Support Services
Systems Acquisition, Systems Engineering, Logistics, Installation Management and Shore Integration Design and Planning For Shore and Expeditionary Integration Program Office (PMW 790) and SPAWAR Shore Fleet Readiness Directorate (FRD)
Performance Work Statement

1.0 INTRODUCTION

The Shore and Expeditionary Integration Program Office, PMW790, and the SPAWAR FRD is acquiring support services in the areas of production systems engineering, logistics, installation management, and integration/planning/requirements services for the architecture, integration, acquisition, and support of multiple shore and expeditionary C4I programs. The support services include:

- Production Systems Engineering
- Logistics Management
- Shore Installation Management
- Systems Engineering/Installation Documentation
- Shore and Expeditionary Integration Planning and Design

2.0 BACKGROUND

The Shore and Expeditionary Integration Program Office's (PMW 790) and SPAWAR FRD Shore mission is to acquire, integrate, deliver, and support interoperable shore-based C4I FORCEnet capabilities for the warfighter. PMW 790's vision is to be the preeminent provider of integrated shore-based transformational Network Centric Warfare capabilities to the warfighter. The overarching goal is to ensure C4I systems programmed for installation on Navy ships have matching shore facilities of appropriate capacity to support Fleet deployments worldwide. Our goal is to migrate the shore sites and their terrestrial interconnections into a coherent, scalable, network-centric communications and multiplexing fabric designed to optimize functionality by effecting improvements that both satisfy current shortfalls and, wherever possible, provide the building blocks for future C4I architecture. The shore and expeditionary integration modernization efforts consist of several programs and projects:

A. **Deployable Joint Command and Control (DJC2)** is a Secretary of Defense (SECDEF) and Chairman, Joint Chiefs of Staff (CJCS) priority Department of Defense transformation initiative that is providing a standardized, integrated, rapidly deployable, modular, scalable, and reconfigurable joint command and control (C2) capability to designated Geographic Combatant Commands (GCCs). DJC2 is the material solution to Defense Planning Guidance that called for the development of Standing Joint Task Forces (JTFs) and a deployable C2 capability. DJC2 ensures Joint Force Commanders (JFCs) are equipped to carry out their C2 responsibilities. DJC2 provides GCCs and JFCs a mission critical, integrated family of C2 software applications and systems with which to plan, control, coordinate, execute, and assess military operations. It is designed to deploy rapidly, set up within hours, and quickly provide necessary C2 mission and collaboration functionality across the full spectrum of JTF operations. GCC and JTF commanders use DJC2 for day-to-day operations, as well as when deployed for training or contingency operations. The capability is intended for all levels of conflict and is reconfigurable to meet specific GCC and JTF mission requirements. This capability is interoperable with joint, higher and adjacent echelons of command, to include coalition, allies and non-governmental organizations. This investment delivers a significant

increase in C2 mission efficiency and effectiveness through delivery of a standing, readily deployable C2 capability along with process and applications standardization obtained at the lowest calculated total ownership cost. DJC2 will utilize Global Command and Control System in its core suite of applications, ensuring interoperability with the worldwide-installed base of Global Command and Control System -Joint.

B. **The Tactical Switching (TSw)** program (ACAT IV-M) supports the migration of the shore sites and their terrestrial interconnections into a coherent, scalable, network-centric capability. The TSw program rebuilds the 1970's serial based non-IP transport communications infrastructure to Net-Centric infrastructure. The primary objective is to provide the afloat customers as well as the joint users a commercially standardized technically compliant and robust network. Implementation of the TSw program objectives will increase efficiencies, reduce manpower and the overall footprint of the Navy's shore sites.

C. **The Joint UHF Military Satellite Communications Network Integrated Control System (JMINI)** (ACAT IV-T) is a joint interest program, directed by the Military Communications Electronics Board (MCEB) with the Navy designated as the lead service. The JMINI Control System will provide dynamic centralized control of joint 5-kHz and 25-kHz UHF MILSATCOM voice and data resources (channels and Time Division Multiple Access (TDMA) time slots). This will be accomplished via a globally integrated system of four control stations, located at the three NCTAMS sites plus Naval Computer and Telecommunications Station (NCTS) Guam. The globally integrated system consists of two major subsystems. The first subsystem, Network Management System (NMS), provides communications resource planning and management via secure Wide Area Network (WAN) connections between the control stations and remote users. The second subsystem, Channel Controller, provides the RF connectivity (modems, radios, antennas) between the NMS and the UHF MILSATCOM user terminals worldwide. The JMINI program also maintains fielded legacy channel control systems to include DAMA SAC.

D. **Shore Naval Messaging** program (ACAT IV-M) includes the Defense Messaging System (DMS), Legacy Messaging systems, Naval Regional Enterprise Messaging System (NREMS), Tactical Messaging Gateway (TMG), Nuclear Command, Control & Communications (NC3), and DMS Information Assurance (IA) products. DMS is an OSD-mandated replacement for the legacy Automated Digital Network (AUTODIN) message delivery architecture; it implements a single organizational messaging system throughout DoD, with seamless strategic (ashore) and tactical (afloat) Joint interoperability. DMS also includes the IA product; Certification Authority Workstation (CAW). Legacy messaging systems – which encompass NOVA, CUDIXS, DMDS, FSM, FMX/DUSC, PCMT, GateGuard, and MMS – require life cycle support management during the extended transition of tactical users from legacy messaging to DMS. NREMS is replacement to DMS classic client-server architecture with DMS-compliant, net-centric enterprise messaging, in order to simplify software upgrades and hardware end-of-life replacements, facilitate consolidation of DMS Service Provider sites, and provide a clear migration path to Official Information Exchange (OIE) transition. TMG is the messaging gateway between shore-based organizations and the Fleet. TMG incorporates DMS core and COTS products to

deliver DMS messages and attachments to the Fleet. The TMG acts as a proxy for the afloat units and submits messages into the DMS backbone.

E. **Tactical Messaging** (ACAT IV-T), formerly known as Naval Modular Automated Communication System II (NAVMACS II)/Single Message Solution (SMS), automates and increases the speed and efficiency of handling organizational message traffic aboard ships. Official Information Exchange (OIE) material solutions are being procured to replace the older NAVMACS systems, which lack the speed and capacity to handle current message traffic loads during periods of accelerated combat operations. Tactical DMS satisfies Multi-command Requirements of Operational Capability (MROC) requirements to transition to IP based organizational messaging. Tactical Messaging uses Commercial Off-the-Shelf (COTS) hardware and software, Government Off-the-Shelf (GOTS) furnished software, developmental software, and DMS software to provide a technologically improved shipboard message processing system capable of exchanging messages electronically between afloat units and organizations, and individuals in DoD and other federal agencies. The system features public key infrastructure (PKI) signed and encrypted email transfers to/from an afloat unit with the Tactical Messaging Gateway (TMG) enclaves located at the two Naval Computer and Telecommunications Area Master Stations (NCTAMS). The TMG acts as a proxy for the afloat units. Tactical Messaging continues to provide Navy requirements management and product certification. Tactical Messaging retains the Submarine Messaging implementation requirement. The Tactical Messaging Systems will be modified under the Command and Control Official Information Exchange (C2OIX) project to address obsolescence issues.

F. **The Shore Telephony** project provides command and control voice capability to Naval installations worldwide. This effort has three primary areas of focus: modernizing and replacing telephone switches and cable plants worldwide in accordance with the Defense Information Systems Agency Universal Communications Requirements (DISA UCR) 2008; participating in the Department of Navy Chief Information Officer Telecommunications Working Group (DTWG) development of a corporate strategy for enterprise approach to Navy voice; and development and implementation of the Shore Telephony Regionalization Plan. The first area of focus is Naval Networks Warfare Command (NNWC) telephone switch replacement/modernization, which replaces obsolete telephone switches and upgrades firmware, hardware, and software on a progressive schedule at the NNWC telephone switch locations and modernizes telephone switch cable plant. Projects include engineering, procurement of equipment, installation, testing, and initial logistics support (training, spare parts, and warranty). The second area of focus is the participation in the DTWG which addresses the technology, acquisition, management, migration and business process improvement aspects of current Navy voice services to include Telephony Management Systems. The last area of focus is the development, management and implementation of the Shore Telephony Regionalization Plan. This plan addresses reduction in footprint, standardization of enterprise solutions for voice products and assistance to NNWC in the development of standardized processes for operation and maintenance.

