

SCOPE OF WORK
ORDNANCE AND EXPLOSIVES REMOVAL
at the
FIVE POINTS NAVAL AIR STATION OUTLYING FIELD
ARLINGTON, TEXAS
PROJECT NO. K06TX002801
19 May 2003

1.0 OBJECTIVE:

The objective of this task order is for the Contractor to safely locate, identify and dispose of detected Unexploded Ordnance (UXO) and Ordnance and Explosives (OE) items to maximum detectable depth on the 162-acre site.

2.0 BACKGROUND AND GENERAL STATEMENT OF WORK:

2.1 Regulatory Guidelines. The work required under this Scope of Work (SOW) falls under the Defense Environmental Restoration Program - Formerly Used Defense Sites (DERP-FUDS). Ordnance and Explosives (OE) exists on property formerly owned or leased by the Department of Defense.

2.1.1 OE is a safety hazard and may constitute an imminent and substantial endangerment to the local populace and site personnel. The work associated with this Removal Action shall be performed in a manner consistent with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 104, and the National Contingency Plan (NCP), Sections 300.120(d) and 300.400(e). The Contractor shall perform this in accordance with all applicable laws and regulations.

2.1.2 All activities involving work in areas potentially containing unexploded ordnance hazards shall be conducted in full compliance with Department of Defense, Department of Army, US Army Corps of Engineers, state and local requirements regarding personnel, equipment, and procedures, 29 CFR 1910.120 shall apply to all actions taken at this site.

2.1.3 Due to the inherent risk in this type of operation, unexploded ordnance (UXO) personnel shall not be engaged in OE operations for more than 40 hours a week or more than 10 hours a day. The work schedule may be either four 10-hour days or five 8-hour days. Two consecutive workweeks shall be separated by a 48 hour rest period. These guidelines are IAW DID OE-025.01 para 6.1.

2.2 Chemical Warfare Materiel (CWM). There is no evidence that CWM has been tested or exists within the area comprising this project. The EE/CA documents, during a 1954 clearance, M47 chemical bombs were removed. However, Major Dallas Lynch (who performed the clearance) testified that all M47 were the “blue practice type”. This site is not a suspected CWM facility. However, during conventional OE operations, if the Contractor identifies or suspects CWM, the Contractor shall immediately withdraw upwind from the work area and notify the appropriate personnel as identified in each Task Order or approved Work Plan. The Contractor shall provide two personnel located upwind of the suspect CWM to secure the site until relieved by the Technical Escort Unit (TEU) or Explosive Ordnance Disposal (EOD) personnel.

2.3 Site Descriptions and History. Former Five Points Outlying Field (OLF) is located in southeast Arlington, Texas, at the southwest corner of Harris and Matlock Streets. In 1940, the Department of Defense (DOD) acquired land for a number of outlying fields for the Dallas Naval Air Station. One of the outlying fields was established in Arlington and consisted of 162 acres. The Navy constructed four runways at the site and designated it Five Points Outlying Field. Navy aviators practiced “touch and go”s at the OLF for several years. At some unknown date, the purpose of Five Points OLF switched from practice landing fields to a practice bomb target. It is thought that three types of practice bombs were used at the former OLF: M-47 chemical bombs; AN-MK 23 Mod I Navy; and M38 practice bombs. Common practice was to pressure test the M-47 chemical bombshell casings after manufacture to ensure they did not leak. Any M-47 shell casings that failed the pressure test and leaked were discarded for chemical warfare and filled with inert material and used as practice bombs. The practice bombs were fitted with

spotting charges that would mark the location of the practice bombs upon impact. Spotting charge material included, but was not limited to, stabilized red phosphorus, zinc oxide or fluorescein dye. The former practice bomb range was surface swept for ordnance in 1954. Clearance certificates were issued for the former range in 1954 and again in 1956. The 1954 clearance report documented that 75 M-47 chemical bombs, 27 AN-MK 23 Mod I Navy, and 23 M38 practice bombs were removed from the former range. Thirty-five acres of the former range were purchased in 1983, and Twin Parks Estates Mobile Home Park was developed from 1983-1984. The developer reportedly removed approximately 3,000 MK 23 practice bombs. An initial Inventory Project Report was completed for the former range under the Formerly Used Defense Sites program in 1996, and recommended an ordnance project for the former range with a Risk Assessment Code (RAC) score of 2. The remainder of the former range was developed as a subdivision in 1998 by KB Homes, with approximately 700 homes projected for the subdivision (South Ridge Hills). Safety concerns, followed by lawsuits, arose with the finding of several MK23 practice bombs in developed lots. The RAC score was elevated to a 1, following the discovery that M47 practice chemical bombs were used at the former range, and the Fort Worth District, Corps of Engineers, has proposed to perform an OE removal at the site.

