that penetrates the requirement plane. Obstruction lights must be incandescent and comply with FAA Advisory Circular AC70/7460-1K and ETL 11-29.

**2.3.2 System Interface:** The GVS shall provide the following features:

- a) Application Programming Interface (API) or a way to remotely activate audible alerts.
- b) Standard TCP/IP network protocols, RS 232, RS-485 and audio-in input.
- c) The API should conduct all interactions using XML messages conforming to the OASIS Common Alerting Protocols (CAP) Standard.
- d) The API shall allow an external system to initiate specified pre-recorded audio alerts in the Giant Voice/MNS.
- e) Target activation of specific sirens or speakers.
- f) Request reports on the status of delivery and activation of an alert already in progress; specifically, if the alert was delivered to all targeted speakers and these speakers are sounding the alert.
- g) Terminate an alert already in progress.
- h) Request reports on system health status, replying with a detailed response.
- i) The Giant Voice system shall allow the activation of target siren or speaker via dry-contacts and audio-in input.

**2.3.3 Preprogramming:** The GVS shall be pre-programmed with the following messages (This is intended as a general list; a draft list for Scott AFB announcements will be provided at contractor survey walk-through):

**2.3.3.1 Broadcasting Messages:**

- a) Attack Warning
- b) Disaster Warning

- c) FPCON Alpha
- d) FPCON Bravo
- e) FPCON Charlie
- f) FPCON Delta
- g) Lightning Announcement
- h) All Clear
- i) Hazardous Material
- j) Severe Weather
- k) Recall Message
- l) Active Shooter Announcement
- m) Heat Advisory Start/End
- n) Weather Warning
- o) To The Colors
- p) Retreat, Bugle
- q) Reveille
- r) Bugle Taps
- s) The National Anthem
- t) Retreat/Anthem
- u) Lock down
- v) End Message Indicator

**2.3.3.2 Broadcasting Tones:**

- a) Alt Steady
- b) Alt Wail
- c) Pulse Steady
- d) Pulse Wail

**2.3.3.3 Broadcasting Voice:**

- a) Public Address/Mass Notification
- b) Audio level (line-level) input

**2.3.3.4 Control System will perform the following functions:**

- a) Reset - used to reset all poles
- b) Cancel - used to cancel a message in mid stream
- c) Test Message
- d) Silent Test
- e) Strobe Light ON
- f) Strobe Light OFF

**2.3.4 Selectable Zones:** The GVS shall provide a speaker zone selective capability. All zones are linked to provide simultaneous activations and selective zone ability to activate each individual zone. The GVS shall allow for the pre-configuration of at least six (6) zones, which can be selected by the operator to promptly issue an announcement to the selected area.

**2.3.5 Central Control Stations:** The new GVS will have two-way P25 RF communications, alarm software with graphics screens for control and status monitoring. The system shall be

capable of being activated, monitored, controlled and receive real-time remote status monitoring of all system activities from any of the control stations.

**2.3.7 Command Post, Building 1600:** The contractor shall provide a Desktop PC with the latest Windows Operating System to run the current version of the GVS software, 22in monitors and encoder (digital two-way communications, desk mount), software package, noise canceling microphone, Smart UPS (120VAC), UHF/VHF base station radio, Omni-directional antenna, and antenna mounting bracket. The contractor shall provide for the mounting of central control components. The Omni-directional antenna (UHF/VHF) shall be mounted on the roof.

**2.3.8 Wiring and Infrastructure:** The contractor shall furnish and install all signaling wiring to include RF infrastructure to provide operational control of the GVS.

**2.3.9 Electrical Power:** Contractor shall install electrical power to the systems in the Command Post and Alternate Command Post by connecting to base utilities. The base Civil Engineering Squadron (CES) will identify the facility and power for supplying the electrical power. The Government has identified the recommended electrical power sources. Installations must comply with NFPA 70 (National Electric Code) and UFC 3-520-01 low voltage requirements.

**2.3.9.1 Backup Power for Control Stations:** The Contractor shall provide each central control station with its own backup power (UPS) to maintain operations during emergencies that could result in temporary loss of normal base utilities. Backup Power Capacity for fire alarm systems is defined in the National Fire Alarm Code, NFPA 72, section 4.4.1. As stated in Annex E of NFPA 72, mass notification systems should have the same backup power capacity as fire alarms. NFPA 72 states that the secondary supply for the control station shall be capable of supporting alarm operation for a minimum of 4 hours.

