

NETWORK ENGINEERING SERVICES AND TECHNICAL SUPPORT FOR THE COMMUNICATIONS NETWORK FLEET ENGINEERING SYSTEMS DIVISION

STATEMENT OF WORK

1.0 SCOPE

This Statement of Work establishes the highly specialized software support the D63, Communications Network Fleet Engineering Systems Division, requires to execute tasks. D63 is responsible to several sponsors; currently PMW 151, PMW 157, and PMW 165 to perform a complete, integrated, installation of various classified and unclassified software installations and upgrades of networked systems.

This contract will provide the resources to support the software installation, upgrade and integration of IT-21 Local Area Networks (LAN), Joint Maritime Command Information System (JMCIS), Global Command and Control System-Maritime (GCCS-M), Naval Tactical Command Support System (NTCSS), Automated Digital Network System (ADNS), Contingency Theatre Automated Planning System (CTAPS), Theatre Battle Management Core System (TBMCS), Radiant Mercury, and related follow-on systems. Work will primarily be performed to support ships and shore stations of the United States Navy, United States Coast Guard and Military Sealift Command.

2.0 APPLICABLE DOCUMENTS

2.01 Order of Precedence. In the event of a conflict between the text of this statement of work (SOW) and the references cited herein, the text of this document shall take precedence. Nothing in this document however, shall supersede applicable laws and regulations, unless a specific exemption is obtained.

2.02 Specifications and standards. The documents listed below are part of this statement of work and their applicability will be as specified in individual task/delivery orders. Nothing in these documents supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1 Optional Military Specifications

MIL-D-23140D - Drawings, Installation Control, for Shipboard Electronic Equipment

MIL-DTL-31000A – Technical Data Packages

2.2 Optional Military Standards

MIL-STD-202F - Test Method Standard Electronic and Electrical Component Parts

MIL-STD-461E - Control of Electromagnetic Interference Emissions and Susceptibility

MIL-STD-462D - Test Methods for Measurement of Electromagnetic Interference

MIL-STD-882D - System Safety Standards

MIL-STD-1310G - Shipboard Bonding, Grounding, and other Techniques for Electromagnetic Compatibility and Safety

MIL-STD 1399C - Interface Standards for Shipboard Systems

MIL-STD 2039 - Preparation of Field Changes and Field Change Kits

MIL-STD-2110 - Restoration, Overhaul and Repair of Electronic Equipment

2.3 Other Documents and Publications

AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)

ASME Y14.100M Engineering Drawing Practices

NAVAL SEA SYSTEM COMMAND

NAVSEA 4720.11C - Shipboard Installations and Modifications performed by Alteration Installation Teams

NAVSEA Technical Specification 9090-100 (series) - SHIPALT Technical Liaison Services, Waivers, and Deviations

NAVSEA Technical Specification 9090-310B (series) - Ship Alteration Accomplishment by Alteration Installation Teams

NAVSEA 9090-310C - Instructions for Shipboard Installations ISO 9000 Series

NAVSEA Technical Specification 9090-600 (series) - Ship Alteration (SHIPALT) Installation Drawing (SID) Preparation

NAVSEA SL720-AA_MAN-010 - Fleet Modernization Program Management and Operations Manual Volumes 1 and 2

NAVSEA STD-407-5287561 - Industrial Electromagnetic Compatibility (IEMC) Work Process Instructions

NAVSEA 0967-000-0110 - Electronics Installation and Maintenance Book, Installation Standards

3.0 TECHNICAL REQUIREMENTS

The contractor shall perform the following task in accordance with each individual task/delivery order.

3.1 Pre-Integration Support

3.1.1 The contractor shall attend Pre-Planning Conferences and prepare planning documents such as Work Breakdown Structures (WBS) and Plan of Action and Milestones (POA&M) for executing software installations/upgrades from initiation through completion. Integration planning documents shall address all elements of a software installation/upgrade task and shall be of sufficient detail to allow accurate progress monitoring.

3.1.2 The contractor shall prepare in-brief package and conduct in-brief to ship's forces. The in-brief package should contain as a minimum, D63 Point of Contacts, Software Integration Overview, Required Shipboard Support, ILS Support and Drawing Packages that will be provided.

