SeaPort-e Services Experience

3.1　Research and Development Support

ZIA provides environmental R&D support for White Sands Missile Range (WSMR) NM. WSMR is the largest weapons systems research and development and test facility in the U.S. For the past 10 years, under a series of successive contracts, beginning with Zia's initial White Sands Technical Services (WTS) Joint Venture contract (W9124Q-04-D-0012) for Garrison support and extending through W9124Q-07-D-0801 which was a subsequent sole source contract from WSMR to Zia to continue Zia's support to WSMR, Zia conducts planning and coordination for proposed R&D test activities and support of test operations. This includes analysis of potential environmental impacts associated with advanced weapon system tests such as the High Energy Laser Test Facility, related directed energy weapons and the Navy SM missile systems and the Navy's Desert Ship Test activities. Zia continues to provide support as a subcontractor under W9124Q-13-D-004 which provides direct support to WSMR Test Operations.

Tetra Tech, Inc. has completed several hundred task orders involving the research, testing, demonstration, and evaluation of innovative environmental technologies. Work has covered a broad range of process development efforts and includes reviewing and developing design documents for laboratory- or bench scale experiments to support proof-of-concept; preparing test plans and sampling and analysis of process streams for treatability studies, designing and conducting pilot-scale investigations, and field-scale evaluations; developing, evaluating, and applying computer-based technologies such as models and decision-support tools; and providing field support involving logistics, permitting, risk assessment, cost and performance data, engineering evaluation, sampling and analysis, and documentation of field efforts.

As an example of Tetra Tech's history of providing services in this area include their contract with USEPA Scientific, Technical, Research, Engineering, and Modeling Support (STREAMS) II. Tetra Tech conducts research and development, testing, and evaluation of technologies, processes, and tools to prevent or reduce pollution of air, land, and water, and to restore ecosystems and protect human health.

Task orders involve a wide range of research activities in all phases under which Tetra Tech conducts process development efforts such as proof-of-concept, laboratory-scale, and bench-scale experiments; treatability studies and pilot-scale investigations; field evaluations; and development and/or evaluation of computer-oriented tools, approaches, and technologies such as software, models, and decision-support tools. Tetra Tech manages a multidisciplinary team and collaborates with universities, technical experts, and other research facilities throughout the United States and internationally.

Processes and Procedures: Process and procedures used by Zia and their subconsultants include detailed data collection and analysis of potential or actual impacts from past and on-going WSMR test and R&D activities, researching and maintaining archival test records and developing databases, models and other investigative tools for ongoing maintenance and analysis. Zia has also assisted WSMR with maintenance of the administrative record for these Test activities. Zia has performed analysis of potential test impacts associated with the Navy's Desert Ship (SM Missile Systems) and similar support to the Defense Threat Reduction Agency (DTRA) and Joint Direct Energy Test Site (JDETs).

3.2   Engineering, System Engineering, and Process Engineering Support

ZIA provides a full range of engineering services. These include process and environmental engineering, and analysis of engineering systems. Under a succession of prime and subcontracts beginning with W9124Q-04-D-0012 and extending through W9124Q-07-D-0801 / W9124Q-13-D-004, Zia has provided environmental and safety system engineering and process engineering support to WSMR weapons system test operations and infrastructure. This work is directly relevant to SeaPort-e requirements for supporting environmental engineering of U.S. Navy weapons systems and base related infrastructure.

ECW provides long-term technical support in the management of significant environmental, cultural and natural resources at Fort Benning, Georgia, under Army COE Savannah District delivery order W912HN-13-F-0011 and previous delivery orders. ECW processes and procedures included technical review and quality control for Environmental Assessments and Environmental Impact Statements and associated NEPA, environmental studies, and documents. When the Integrated Natural Resources Plan was delayed, Fort Benning called on ECW to complete the revised INRMP and prepare the EA. Both were successfully completed and Fort Benning recognized the superior performance of ECW in an awards ceremony in 2014. ECW served as a quality control manager to ensure the success of mitigation for MILCON and BRAC construction and carried out comprehensive monitoring erosion and sedimentation controls, wetland infringement, forest and vegetation clearing, and water quality mitigation. ECW managed the installations real estate environmental compliance process. This support included environmental baseline surveys (EBS)/environmental condition of property (ECP), Phase I Assessments, records of availability (ROA) Section C, findings of suitability to transfer (FOST), and findings of suitability to lease (FOSL) for real estate transactions.

ECW Environmental Group is providing engineering and planning support (Proof of Concept Pilot Project) for Fort Lee, Virginia as a sole sourced subcontractor. ECW researched and developed a unique concept that consolidates engineering, LEED green building rating system, ISO 14001sustainability management, compliance requirements, and enhanced stakeholder collaboration with NEPA. This project will advance the state-of-the-art in military environmental planning and mission support. A senior Army Environmental Command leader called this project a "game changer" and funded this pilot project that began in October 2014. The goals are to improve the efficiency and lower the costs in existing military planning and project execution, develop a military installation carrying capacity method, provide more timely and precise data for base realignment, stationing actions, and range expansions. This pilot project has the potential to solve over 40% of NEPA problems: costing too much; taking too long, and rarely being used as intended. ECW anticipates a continuous process of assessing, evaluating, and refining the system to ensure it consolidates environmental requirements and reduces burden on military planners.