G. **The Maritime Operations Center (MOC)** deliver Navy command and control (C2) capabilities at the Operational Level of War (OLW) that guide execution of the six (6) core capabilities of the Navy as outlined in the 2009 A Cooperative Strategy for 21st Century

Seapower (Forward Presence, Deterrence, Sea Control, Power Projection, Maritime Security, Humanitarian Assistance and Disaster Response) through the full range of military operations (ROMO). The MOC initiative focuses on improving the Navy's OLW C2 by establishing baseline capabilities in globally-networked MOCs enabling Numbered Fleet and Navy Component Commanders (NFC/NCC) to assume a range of Service and Joint roles while continuing to accomplish traditional Fleet management functions. The MOC construct enhances C2 of Navy forces at the operational level through headquarters manned by individuals qualified in joint operational-level staff processes and enabled by globally interoperable Command, Control, Communications, Computers, and Intelligence (C4I) systems. MOCs provide organizational consistency, the scalability and flexibility to transition between various command roles, and enhanced global networking among Navy and joint organizations. The desired end state/goal of the system-of-systems methodology embodied in each of the eight (8) MOCs is to achieve globally-networked operational-level C2 decisions by NCC, Joint Force Maritime Component Commanders (JFMCC) and Commanders of Joint Task Forces (CJTF). Focused acquisition of standard and common suites of systems (from the existing base of Navy, Army, Air Force and joint Programs of Record (PORs) and non-PORs) facilitates successful accomplishment of designated Joint Mission-Essential Tasks (JMETS) aligned to Joint Capability Areas (JCAs) and in support of combatant commander theater objectives.

H. **The Navy Expeditionary C4I** project supports the Chief of Naval Operations (CNO) vision to have common supportable Command, Control, Communications, Computers and Intelligence (C4I) equipment across its Navy Expeditionary Forces. PEO C4I, PMW 790 has assumed life cycle management responsibility and Space and Naval Warfare Systems Command (SPAWAR) has assumed Technical Authority (TA) responsibility for Navy Expeditionary C4I equipment from Naval Facilities Engineering Command (NAVFAC) in accordance with the Memorandum of Agreement between NAVFAC, SPAWAR and PEO C4I dated 14 May 2010. The scope of this project is to fulfill the Navy Expeditionary C4I TOA requirements as defined by OPNAV and Navy Expeditionary Forces. PMW 790 is responsible for program management, systems engineering, procurement, integration, fielding, systems training, information assurance, configuration management, logistics management and life cycle support for all C4I in the identified TOAs. PMW 790 supports the planning of Initial Outfitting (IO) Shorts; planning and replacement of Over Age (OA) equipment; Initial Logistics Overhaul (ILO) activities; and activities associated with the maintenance, supply and recapitalization of reset equipment.

I. **Shore Modernization effort** provides for the modernization planning and the delivery of products and services to the fleet. PEO C4I uses the PEO C4I Master Plan and the PEO C4I Roadmap to plan for the future delivery of portfolio products. Similarly SPAWAR FRD plans for the execution of SPAWAR products and services. Additionally, both SPAWAR FRD and PEO C4I work together to plan, manage and coordinate MILCON projects (such as P-011 MILCON), emerging requirements such as US Fleet Forces Command (USFFC)/Second Fleet (C2F) consolidation and other shore sites requiring modernization.

J. **The Department of Defense (DoD) Teleport** program provides the warfighting combatant commanders with extended multi-band and multi-media satellite communication capability and seamless access to terrestrial components of the Defense Information Systems Network

(DISN) and legacy C4I systems for worldwide operations. With DoD Teleport the tactical warfighter accesses pre-positioned links to DISN Service Delivery Points for DSN, DRSN, SIPRNET, NIPRNET, JWICS, and VTC, providing worldwide coverage, increased bandwidth and seamless interfaces to critical SATCOM in X, C, Ku, Ka, EHF/AEHF, UHF, and L band using ATM switching and IP networks. Teleport functions include cross-banding, translation, and automated switching and routing.

K. **The Ballistic Missile Defense System (BMDS)** shore connectivity research and development effort planned for Block 06/08/10 and the upcoming Spirals of the BMDS augments the existing UHF path between Aegis Ballistic Missile Defense (BMD) ships and Command and Control, Battle Management and Communications (C2BMC) sites ashore, enabling an enhanced Long Range Surveillance and Tracking capability for national missile defense and an Engage function for in-theater missile defense using a variety of SATCOM paths (e.g., EHF, AEHF, KA). Aegis BMD is an element of the BMDS and builds upon the mature, operationally-proven, globally deployed Aegis Combat System (ACS) to detect, track, intercept, and destroy Short Range Ballistic Missiles to Intermediate Range Ballistic Missiles in the midcourse (including ascent and early terminal) phase of flight while deployed in defense of the nation, deployed U.S. forces, friends, and allies. The BMDS Shore connectivity is an integral portion of the Aegis Weapon System, Standard Missile, Navy Ballistic Missile C2BMC systems, and Terminal High Altitude Area Defense (THAAD) sensor systems. Aegis is at sea, on patrol, and ready to transition to BMD alert status, performing a strategic role in Homeland Defense. Aegis BMD is the primary sea element of the Midcourse Defense Segment. The BMDS Shore connectivity efforts will take full advantage of the DoD Teleport program and other PEO C4I programs of record.

L. **The Aegis Ashore Assured C4I (A3C4I)** effort involves research, development, integration and testing planned for the BMD Phased Adaptive Approach ashore sites by employing Cost Effective and Mature Ballistic Missile Defense System (BMDS) Technologies. Aegis Ashore is a capability development which will adapt the Aegis BMD 5.0 capability to a land based system by leveraging the mature technology and technical basis of Aegis BMD 5.0 (from ACB12) and SM-3 Blk IB and by focusing on enabling the Aegis BMD mission ashore by engineering a shore capability that supplants ship structure and is removable. Aegis BMD is an element of the Ballistic Missile Defense System (BMDS) and builds upon the mature, operationally-proven, globally deployed Aegis Combat System (ACS) to detect, track, intercept, and destroy Short Range Ballistic Missiles to Intermediate Range Ballistic Missiles in the midcourse (including ascent and early terminal) phase of flight while deployed in defense of the nation, deployed U.S. forces, friends, and allies. The BMDS Aegis Ashore Assured C4I integration (A3C4I) Shore connectivity is an integral portion of the Aegis Weapon System, Standard Missile, Navy Ballistic Missile C2BMC systems, and Terminal High Altitude Area Defense (THAAD) sensor systems. Aegis BMD is the primary sea element of the Midcourse Defense Segment. The BMDS Shore connectivity efforts will take full advantage of the DoD Teleport program and other PEO C4I programs of record.

3.0 OBJECTIVE
The objective of this Task Order is to obtain production systems engineering, logistics, installation management, and shore and expeditionary integration/planning/design/requirements support expertise. This tasking will effectively support the production, acquisition,

interoperability, installation and integration required by PMW790 and SPAWAR FRD Shore to support procurement as well as shore and expeditionary installation planning, design, production and system turnover requirements. PMW790 as the PEO C4I Shore Platform Manager and SPAWAR FRD as the SPAWAR Fleet Readiness and Installation Manager provides centralized management and analysis for PEO C4I installations that encompasses C4I work planning, integration or consolidation of installations, scheduling, daily tracking of installations, resolution of issues impacting installations, installation metric reporting and analysis, preparation of installation status briefs, installation project support, installation process refinement and related mission requirements. Shore installations average about 900-1200 installations annually at over 800 shore Commands. The SPAWAR Systems Center Installation Management Offices (IMOs) or a contracted vendor actually executes the installations. The actual installation is not within the scope of this task. Each installation project varies in complexity, cost, and duration to complete. Installation cost can range from several thousands of dollars to several millions of dollars.

The efforts under this Task Order will focus on technical support and production engineering, installation support services, systems integration design and planning, and logistics management support services. These support services facilitate the procurement and fielding of PEO C4I shore based systems and programs.

Work will be performed at Contractor facilities, on-site at SPAWAR Old Town Campus and during travel in support of designated activities. The Contractor shall be able to perform the requirements in the Performance Work Statement whether the work is performed on-site, off-site or in travel status.

4.0 APPLICABLE DIRECTIVES/DOCUMENTS
The Contractor shall adhere to the following documentation (including follow-on versions) in the performance of the tasks specified in Section 5.0 of the Performance Work Statement (PWS).