**2.3.9.2 Backup Power for Siren Speaker Locations:** Each speaker location has existing battery backup power to maintain operations during emergencies that could result in temporary loss of normal base utilities IAW NFPA 72, the secondary power supply shall be capable of operating the system under quiescent (non-alarm) load for a period of 72 hours and then shall be capable of operating the system under an emergency condition for 60 minutes at maximum connected load.

**2.3.10 Coordination:** All support infrastructures shall be coordinated with 375 CS, 375 CP, and the Civil Engineering Squadron.

**2.3.11 Audible Signal:** When broadcasting tone alerts for different warnings and when used as a vocal GVS for command and control instructions, the speaker system shall produce an audible signal and intelligible voice messages to any personnel located in the populated areas.

**2.3.12 Music and Voice:** The new GVS shall be capable of broadcasting standard military music selections and recorded voice (ref para 2.3.3.)

**2.3.13 Legacy System Removal/Site Restoration/Debris Removal:** The contractor shall remove existing GVS equipment and infrastructure (electronics, cabling, power) which is not used in the installation for this project, to include all spares. Prior to project completion, the contractor shall remove all debris and surplus materials from the work place. All equipment removed will remain U.S. Government property and will be removed and retained as spares or disposed in accordance with the Base POC's instructions.

**2.4 Service Outages:** The Contractor shall be responsible for preventing any unscheduled (i.e. cutting or disabling any in-service cables or equipment.), Contractor-caused, interruptions of communications capabilities that are properly identified. The Contractor shall coordinate planned outages with 375 CS/SCX in advance of the outage if the implementation necessitates disruption of service, (e.g., communications, electrical, or other utilities).

**2.5 Identification/Marking:** The Contractor shall clearly mark all Contractor-Furnished Property and Equipment (CFP/CFE) with their company's name. The Contractor shall place an easily read, very visible, sign (minimum 8.5" x 11") on large containers, construction equipment, or un-manned rental vehicles while on the Government installation indicating the company name and both the Contractor and Site POC's names and local telephone numbers. The contractor shall label all equipment and cables they install in accordance with ANSI/TIA/EIA-606-A-2002.

### **3.0 MANAGEMENT:**

**3.1 Schedule:** The contractor shall provide a complete milestone schedule that denotes major activities to include time-phased start and completion dates for this project and sub-projects associated with the installation of the components and systems (CDRL A002). The Contractor shall establish a preliminary project schedule/plan and submit with the technical proposal.

**3.2 Project Manager:** The Contractor shall provide a Project Manager (PM) and alternates responsible for contract performance and continuity. The Contractor shall identify the Project Manager's range of authority to act for the Contractor relating to daily contract operation

**3.3 Site Point of Contact (POC):** The Contractor shall designate the Contractor's on-site team leader and alternate(s) as the Site POC for this project in their Site Visit Request Letter. The Site POC or alternate(s) shall be on site during duty hours until project completion. The Site POC shall be the interface for all work site communications with the Government, including quality, safety, and discrepancy matters. The site POC and Team Lead or Team Chief may be the same individual.

**3.4 Quality Assurance:** The Contractor shall provide a Quality Control Plan for the life of the project. The Contractor's quality assurance evaluator shall assist the Government representative in performing random spot checks and system acceptance tests. The Contractor shall be responsible for identifying system and outside plant deficiencies and/or discrepancies throughout the life of the project. A weekly report (soft copy) shall be submitted indicating progress/status and listing any deficiencies/discrepancies found and actions to correct them (CDRL A003). Government personnel reserve the right to perform inspections of the Contractor's work during any and all phases of the installation.

**3.5 Environmental Management:** The Contractor shall comply with the most stringent environmental federal, state, local laws and regulations; and Air Force policies, instructions, and plans. The federal Government is not exempt from compliance with environmental regulations. The Contractor shall maintain an awareness of changing environmental regulatory requirements to avoid environmental deficiencies for activities on Scott AFB, IL.

**3.5.1 Hazardous Materials, Environmental and Other Local Requirements:** The Contractor shall meet with appropriate local environmental and civil engineering offices prior to the commencement of work.

**3.5.2 Disposal/Reporting:** The Contractor shall comply with local procedures concerning the use, disposal, or reporting of hazardous materials. All excess materials and residues from this project (any excess or contaminated soil, asphalt, or concrete, etc.) shall be disposed of off base and IAW Federal, and Local environmental laws and regulations.

