

Performance Work Statement (PWS) for
Counter-Improvised Explosive Device (CIED) Technical Project Office (TPO)
January 2009

1.0 GENERAL

1.1 Purpose. The purpose of this Performance Work Statement (PWS) is to provide the scope and amplifying information required to define the technical support and services requested by the Naval Air Warfare Center Weapons Division (NAWCWD) CIED TPO. The general support activities outlined in this PWS encompass; **Technology Development, CIED Systems Performance and Compatibility Testing, General Technical Services, and CIED TPO Systems and Facilities Management.** The focus of this PWS is the effective and efficient application of expertise and technical support to the TPO's Counter Remote Control Improvised Explosive Device Electronic Warfare (CREW) systems test and engineering analysis mission. Rapid and in-depth responses to the impacts of the emerging and ever changing threat, that CREW systems are subjected to, requires the deliberate, efficient, and consistent application of Systems Engineering and Test and Evaluation (T&E) best practices. Optimum Force Protection solutions, that maximize warfighter effectiveness and combat survivability, require relentless CREW systems analysis and improvements. The elements of support within this PWS cover a broad range of skill sets and applications from technology development/transition/insertion services for programs managed and administered by the TPO to developing the documentation inherent to the system engineering processes required for day to day operation of the TPO's test capability.

1.2 Scope. The contractor shall provide support to the CIED TPO in the development of actionable information that is provided to warfighters in harms way and acquisition decision makers. The specific efforts required to develop actionable information include: Requirements Analysis, Test Planning, CREW System Characterization, Test Execution, Data Collection and Analysis, Data Authentication and Preparation, Report Writing and Publishing, and Process and Procedure Improvement. Key capabilities critical to successful accomplishment of the support outlined within this PWS include: Radio Frequency (RF) Technical expertise; previous work within the CIED domain; Test and Evaluation (T&E) experience with RF systems; experience with Navy and Joint CREW systems including the tactical ground vehicles and aircraft of all types (including unmanned systems) that CREW systems are installed on; air and ground communications systems/subsystems and the support equipment related to these systems/subsystems; relevant insight into the operational Tactics, Techniques, and Procedures regarding the employment of US and Coalition CREW systems; and experience and the capability to support T&E activities and operations at remote outdoor sites. Performance related to the PWS will normally be conducted at NAWCWD, China Lake, CA. but may include support at other locations within the contiguous United States. The scope of this contract includes CIED specific technical support for the following areas:

1.2.1 CIED Technology Development. Inclusive of requirements analysis; technology assessments relative to state-of-the-art CREW and other CIED solutions requiring rapid development and evaluation; project planning, execution and assessment; CIED systems engineering and integration; technical meeting support; technical specifications and process documentation development; risk analysis and technology transition planning and support.

1.2.2 CIED Systems Performance and Compatibility Testing. Inclusive of RF T&E focused requirements analysis, CREW test asset configuration and characterization, tactical and non-tactical communications systems characterization and performance evaluations, CREW mission planning and operational assessments, CIED system specific systems engineering, test protocol development, test planning, test execution, test analysis and reporting, technical solution/product evaluation, technical specifications and process documentation, and risk analysis support.

1.2.3 General Technical Services. Inclusive of technical writing and reporting, CIED systems safety, asset procurement and tracking, TPO process documentation and implementation support, and other related general technical support as required.

1.2.4 CIED TPO Systems and Facilities Management. Inclusive of TPO operations, safety, security, training, maintenance, accountability and asset tracking/inventory, and personnel productivity support.

1.3 BACKGROUND. Department of Defense (DoD) Directive 2000.19 dated 27 June 2005 established the Joint Improvised Explosive Device Defeat Organization (JIEDDO) which has the critical responsibility of managing DoD wide CREW system development and facilitating the introduction of emerging technologies that can be rapidly applied to the global fight against Improvised Explosive Device proliferation. The results of JIEDDO's efforts augment the Service's employment of CREW systems and collaboration amongst our Coalition partners' employment of their systems. The JIEDDO Test Board (JTB), under the provisions of DODD 2000.19, is formally tasked with coordinating all DoD CREW test resources and is the sole sponsor of the CIED TPO.