Document Type	No./Version	Title	Date
United States Code	Title 10	Armed Forces	Jan 2011
DoD Instruction	5000.02	Operation of the Defense Acquisition System	Dec 2011
Code of Federal Regulation	Title 48 Vol. 1,2	Federal Acquisition Regulations	Oct 2010
Code of Federal Regulation	Title 48, Vol.3	Defense Federal Acquisition Regulations	15 Dec 2003
SPAWARINST	4350.1	SPAWAR Global Work Breakdown Structure	7 May 2008
DoN Chief Info Officer	Guide	DON CIO Information Assurance Strategy Guidance	15 Dec 2008
SECNAVINST	5216.5D Change 1	Department of the Navy Correspondence Manual	March 2010
SPAWARINST	5721.1B	SPAWAR Section 508 Implementation Policy	17 Nov 2009
OPNAVINST	1500.76B	Navy Training System Requirements, Acquisitions and Management	28 Apr 2010

Document Type	No./Version	Title	Date
SECNAVINST	4105.2B	Independent Logistics Assessment (ILA) and Certification Requirements	18 Dec 2008
SECNAVINST	5000.2D	Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System	16 Oct 2008
CJCSI	3170.1G	Joint Capabilities Integration and Development System	31 Jan 2011
SPAWARINST	1500.1	Integrated Battle Force Training (IBFT) Process	17 Aug 2001
SPAWARINST	1500.2	Consolidated SPAWAR/PEO Training Process	14 Mar 2003
NAVNETWARCOMINST	12271.1	Policy and Procedures For The Fleet Readiness Certification Board (FRCB) Process	17 Oct 06
SPAWARINST	4105.2A	Integrated Logistics Support Certification Process For SPAWAR Systems Fielded Afloat	5 Mar 2009
SPAWARINST	4130.5	Handbook for Field Changes and Engineering Changes	05 Jan 2004
SPAWARINST	4400.13A	Material Support Date (MSD) Management	18 Mar 1998
SPAWARINST	4410.4A	Policy and Procedures for the Request and Assignment of Military Nomenclatures, Serial Numbers, and Review and Approval of Identification Plate Formats	30 Oct 1987
SPAWAR Handbook	Ver. 3	Shore Installation Process Handbook	19 Oct 2009
NAVSEA	N/A	PARTS User Manual & PSD Desktop Guide	19 Feb 2003
MIL-STD	196E	Joint Electronic Type Designation System (JETDAS) Instruction	17 Feb 1998
SPAWARINST	4131.2	SPAWAR Configuration Management for C4ISR Systems	16 Oct 2000
NAVSUP Publication	P-485	Naval Supply Procedures,	04 Oct 2005

Document Type	No./Version	Title	Date
		Vols. I, II & III	
SPAWARINST	5200.28	Policy and Procedures for Installation of C4ISR Systems at Shore Facilities	30 Sep 1999
Industry Standard	ANSI/EIA-748-98	Earned Value Management Systems	June 1998
SECNAVINST	5510.36	Department Of Navy (DON) Information Security Program (ISP)	06 Oct 2006
Industry Standard	PMBOK Guide	A Guide to the Project Management Body of Knowledge published by Project Management Institute	4th Edition 2008
PEO C4I LCCM	PMW790-CMG-00154-1.00	Policy For Implementation of Life Cycle Configuration Management (LCCM) within the PEO C4I	Apr 2007
PEO C4I LCCMIM	Ver 1.0	The Life Cycle Configuration Management Implementation Manual (LCCMIM)	06 Feb 2007
NAVICP	Directives-NAVICP key directives	NAVICP Policies and Directives (various)	
PEO C4I	Guidance Ver. 1.0	Navy ERP Processes and Guidance	28 Jun 2010
PEO C4I	Ver. 1.1	Concept of Operations For Modernization Management	5 Oct 2006
PEO C4I	Ver. 5.0	PEO C4I Master Plan	7 Aug 2011
PEO C4I	Ver. 3.0	PEO C4I Integrated Roadmap	16 Sep 2010
SPAWARINST	4720.1A	Policy And Procedures For Installations Of Command, Control, Communications, Computers, Intelligence, Surveillance, And Reconnaissance (C4ISR) And Other Electronic Systems	Nov 2011
SPAWARINST	3084.1	Policy And Procedures For Development And Execution Of Team SPAWAR System Operational Verification Test (SOVT) Documentation	3 Dec 2008
OPNAVINST	11102.A	Training System Installation	31 Oct 2007

Document Type	No./Version	Title	Date
		And Transfer	
OPNAVINST	11010.20F	Facilities Projects Manual	7 June 1996
COMUSFLTFORCOMINST/ COMPACFLTINST	4720.3B/4720.3B	Commander United States Fleet Forces Command (COMUSFLTFORCOM)/ Commander United States Pacific Fleet (COMPACFLT) C5ISR Modernization Policy	14 Oct 2008
SPAWARINST	4720.5	Policy And Procedures For Development And Life Cycle Management Of Installation Requirements Drawings	6 Feb 2009

5.0 PERFORMANCE REQUIREMENTS

The Contractor shall perform the following tasks in accomplishing the requirements of this Task Order (TO). The Contractor shall provide the necessary timely assistance to meet program emergent requirements as established and requested by the Program Manager or other properly designated authority. In addition, the Contractor shall perform, document and deliver the output of each task in accordance with the requirements stated in each task and the directives listed in Section 4.0 Applicable References Documents unless otherwise directed by the Program Manager or his/her authorized representative. All required written documentation, reports, briefing materials, and other materials as described below shall be submitted in the requested format, without spelling, grammatical, or calculation errors.

The Contractor shall participate in command-sponsored training, as assigned. Command sponsored training is defined as High Performance Organization (HPO), CMMI, Team Building, and organizational development such as LEAN Six Sigma, but does not include training that would incur additional government cost.

5.1 Production Systems Engineering and Shore Installation Manager Support (OPN)

5.1.1 Production Systems Engineering
The Contractor shall provide the production systems engineering support services required to support the multiple shore and expeditionary C4I programs managed by PMW790 and/or SPAWAR FRD Shore.

5.1.1.1 Prime Mission Product Engineering - Non-Developmental Items (NDI)

The Contractor shall provide prime mission production engineering support services to PMW790 and/or SPAWAR FRD Shore as specified below.

5.1.1.1.1 The Contractor shall conduct production engineering analyses of selected or proposed product improvements of system of systems, production components and sub-systems in terms of

system operability and interoperability, technical merit, and schedule risk. These evaluations shall include:

- System performance vs. product performance design
- Consistency and congruency with Joint external forcing functions
- Comparative functionality with Commercial-Off-the-Shelf (COTS) technology
- Validation of customer requirements vs. state-of-the-art applicability
- Production feasibility
- Maintainability and reliability impacts
- Deployability/transportability impacts
- Proposed design, testing and procurement changes
- Business Case Analysis (BCAs)
- White Papers
- Develop proposed Course of Actions and conduct analysis

All analyses will demonstrate mastery of subject matter being reviewed and address tradeoffs with respect to operational effectiveness and cost containment.

5.1.1.1.2 Contractor shall review and evaluate production design data and documentation with the intent of meeting PEO C4I, SPAWAR FRD Shore and Joint initiatives; prepare, test and technically evaluate engineering approaches, hardware and software applications, Engineering Changes; and conduct analyses of production feasibility and production operations, processes, and systems to correct deficiencies in the PMW790 production items. The Contractor will work closely with CYBERFOR to ensure operational requirements are compatible with production. The review/evaluation work undertaken by the Contractor herein shall demonstrate mastery of subject matter being reviewed as well of the analytical techniques utilized by the Contractor.

5.1.1.1.3 The Contractor shall provide acquisition and production engineering support services necessary to support PMW790 and SPAWAR FRD Shore in accomplishing the acquisition, integration, and installation of C4ISR systems including:

- Review and evaluate acquisition data and documentation with the intent of meeting PEO and Joint initiatives
- Identify potential risks
- Analyze selected or proposed system components and sub-systems in terms of design interface, survivability/vulnerability, deployability and transportability, production engineering, and human engineering
- Establish estimates for production capability requirement
- Assess previous acquisition, production and user experience on similar programs
- Assess acquisition and production feasibility
- Provide Integrated Product Team (IPT) and other technical meeting support as required
- Prepare and evaluate engineering approaches, hardware and software applications, and Enterprise Change Request
- Develop proposed project management plans, integration plans, integrated master schedules (IMS), and Program Evaluation Review Technique (PERT) chart/critical path analysis reports

5.1.1.1.4 The Contractor shall provide the production engineering and technical support services necessary for production equipment layout, and engineering changes for Shore Integration programs or projects (to include MILCON/other projects of interest).