**3.5.3 Hazardous Material Identification:** The Contractor shall submit Material Safety Data Sheets (MSDS) IAW FAR Clause 52.457-3 for any hazardous materials (paints, solvents, cleaners, encapsulating compound, etc.) to be used in performance of the contract. The Contractor shall file the MSDS(s) with the Base Environmental Management Office (BEMO) prior to using hazardous material.

**3.6 Integrated Product Team (IPT):** The Contractor shall chair a weekly IPT meeting that includes Contractor representatives, the 375 CS Government Contracting Officer (CO), SME engineers, the 375 CS Project Manager, and other base personnel as requested. The Contractor shall provide a worldwide “Meet Me” teleconference capability for the duration of the project. The purpose of this meeting is to discuss project progress, problems being encountered, and other discussions necessary/beneficial to ensure success and timely completion of the Task Order. The Contractor shall record and distribute meeting minutes within two workdays of each meeting (IAW CDRL A004).

**3.7 Weekly Status Reports:** The Contractor shall prepare a Weekly Status Report and distribute IAW CDRL A003. The purpose of the report is to inform IPT members of project progress, problems being encountered, and other topics necessary/beneficial to ensure success and timely completion of the contract requirements. The Status Report and meeting agenda may be combined as long as the resulting report contains all the required elements and contains sufficient detail to serve as project record.

**3.8 Final Project Walk-Through:** The installer shall schedule a final project walk-through of all work completed prior to close out with the Government Project Manager. This should be scheduled at least 72 hours prior to the event.

### **3.9 Performance:**

**3.9.1 Period of Performance:** The period of performance for the project shall be determined by 375 Contracting Office including installation, training, testing & acceptance.

**3.9.2 Place of Performance:** The place of performance is Scott AFB, IL.

**3.9.3 Hours of Operation:** The Contractor shall routinely work during normal duty hours of the site. However, mission requirements may necessitate work outside normal hours (nights and/or weekends), especially if existing service must be interrupted. Any site work requested by the Contractor to be performed outside of normal duty hours shall be coordinated with the Base POC at least 7 calendar days in advance.

**3.9.4 Holidays/Down Days:** The Contractor shall not perform under this contract on federal holidays or site-unique down-days unless expressly authorized by the CO and coordinated with the 375 CS/SCX POC.

### **3.10 Contractor Personnel Requirements:**

**3.10.1** The Project Manager, Site POC, and respective alternate(s) shall be able to read, write, speak, and understand English.

**3.10.2** Enterprise Wide Contractor Manpower Reporting Application (ECMRA).

The contractor shall report ALL contractor labor hours (including subcontractor labor hours) required for performance of services provided under this contract via a secure data collection site. The contractor is required to completely fill in all required data fields using the following web address <http://www.ecmra.mil>. Reporting inputs will be for the labor executed during the period of performance during each Government fiscal year (FY), which runs October 1 through September 30. While inputs may be reported any time during the FY, all data shall be reported no later than October 31 of each calendar year. Contractors may direct questions to the ECMRA help desk.

**3.11 Warranty:** The Contractor shall provide a one-year Warranty for the installation to ensure the quality of their work is in accordance with the NETCENTS-2 contract. Warranty period shall commence on completion and acceptance of the installation.

**4.0 DELIVERABLES.**

**4.1 List of Deliverables:** All deliverables are subject to Government acceptance and approval. They shall meet professional standards and the requirements set forth in this SOO. All deliverables shall be produced using recommended software tools/versions as accepted by the Government. The Contractor shall submit the following deliverables:

CDRL	Data Item Title	Data Item Title
A001	As Built	DI-DRPR-80151A/T
A002	Work Schedule	DI-MISC-81382/T
A003	Status Report	DI-MGMT-80368A
A004	Meeting Minutes	DI-ADMIN-81505/T
A005	Test Plan	DI-NDTI-80566A/T
A006	Test Report	DI-QCIC-80512
A007	Training Plan	DI-ILSS-81070/T
A008	Frequency Management Report	DI-MGMT-80160A

**4.2 As-Built Drawings:** The contractor shall submit drawings showing the “as built” configuration IAW CDRL A001.

**4.2.1 GeoBase data:** Contractor shall provide GPS data for all new support infrastructure installed by this project. This includes but is not limited to: grounding, radios, lightning protection and antenna systems. GPS coordinates shall be taken at any point where the structure meets the ground or mounting pad, structures shall be taken as a series of points forming a polygon. GPS height data shall be included for all items. GPS data shall be collected in

Universal Transverse Mercator (UTM) coordinate system on the World Geodetic System (WGS) 84.