2.0 APPLICABLE DOCUMENTS

- a. Title 10, United States Code
- b. Deputy Secretary of Defense Memorandum, "Establishment of the Joint Improvised Explosive Device Defeat Organization (JIEDDO)," January 18, 2006
- c. Explosive Device Defeat Organization (JIEDDO)," January 18, 2006
- d. DoD Directive 5105.18, "DoD Committee Management Program," February 8, 1999
- e. DoD Directive 5105.4, "Department of Defense Federal Advisory Committee

- f. Management Program," February 10, 2003
- g. DoD Directive 5101.1, "DoD Executive Agent," September 3, 2002
- h. Unified Command Plan, current edition
- i. DoD Directive 2000.12, "DoD Antiterrorism (AT) Program," August 18, 2003
- j. DoD Directive 8910.1, "Management and Control of Information Requirements," June 1 I, 1993
- k. DoD Instruction 4000.19, "Interservice and Intragovernmental Support," August 9, 1995
- l. DoD 5500.7-R, "Joint Ethics Regulation," August 30, 1993
- m. Public Law 100-235, Computer Security Act of 1987
- n. DoDD 8500.1, Information Assurance (IA)
- o. DODI 8500.2, Information Assurance (IA) Implementation
- p. DoD 8510.1-M, DITSCAP Application Manual
- q. DoDI 5200.40, DITSCAP Instruction
- r. OPNAVINST 5239.1B, Department of the Navy Information Assurance (IA) Program.
- s. OPNAVINST 2201.2, Navy and Marine Corps Computer Network Incident Response
- t. NAWCWDINST 5239.1, Information Operations Condition
- u. NAWCWDINST 5239.2, NAWCWD Virus Protection Program
- v. NAWCWDINST 5239.3, Information Assurance Program Regulation
- w. NAWCWDINST 5239.4, Network Security
- x. NCSC-TG-027 A Guide to Understanding Information Systems Security Officer
- y. Responsibilities for Automated Information Systems.
- z. DoD Directive 8100.2, Use of Commercial Wireless Devices, Services, and Technologies in the Department of Defense Global Information Grid
- aa. Chairman of the Joint Chiefs of Staff Manual (CJCSM) 6510.01, Defense-In Depth:
- bb. Information Assurance (IA) And Computer Network Defense (CND)
- cc. Communications Security Material System (CMS) Policy and Procedures Manual (CMS 21A)
- dd. DoD 5200.1-R, Information Security Program
- ee. NSTISS AM/2-95, RED/BLACK Installation Guidance
- ff. NTISSD 600, Communications Security (COMSEC) Monitoring
- gg. DOD Directive 5000.1, Defense Acquisition
- hh. DOD Instruction 5000.2, Defense Acquisition Management Policies and Procedures
- ii. DOD 5000.2-M, Defense Acquisition Management Documentation and Reports

3.0 REQUIREMENTS. The contractor shall provide both technical and programmatic support for the CIED TPO program. The contractor shall be knowledgeable and experienced in both the technical and administrative aspects of the DoD's Acquisition cycle, and specifically JIEDDO's Rapid Acquisition program requirements, with a focus toward technology insertion using "best commercial practices" and the conditions and requirements of supporting RDT&E efforts in an austere environment. Work to be

performed, required deliverables, and applicable governing documents shall be specifically described in task orders to be issued by the Contracting Officer and shall be within the parameters of one or more of the general tasks listed below. This work may be performed on assigned systems, subsystems, equipment and components, at austere remote government locations and other contractor facilities. These support services may be applicable to any life cycle phase (i.e., Concept Refinement, Technology Development, Production & Deployment, and Operations & Support). Critical to the TPO successfully fulfilling its assigned functions is; receiving and analyzing operator generated Requests For Information (RFI), obtaining and responding to Theater requests for product/system/threat information, information system requirements and set-up, management and support of fielded CREW systems, logistics and personnel/products/systems deployment support. The following paragraphs describe the technical task areas to be performed by the contractor.

3.1 CIED Technology Development. The CIED TPO supports JIEDDO with facilities and expertise to identify, develop, demonstrate, evaluate and transition technology to warfighters as well as supporting the iterative development of existing CREW systems. This mission requires all aspects of RDT&E in addition to the oversight of new technology development and demonstration such as through the DoD Small Business Innovative Research (SBIR) or JIEDDO in-house research sponsorship. The expedient transition of suitable technologies from concept to operation is one of the primary goals of JIEDDO. The TPO supports JIEDDO's Rapid assessment and evaluation processes by providing Subject Matter Expert oversight and Project Management services. While performing these services, the TPO partners with vendors, experienced in rapid technology transition and effective implementation that is in the best interest of the Government and ultimately the end user. The contractor shall support the TPO in the following areas:

3.1.1 Literature Research and State-of-the-art Assessments. The contractor shall assess the current state-of-the-art in technology areas that may be employed to meet CIED warfighting requirements. The assessment(s) must include investigation of technical literature including patents, technical publications, and trade literature that characterize capability/performance, reliability/maturity, transition potential and likely tactical utility of technology developments.