5.1.1.1.5 The Contractor shall provide the production engineering and technical support services necessary to oversee production processes across PEO C4I/PMW790 programs including inventory, distribution, and status reporting.

5.1.1.1.6 The Contractor shall provide the prime mission engineering and technical services required to support all PMW 790 program with providing input into and oversight of CONUS and OCONUS production planning.

5.1.1.1.7 The Contractor shall provide prime mission engineering integration services to support PEO C4I programs efforts to migrate voice to IP technology. The Contractor shall have a working knowledge of shore voice and data networks, including DoD certification and security requirements.

5.1.1.2 Hardware Engineering Services

5.1.1.2.1 The Contractor shall provide the hardware engineering support services necessary to develop, prepare and review appropriate interface specifications, integration plans and inputs, system level documentation such as: Installation Requirements Drawings (IRD), System Operational Verification Tests (SOVT) Preparation and Execution Guide (SPEG) compliant SOVT, Integrated Logistics Support Plan (ILSP) and User Logistics Support Summary (ULSS), and other related documentation.

5.1.1.3 Production Configuration Control

5.1.1.3.1 The Contractor shall provide the production configuration control services required to support PMW790 procurement programs with analysis and technical recommendations for ensuring that the functional and physical characteristics of the production system are controlled and maintained consistent with applicable policies and directives. Analyses and technical recommendations shall be provided to the requester by the agreed upon due date.

5.1.1.3.2 The Contractor shall provide the production configuration control and technical services required to support test events for production integration testing. Provide applicable report to requester within the timeframe specified by the requester.

5.1.2 Shore Installation Manager Support

5.1.2.1 Installation Work Plan Requirement Support

5.1.2.1.1 The Contractor shall assess PEO C4I and SPAWAR FRD Shore Fielding/Work Plans requirement definition as found in the SPAWAR/PEO Integrated Data Environment & Repository (SPIDER) installation database for completeness and quality of information to allow an estimate and proposed schedule to be prepared by the SSC Installation Management Office (IMO). This review shall be completed within 5 workdays of a requirement entering a Shore Installation Manager work queue. For Shore Fielding/Work Plans found to be incomplete or

insufficient, the Contractor shall submit a recommended course of action to the Shore Installation Manager within 5 workdays of discovery. The contractor shall assess the PEO C4I/SPAWAR FRD Shore Fielding/Work Plan for compliance with the 15 month rule IAW the PEO C4I Concept of Operations for Modernization Management policy and provide recommendations to the Shore Installation Manager.

5.1.2.1.2 The Contractor shall liaison with PMWs, SPAWAR FRD, Fleet, and SSCs to characterize, coordinate, and resolve any issue impacting the readiness of an installation requirement to move to installation planning stage defined below in 5.1.2.2. A summary of all work plan liaison's and outcomes will be included in the monthly report.

5.1.2.1.3 The Contractor shall assist the PMW 790 Baseline Manager, Integration Platform Managers, SSC Shore Installation Managers (IMO) and Regional Shore Installation Managers (RSIMs) to maximize the development of a logical grouping or consolidation of installations for the purpose of better control, improved cost efficiency, better coordination and reduced impact to customer. The Contractor shall review consolidation proposals received from a PMW or SSC for viability, cost, and schedule advantages. When there are no other proposed consolidation plans, the Contractor shall determine the viability of a consolidation approach and make recommendations to the PMW 790 Baseline Manager, Integration Platform Managers, SSC Shore Installation Managers (IMO) and Regional Shore Installation Managers (RSIMs). Reviews of consolidation proposals or new consolidation proposals shall be provided to the PMW 790 Baseline Manager, Integration Platform Managers, SSC Shore Installation Managers (IMO), Regional Shore Installation Managers (RSIMs) and affected Program Offices within 5 workdays of completion.

5.1.2.1.4 The Contractor shall assist the PMW 790 Baseline Manager, Integration Platform Managers, SSC Shore Installation Managers (IMO) and Regional Shore Installation Managers (RSIMs) in translating new requirements to the technical implementation teams, analyzing the work plan, and coordinating the setting of controlled availability windows at locations where 3 or more installations are planned, or where any install is planned that is valued at $500K or more, or where an install is determined to have a mission critical deadline. The availability windows must meet mission critical dates while avoiding any customer blackout periods and taking into consideration product availability. The coordination objective is to complete installations earlier in the year, facilitate consolidated installs, and give the customer better coordinated installations. Proposed installation windows for all tasks in SPIDER meeting the above criteria shall be provided to the PMW 790 Modernization and Integration Manager and the SPAWAR FRD Shore Installation Manager prior to any installation planning meeting or conference.

5.1.2.1.5 The Contractor shall assist the SPAWAR FRD Shore Installation Manager in resolving discrepancies between PMW and Installation Management Office (IMO) cost estimates impacting Work Plan (4WP) approval. Documentation of cost estimate assessment, coordination, and reconciliation shall be provided to the Shore Installation Manager within 3 workdays after completion.

5.1.2.2 Installation Execution Management Support

5.1.2.2.1 The Contractor shall provide support to the Shore Installation Manager as required in addressing corrections/recommendations of installation documentation including Installation Design Plans, Base Electronic System Engineering Plans, and other critical shore installation documentation as defined in the Shore Installation Process Handbook. The Contractor shall provide support to the Shore Installation Manager within 3 workdays of completing the review. The Contractor will monitor PEO and SSC shore installation business practices and proposed changes to PEO and SPAWAR directives as directed by the Shore Installation Manager.

5.1.2.2.2 The Contractor shall provide advisory support to the Shore Installation Manager in order to track status of installation production, define issues, and provide guidance as required. The Contractor will ensure that all installations are accomplished in accordance with the PEO C4I CONOPS, the Shore Installation Process Handbook, installation standards, as well as statutory or regulatory requirements. The Contractor shall review weekly installation SITREPs for each installation, Weekly Activity Reports (WARs) and other correspondence which identifies or characterizes installation problems. The Contractor shall also identify and provide recommendations for resolution of identified installation issues to the Shore Installation Manager within 3 workdays of receipt.

5.1.2.2.3 The Contractor shall provide PMW 790 systems expertise and program knowledge, closely coordinating with all the installation performing organizations to review and monitor estimates and actual costs, planned and actual schedules, and solve installation issues. As required the Contractor shall also enter and maintain scheduled availability periods for planned installations. Scheduled availability/installation data will be updated within 5 days as required upon change of status.

5.1.2.3 Installation Management Closing Support

5.1.2.3.1 The Contractor shall work closely with the SSC IMOs and RSIMs to track the completion status of installation SOVTs. The Contractor shall make inquiries with the performing SSC as to SOVT incomplete work items, Installation Completion Reports, customer installation acceptance, delivery of as-built drawings to the site, and insertion of all installation deliverables into the approved SPAWAR shore repository.

5.1.2.3.2 The Contractor shall provide liaison services with PMWs, Fleet, and SSCs to characterize, coordinate, and resolve any issue impacting the final closeout of an installation requirement. The Contractor shall summarize all installation closeouts in the monthly report.

5.1.2.4 Installation Performance Tracking & Reporting

The Contractor shall implement installation performance tracking strategies and reporting metrics for the purpose of monitoring and keeping PMW 790 and SPAWAR FRD Shore aware of installation progress. Strategies and processes for daily monitoring, controlling, and reporting requirement, cost, and schedule changes shall be implemented by the Contractor. Installation database mining, analysis, and metrics shall be required. Installation database entries and identifying/documenting corrections of requirements as found in the installation database shall be required. Quarterly detailed reviews shall be planned and coordinated by the Contractor in support of the Shore Installation Managers at SSC Atlantic and SSC Pacific locations at which each open installation shall be reviewed for progress and action required to bring it to completion

and closure. The Contractor shall assist the Principal Shore Installation Manager in the conduct of installation Compliance Reviews, investigations and evaluations as required. The Contractor will compile Compliance Review reports, lessons learned, and investigation and evaluation documents as required.