3.0 SPECIFIC REQUIREMENTS:

3.1 (TASK 1) SITE VISIT (FFP):

3.1.1 Pre Bid Site Visit A pre-bid site visit will be conducted at the Contractors own expense. The date of the site visit will be established by CESWF and/or CEHNC and provided to the Contractors no less than 5 calendar days in advance of visit. The Contractors shall determine the makeup of its site visit team at its own discretion. The objective of the site visit is for the Contractors team to gain familiarization with the site in general, to gather information required to put together a proposal, and, if awarded this Task Order to prepare an acceptable and executable Work Plan (WP). No UXO-related activities will be performed during the site visit. CESWF or CEHNC will prepare an

Abbreviated Site Safety and Health Plan (ASSHP) and provide an OE Safety Specialist for this visit. The Contractor shall provide the site visit team's names, positions and dates of 40-hour and/or 8-hour refresher OSHA HAZWOPER training to the CEHNC for inclusion into the ASSHP.

3.1.2 Post Award Site Visit There will be no post award site visit.

3.2 (TASK 2) PREPARE WORK PLAN (WP) (FFP): The Contractor shall prepare a WP in accordance with OE -005-01.01. **An Environmental Sampling and Analysis Plan and Investigation Derived Waste Plan is not required for this task order.** The Contractor shall submit a "Draft", and "Final" version of the Work Plan in accordance with Section 4.0 of this SOW.

3.3 (TASK 3) GEOPHYSICAL PROVE-OUT (GPO) (FFP): The Contractor shall perform a geophysical prove-out in accordance with DID OE-005-05A.01 Geophysical Prove-Out (GPO) Plan. The Contractor shall submit "Draft" and "Final" versions of the GPO Plan. The Contractor shall also submit a Site Safety and Health Plan (SSHP), with the GPO Plan, for approval

3.3.1 The Contractor shall submit a "Draft" and "Final" version of the GPO Letter Report. The GPO Letter Report shall be in accordance with DID OE-005-05.01 and section 4.0 of this SOW. The GPO Letter Report shall be included in the final version of the Work Plan as an appendix.

3.4 (TASK 4) BRUSH CLEARING (T&M): The Contractor shall perform brush clearing necessary to perform project activities, however brush clearing is expected to be minimal (only ~10% of the site is undeveloped).

3.5 (TASK 5) LOCATION SURVEYS AND MAPPING (FFP): Location surveying and mapping shall be in accordance with DID OE-005-07.01 and the approved Work Plan. The coordinate system used for the Task Order shall be the Universal

Transverse Mercator (UTM) Coordinate System. All data submitted shall be in the UTM Coordinate System. Setting of control monuments, grid corners, and/or location of any property boundaries shall be performed by a Professional Land Surveyor licensed in the State of Texas. OE locations shall be measured from grid corners to the nearest half-foot. The Contractor shall locate and/or establish a minimum of 2 (two) control monuments for this site. Survey data shall be submitted as follows:

- Control Monument Data With weekly status report following completion of work
- Site grid Data With weekly status report following completion of work
- OE location data With weekly status report following completion of work

Survey data may be submitted by CD or electronically via email. Other methods of submittal must be proposed to and approved by the contracting officer. The site grid data shall include a map of the entire site with grids shown and other pertinent features. A tabulated list of grid corners in UTM Coordinates shall be submitted in a Microsoft Excel Spreadsheet version 98 or higher. OE location data shall be submitted in a Microsoft Excel Spreadsheet version 98 or higher. Data shall include grid number where found, item number assigned, type of item, location in UTM coordinates to nearest half-foot, and depth below ground surface. All survey data shall be included in the Final Report.