3.1.2 Project Planning, Work Breakdown Structures, Cost Analysis/Modeling. The contractor shall establish and evaluate technical projects. These projects **will be** defined by thorough metrics **and include** comprehensive structures and well-defined costs and schedules.

3.1.3 Systems Engineering, Technology Transition Planning and Risk Analysis. The contractor shall establish an expedient, system-level transition path or plan to rapidly integrate, demonstrate, evaluate

and field technology developments. The transition plan must include risk analysis from the component level to the integrated system level and recommend risk mitigation options or approaches.

3.1.4 Technical Meetings Support – agendas, minutes, action items and communications. The contractor shall assist the TPO in project communications management and task accountability to provide for effective teaming and facilitate productivity.

3.1.5 Technical specifications and process documentation. The contractor shall assist the TPO in the development and evaluation of product and/or process documentation to thoroughly describe a technology implementation to facilitate/expedite the acquisition process.

3.2 CIED Systems Performance and Compatibility Testing. The TPO supports both developmental and reactive RDT&E activities. The support provided must maintain a significant amount of agility such that as requirements evolve and priorities change TPO productivity is maintained at the highest possible level. Maintaining the TPO's ability to address any reasonable requirement that is asked of it is paramount to addressing emerging and planned test efforts.

3.2.1 Test Director Personnel. The contractor shall provide Test Director Personnel to support daily activities on the test site including test site and facility readiness. The Test Director support shall ensure planning and preparation for each test event is adequately supported with appropriate equipment and personnel resources. This includes participating in pre test briefings, identification and availability of test articles, designation of skill sets required for execution of the test, and safety and security briefings. The contractor shall ensure the objective of test protocols and procedures are met during the performance of the tests. The Test Director Support personnel shall assist in securing the test sites and facilities at the completion of testing to include ensuring all test data is collected and properly secured and all site closing functions are performed in accordance with established procedures. The Contractor Test Director support shall attend pre-test and post-test meetings as required. The Contractor Test Director support shall assist in the development of test protocols and procedures.

3.2.2 Configuration Management/Over The Air (CM/OTA). The contractor shall provide personnel to support the function of Configuration Management/Over The Air (CM/OTA). The CM/OTA technician functions include performing complex and specialized test setup operations, operating specialized test equipment, operation of computers, troubleshooting and analyzing specialized test systems, perform bonding and grounding measurements, survey RF equipment for RF hazards, and loading specialized software into specialized test systems. The contractor shall document observations and test results manually and electronically. The contractor CM/OTA personnel shall be required to perform functions in harsh environments and proper handling of Communications Security (COMSEC) material.

3.2.3 Threat Technician. The contractor shall provide personnel to support the function of Threat Technician. The Threat Technician's functions include interpreting schematics, troubleshooting threat devices to the component level, operating computer driven software interface instrumentation, the operation of complex test equipment used in troubleshooting and the acceptance testing of these devices. The contractor shall also disassemble, assemble, modify, and test devices to TPO standard processes and procedures. The contractor shall document inspections, observations and test results manually and electronically. The Contractor's Threat Technician support shall operate devices in harsh environments during test operations.

3.2.4 Threat Operator. The contractor shall provide personnel to perform the function of Threat Operator. The Threat Operator functions include, operating various devices during the performance of tests, executing test procedures and operating instructions, handling of delicate and sensitive equipment, and communicating on range communications equipment. The contractor shall be required to perform Threat Operator functions in harsh environments.

3.2.5 RF Instrumentation Operator. The contractor shall provide personnel to perform the function of RF Instrumentation Operator at various test sites. The RF instrumentation operations consist of: RF signal monitoring, data analysis using broadband signal analyzers and recorders that are software computer controlled using a Linux based operating system; operation of networking devices to include remote access and peripheral management; troubleshooting and repairing a wide array of electronic equipment with limited documentation. The contractor shall operate various types of test equipment to include oscilloscopes, spectrum analyzers, multimeters, power meters, various network analyzers and tools. The contractor shall document observations and information obtained during the performance of testing operations both manually and electronically.