Processes and Procedures: Zia and its subconsultants use processes and procedures including analysis of system or program requirements, investigations of project site and/or system, development of engineered methods and solutions, formal design and oversight of implementation. Work includes determining environmental and safety impacts resulting from WSMR weapons systems test operations and engineering analysis to identify and define operational and compliance requirements to meet weapons system test environmental and safety requirements. Work included development of engineering systems and designs for addressing clean-up and impacts from weapons systems testing. Work included support for all Test Directorates and tenant activities including NAVSEA and DTRA operations at WSMR.

3.3   Modeling, Simulation, Stimulation, and Analysis Support

Capability in this functional area is provided by team members Tetra Tech, Inc. and SC&E.

SC&E members have extensive experience in modelling, simulation, design, implementation, and provide standardized, rigorous and structured analysis to create and validate physical, mathematical or other logical representations of systems, entities, phenomena or processes with relevance to Navy force protection. They have provided managerial, professional and technical expertise both domestically and abroad to U.S. homeland security efforts at ports of entry and for nuclear, biological, environmental, agricultural, public health, and commerce related security issues. SC&E members have created and implemented risk-based assessment methodologies to evaluate programs, systems, and infrastructure for identification and mitigation of vulnerabilities of federal programs or projects for federal agencies, including DHS, DOD, DOE, NNSA, DHHS, NIH, USDA and USCG, as well as for several state, local and commercial entities. SC&E members have also been involved in a variety of the nation's highly visible and politically contentious issues, including bio-safety, bio-security, vulnerability of U.S. ports and harbors, pandemic response (N1H1), vulnerability to U.S. Critical Infrastructure and Key Resources (CI/KR), and have worked closely with key stakeholders to develop managerial, technical, strategic and tactical decisions to assist in the mitigation of risk in these areas.

As an example of SC&Es experience, current members provided managerial, professional, and technical expertise in the vulnerability/risk assessment of Naval, Joint Reserve Force and Joint Services installations, both domestically and abroad. The risk-based assessments evaluated all security procedures for military installations concerning force protection, anti-terrorism, counter-terrorism, secure information systems control, classified information systems control, and armory and mobile weapons.

The project incorporated a comprehensive risk-based assessment and identified protective strategies designed to mitigate vulnerabilities, address a threat environment and reduce risk over 150 U facilities across the U.S. This project required an evaluation and assessment of security and protective system effectiveness and development of threat and consequence analysis by collecting critical assessment data from each site and then analyzing the data in an exacting process to prioritize risks, threats and vulnerabilities. Once the data gathering, analysis, and assessment of each facility was completed, a final report was issued that addressed specific threats, vulnerabilities, risks and general compliance with U.S. Navy security operational standards.

Current SC&E members have also provided managerial, professional and technical expertise in support of Department of Homeland Security Port-wide Strategic Risk Management Planning (SRMP) projects for multiple USCG sectors. A variety of logical and mathematical approaches were developed and utilized, which required project staff to collect data, conduct 'GAP' analyses, determine threats, categorize CI/KR with each designed-to-build consensus and ensure that the stakeholder's perspectives were accurately incorporated into the models

Tetra Tech, Inc. uses modeling to determine fate and transport of contaminants in hydrogeologic systems. Projects range from simple to complex three dimensional (3-D) visualization with animation. Tetra Tech's hydrogeologists use simple analytical fate and transport models such as Quick Domenico and SWLOAD as well as complex numerical models such as MODFLOW. Modeling is used to simulate

current conditions to determine potential source areas; the size of releases; and in some cases, the period of the releases. Modeling is used to simulate or predict different remediation scenarios in order to select a cost-effective remedial option or to determine system design changes or improvements.

As an example of this capability, Tetra Tech re-constructed, re-calibrated and evaluated a complex 3-D finite difference model (MODFLOW) for the Naval Industrial Reserve Ordnance Plant (NIROP) in Fridley, MN. The intention of the re-construction and re-calibration was to better match site-specific data garnered since 1999 and incorporate a multi-layer, laterally extensive confining silty clay layer causing complex groundwater flow patterns. The model was evaluated in coordination with the Navy to optimize an existing pump and treat system and evaluate potential system design changes to better enhance contaminant capture.

Processes and Procedures: Example processes and procedures used by Zia's subconsultants in two separate areas are discussed below.