3.1.3 The contractor shall review Justification Cost Forms (JCF), Shipboard Activity Reports (SARs), Shipboard Configuration Change Proposal (SCCP), Shipboard Configuration Change Proposal (SCCP), and ILS Documents.

3.1.4 The contractor shall develop software system test plans including at a minimum, Software Pre-Installation Test and Checkout (PITCO) and Software System Operational Verification Testing (SOVT) procedures.

3.1.5 The contractor shall perform ship checks to determine current status of all software elements affecting a proposed software installation/integration/upgrade. The contractor shall prepare a survey report, which highlights possible risk areas and makes recommendations to minimize or mitigate risks.

3.1.6 The contractor shall develop software installation related drawings.

3.1.7 The contractor shall review existing SHIPALT Installation Drawings (SIDs), make design corrections when required and generate appropriate Liaison Action Record (LAR).

3.1.8 The contractor shall assemble and produce any hardware integration kits for the software installation/integration and/or upgrade.

3.1.9 The contractor shall conduct pre-integration software operational test and inspection of equipments/systems to be integrated, identify and correct discrepancies.

3.1.10 The contractor shall manufacture and install all cable tags and equipment nameplates required to identify software changes.

3.1.11 The contractor shall operate, maintain, and upgrade the test beds and PITCO facilities used for software pre-loading.

3.2 Software Integration Support

Software Integration Support consists of those efforts required for the successful completion of shipboard software installation integration by Alteration Installation Teams (AIT). As part of software integration support, the contractor shall explain equipment/system operational and maintenance procedures to on-site personnel. The following is a list of typical integration support tasks:

3.2.1 The contractor shall conduct software pre-installation test and checkout (**PITCO**) of equipment/system to be upgraded. The contractor shall perform systems integration, validation testing, repair, modifying, and checkout prior to fleet integration. The contractor shall identify, correct and document; equipment and or software discrepancies.

3.2.2 The contractor shall perform software loads and configure system for baseline operation.

3.2.3 The contractor shall perform system level adjustments, alignments, and calibrations required for all software changes. The contractor shall perform system level end-to-end test and ensure system operates in accordance with system specifications.

3.2.4 The contractor shall conduct On-the-Job (OJT) informal system level operational, troubleshooting or maintenance level training for shipboard personnel.

3.2.5 The contractor shall perform Software System Operational Verification Test (SOVT) of installed equipment/system in accordance with technical manuals or written test procedures. The contractor shall perform comprehensive diagnostic software test and repair, when required, to correct all equipment/system deficiencies. The contractor shall also verify software/system integration is in accordance with applicable integration standards and drawings and fully meets TEMPEST requirements.

3.2.6 The contractor shall work with ship's personnel in completing the System Security Plan (SSP).

3.3 Post Integration Software Support

3.3.1 The contractor shall prepare Out Brief Document and conduct out brief.

3.3.2 The contractor shall generate final As-builts drawings.

3.3.3 The contractor shall perform System Groom, fine tuning system performance.

3.3.4 The contractor shall finalize AIT Completion Report (ACR) Package. The ACR Package shall include at a minimum, Completion Report Signature Page, General report, ILS Support information, Physical Configuration Audit Information, Training Verification report, SOVT Information, and OPNAV 4790/CK Information.

3.3.5 The contractor shall update all applicable ILS/3M/SCLISIS documentation. The contractor shall complete Configuration Change Reports (4790CK forms) for removed and installed equipment and update Ship's Selected Records (SSR).

3.4 Technical Reports and Reviews

The contractor shall prepare technical reports and reviews covering all work accomplished and information gleaned in the performance of work defined herein. These reports shall include pertinent scientific/technical observations, significant results, description of the experimental methods used, nature of any problems encountered, and recommendations for the future.

3.5 Technical Interchange Meetings (TIM)

The contractor shall conduct, technical meetings to facilitate the exchange of technical information and enhance effective communication among all interested parties.

3.6 Program Management Reviews (PMR)

The contractor shall present program management reviews to designated government representatives to include a summary of technical achievements, schedule status, and cost performance. These reviews shall emphasize progress and problems since the last meeting, plans for the future and establish the date and place for the next meeting.

3.7 Program Performance Reviews

The contractor shall conduct oral and visual presentations to invited government and industry representatives on program performance.