3.6 (TASK 6) GEOPHYSICAL INVESTIGATION AND EVALUATION (FFP):

The Contractor shall implement geophysical investigations, in the areas outlined in the table below, as described in the approved Work Plan and in accordance with DID OE-005-05.01, Geophysical Investigation Plan. All Geophysical mapping team members shall be established from personnel who have successfully demonstrated their ability by training on the prove-out plot for skill, ability, technique, and procedure. If any changes/replacements are made to the geophysical mapping equipment, the equipment shall be tested on the GPO and reviewed and accepted by the project Geophysicist.

PROJECT SITE	TOTAL ACREAGE	CLEARANCE ACREAGE
Five Points OLF	162	<162

3.6.1 Investigation. The Contractor shall propose and discuss the methodology by which geophysical mapping shall occur. The Contractor shall produce geophysical maps, using mapping standards outlined in DID OE-005-05.01, of the site that show major geophysical features. A map layer that includes physical (human-made) features overlaid onto the geophysical data results shall also be included. Items to be annotated on this map include but are not limited to, all known or visible pipes & power lines, manhole covers, buildings, inaccessible areas such as brush piles, fence lines, areas of bare rock, etc. All geophysical data shall be sent to CESWF via email, on a CD/DVD ROM, or by other approved method, for verification and Quality Assurance check, no later than 36 hours after collection. Raw and final processed geophysical data shall be in column delineated ASCII files in the format X, Y, V1, V2... where X=Eastings Coordinate, Y=Northing Coordinate, V1= top sensor reading, V2=next lower (spatially) co-located sensor reading, etc. The data shall be in the UTM Coordinate System. In addition the Contractor's proposal shall include an estimate or the sum of errors in positioning for the approach(es) they will be using under this task. If the sum of errors for the positioning of data exceeds the projects defined DQOs for a given data set and the justification for such is not acceptable to the government, all affected data will be recollected at no cost to the government.

3.6.2 Evaluation and Anomaly Selection. The contractor's strategy for selecting anomalies shall be submitted in their proposal.. The selection for excavation of anomalies shall be based upon GPO results. As soon as a grid is complete, a qualified geophysicist shall check and evaluate the geophysical data collected. The geophysicist shall select anomalies, clearly mark the selections on the geophysical maps, and provide a "dig-sheet" showing predicted location and character of all suspected anomalies to the CESWF Project Manager. . The Government may require that 100% of anomalies be dug, in selected grids, for QC/QA purposes. The Contractor shall resubmit the dig sheets to CESWF with the weekly status report after excavation results become available and are recorded on the dig sheets. In addition, the Contractor shall continually compare

predicted results with actual results so that the Contractor's geophysical evaluation methodology is constantly refined over the life of the project.

3.6.3 Anomaly Reacquisition. The Contractor shall reacquire all selected geophysical target anomalies identified on the dig sheets. The Contractor's proposal shall detail the technical approach(es) that they will be using for anomaly reacquisition. These approaches must take into consideration the sum of errors in positioning and reacquisition methods, and must describe the approaches that will be used to confirm that the selected anomalies in the dig sheets have been reacquired. Any anomalies where the reacquisition is ambiguous or uncertain shall be noted.

3.7 (TASK 7) INTRUSIVE INVESTIGATIONS (T&M):

3.7.1 Accessing Anomalies:

The Contractor shall access anomalies identified by the geophysical investigations and as directed by USACE project personnel. Using qualified UXO personnel IAW OE 025.01, the Contractor shall investigate the specified anomalies according to the approved Work Plan procedures.

3.7.2 Clearance: The contractor shall perform a clearance to a maximum detectable depth based on the best available technology for the Five Points Site. Ordnance has been documented to a depth of six feet.

3.7.3 OE Destruction: The Contractor shall be responsible for the destruction of all OE encountered during site investigations and characterizations utilizing qualified personnel and in accordance with all aspects of the project Work Plan. The Contractor shall establish in the Work Plan a method of disposal, if required, for all OE.

3.7.4 Backfilling Excavations: All access/excavation/detonation holes shall be back-filled by the Contractor. The Contractor shall restore such areas to their prior condition. The Contractor shall take before and after photographs documenting the condition of a

property after intrusive investigations have been executed. The contractor shall title the photographs accordingly so that properties can be quickly and correctly matched to the photos.