**4.2.2 Coverage Maps/Drawings:** Coverage area drawings for predicted and tested coverage areas for Scott AFB. The coverage area drawings shall be shown on a satellite image of the coverage areas with the street names, facility locations and other geo-references shown.

**4.2.3 Manuals and Practices:** The Contractor shall provide the latest version of the Original Equipment Manufacturer's operation, installation, and maintenance manuals and practices/users guides for each system installed as provided by the original manufacturer with all new equipment.

**4.3 Onsite Training:** Upon completion of the installation process, the Contractor shall provide User Training to the designated Site Staff in accordance with the customer requirements. User training shall include step-by-step instructions on the utilization of all features of the new system as well as basic system troubleshooting. The Contractor shall provide operational training to the users and system training to the Operators/Maintainers as needed. Instructional sessions including training slides/guidance/documentation shall be permitted to be videotaped for future training purposes. The Government shall retain the right to duplicate and distribute the training material for future training purposes. This training shall include setup, configuration, operations, and user diagnostic, repair and replacement. The contractor shall conduct a classroom instruction on the system to include the operational and maintenance requirements of the system for up to twelve (12) students utilizing a government approved training plan. (CDRL A007)

**4.4 Test Plan:** The contractor shall submit a written test plan that details how they will test the new GVS, all station encoders, all siren speakers arrays, in compliance with Unified Facilities Criteria (UFC) 4-021-01. In addition, the contractor shall submit written instructions to system operator(s) for conducting periodic system tests. End to end testing of the new GVS, new controller stations, and radio communication for each voice messages, warning & alerts, and tones specified by 375 CP personnel. These tests shall be accomplished prior to the system being placed into service. Testing the new high power Omni-directional speaker shall not echo, shall be heard clearly within the range Pole 004 has on the installation, and be audible to each of the tones and sounds produced by the new GVS. The new GVS shall be tested and demonstrate to the Government that the system is fully operational and meets or exceeds the specified requirements and that the system is fully ready to be placed into service IAW CDRL A005. The Contractor shall also test the system to demonstrate to the Government quality assurance evaluator of the system.

**4.4.1 Cutover Plan:** The contractor shall provide a detailed cutover plan to delineate how the transition shall be implemented to minimize or avoid GVS down time. This plan should outline how the system shall be placed into service and clearly specify how the newly installed system shall connect to the existing base system (CDRL A005).

**4.4.2 Testing Requirements:** The contractor shall furnish all test equipment and personnel required to conduct all required testing. The contractor shall document all test results in a "Test Report(s)" and submit to local 375 CS and 375 CP within 5 calendar days of completion of each test. During any testing phase, the Government reserves the right to perform any of the contractor performed inspections and tests to assure solutions conform to prescribed requirements. The contractor shall provide on-site support during the acceptance testing (CDRL A005)

**4.4.3 Acceptance/Installation Test Report:** The Contractor shall provide an installation test report of the results of the testing accomplished under the installation test plan IAW CDRL A006.

**4.5 Frequency Management Report:** The contractor shall submit a frequency management report and distribute IAW CDRL A008. The frequency management report shall include data, diagrams, and supporting information developed from the field survey, EMI survey, and link analysis study.

**4.6 Final Acceptance:** The Contractor shall schedule a final project walk-through and complete system test of all work completed prior to close out with the government representative from 375 CS/SCX. This should be scheduled at least 7 calendar days prior to the acceptance. The contractor shall perform testing and inspections of the GVS IAW the approved test plan. When any system, subsystem, component or requirement test fails to meet the requirements of the test, Government acceptance will be withheld until such time as the cause of the failure is corrected to the Government's satisfaction. After appropriate corrective action has been taken, all tests including those previously completed related to the failed test and the corrective action shall be repeated and successfully completed prior to Government acceptance (CDRL A005).

## **5.0 ATTACHMENTS:**

Appendix A - Government Documents and Standards.

Appendix B - Giant Voice Locations

**Appendix A: Government Documents and Standards.** The contractor shall comply with these documents during the performance of this Task Order. The contractor shall obtain and comply with any other applicable manuals not identified above & below that would be required to meet industry standards.