5.1.2.5 Installation Shore Readiness Review (ISRR) Fleet Readiness Control Board (FRCB) Installation Administration and Support

5.1.2.5.1 For NDI, the Contractor shall coordinate ISRR/FRCB activities and collect required pre-installation and acquisition documents supporting installation readiness including:
- Standard System/Architecture Design Plan (SIPH App C) Drawings
- Pre-installation testing reports/results such as DT, OT, JITC, TTIC, IV&V
- Applicable certifications that tie to the appropriate command such as CCB, JITC, NCTSI
- Security certification and accreditations such as SSAA, C&A, IATOs/ATOs, IATTs
- SOVT (Site Acceptance Test)
- Risk Identification and Mitigation Plan (SIPH App E)
- Initial ILSP
- Initial User Logistics Support summary (ULSS) (Alternate to ILSP)
- Base Electronic Systems Electronic Plans (BESEPs)
- Installation Design Plans (IDPs)

The Contractor shall collect the required documentation and ensure the FRCB file is complete and current. All documents shall be reviewed for accuracy, and the Contractor shall coordinate discrepancy corrections through the appropriate organization. All documents shall be filed within two days of receipt.

5.1.2.5.2 The Contractor shall review documents collected under paragraph 5.1.2.5.1, evaluating both risk to operations and readiness to initiate installations. The Contractor shall submit the completed evaluations to the SPAWAR FRD designated FRCB Representative within two days of completing the review. The Contractor shall make corrections to the evaluations as directed by the FRCB Representative.

5.1.2.5.3 The Contractor shall propose a resolution to issues discovered during the document evaluation, and coordinate the proposed resolution through PMW 790, SPAWAR FRD, PMW, SPAWAR Code 5.0 for approval. The Contractor shall keep the SPAWAR FRD FRCB Representatives informed of any issue status no less than weekly until the issue is resolved.

5.1.2.5.4 The Contractor shall provide written vote recommendations to the SPAWAR FRD FRCB Representative concerning system install/deployment readiness. The Contractor shall create and submit supporting documentation for the decision with the recommendation.

5.1.2.5.5 The Contractor shall track and provide progress and status of installations metrics for the FRCB processing. As directed by the SPAWAR FRD FRCB Technical Point of Contact (TPOC) or other designated government authority, the Contractor shall prepare, distribute and present these metrics in the government assigned format, ensuring SPAWAR FRD position is correctly supported within the required timeframe.

5.2 Logistics Management Services, System Engineering/Installation Documentation Support, and Shore and Expeditionary Integration/Planning/Requirements Support (OMN)

5.2.1 Logistics Management Services

5.2.1.1 Integrated Logistics Support Management

5.2.1.1.1 The Contractor shall provide on-site Integrated Logistics Support (ILS) subject matter expertise and logistics management interface and support at both scheduled and unscheduled PMW 790 staff meetings. The Contractor shall perform a broad range of duties that include analysis and coordination of the logistical functions of the PMW790 organization and product lines in support of Integrated Logistics Support Management Team (ILSMT), program reviews, System Readiness Reviews (SRRs), and Logistics Supportability Analysis (LSA)/ Integrated Logistics Assessments (ILAs). This may include the entire life cycle of a product, including acquisition, distribution, internal allocation, delivery and final disposal of resources.

5.2.1.1.2 The Contractor shall support program data calls and the development, update, and review of program ILS schedules, action item trackers, installation schedules, briefs/presentations, meeting minutes, and trip reports relating to scheduled and unscheduled meetings. Additionally, the Contractor shall support PMW790 directed training events, working groups, data calls, and meetings. The Contractor shall support the Assistant Program manager (APM) in: weekly staff meetings; monthly ILSMTs, quarterly PMCRs at vendor facilities; quarterly PMW 790 program reviews; and APM program planning sessions, working groups, financial reviews, and IPTs. The Contractor shall perform this task in accordance with the specific assignments and prescribed formats and timeframes determined by the APM/PMW 790, and in accordance with established policies and procedures identified in Section 4.0 of this PWS.

5.2.1.2 Logistics Support Documentation

5.2.1.2.1 The Contractor shall provide the logistics support management services necessary to assist in developing, updating, and reviewing PMW 790 "front-office" program documentation, which includes:
- Monthly ILS status reports
- Monthly Integrated Logistics Support Management Team (ILSMT) meeting minutes
- Logistic Requirements Funding Summary (LRFSs)
- Work Breakdown Structure (WBS) work packages; sparing lists & plans; acquisition & logistics policies/ directives/ instructions; program logistics schedules
- ILS budgeting & spend plan documents; program briefs/ presentations
- Sensitivity and uncertainty analyses, and
- Time phasing; metrics tracking and external reporting requirements

This effort shall be performed across all program variants and documents and shall adhere to established PMW 790 formats and standards, as well as applicable SPAWAR 4.3.1 policies and procedures. Acceptable documents shall be technically accurate and free from grammatical errors.

5.2.1.2.2 The Contractor shall provide the logistics support management services necessary to assist in developing, updating, and reviewing support program acquisition Milestone (MS) Independent Logistics Assessment (ILA) certification requirements. Specifically, the Contractor shall:

- Develop Independent Logistics Assessment (ILA) document packages and kick-off presentations
- Develop ILSP
- Develop Logistics Requirement Funding Summary (LRFS)
- Develop Diminishing Manufacturing Sources and Material Shortages (DMSMS) Plan
- Develop ULSS

Contractor support shall be IAW SECNAVINST 4105.1A (Independent Logistics Assessment (ILA) And Certification Requirements) and adhere to established PMW790 formats and standards, as well as applicable SPAWAR 4.3.1 policies and procedures.

5.2.1.3 Supply Support

5.2.1.3.1 The Contractor shall provide the logistic supply support, subject matter expertise, and management expertise required to support the PMW790 "front office" in the areas of:

- Readiness Based Sparing (RBS) Analysis
- Identification and procurement of spares parts
- Allowance Part List/Allowance Component List (APL/ACL) maintenance
- Review of Provisioning Technical Documentation (PTD)
- Asset visibility & tracking; alternative spares planning, and
- Fleet/ NAVICP/ PMW data calls

This effort requires interfacing with NAVICP and NAVSEALOGCEN contacts and all tasks shall be completed in compliance with SPAWAR 4400 series instructions, NAVSUP P485, and standard NAVSUP/ NAVICP policies & directives.

5.2.1.3.2 The Contractor shall provide support services required to track monthly the delivery status of PMW 790 & NAVICP vendor spares buys; and to develop the required On-Board Repair Parts (OBRP), installation & checkout (INCO), and Depot spares procurement orders IAW with the performance & delivery specifications of each program's respective procurement contract. This effort requires interfacing with NAVICP and NAVSEALOGCEN contacts and all tasks will be completed in compliance with SPAWAR 4400 series instructions, NAVSUP P485, and standard NAVSUP/ NAVICP policies & directives.

5.2.1.3.3 The Contractor shall provide the supply support services necessary to: perform monthly maintenance and semi-annual updates of all PMW 790 Program Support Data (PSD) sheets utilizing the PSD Automated Reporting & Tracking System (PARTS) online database (https://parts.navsea/Intro.htm/); develop and maintain additional PSD sheets, as required, to support new PMW 790 acquisition requirements, as well as ECs/ FCs. PSDs are to be maintained IAW the NAVSEA PARTS User Manual and PSD Desktop Guide and shall be free of mathematical and technical errors. Updates shall be completed twice per year in support of

the February and October N4 Baseline Assessment Memorandum (BAM) reviews and shall include archiving of PSDs when required.

5.2.1.3.4 The Contractor shall provide the logistic supply services necessary to support PMW 790 PBL-Organizational (PBL-O) and PBL-Contractor (PBL-C) strategy and planning meetings at PBL provider facilities. This task shall be accomplished according to APM/ PMW direction and IAW PEO C4I INST 4081.1.

5.2.1.3.5 The Contractor shall support all PMW 790 installations by providing the equipment testing services required to coordinate the submission of Test Equipment line items into the Test and Measurement Diagnostic Equipment Requirements (TMDER) database. All work will be conducted IAW NSWC procedures. TMDER submissions shall be technically accurate, adhere to the format and due dates specified by the PM, and comply with the performance requirements set forth in directives listed in Section 4.0 of this PWS.