Risk Analysis and Vulnerability Assessments: The Zia Team utilizes a precise, reproducible and defensible risk assessment and vulnerability assessment (RAVA) methodology based on FEMA four phased process for identifying and implementing actions to reduce or eliminate loss of *life, property and function due to natural and man-made hazards. This process is also complementary to the DOD Antiterrorism Handbook* (9 February 2004), which emphasizes:

1) Threat Definition to identify the likelihood and severity of the terrorist threat to inflict injury to a person or damage a facility or asset;

2) Criticality Assessment to identify the critical assets based on their importance to an installation or facility's importance to the mission; and

3) Vulnerability Assessment to highlight the susceptibility of a high-value critical asset to a specific attack scenario.

Security Systems Penetration Testing (Red Team): Zia Team members are trained in the execution of Security Systems Penetration Testing (Red Team) which is an iterative process executed by trained, educated and practiced team members that provide commanders at all operational areas (full facility to tactical small unit operations) an independent capability to continuously challenge plans, operations, concepts, organizations and capabilities.

Red Team Activities include sharpening skills, exposing vulnerabilities from a potential adversary and increasing the understanding of all options and responses available to adversaries and competitors. The objective of the Red Team is to establish a win-win environment in which the tested command learns from the process and comes out with sharper skills or more robust solutions and/or greater appreciation for the issues with which their superior must face.

Red Teams are comprised of individuals selected for their special subject matter expertise, perspective (professional and cultural), imagination and ability to engage in critical analysis. Members of the Red Teams come from multiple disciplines, including the U.S. military, engineering, risk analysis, risk communications, bio-security, bio-safety medicine, Congressional and media relations, nuclear safety and emergency response.

3.5   System Design Documentation and Technical Data Support

Capability in this functional area is provided by team member Tetra Tech, Inc.

For the US Navy, Storage Area No. 2 Landfill in Annapolis, MD, Tetra Tech performed pre-design investigation and prepared the basis of design report/design narrative, erosion and sediment control plan, stormwater pollution prevention plan, construction drawings using AutoCAD Version 11, specifications using SPECSINTACT, cost estimate, and supporting calculations. Design for ~100,000 cy of contaminated soil and waste material consisted of construction of bituminous concrete- and grass surfaced multimedia caps, soil cover, repairing/rebuilding existing berm of the 8-acre lagoon to stabilize this retaining structure and prevent release of sediments, and compensatory wetland and forest mitigation

Processes and Procedures: Example process and procedures used by the Zia SeaPort-e Team include analysis of contractual and design criteria, development and implementation of standard operating practices for documentation of design methods and approaches, and utilization of project databases and control systems to ensure capture of required information. All information is electronically managed and updates are number and date controlled to ensure that information and files are maintained current and latest version. Information is shared between offices and companies through contract and/or project specific SharePoint and/or controlled/secured ftp file management sites.

3.6   Software Engineering, Development, Programming, and Network Support

Capability in this functional area is provided by team member TETRA TECH, INC. Tetra Tech performs information management expertise in GIS, database design, data collection, and graphic design. The diverse Tetra Tech team provides comprehensive solutions to support the creation, capture, storage, and dissemination of information through custom applications and management systems by deploying custom applications that centralize an organization's information resources in a single web- or intranet-based portal.

These solutions can integrate multiple information sources, providing a linked interface to support document management, query of complex datasets, automated reporting, GIS functionality, and project management tools. Tetra Tech develops custom tools for GIS data visualization and analysis for deployment on the internet or within an organization's intranet. These web mapping technologies provide stakeholders with little or no GIS training access to mapping products and associated data (which can include documents, photographs, or reports) through user-friendly interfaces

For the Navy, Tetra Tech served as Regional Database Administrator for several NAVFAC regions where they coordinated the migration of historical analytical result records to the Naval Installation Restoration Information Solution (NIRIS) system, reviewed NIRIS Electronic Data Deliverable (NEDD) tables from regional contractors and managed the requirements, precision, valid values, and definitions for ER data submittals. They also performed loads, tests, review and tracked regional data submissions in NIRIS hosted at the Naval Information Technology Center (NITC).

Processes and Procedures: Example process and procedures used by the Zia SeaPort-e Team include analysis of contractual and design criteria as well as project intent, development of appropriate data and programming protocol, implementation of database development and management processes, documentation of programming and systems development and changes (including implementation of formal documentation of change), and development of interface methods and systems (including development of websites and web based applications). The Zia SeaPort-e team has expertise in formal computerized systems programming, database development networking support including support and maintenance of government servers and systems. This has included Zia directly supporting WSMR Environmental operations and management of WSMR databases and environmental network server and websites (W9124Q-07-D-0801) as well as support of networking and wire install activities under Zia's Communications support contract for WSMR (W9124Q-10-C-0001).