3.2.6 Signal Monitoring. The contractor shall provide personnel to perform the functions of Signal Monitoring at various test sites. Signal Monitoring functions include operating precision electronic measuring equipment, performing self checks of internal components, completing pre-calibration tests of equipment prior to the test operations, performing simultaneous frequency monitoring of multiple power levels on multiple frequencies, and monitoring background levels to ensure accuracy. The contractor shall document observations and information obtained during the performance of testing operations both manually and electronically.

3.2.7 Voice Emulation Text Tool (VETT) Technician. The contractor shall provide personnel to support the function of a Voice Emulation Text Tool (VETT) technician. The VETT technician functions include network and computer operating, performance of system setup, troubleshooting and operating the VETT

system at various test sites. The contractor shall document inspections, results and test observation results both manually and electronically. The contractor VETT technician shall be required to perform functions in harsh environments.

3.2.8 Data Collection, Management, Analysis and Authentication. The contractor shall provide personnel to perform Data Collection, Management, Analysis and Authentication. The Data Collector functions include: documenting initial test setups, annotating all observations and measurements resulting from the performance of testing, and assisting in the assembly of data packages at the completion of test events. The Data Management support functions includes: reviewing test data forms for accuracy and completeness, retrieving test data forms from the Data Collectors, assembling data packages and delivering them to the Data Analysis group, and supporting data reduction. The contractor shall participate in Data Analysis Group (DAG) and Data Analysis Working Group (DAWG) meetings as required. Test data packages will include visual observation data and quantitative measurement data both manually and electronically produced. The contractor shall be required to perform Data Collector Management, Analysis and Authentication functions in harsh environments.

3.2.9 Communication Security (COMSEC) Technician. The [contractor](#) shall provide personnel to support the function of COMSEC Technician. The COMSEC Technician function requires knowledge of various specialized communications equipment utilized in the performance of testing. The COMSEC Technician will perform troubleshooting and replacement of line replaceable units (LRU), programming COMSEC data transfer devices, loading COMSEC files into communications systems, and troubleshooting and verifying system configurations. The contractor shall document inspections, observations, and test results both manually and electronically. The COMSEC Technician shall be an approved COMSEC user. The contractor's COMSEC Technicians shall be required to perform these functions in harsh environments.

3.2.10 Test Article Maintenance. The [contractor](#) shall perform maintenance of test articles, targets and their subsystems, (e.g., sensors, electronics and data links), test equipment, miniature weapons systems and range targets used in testing.

3.2.11 Vehicle Maintenance Technician. The contractor shall provide specialized test vehicle mechanics to perform organizational and intermediate level maintenance of vehicles and equipment utilized at various test sites. The specialized test vehicle mechanics shall perform various functions including checking and servicing vehicle fluids, installing and removing equipment from test vehicles, removing and replacing tires, removing and replacing engines and components, removing and replacing drive train components. The contractor shall perform scheduled maintenance of various types of equipment including material handling equipment, generators, off road vehicles, tactical vehicles, and equipment trailers. The contractor

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shall maintain records of maintenance performed. The contractor shall be required to perform these functions in harsh environments.

3.2.12 Tactical/Test Vehicle Operators. The contractor shall provide tactical/test vehicle operators for the performance of testing operations on specialized ranges. Tactical/test vehicle operators shall perform various functions, including completing safety and pre operation inspections, documenting vehicle inspections, and operating specialized tactical communications equipment and vehicles in harsh environments.

3.3 General Technical Services.

3.3.1 Systems Engineering and Analysis. The contractor shall support TPO systems engineering and analysis tasking. The type of support required is researching, assessing, analyzing, designing, developing, and evaluating CREW components or systems to meet CIED requirements. Areas of analysis include all aspects of CREW system design, integration, performance, and compatibility.

3.3.2 Reporting. The contractor shall perform reporting requirements in accordance with the CDRL's incorporated into each Task Order.

3.3.3 Security. The contractor shall acquire personnel security clearances up to and including TOP SECRET level for all key personnel and SECRET for all other employees who handle documentation and hardware. The Government will provide secure storage facilities for classified Government hardware and documents. All classified work will be performed at Government facilities.

3.3.4 Safety and Accountability. The contractor shall comply with all Federal, State, and Local safety regulations in accordance with current regulations and guidance.

3.3.5 Travel. The contractor shall provide support to the CIED TPO Mobile Test Teams. Multi-Site access and availability at China Lake is required daily, and possible other travel sites include other DOD-mission similar sites and other locations to be set forth in individual task orders. Contractor personnel shall have in their possession a valid U.S. Passport or shall be capable of obtaining a valid U.S. Passport no later than three (3) months after date of award if required.