5.2.1.4 Manpower, Personnel & Training

The Contractor shall coordinate and track the approval of the final Equipment Facility Requirement (EFR) Phase III agreement(s) for the transfer of training responsibility of Navy Communications Technical Training Equipment (TTE) installed at FLETRACENs San Diego, Norfolk and NAVSUBSCOL Groton IAW OPNAVINST 11102.1. In addition, the Contractor shall utilize OPNAVINST 1500.76, SPAWARINST 1500.1 & 1500.2, DoDINST 5000.2, and PMW 790 direction and practices, to support both program office and Fleet training data calls, meetings and action items. These will include: as required interim/factory/OJT/ formal training implementation, conduct & scheduling data calls; quarterly Human Systems Integration (HSI) planning and implementation meetings; monthly review and update of PMW 790 Integrated Battle Force Training (IBFT) requirements; weekly review of SPAWAR 4.3.1 Human Analysis Requirements Planning System (HARPS) threaded discussions for PMW 790 Navy Training System Plans (NTSPs); as required reviews of Navy Communications training materials & courseware; and the review/ updating of PMW 790 "front-office" training briefs & presentations.

5.2.1.4.1 The Contractor shall provide tracking and monitoring services required to expedite services for all Casualty Reports (CASREPs) and emergent items on all PMW790 shore integration programs.

5.2.1.4.2 The Contractor shall provide the tracking and monitoring services necessary to assist PMW790 managers in coordinating alternatives and plans to resolve prioritized CASREPs. The Contractor shall, on a daily basis, screen, review, and analyze CASREP tracking reports and databases. Specific task performance will conducted in accordance with the requester's instructions.

5.2.1.4.3 The Contractor shall provide the logistics supply services required to support program reviews and supply working group meetings at vendor facilities, including reviewing of Provisioning Technical Data (PTD) packages. Meeting comments and recommendations shall be provided to the Program Manager, or designated alternate, in writing within five workdays of conclusion of the respective program review/meeting.

5.2.2 System Engineering/Installation Documentation Support
The Contractor shall support PMW 790 as the technical Subject Matter Expert (SME) for all required installation deliverables (shore installation related drawings, test documents, information assurance documents, logistics documents, etc.). The contractor shall provide hardware support (using the established Maintenance & Material Management (3M) schedule and/or modifications) by locating and gathering equipment due for Preventive Maintenance (PM) actions from the warehouse; initiate PM actions IAW the applicable 3M Maintenance Repair Cards (MRCs); analyze the results of maintenance actions; diagnose probable cause of failure; remove and repair authorized faulty parts; perform post repair checkout and attempt to verify compliance with the applicable MRC action; conduct pre-installation test if appropriate; and return completed items to their appropriate warehouse location. Analyses, technical recommendations and execution status shall be provided to the requester by the agreed upon due date.

5.2.2.1 Installation Requirements Drawing Support
The Contractor shall provide support services necessary to update and review Installation Requirements Drawings (IRD) to support the approval process for commencement of installation execution. In accomplishing the update and review, the Contractor shall adhere to the established SPAWAR IRD standards, formats and processes as well as the drawing standards established in SPAWAR INST 4720.5 dated 6 Feb 09 and the Shore Installation Process Handbook.

5.2.2.1.1 The Contractor shall support appropriate IRD audits and evaluations, and assist with the proposal of IRD policy and process improvements. The Contractor shall document all audit results and recommended improvements providing them to SPAWAR FRD Shore Installation Manager for review and acceptance.

5.2.2.1.2 The Contractor shall assist with comprehensive technical analyses of all IRDs submitted to the PMW 790 Technical Director for review and comment and attend all IRD review meetings requested by the Product PMWs. Technical analysis shall be compliant with PEO and SPAWAR document/drawing standards, repository requirements, drawing tools, review and approval processes, as well as System Center's drawing standards as defined in Appendix "Q" of the Shore Installation Handbook. The Contractor shall submit completed analysis within the required timeframe.

5.2.2.2 Installation Design Plans Support and As-Built Drawing Support
The Contractor shall provide the technical support services necessary to update and review Installation Design Plans (IDP) and As-Built drawings to support the approval process for commencement of installation execution. All Contractor submitted updates and reviews shall adhere to the established SPAWAR IRD standards, formats and processes as well as the drawing standards established in the Shore Installation Process Handbook.

5.2.2.2.1 The Contractor shall act as the SPAWAR FRD Shore technical drawing support lead concerning Installation Requirements Drawing (IRD), Installation Design Plan (IDP), As-Built drawings, drawing and drawing retention tools. This support shall consist of contributing to, integrating, implementing, validating and applying consistent new processes for the creations, approval, and preservation of shore drawings that use the new format IRD. Further, the

Contractor shall contribute to the implementation, integration, and applying new processes for the creation, approval, and preservation of the C4I customer site IDP and As-Built drawing packages that are developed, approved, and archived in compliance with the SPAWAR Shore Installation Process. The Contractor shall support audits and compliance reviews of completed shore installation IDPs and As-Built drawings to ensure adherence with existing PEO C4I and SPAWAR (SIPH) directives and policies. The Contractor shall complete and submit assigned work products according to the format and within timeframe prescribed by the requester.

5.2.3 Shore and Expeditionary Integration/ Planning/Requirements Support (OMN)
The Contractor shall provide shore integration planning and requirements support to Shore Platforms for all C4I products.

5.2.3.1 C4I Product Planning and Post Installation Support
The Contractor shall coordinate with PMW 790, SPAWAR FRD Shore, PMWs, Installation activities, OPNAV, CYBERFOR and other commands as necessary concerning enterprise wide C4I product site specific planning and post installation oversight. The Contractor shall provide support at/for both scheduled and unscheduled technical conferences, program reviews and System Readiness Reviews (SRRs) concerning planning, installation and execution of PMW 790 integration efforts and initiatives. The Contractor shall support data calls, and the development, updates and review of program acquisition and installation schedules, action item trackers, briefs, presentations, technical reports, meeting minutes, and trip reports related to these activities, meetings and conferences. The Contractor shall perform the above tasks in accordance with the specific assignments and prescribed formats and timeframes determined by SPAWAR FRD Principal Shore Installation Manager and in accordance with established SPAWAR, PMW 790 and PEO C4I policies and procedures.

5.2.3.1.1 The Contractor shall coordinate with appropriate Advance Planners and conduct analysis of the PEO C4I Master Plan, the PEO Roadmap, Objective Baselines, C4I Builds, Product Manager acquisition product development/maturity plans and CAPS/SPIDER data. The intent of this analysis will be to support the PMW 790 Baseline Manager efforts to develop managed, executable Baseline Plans that identify stand alone installations, products requiring integration testing and validation and confirm installation PMW Start/End Dates and/or the assignment of standalone installations/integrated installations to shore "Windows of Opportunity" or to ship "Availability Periods"

5.2.3.1.2 The Contractor shall be an active participant in the technical configuration control boards for each of the enterprise tools to include:
- SPIDER
- CE Tracker & IMONet IMO Cost Estimating Tools
- SPIDER – Technical document repository
- C4I Advanced Planning Suite (CAPS)
- Electronic Command Information Center (ECIC) – SPAWAR knowledge Portal
- Naval Tool for Interoperability Risk Assessment (NTIRA)
- NAVSEA Data Environment – Navy Modernization (NDE-NM)
- CDMD-OA
- CISN Management & Analysis Training Tool (CMATT)

- Information Assurance Tracking System (IATS)
- Risk Exchange
- CMPRO

The Contractor shall submit and track SPIDER Change Requests (SCR), assist in capturing process requirements and data attributes for the technical teams and communicate this to the configuration control board. The Contractor shall also assist in documentation, user testing and user training in support of the enterprise tools implementation.

5.2.3.1.3 The Contractor shall provide guidance on the use of Shore Installation Process Handbook. The Contractor shall provide guidance and support to the Principal Shore Installation Manager to resolve reported issues on the application of Shore Installation Process Handbook. The Contractor shall document all reported issues, research and provide recommendations to assist the Principal Shore Installation Manager as directed ensuring that reported issues are resolved in a timely manner.

5.2.3.1.4 The Contractor shall coordinate FRCB installation administration, operation, processing and policies with PMW 790, SPAWAR FRD Shore, SPAWAR Codes 4.0 and 5.0, PMWs, Installation Activities, Commander Navy Cyber Forces Command (CYBERFOR) and other commands as necessary. The Contractor shall coordinate all support through the SPAWAR FRD Shore TPOC for approval, and summarize the month's activities in the monthly report (CDRL A001).