3.8   Human Factors Engineering Support

Zia has strong experience in providing safety support services either as standalone services or as part of Zia's integration of safety activities through the process design and system programming efforts. Zia provided safety support services to the High Energy Laser Test Facility (HELSTF) at WSMR (subcontractor to Northrop Grumman – W9113M-05-C-0003) supporting all aspects of safety activities from routine site operations through complex test operations of complex test platforms. Zia also provided safety services at the Federal Law Enforcement Training Center (FLETC) in Artesia, NM (subcontract to Intecon – LAR07C00006). More recently, Zia was awarded a task order under

W9124Q 04-D-0012 to develop a web based database and programming platform for integration of site safety activities at WSMR with follow on safety compliance support and inspection services of more than 700 facilities throughout WSMR operations annually based on detailed process specific inspection checklists developed by Zia based on various process and compliance requirements. Through all these contracts, Zia conducted analysis of human systems integration and human factors issues to identify appropriate measures and SOPs to address safety requirements for the planned actions.

Processes and Procedures: Zia implements a specific implementation process for a human factor approach to proposed projects and systems. This in general includes research of the proposed activity and anticipated needs. It then follows through with identification and/or modeling of the proposed human interactions and potential conflicts/concerns. Once this is done, requirements are defined and specific actions identified to address potential conflicts / concerns and systems, SOPs and/or training is developed to address these requirements and concerns (design). Upon implementation, evaluation is then undertaken to determine effectiveness of the design/procedures to address the identified concerns. As applicable, the process is then repeated until assurance is reached as to adequacy of the implemented systems and design. This method is standard for addressing safety and human factors needs for Zia activities internally as well as when contracting to address client projects and/or systems.

3.9   System Safety Engineering Support

Zia provided all aspects of safety programming and engineering services to the High Energy Laser Test Facility (HELSTF) at WSMR (subcontractor to Northrop Grumman – W9113M-05-C-0003) supporting all aspects of safety activities from routine site operations through complex test operations of complex test platforms. More recently, Zia was awarded a task order under W9124Q-04-D-0012 to develop a web based database and programming platform for integration of site safety activities at WSMR with follow on safety compliance support and inspection services of more than 700 facilities throughout WSMR operations annually based on detailed process specific inspection checklists developed by Zia based on various process and compliance requirements. Zia has also recently been contracted by City of Las Cruces, NM Utilities Division to review, engineer and develop an overall safety compliance system for their operations at all levels of employee activities for the entire Utilities operations for a City of more than 100,000 population (from field technicians through design and master planning implementation). Zia has also been contracted recently to assist in development of a safety program for a biofuels processing facility in El Paso, TX and assistance in training and implementation of program requirements.

Processes and Procedures: Zia typical approach for addressing safety systems development includes a three phased approach. The objectives of this are typically to identify areas in need of improvement and development of methods and strategies to implement improvements. The goal is to reduce frequency and severity of losses and enhance regulatory compliance. The three typical phases include the following:

- Phase I – Initial Safety Reviews, Data Acquisition, Needs Analysis
- Phase II – Training / Audit Program(s) Development
- Phase III – Follow On Program Development / Follow On Training / Periodic Auditing

As with addressing human factors interactions and engineering, as applicable, the process is then repeated until assurance is reached as to adequacy of the implemented systems and design. It is also periodically updated and training is repeated as necessary to ensure newer employees / members are trained as well as to refresh current employees understanding and knowledge.

3.11   Quality Assurance Support

Zia has formal published Quality Management System (QMS) at a corporate level as well as contract specific QMS programs developed for the majority of Zia's larger federal and non-federal contracts (W9124Q-04-D-0012, W9124Q-07-D-0801, HELSTF subcontractor to Northrop Grumman – W9113M-05-C-0003). The Zia Corporate Quality Control Program is based on implementation of a QMS that is modeled on and conforms to all the requirements for ISO 9001–2008. Zia has received approval for and implemented the QMS on current contracts for WSMR, YPG and Fort Bliss for environmental services. QMS is developed around ISO 9001-2008 requirements (Zia is currently in process of pursuing ISO 9001 certification and utilizes ISO 9001 certified auditor(s) when project specific requirements identify such need. Zia has participated in the Quality New Mexico program as part of our ISO compliance. Zia has also assisted CertainTeed Industries (Z00-006) to develop their compliance programs around ISO 9001 compliance standards and requirements.

Processes and Procedures: The QMS documents the organization's commitment and ability to provide products and services that meet or exceed all customer requirements and all required contractual specifications. The Quality Systems Manual implements standardized quality system policies for all activities. By utilization of quality system procedures, quality system instructions, quality system work Instructions, quality system records, and quality system forms, uniformity of process and product is provided, regardless of the personnel involved or staff turnover. Subcontractors are required to adhere to the same processes and procedures.

All employees are trained on the QMS and Quality Assurance/Quality Control (QA/QC) Program upon initial hire, periodically throughout field related activities, in coordination with receipt of laboratory analyses from third parties and at annual recurrent training sessions. Training covers meaning, implications, specific processes, and the obligation to fully support the QMS. Employees understand that QMS implementation is their individual responsibility. This training, together with the standardized processes and procedures ensures consistent implementation and adherence to the QA/QC Program.