3.3.6 Training. The Government shall notify the contractor upon award of the required annual and CREW specific training for all personnel. The contractor shall have 7 business days from date of hire or assignment, to report completion of all Government required training for all individuals assigned to the TPO Training Coordinator. The contractor shall be responsible for keeping records and ensuring currency

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on all Government required training. Completion reports shall be provided to the Government including at a minimum: name, training taken and date of completion.

3.3.7 Program Oversight Support. The contractor shall provide support required for the TPO to complete:

3.3.7.1 In-Process Reviews. Coordinate technical interchange meetings, planning meetings, and program reviews. Provide meeting minutes and action items as required. Provide Integrated Master Plans (IMP) and Schedules (IMS) as required.

3.3.7.2 Major Reviews. As programs mature, assist in providing recommended entry and exit criteria and potential agenda items for major reviews to include Quarterly Program Reviews, Preliminary Design Reviews, and Critical Design Reviews.

3.3.7.3 Project Tracking. In support of the individual project activities and major events, develop and maintain a database to track SBIRs and technology development contract items, along with associated task orders and deliverables.

3.3.7.4 Status Reporting. Provide a monthly status accounting of all required contract deliverables. As necessary, interface with project managers to ensure problems and issues are identified and resolved in a timely manner.

3.3.7.5 Cost Tracking and Reporting. Track all contract and task order costs. Maintain a monthly accounting for each contract vehicle and track authorized, funded, and expended monthly and cumulative to date for all hours and dollars. Provide reports as required.

3.3.8 Technical Writer. The contractor shall provide personnel to perform the function of Technical Writer. The Technical Writer function requires: skill in Microsoft Office applications; collecting information from project technical personnel; proof reading technical documents for correct format, grammar, and technical content; and maintaining technical and training databases. The Technical Writer shall also develop procedures, processes, forms, checklists, presentations, and various technical reports.

3.3.9 Asset/Resource Management. The contractor shall provide personnel to perform the function of Asset/Resource Management support. Asset/Resource Management support functions include assisting in procuring and receiving assets/material, performing asset inventory control, and bar-coding of assets and materials. The contractor shall also communicate with appropriate TPO personnel when stock inventories

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reach a minimum established level as defined by the TPO. The contractor shall be required to perform Asset/Resource Management functions in harsh environments.

3.4 CIED Systems and Facilities Management.

3.4.1 Facility & Infrastructure Management. The contractor shall monitor their personnel and work environments, understand and support the required skill mix, address training needs, and ensure good communications with TPO personnel.

3.4.2 Configuration Management. The contractor shall provide personnel to support the function of Configuration Management. The functions include performing complex and specialized test setup operations, operating specialized test equipment, operation of computers, troubleshooting and analyzing specialized test systems, performing bonding and grounding measurements, surveying equipment for any hazards, and loading specialized software into specialized test systems. The contractor shall document observations and test results manually and electronically in accordance with the CDRL's for each individual Task Order.

3.4.3 Logistics Support. The contractor shall provide logistics support for property inventory and logs, shipping and receiving, market research, technical material and equipment, and procurement and tracking as defined by the following requirements.

3.4.3.1 Property Inventory and Logs. The contractor shall maintain and update the required inventories (which will be listed on their individual task orders) within a week of any change to them. The contractor shall find, audit, report, and bar-code items as requested by the TPO. [There are multiple geographic locations on NAWCWD China Lake where these items are stored.](#) The person doing the inventory control will use the Government's inventory control system.

3.4.3.2 Shipping and Receiving. The contractor shall remove material from storage and prepare for shipment according to Federal shipping guidelines and private carrier guidelines. The contractor shall transport ready-to-ship materials to Government Shipping and Receiving dock. The contractor shall verify incoming shipments of materials and merchandise against receiving documents, noting and reporting discrepancies and obvious damage, mark/identify material, document storage location, and record date of receipt. The [contractor](#) shall route materials to prescribed shops, test sites or storage locations. The contractor shall store, stack or palletize materials in accordance with prescribed storage and safety methods. The contractor shall pick up incoming shipments of materials and merchandise. All shipping and receiving documents shall be submitted to the Government within one work day of shipping/receiving verification.

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3.4.4 Market Research. The contractor shall perform market research and make recommendations regarding TPO mission appropriate supplies and equipment best suited to meet program or testing requirements.

3.4.5 Technical Material and Equipment. The contractor shall procure equipment incidental for contractor performance, ensuring that the quality and availability of the materials and equipment procured are adequate to support timely testing. Ownership of any such materials or equipment procured will remain with the Government.