Unified Facilities Criteria (UFC) 4-021-01; 9 Apr 2008, Change 1, Jan 2010 Design and O &M: Mass Notification Systems

Unified Facilities Criteria (UFC) 4-010-01– 9 Feb 2012, Change 1, 1 Oct 2013, Minimum Antiterrorism Standard for Buildings

AFI 10-2501, 10 March 2020 – Air Force Emergency Management Program

Unified Facilities Criteria (UFC) 3-520-01 (October 6, 2015), Interior Electrical Systems; Engineering Technical Letter

Department of Defense Unified Capabilities Requirements 2013 (UCR 2013) Change 2, September 2017, The Office of the DoD Chief Information Officer

Executive Order 13407, 28 Jun 2006 - National Public Alert and Warning System

Secretary of Defense Memorandum: Final Recommendations of the Ft Hood Follow-On Review, 18 Aug 2010

DoDI 6055-17, 13 February 2017 - DoD Emergency Management (EM) program

OSHA CFR 29 Part 1910-268 - (1988) Telecommunications

REA TE&CM 701/PC-5A - Rural Electrification Administration (REA)

REA TE&CM 643 Form 515C - Rural Electrification Administration (REA)

NEMA TC 2-1998 - Electrical Polyvinyl Chloride (PVC) Tubing and Conduit

ANSI/TIA/EIA-568-B - (2001) Commercial Building Telecommunications (568B-1, 568B-2, 568B-3) Cabling Standard

ANSI/EIA-310-D - Cabinets, Racks, Panels, and Associated Equipment

BICSI TDM Manual - (1998) Building Industries Consulting Services International Telecommunications Distribution Methods (TDM) Manual

RUS Bulletin 1751F-640 - Design of Buried Plant-Physical Consideration

RUS Bulletin 1751F-641 - Construction of Buried Plant

RUS Bulletin 1751F-643 - Underground Plant Design

RUS Bulletin 1751F-644 - Underground Plant Construction Telecommunications Engineering Shield

Continuity and Construction Manual (TE&CM) 451.2

RUS Bulletin 345-65 (PE-33) - RUS Specification for Shield Bonding Connectors

RUS Bulletin 345-54 (PE-52) - RUS Specification for Telephone Cable Splicing Connectors

RUS Bulletin 345-72 (PE-74) - RUS Specification for Filled Splice Closures

RUS Bulletin 345-150 (515a) - Specifications and Drawings for Construction of Direct Buried Plant

RUS Bulletin 345-152 (515d) - Specifications and Drawings for Underground Cable Installation

Electronics Industry Alliance EIA-310-D - Cabinets, Racks, Panels, and Associated Equipment

ANSI/TIA/EIA-758 - Outside Plant Telecommunication Cabling Standard

ANSI/TIA/EIA-606 - Administration Standard for Commercial Telecommunication Standard

PVC Tubing and Conduit

NFPA 70 - National Electric Code

NFPA 72 - National Fire Alarm Code

NFPA 70E - Standard for Electrical Safety in the work place

AFI 33-203 - Emission Security

AFI 33-580 Spectrum Management

AFI 91-203, Chapter 23 - Air Force Consolidated Occupational Safety Instruction

Federal Aviation Administration Advisory Circular AC 70/7460-1K Obstruction Marking and Lighting

(ETL) 11-29 (2011), Use of Light-Emitting Diode (LED) Fixtures in Airfield Lighting Systems on Air Force Installations and Enduring/Contingency Location

UFC 3-560-01 (2006), Electrical Safety, O&M; UFC 3-535-01 (2005). Visual Air navigation Facilities

Appendix B – SAFB Giant Voice Remote Terminal Units (RTUs)/Poles locations.

- Pole 008 – steel/metal pole with A/C power that has 2 Omni-directional speakers.
- Pole 007 – steel/metal pole with A/C power that has 7 Omni-directional speakers.
- Pole 006 – steel/metal pole with A/C power that has 7 Omni-directional speakers.
- Pole 005 – wooden pole w/solar panel and A/C power that has 7 Omni-directional speakers.
- Pole 004 – wooden pole w/solar panel and A/C power that has 7 Omni-directional speakers but the top speakers cover is removed.
- Pole 003 – wooden pole w/solar panel and A/C power that has 7 Omni-directional speakers.
- Pole 002 – wooden pole w/solar panel and A/C power that has 7 Omni-directional speakers.
- Pole 001 – wooden pole w/solar and A/C power that has 7 Omni-directional speakers.