3.12 Information System (IS) Development, Information Assurance (IA), and Information Technology (IT) Support

Zia has full capability to support all major areas of IT and IS initiatives to include IS development, web site development and maintenance, and LAN/WAN and firewall development/maintenance support. Zia was previously formally tasked with providing IT/IS service support for our WTS WSMR Garrison support contract (W9124Q-04-D-0012). This included development of databases and web based applications, maintenance of government firewalls and network systems and development of customized applications for compliance monitoring and tracking for environmental and safety programs. In addition, Zia provided customized computer programming for development of an application for management of work orders and work flow for Directorate of Public Works for Yuma Proving Ground (W9124R-09-F-3065). In addition, Zia provided communications and networking support to WSMR under our Communication support contract (W9124Q-10-C-0001).

Tetra Tech, Inc. provides information management expertise in GIS, database design, data collection, and graphic design. This includes comprehensive solutions to support the creation, capture, storage, and dissemination of information through custom applications and management systems. Tetra Tech deploys custom applications that centralize an organization's information resources in a single web- or intranet based portal. These solutions can integrate multiple information sources, providing a linked interface to support document management, query of complex datasets, automated reporting, GIS functionality, and project management tools. Tetra Tech also develops custom tools for GIS data visualization and analysis for deployment on the internet or within an organization's intranet.

These web mapping technologies provide stakeholders with little or no GIS training access to mapping products and associated data (which can include documents, photographs, or reports) through user-friendly interfaces.

Tetra Tech provides technical support services to NAVFAC for the definition, development, deployment and maintenance of the enterprise-wide Navy Installation Restoration Information Solution (NIRIS). NIRIS is an enterprise level information management solution for all phases of environmental remediation activity using an administered environment that features data management tools, data extraction tools and mapping applications. Tetra Tech supported the compilation, management and maintenance of Environmental Restoration Program (ERP) spatial data, general layout and design of the NIRIS database, NIRIS module testing and development, QA/QC review of application source code, co-development of the NIRIS Electronic Documentation Management System (EDMS), migration and configuration of the Environmental GIS (EGIS) and LUC Tracker, initially developed by Tetra Tech to the NIRIS instance hosted at the NAVFAC Information Technology Center (NITC). As the initiative matured, Tetra Tech became the lead developer associated with the integration into the existing Single Sign-On authentication system used at NITC. Tetra Tech technical support, resource planning, monitoring, and QA/QC services ensured the project complied with the required stringent security standards. Tetra Tech currently serves as the Regional Data Manager (RDM) for four regions on the

East Coast and assists the NAVFAC Pacific. As the RDM, Tetra Tech acts as the key Point of Contact (POC) for all NIRIS GIS-related data and applications for these regions. As part of this effort, key GIS personnel from Tetra Tech were solicited to assist Navy during the STARS Environmental Subject Matter Expert (SME) meetings to develop the environmental portion of the SDSFIE 3.0 model. Since the updated model has been released, Tetra Tech has played a key role in assisting with the development of a Navy-specific SDSFIE 3.0 adaptation for ERP.

Processes and Procedures: Example process and procedures used by the Zia SeaPort-e Team include analysis of contractual and design criteria as well as project intent, development of appropriate data and programming protocol, implementation of website and database development and management processes, documentation of programming and systems development and changes (including implementation of formal documentation of change), and development of interface methods and systems (including development of websites and web based applications).

3.13   Inactivation and Disposal Support

Tetra Tech, Inc. has a successful 20+ year track record performing a variety of munitions response (MR) services, including Removal/Remediation of Munitions and Explosives of Concern (MEC) and Chemical Warfare Material (CWM) Response. This includes more than 350 MR projects around the globe in many challenging environments including the rugged, stormy Aleutian Island, the frigid waters of the Puget Sound, and the inhospitable deserts of Iraq. Tetra Tech has executed MR services for military (Navy, Army, National Guard Bureau), government, and commercial clients. Tetra Tech has over 100 dedicated unexploded ordnance (UXO) technicians and UXO-qualified divers, self-perform a full spectrum of services, and have $5 million inventory of state-of-the-art MR equipment and $2 million inventory of in-water hydrographic and geophysical equipment to support MR. This includes an exceptional health and safety record, including over 4 million labor hours of safe MR performance.

At the EOD Area, Naval Air Station (NAS) Brunswick, ME, Tetra Tech conducted MEC-related investigation and clearance activities that included detector-aided surveys, MEC/Material Potentially Presenting an Explosive Hazard (MPPEH) surface clearance, subsurface trenching via remote operation excavation, hand tool excavation investigations, and MEC/MPPEH treatment via donor explosives coordinated on an on-call basis. Tetra Tech managed certification of Material Documented as an Explosive Hazard (MDEH)/Material Documented as Safe (MDAS) followed by shipment of MDAS by an approved metal recycler. During the trenching effort, opportunity samples were collected to investigate both MC and hazardous waste contamination.