3.7.5 OE Accountability: The Contractor shall maintain a detailed accounting of all OE items/components encountered. This accounting shall include the amounts of OE, the identification and condition, depth located, disposition and location. The accounting system shall also account for all demolition materials utilized to detonate OE on site. This accounting shall be a part of an appendix to the Final Report. Photographs shall be made and documented all OE found on site.

3.7.6 DD Form 1348-1A: The Contractor shall complete a DD Form 1348-1A as turn-in documentation. The following statement shall be included on the form.

"This certifies and verifies that the AEDA residue, Range Residue, and/or Explosive Contaminated Property listed has been 100 percent properly inspected and to the best of our knowledge and belief, are inert and/or free of explosives or related material."

(Note: AEDA is defined as ammunition, explosives and dangerous articles) Instructions or completing this form are contained in the Defense Utilization and Disposal Manual, DoD 4160.21-M. The DD 1348-1A shall be signed with dual signatures. The first signature (certifier) shall be the Senior UXO Supervisor (SUXOS). The second signature (verifier) must be the USACE on-site OE Safety Specialist

3.7.7 Disposal of OE Scrap: All OE scrap shall be disposed of at a foundry and/or recycler where it will be processed through a smelter or furnace prior to resale or release. It is the intent that the OE scrap is disposed of permanently. **Disposal in a landfill or to a scrap dealer where it may sit in a scrap pile is unacceptable.** The Contractor shall document the transport of the scrap and the transfer of the scrap to the next responsible party. All OE scrap shall be secured in a lockable container as soon as possible after discovery. All containers shall remain locked until such time as it is delivered to, and signed for by a foundry/recycler. The method/location of disposal shall be detailed in the

WP. The Contractor shall also include in the WP a written statement from the dealer that the scrap will be processed through a smelter or furnace prior to resale or release.

3.7.8 Quality Control: The Contractor shall develop a Quality Control (QC) Program, as described in the approved Work Plan and in accordance with DID OE-005-011.01, that shall ensure a quality product from all aspects of the project to include any work performed by a subcontractor on the project. The Contractor shall develop QC procedures and submit those procedures, for all phase and types of work, in the project work plan(s). In addition, the Contractor shall propose detailed methodology and cost for using digital geophysics when performing QC functions. The Contractor shall ensure that documentation is maintained and provided in the final report that supports the QC process. In addition to the QC process by the Contractor, the Government may perform Quality Assurance (QA) on all phases and types of work performed. **Any UXO or UXO like item meeting or exceeding the dimensions of a MK23 (approximately 200 mm x 50 mm) found during Government QA activities will be considered a failure for the area being inspected.** Where geophysical mapping is utilized, the government may require 100% anomaly retrieval for QA purposes. Any work that fails the Government QA process shall be re-done by the Contractor, at no cost to the Government. The Contractor shall provide full documentation detailing what failed the QA process, why it failed, and how the problem was corrected.

3.7.9 UXO Quality Control (QC) Specialist: The individual performing the UXO QC shall not be involved in the performance of other OE field tasks. The QC shall not be “dual hatted” as the Site Safety Officer. UXO QC shall be a separate function. The UXO QC Specialist shall meet the requirements as shown DID OE-025.01. The Contracting Officer must approve any exceptions.

3.8 (TASK 8) FINAL REPORT (FFP): The Contractor shall prepare a final report in accordance with DID OE-030.01. The Contractor shall submit a “Draft” and “Final” version of the Final Report in accordance with Section 4.0 of this SOW.

3.9 (TASK 9) PROJECT MANAGEMENT (FFP): The Contractor shall perform project management activities necessary to maintain project control, to include but not limited to the following.

3.9.1 Schedule: The Contractor shall submit a proposed Project Schedule in Microsoft Project. The Contractor shall update the schedule in accordance with DID OE-085.01 Project Status Report. A final schedule shall be submitted a minimum of 30 days before commencing fieldwork (i.e. GPO plot).

3.9.2 Public Meetings: The Contractor shall be prepared to attend and participate in public meetings. The Contractor shall be prepared to make presentations and answer questions concerning project activities at the former Five Points OLF. The Contractor shall anticipate 2 public meetings in Arlington, Texas.