5.2.3.1.5 The Contractor shall provide expert guidance on FRCB process to SSCs and Product PMWs. The Contractor shall assist with preparation and modification of SPAWAR FRD FRCB Standard Operating Procedures (SOPs) and Tutorials in the format designated by the FRCB Representative or other government authority. The Contractor shall publish and distribute approved SOPs and Tutorials as directed.

5.2.3.1.6 The Contractor shall maintain FRCB status for all Naval Shore installation tasks in SPIDER.

5.2.3.1.7   As a related concern, the Contractor will assist the Principal Shore Installation Manager in developing and preparing documentation needed to support training and presentations pertaining to shore installations.

5.2.3.1.8 The Contractor shall provide guidance on the application of sound project management processes to installations to include: creating a Work Breakdown Structure (WBS); performing a Critical Path Analysis; developing a risk management plan to identify, characterize and manage risk; developing and implementing Shore Installation Process Handbook compliant Earned Value Management System (EVMS) protocols; developing Integration Plans and Integrated Master Schedules; controlling requirements growth; and developing and maintaining configuration controls.

5.2.3.2 Fielding Plan Support
The Contractor shall coordinate all PMW 790 Technical Support Activities including fielding recommendations for PEO C4I and C4I products of other organizations.

5.2.3.2.1 The Contractor shall assist and provide oversight for the implementation of fielding plans for installations and sites for which SPAWAR FRD has cognizance. The Contractor shall work with and coordinate with the internal SPAWAR FRD/PMW 790/PEO C4I groups and externally with other PMWs, PEOs, SPAWAR FRD, OPNAV, CYBERFOR, SPAWAR SSCs and other commands as necessary. The Contractor shall perform the above tasks in accordance with the specific assignments and prescribed formats and timeframes determined by SPAWAR FRD Principal Shore Installation Manager and in accordance with established SPAWAR, PMW 790 and PEO C4I policies and procedures.

5.2.3.2.2 The Contractor shall analyze and provide recommendations, analyses, and other inputs as required concerning application of the existing process that bridges Advance Planning to Installation Planning to Execution where the Shore Installation Products are driven from the C4I Advanced Planning Suite (CAPS) to implementation by PMW 790 and the Fleet. These analyses and recommendations shall include further/ proposed/ recommended development(s) to the existing process and any proposed/recommended new processes. These analyses will also include identification, development and implementation of a stronger link(s) between SPIDER/CAPS, NTIRA, NDE and the CDMD-OA installation planning tools/data repositories. As directed by PMW 790, the Contractor shall assist in the modification, development, implementation and application of required bridging processes and links. The Contractor shall perform the above tasks in accordance with the specific assignments and prescribed formats and timeframes determined by PMW 790 and in accordance with established PMW 790 and PEO C4I policies and procedures.

5.2.3.3 Shore Modernization MILCON/Project Liaison Support
5.2.3.3.1 The Contractor shall provide liaison support to project managers for all MILCON/other installation related projects managed by PMW 790 and/or SPAWAR FRD Shore (including the MOCs Consolidations, Aegis Ashore, and P-011, etc.). The Contractor shall support/provide data calls, updates and reviews of program acquisition and installation schedules, action item trackers, and technical reports. The Contractor shall perform the above tasks in accordance with the specific assignments and prescribed formats and timeframes determined by SPAWAR FRD Shore and/or PMW 790 in accordance with established SPAWAR and PEO C4I policies and procedures.

5.2.3.3.2 The Contractor shall track progress of MILCON project schedules/activities and perform analytical activities including cost benefit analysis, critical path network (as in PERT) analysis, and/or earned value management (EVM) analysis. The Contractor shall ensure analysis data is supportable and defendable by applying sound analytical discipline and rationale and shall be submitted within the timeframe and format prescribed by the customer requirements or as modified per unique SPAWAR FRD Shore and/or PMW 790 requirements.

5.2.3.4 Gate-Keeper Configuration Management Support
The Contractor shall support the newly implemented Gate-Keeper functions at sites to ensure documented Configuration Management (CM). The Contractor shall interact with CM branch of PMW 790 to insure integrity of data bases. This support is fully engaged in including Shore Crypto Modernization and Consolidation Planning with PMW 790, the PMW 790 Shore Modernization Implementation and Planning Team (IPT), the Regional Network Operations and Security Center (RNOSC) IPT, MOC PEO C4I Product and Platform IPTs, associated Joint IPTs

and OPNAV/Fleet working groups and the Shore Architecture Analysis Team. The Contractor shall support/provide data calls, action item trackers, briefs, presentations, technical reports, meeting minutes, and trip reports related to scheduled and unscheduled CM and IPT related activities, meetings and conferences. The Contractor shall perform the above tasks in accordance with the specific assignments and prescribed formats and timeframes determined by SPAWAR FRD and/or PMW 790 and in accordance with established SPAWAR policies and procedures.

5.3 Aegis Ashore Assured C4I (A3C4I) System Engineering Management and Integration Support in the Research and Development Phase of the A3C4I Effort (OCF, R&D)
The Contractor shall provide system engineering management support and technical support to the A3C4I management and integration effort in the research and development phase of the A3C4I effort. The Contractor services required are as follows and shall be provided in accordance with Best Practices.

5.3.1 The Contractor shall create technical documentation, including program briefings and issue papers to support the requester's position on PMW790 products. The Contractors shall ensure all documentation is accurate, free of errors and submitted to the requester in sufficient time to allow for review and update as needed.

5.3.2 The Contractor shall analyze program documents and data to create documents, briefs, informal and formal program reviews and white papers to support PEO C4I program goals and objectives. The Contractor shall create and submit the documents as assigned by the requester.

5.3.3 The Contractor shall coordinate and participate in inter- and intra-agency Integrated Product Team (IPT) meetings, audits, conferences, working groups, program reviews, and other meetings as required. The Contractor shall prepare and obtain requester's approval for materials and briefs/documents to be used when assigned as an active participant or in a supporting role. The Contractor shall take minutes and notes when attending as an observer and submit a meeting summary to the requester within two business days of the meeting.

5.3.4 The Contractor shall provide engineering, technical, and integration analyses necessary for obtaining A3C4I and PEO C4I implementation objectives as the A3C4I required shore sites. The Contractor shall submit the supporting analyses and documentation to the program authority in accordance with the requested submission schedule.

5.3.5 The Contractor shall provide engineering support to the requester on PEO C4I systems installed or planned for installation. The Contractor shall assist the requester as assigned with program documentation and analyses for planning, implementation, and inter-command coordination of shore and expeditionary systems at the A3C4I shore sites. The Contractor shall create the required documentation in accordance with the appropriate installation directives and manuals in Section 4.0.

5.3.6 The Contractor shall provide development and evaluation of project technical design data, system drawings, test reports, requirement traceability matrices, reports, and analyses to ensure technical requirements are met. Evaluation reports shall be submitted in writing, identifying requirement shortfalls if any, and include suggested remedies within the requested timeframe.

5.3.7 The Contractor shall provide installation management and test support as required to integrate, install, test, package, and ship A3C4I systems or components. Progress reports on all installation and test activity shall be delivered on a weekly basis. Monthly status reports (CDRL A001) will be submitted reflecting all completed, in-progress, and planned installations.

5.3.8 The Contractor shall provide transportation coordination support for all A3C4I system transportation evolutions including transportation plan development, transportation option analysis, transportation cost estimating, and coordination of packing and shipping activity.

6.0 DELIVERABLES

Program specific deliverables are described and identified in Section 5.0 sub paragraphs. Non-program specific deliverables are listed below. The Contractor shall provide the following deliverables within the timeframe specified:

Products/Deliverables	Due Date
Monthly Status Reports (MSR) – CDRL A001 identify all work accomplished, planned, issues/resolution options and financial status for each 5.0 Performance Requirement sub task. The report shall include: Planned amount, Funded amount, Expended amount to date and planned Burn Rate to task completion and any cost savings per sub-paragraphs under 5.1, 5.2, and 5.3 (paragraph level by Appropriation and by Program/Project). The Contractor shall provide an Employee Master Report which identifies all prime and sub Contractor employees' charging to the PWS, Labor category, PWS sub-paragraphs (under 5.1, 5.2, and 5.3) supported and percentage of time charged, Common Access Card (CAC) status, and if applicable, a GFE/GFI Inventory Listing. The Contractor shall conduct a meeting with the Government Clients to review the Monthly Status Report as requested by the COR.	15th of each month

7.0 SECURITY

The work performed by the Contractor will include access to Secret data, information, and spaces. The Contractor will be required to attend meetings classified at Secret level. Additional information can be found in the Contract Security Classification Specification (DD 254).