Processes and Procedures: The Zia SeaPort-e Team provides partial support of this activity to include deactivation and disposal of munitions and weapons components and systems in accordance with Expanded Work Breakdown Structure (EWBS) requirements, Trade Security Controls (TSC), and Munitions List Items (MLI) prior to determination of disposition of excess, not-ready-for-issue (non-RFI) equipment. The Zia Team assumes that decision has already been made by others regarding Ship or equipment disposition review. We also assume that we will be participant with other subject matter experts and government representatives as part of the Inspections and Survey process related to ISURV inspections for decommissioning and that our involvement will be as related to munitions and weapons components. Upon identification of requirements for removal, Zia Team members will develop appropriate protocols for safe removal and decommissioning of systems, components and munitions and coordinate for disposal of it. When applicable, deactivation and/or detonation will be arranged for safe disposal of munitions. Materials not disposed of or detonated will be cataloged and transferred as Government Property as identified to the Zia Team under appropriate chain of custody and related Documentation

3.15 Measurement Facilities, Range, and Instrumentation

ZIA staff regularly take field and laboratory measurements and utilize complex instrumentation in support of test, operations, and maintenance activities. Instrumentation consists of both Zia owned and Government Furnished instrumentation and equipment for measurements in multiple material types and multiple matrixes. Requirements often result in measurements in the 10-6 or 10-7 levels for chemical analyses and/or compliance requirements. Analysis and measurements have also often included measurement of equipment and systems performance. Applicable contracts include WTS WSMR Garrison Support (W9124Q-04-D-0012), WSMR Test Center IDIQ (W9124Q-07-D-0801), CertainTeed Industries Nationwide, (Z00-006) Fort Bliss Environmental IDIQ (W911SG-07-D-0017), Yuma Proving Ground Environmental IDIQ (W9124R-09-F-3065) and WSMR HELSTF (subcontractor to Northrop Grumman – W9113M-05-C-0003). All work conducted is typically in direct and indirect support of test activities and range operations for major field testing and training for Army and Joint Military sites.

Processes and Procedures: Typical process and procedures used by the Zia SeaPort-e Team include development of a sampling plan and protocol, development of a quality assurance project plan (QAPP), instrument and equipment field check and calibration, addressing field health and safety requirements, conducting required sampling and coordinating for laboratory analysis, obtaining and reviewing laboratory results for compliance with QAPP, data analysis and interpretation, as-needed modeling and simulation using data, and report generation.

3.18 Training Support

ZIA is routinely called upon to provide both formal and informal training support relative to our programmatic operations for both government and commercial clients. Through our WSMR Garrison Support (W9124Q-04-D-0012) contract, training of both government and contractor staff was routinely conducted relative to compliance, safety and environmental requirements under various DOD, Army, OSHA and EPA regulatory requirements. Training activities typically encompassed more than 40 government civilian personnel and consultant staff per year. In addition Zia personnel provided direct training support to military personnel on certain range avoidance and hazard issues prior to military training and testing activities. Training documents, posters, and manuals were also developed for dissemination to government and civilian personnel accessing WSMR lands. On Zia's Test Center IDIQ (W9124Q-07-D-0801), Zia was responsible by task for training of facility compliance personnel for more than 200 buildings throughout WSMR operations including Navy and DTRA staff. Training has developed to include maintenance of training logs and records, electronic tracking of training schedules, electronic notifications, and we are currently developing on-line applications for such training modules

Tetra Tech, Inc. has over 20 years of experience providing disaster management and homeland security to government and private clients. Tetra Tech offers solid experience in training exercises for disaster preparedness, protection, response, mitigation, and recovery. Tetra Tech's approach provide a "real world" advantage to our clients because they are based on our experience in responding to nearly 2,000 chemical, biological, radiological, and explosive (CBRNE) releases and natural hazards, including hurricanes, earthquakes, floods, and tornados. Tetra Tech has provided disaster management or engineering services to each of the Critical Infrastructure/Key Resources (CI/KR) sectors. As a leader in both real-world emergency preparedness and response, and infrastructure design, Tetra Tech is the unique and unmatched provider of disaster management services.

As another example of training implementation, Tetra Tech provides support to the USEPA Environmental Response Training Program. Since 1997, Tetra Tech has been EPA's primary contractor for training federal, state, and local government personnel in emergency response and counterterrorism. Tetra Tech provides training to all branches of the federal government, including EPA, the U.S. Coast Guard, the U.S. Army Corps of Engineers, and the National Guard Civilian Support Teams. This includes more than 200 annual training courses to nearly 6,000 students. These courses vary in complexity from a $4^1/_2$-day technical course on radiation monitoring to multi-jurisdictional full-scale WMD exercises. Tetra Tech has developed training courses coordinating cooperative effort among several agencies (including the FBI) responding to chemical and biological threats.