3.9.3 Community Liaison: The Contractor shall provide an individual to be a liaison between the public, the contractor, and the Corps of Engineers for the duration of the removal action. This person shall be responsible for coordinating right-of-entry access, coordinating evacuations as necessary, and be the landowners' POC about project issues. This person shall keep detailed records of conversations and activities.

3.9.4 Reports/Minutes, Record of Meetings: The Contractor shall prepare and submit a report/minutes of all meetings attended in accordance with DID OE-045.01.

3.9.5 Telephone Conversations/Correspondence Records: The Contractor shall keep a record of each phone conversation and written correspondence concerning this Task Order in accordance with DID OE-055.01. A copy of this record shall be attached to the Project Status Report.

3.9.6 Project Status Reports: During fieldwork, the Contractor shall prepare and submit a weekly Project Status Report in accordance with DID OE-085.01 and including any other items required in the SOW.

3.9.7 Monthly Status Report

The Contractor shall prepare and submit a monthly status report IAW DID OE-080.01 and include any other items required in the SOW.

3.10 (TASK 10) ESTABLISHMENT AND MANAGEMENT OF GIS (FFP):

The Contractor shall establish and manage a GIS in accordance with DID OE-005-14.01 Geographical Information System Plan. The Contractor shall submit the GIS data in a format compatible to the ESRI (arcview/arcinfo) system. The Contractor shall develop a GIS to store spatial data and a database for non-spatial data. The GIS shall be in ESRI format. The database shall be Microsoft ACCESS (98 or higher). The Contractor may use ORACLE if the database becomes too large for ACCESS to handle. Themes (layers) and data to be included at a minimum are, property and owner information, rights-of-entry information, geophysical data, anomaly data, historical photo analysis data (when available), USGS Quad sheets, sensitive areas (archaeological, biological, etc.), and any other data, which will aid in the management and execution of this project. The Government will review draft versions of Contractor GIS deliverables for technical accuracy, errors, omissions, and for compliance with Tri-Service Spatial Data Standards. The Contractor shall propose a method and frequency of submittals to CESWF and CEHNC. The frequency of updates may vary based upon the amount of project activity. It is expected that this GIS be used for project planning and management. At the conclusion of the project the Contractor shall submit CD(s) (4 copies) of all files associated with the GIS and database to CESWF/CEHNC.

3.11 (TASK 11) CONVENTIONAL EXPLOSIVES SAFETY SUBMISSION (ESS) (FFP)

The contractor shall develop a Conventional Explosives safety submission IAW DID OE-060.01. The ESS shall describe, in detail, the safety criteria involved in an OE removal operation. The ESS shall be approved prior to site mobilization. The Contractor shall coordinate with CEHNC OE-CX Wayne Shaw (256-895-1513) for ESS approval. The

Contractor shall keep the CEHNC PM informed of any correspondence concerning the ESS.

4.0 SUBMITTALS AND CORRESPONDENCE:

4.1 Format of Engineering Reports: Any and all reports and/or plans not covered by a specific DID shall be prepared according to the following guidelines. The front cover of the report or plan shall be prepared in accordance with Attachment 1 of DID OE-030.01 and shall bear the following statement in addition to other requirements. *“The views, opinions, and/or findings contained in the report are those of the author(s) and should not be construed as an official Department of the Army position, policy, or decision, unless so designated by other documentations.”* The cover shall also denote which version of the report/plan presented (e.g. Draft, Draft Final or Final). When drawings are required, data may be combined to reduce the number of drawings. All drawings shall be of engineering quality in drafted form with sufficient detail to show interrelations of major features. The contents and format of the engineering reports shall be arranged in accordance with all pertinent guidance documents. The report/plan shall be typed on standard size of 8-1/2 inch by 11-inch white paper, with drawings other than the construction drawings folded, if necessary, to this size. Chapters shall be numbered sequentially. Within each chapter the paragraphs shall be numbered sequentially starting with the chapter number. Within each chapter any figures, tables, and charts shall be numbered sequentially starting with the chapter number. Appendices shall be lettered alphabetically and shall be identified and referenced in the text of the report/plan. Within each appendix, each page shall be numbered sequentially starting with the appendix letter. Every page of the report/plan shall contain a date footer, contract number, task order number and version (e.g. draft, final, original, change 1, etc). The report/plan shall be legible and suitable for reproduction. The final version of the reports/plans shall also be submitted on CD-ROM in accordance with the other paragraphs of section 4.0. All data, including raw analytical and electronic data, generated under this task order are the property of the DoD and the government has unlimited rights regarding its use.