If foreign travel is required, all outgoing Country/Theater clearance message requests shall be submitted to the SSC SD foreign travel team, OTC2, Rm 1656 for action. A Request for Foreign Travel form shall be submitted for each traveler, in advance of the travel to initiate the release of a clearance message at least thirty-five (35) calendar days in advance of departure. Each Traveler must also submit a Personal Protection Plan and have a Level 1 Anti-Terrorism/Force Protection briefing within one year of departure and a country specific briefing within ninety (90) calendar days of departure.

Operations Security Requirements:
All work is to be performed in accordance with DoD and Navy Operations Security (OPSEC) requirements and in accordance with the OPSEC attachment to the DD 254.

7.1 INFORMATION ASSURANCE AND PERSONNEL SECURITY REQUIREMENTS FOR ACCESSING NAVY ENTERPRISE RESOURCE PLANNING (ERP) MANAGEMENT SYSTEM (JAN 2009)

7.1.1 Contractor personnel assigned to perform work under this contract may require access to Navy Enterprise Resource Planning (Navy ERP) System. Prior to accessing any Navy ERP System, Contractor personnel shall contact the applicable Navy, Marine Corps Internet (NMCI), Assistant Customer Technical Representative (ACTR) and obtain an NMCI account. ACTRs can be found on the NMCI Homeport website at:
https://nmcicustomerreporting/CTR_Lookup/index.asp. Once an NMCI account has been established, the Contractor shall submit a request for Navy ERP access and the role required via the Contracting Officers Representative (COR) to the Competency Role Mapping POC. The COR will validate the need for access, ensure all prerequisites are completed, and with the assistance of the Competency Role Mapping POC, identify the Computer Based Training requirements needed to perform the role assigned. Items to have been completed prior to requesting a role for Navy ERP include: Systems Authorization Access Request (SAAR-N), DD Form 2875, Oct 2007, Annual Information Assurance (IA) training certificate and SF85P.

7.1.2 For this procedure, reference to the COR shall mean the PCO for contracts that do not have a designated COR. For directions on completing the SF85P, the Contractor is instructed to consult with their company's Security Manager. In order to maintain access to required systems, the Contractor shall ensure completion of annual IA training, monitor expiration of requisite background investigations, and initiate re-investigations as required.

7.1.3 For DoD Information Assurance Awareness training, please use this site:
http://iase.disa.mil/index2.html

DIRECTIONS at WEBSITE: On the right side under "IA Training:" select "IA Training Available Online". On the next page select the frame with "DoD Information Assurance Awareness". When the next page comes up, select "Launch DoD Information Assurance Awareness.

8.0 GOVERNMENT FURNISHED PROPERTY
The Government will provide access to PMW 790 information, databases, metrics and files as required for proper task performance. The Government will provide desk space and NMCI desktop computer(s) for the on-site Contractor support personnel.

9.0 NAVY MARINE CORPS INTRANET (NMCI)
The government does not authorize the Contractor to procure any seats as part of this Task Order.

10.0 CONTRACTOR PERFORMANCE ASSESSMENT REPORTING SYSTEM (CPARS)
Performance evaluation will be documented in the CPARS for this task order.

11.0 CONTRACTOR EMPLOYEE IDENTIFICATION

For all services provided by the Contractor under this PWS and associated Task Order, the Contractor's employees shall identify themselves as Contractor personnel by introducing themselves or being introduced as Contractor personnel and displaying distinguishing badges or other visible identification for meetings with Government personnel. Additionally, the Contractor's personnel shall appropriately identify themselves as Contractor employees in telephone conversations and in formal and informal written correspondence.

12.0 CONTRACTING OFFICERS REPRESENTATIVE (COR)
Primary: Mr. Milton Martinez, phone: (619)524-7290 and e-mail: milton.martinez@navy.mil
Secondary: TBD

13.0 TRAVEL
It is estimated that on average the contractor may be required to travel 4-8 trips per year for the completion of the deliverables for this Contract/Delivery Order. The estimated duration of the trips is four days each, to be supported by one traveler for each trip. The location of these trips is to be determined, but is estimated to consist mainly of trips to Norfolk, VA; Charleston, SC; Oahu, HI and other locations in the Far East, Europe, and the USCINCCENT AOR. Contractor is required to utilize the electronic Travel Request form (provided sepcor) for all required travel in support of this PWS. The request for all routine travel will be made by soft copy correspondence. All travel requests must be received by the COR NLT five working days in advance of travel date for final approval. Emergent Travel Requests identified with-in 3 days of actual travel date must be approved by the COR verbally with Contractor providing the follow-up electronic Travel Request with-in 5 working days. The Travel Request shall include the following:
- Travelers Name
- Name of specific Government Sponsor requesting the travel
- Program/Project Name travel is required for
- Applicable PWS Para #
- Reason for travel
- Duration of travel
- Dates of travel
- Travel cost estimate
- Total travel spent to date
- Balance of authorized travel funding

APPENDIX A
PMW 790
Document Quality Definitions and Examples

1. Content - Refers to the accuracy and completeness of facts or text/diagrams within the document. A content error would likely be incorrect or outdated information. Also, omission of information is a content issue. Finally, in some documents that should be concise, too much detail or wordiness can be considered a content error, as well.
Example: The document states System X will be installed on Ship Y, when actually it will be installed on Ship Z.
Example: The program achieved MS B in Aug 08, though it actually occurred in Dec 08.
Example: An outdated/incorrect chart or picture.
Example: Prominently citing the written requirements/source document is key to an AAP or PDD request, so any omission or attempt to gloss over that information will be noticed.

2. Format - Refers to how well the document's structure correlates to the most current template or a recent, approved example of the same type of document. The document in review should be sequenced, spaced, and organized in alignment with the guidance/sample. Format/structure resources include: the Department of the Navy Correspondence Manual (SNI 5216.5D), the DPEO for Acquisition Management/Documents site within NSERC, and the NSERC PMW 120 Templates Library.
Example: A Project Definition Document (PDD) draft that simply updates the prior 2004 PDD, the format of which is very different from the PEO C4I guidance for Projects of 6 Mar 07.
Example: A request for a meeting with PEO should follow the appropriate format and protocol through PMW 120 Admin staff, vice an e-mail request to the PEO Front Office.

3. Consistency - Information within the document should be presented in the same manner and should be synchronized with like information elsewhere in the document.
Example: The budget/funding charts across the document don't match the numbers mentioned in document text or elsewhere in the document.
Example: Calling a diagram Figure 1-1 in the text versus Figure 1.1 in the diagram title.
Example: Referring to a program/project/system by different names throughout the document (e.g., system nomenclature vice more common system name).

4. Grammar/spelling/punctuation - Correct grammar, spelling, and punctuation are key to a document's readability. Though some grammar/spelling/ punctuation errors are to be expected in most draft documents, these mistakes can severely detract from the intent and content of a document.

➢ Grammar issues include:
  • Subject and verb agreement
  • Pronouns
  • That vs. which; who vs. whom
  • Use of prepositions

➢ Spelling issues include:

- Misspellings
- Misuse of vocabulary (e.g.,"there" vs. "they're" vs. "their")

➢ Punctuation issues include:
- Spacing
- Commas
- Apostrophes
- Quotes
- Bulleted list (semi-colons or not)

Other:
Acronyms: Spell out the acronym in the document the first time that acronym is used, but ONLY if it will be used again in the document.
Consistency: for example, if you use semi-colons to separate items in a bulleted list, do so for other bulleted lists throughout the document. Also, generally use the same font and type size throughout the body of the document.

Grammar example: Rewrite a confusing phrase to clarify the meaning, such as by changing passive voice to active voice and add missing articles (a, an, the).
Punctuation example: Rearrange sentences to improve readability. For example, the phrase "hermetic two stage gear drive compressor," is made more readable by adding a bit of punctuation, like this: "hermetic, two-stage, gear-drive compressor."