SC&E members have over 15 years experience in designing, implementing and providing standardized, structured, objective-based and measurable training programs. The training programs facilitate the attainment and retention of knowledge, skills and attitude in order to maintain operational proficiencies of systems and capabilities. SC&E members have utilized learning criteria and developed curriculum for instruction, including applied exercises in areas such as Security Force Training, Individual Combat Skills Training, Small Unit Combat Skills, Small Boat Operations, Visit-Board-Search-Seizure (VBSS), Security Operations and Management and civilian law enforcement tactical operations.

In addition, SC&E members have developed, implemented, and facilitated training programs designed for overall focus on operational readiness in National Incident Management Systems (NIMS), Incident Command System (ICS) and Homeland Security Exercise and Evaluation Program (HSEEP). The team has conducted full-scale, functional, command post and table top training for the following agencies: U.S. military, state and local law enforcement, US Coast Guard port districts, state health departments, regional hospital associations and other state and local agencies.

An SC&E member is certified as Small Arms and Crew Serve Weapons Instructor (NEC 0812, 0814) and Navy Master Instructor (NEC 9502). Current SC&E members have provided managerial, professional and technical expertise to multiple U.S. strategic ports, including: Port of San Diego, Port of Miami, Port of Palm Beach, Port Freeport and Port of Corpus Christi. Members have developed and implemented standardized, structured, objective based and measurable training programs to meet USCG and MTSA requirements. The team has developed course curriculum and classroom training based on MTSA and CFR requirements for the instruction of security training for facility security officers, security personnel, and port personnel with security responsibility and security awareness training for non-security personnel. These courses have facilitated the training of over 1000 persons within the port and port civic environment. In addition, the SC&E team has provided instruction in small boat operations, systems penetration testing, boarding procedures, vessel search, anti-boarding training and piracy.

In accordance with MTSA regulations, emphasis has been placed on the development, structure and delivery of training-based exercises to test key assets, systems and process. These exercises are conducted in tabletop, functional, full-scale simulations as well as during real world incidents.

Processes and Procedures: Typically for training efforts, the Zia SeaPort-e Team would coordinate with the customer to identify desired training outcome. Based on this training approach and synopsis / outline would be established. This would be reviewed with the customer to ensure that approach and methods are what are expected. Once this is agreed to, training documents, plans and materials are developed. This may include PowerPoint slides, handouts, web-based applications, interactive materials, and/or field simulations. Once materials are developed, they are then reviewed internally for both outcome and quality and then with the customer to ensure satisfaction. As necessary, security screening of materials may also be conducted when required. Upon completion of these reviews, training will then be scheduled.

Upon completion of training, input will be sought from both participants as well as the customer as to the adequacy and understanding of the training as well as for potential improvements. This is especially important for potential on-going training efforts and/or where materials will be turned over to the government for future training efforts. This iterative process is typically implemented as part of the Zia Team's ongoing training approach.

3.20 Program Support

ZIA has or is currently providing on-site program support on multiple DoD contracts over the last 5-years. These include: the WSMR Garrison Support Contract (W9124Q-04-D-0012 / W9124Q-10-C-0504) where we provided overall programmatic support for environmental operations range-wide; Zia's WSMR Test Center Support Contract in which we provide compliance and hazardous materials disposal services for all of WSMR's Test Operations (W9124Q-07-D-0801 / W9124Q-13-D-004); our HELSTF subcontractor to Northrop Grumman (W9113M-05-C-0003) in which we are providing program support for safety services for both facility operations and test operations to the High Energy Laser Test Facility; and our prior contract through USACE Tulsa District for Programmatic Environmental Support for Fort Bliss, TX (W912BV-11-D-0002).

Processes and Procedures: Processes and procedures are typically fairly program specific. Thus as an example of applicable processes and procedures which Zia may implement in response, for the Fort Bliss contract Zia provided as a specific assigned task the following for overall program management support (from assigned SOW activities provided by Zia for Task 10 – Conservation and Compliance Program Organizational Support):

- Zia provided programmatic administration and customer service management support to DPW-E.

- This included support and/or providing (but not limited to) the following tasks:

- Provide and manage staffing to meet DPW-E requirements in all functional areas.

- Maintain existing environmental records and files. Update, disperse and/or dispose of the records in accordance with Army regulatory requirements and Environmental law.

- Provide document preparation for program requirements. Manipulate and sort comments in spreadsheets and provide real time input of comments and responses.

- Records management and duplication with use of a government furnished large format scanner or copier, photocopying, coordination of report preparation and photo-reproduction.

- Maintain records of Compliance Division vehicle usage and repair. Coordinate vehicle safety inspections.

- Provide primary and alternate records tracking support for the Division.

- Visitor monitoring and quality Control: The contractor shall maintain and monitor visitor control records, ensure visitors are appropriately directed and that their visit was as successful as possible.

The contractor shall maintain the government quality monitoring both manually (Quest for Quality Cards) and electronically (ICE) tracking comments and corrective actions and providing a real time update to management regarding negative reports and trends.

- Maintain and manage Division schedule requirements.