4.2 Computer Files: All final text files generated by the Contractor under this contract shall be furnished to the Contract Officer in Microsoft Word 6.0 or higher software. Spreadsheets shall be in Microsoft EXCEL. All final CADD drawings shall be in Microstation 95 or higher. All GIS data shall be in ESRI (Arcview/Arcinfo) format.

4.3 PDF Deliverables: In addition to the paper and digital copies of submittals, the final version of any and all reports and/or plans shall be submitted, uncompressed, on CD ROM in PDF format along with a linked table of contents, linked tables, linked photographs, linked graphs and linked figures, all of which shall be suitable for viewing on the Internet.

4.4 Review Comments: Various reviewers will have the opportunity to review submittals made by the Contractor under this contract. The Contractor shall review all comments received through the CESWF/CEHNC Project Manager and evaluate their appropriateness based upon their merit and the requirements of the SOW. The Contractor shall issue to the Project Manager a formal, annotated response to each in accordance with the established schedule in this SOW. Non-concurrence of a comment shall be discussed and resolved with the CESWF/CEHNC PM. If the PM is not available then the Contractor shall contact the Technical Manager Jason Burcham at 256-895-1289.

4.5 Identification of Responsible Personnel: Each report shall identify the specific members and title of the Contractor's staff and subcontractors that had significant and specific input into the reports' preparation or review.

4.6 Public Affairs: The Contractor shall not publicly disclose any data generated or reviewed under this contract. The Contractor shall refer all requests for information concerning site conditions to the local Corps of Engineers Public Affairs Office (Fort Worth District) with a copy furnished to the CESWF Project Manager. Reports and data generated under this contract are the property of the DoD and distribution to any other source by the Contractor, unless authorized by the Contracting Officer, is prohibited.

4.7 Submittals: The Contractor shall furnish copies of the plans, maps, and reports as identified in paragraph 4.9, or as specified in this SOW, to each addressee listed below in the quantities indicated. The Contractor shall submit 1 copy on CD with each hard copy of the Final versions of all submittals (WPs, Reports, Plans, etc) in accordance with section 4.2. The Contractor shall submit 1 copy on CD of the Final Versions of all submittals (WPs, Reports, Plans, etc) in accordance with section 4.3. For purposes of the SOW all days are considered calendar days.

ADDRESSEE	COPIES
US Army District, Fort Worth CESWF-PER-J ATTN: Mr. Brian Condike P.O. Box 17300 Fort Worth, TX 76102-0300	5
US Army Engineering and Support Center, Huntsville CEHNC-OE-DC ATTN: Mr. Bill Sargent P.O. Box 1600 Huntsville, AL 35807-4301	4
Commander 52nd Ordnance Group (EOD) 5011 N. 26 th Street Forest Park. GA 30297	1

4.9 Submittals and Due Dates:

SUBMITTAL	DUE DATES
Proposed schedule	14 days after award
Draft GPO Plan	14 days after authorization
Final GPO Plan	7 days after receipt of comments
Draft GPO Report	7 days after completion of field work
Final GPO Report	7 days after receipt of comments
Draft Work Plan	28 days after authorization
Final Work Plan	14 days after receipt of comments
Draft Report work	28 days after completion of field work
Final Report	21 days after receipt of comments

5.0 REFERENCES:

5.1 Basic Contract

5.2 Five Points Outlying Field EE/CA Report

5.3 Twin Parks (Five Points) Archives Search Report

5.4 Five Points Outlying Field Action Memorandum

5.5 Federal Acquisition Regulation (FAR) Clause 52.236.13, Accident Prevention

5.6 Data Item Descriptions:

The Data Item Descriptions are part of the basic contract and are available at the following URL: <http://www.hnd.usace.army.mil/oew/policy/dids/didindx.html>