- Update hand receipt holder accounting with the maintenance and miscellaneous reporting of the division's property book program. Including but not limited to inventory, data management, tracking, distribution, collection, turn-in and storage of the division's property. Property for which records will be maintained will not be limited to items that are specifically required to be on the property book but will also include all other items that require tracking.

3.21   Administrative Support

ZIA has a very strong administrative staff to support federal contracting activities. Our administrative staff includes a former Resource Management Officer with more than 30 years DOD experience with high-level oversight of financial and resource management on multiple DOD contracts, a former Director of Public Works for Kirtland Air Force Base, a former Director of Engineering and Master Planning for White Sands Missile Range and similarly qualified professional and degreed accounting staff with several years of experience in accounting under DCAA requirements and billing under electronic systems.

Applicable contracts include WSMR Garrison Support Contract (W9124Q-04-D-0012 / W9124Q-10-C-0504), Zia's WSMR Test Center Support Contract (W9124Q-07-D-0801), and our USACE Tulsa District for Programmatic Environmental Support for Fort Bliss, TX (W912BV-11-D-0002). More recently this year, Zia was awarded a five year Environmental and Engineering Services Support Contract with Fort Huachuca, AZ (W9124A-14-D-0010). All contracts include providing required and adequate administrative support for meeting day to day contract operations.

Processes and Procedures: As with our prior response for Program Support, the processes and procedures are typically fairly program specific. Typical administrative staffing provided may include part time or full time assignments of the following personnel: Contract Administrator; Purchasing Agent; Accounting Clerk(s); Librarian(s); Property Administrator; Facility Security Officer (FSO); and Safety Officer.

Additional administrative staffing may also include IT/IS personnel for maintenance of non-project specific networks and/or equipment. Zia knows and understanding government requirements for administrative support to include site and access controls, management and transfer of government furnished property and equipment, personnel monitoring, site and facility security, personnel security (Zia maintains security clearances), maintenance of formal government administrative records, etc.

Each contract requirement is analyzed closely and administrative personnel are then assigned at adequate levels to support required day to day administrative functions. Costs for these functions are included as part of the overall task/contract costs for the assigned activity in compliance with DCAA and FAR requirements.

3.22   Public Affairs and Multimedia:

Specific primary support for public affairs and multimedia will be provided by SC&E subconsultant.

SC&E members have 18 years of experience in designing, implementing and providing public affairs, media affairs and training in internal and external risk communication programs tied to U.S. DoD and Homeland Security efforts, both domestically and abroad. Members have focused on ports, nuclear, biological, environmental, agricultural, public health and commerce related security issues. Current members have acted in an advisory capacity to the Office of the Joint Chiefs of Staff and various elected officials, including past governors and members of the U.S. Congressional delegation. SC&E has created and implemented communications programs for vulnerable populations tied to federal programs or projects such as the DHS, DOD, DOE, NNSA, DHHS, NIH, USDA, USFS, BLM, EPA and BIA, over 600 tribal, state and county governments, foreign nationals and low income and minority populations.

SC&E members have been involved in a variety of the nation's highly visible and politically contentious issues, including working with the Office of the Joint Chiefs of Staff on Operation Restore Hope in Somalia; establishing and administering the press room for the Emergency Operations Center during the Cerro Grande Fire in New Mexico; H1N1 preparedness programs for local and federal entities; and working with the DHS, DHHS and USDA in the areas of bio-terrorism and emerging and infectious diseases throughout the country.

Processes and Procedures: Support for public affairs and multimedia are always very project / activity specific. For this reason, as an example of a typical approach that may be taken we submit a description of a public affairs program effort undertaken by SCE.

Specifically SC&E was contracted to support the Public Affairs Program for U.S. Transportation Command and the Center for the Commercial Deployment of Transportation Technologies, U.S. Department of Defense. SC&E members provided strategic counsel for the Office of the Joint Chiefs of Staff after Operation Restore Hope in Somalia. The members facilitated and provided public interface between the U.S. Military and the commercial carrier industry, both in the United States and overseas.

The result was a discussion of ways to improve military force movements to SeaPort-e to enhance the mobility of defense forces during a time of crisis while also benefiting the competitiveness and commerce of the United States. In their capacity as consultants, current SC&E members coordinated command goals with Surface Deployment and Distribution Command (SDDC) and Military Sealift Command (MSC) in order to determine ways to enhance and respond to global national security capabilities, distribution and logistical requirements of the U.S. government and Secretary of Defense.

Current SC&E members also facilitated the interface between SDDC, DOD shippers, the commercial transportation carrier industry and MSC in the area of sealift capabilities to enhance transportation services so that MSC could deploy, sustain and re-deploy U.S. forces around the globe and to transport necessary equipment and supplies to sustain Army, Navy, Marine Corps, Air Force and Defense Logistics Agency operations. This process, labeled post Operation Restore Hope, evaluated lessons learned during Operation Restore Hope to enhance readiness at sea and to deploy on short notice, which in turn significantly reduces response time for delivery of urgently needed equipment and supplies to a theater of operation.