

1.0 BACKGROUND

The Southwest Regional Maintenance Center (SWRMC) has primary mission responsibility to provide direct support to fleet units and Type Commanders in matters of waterfront repair assessment, techniques, and training associated with the operation, installation, maintenance, repair and readiness of shipboard equipment and systems. Using Information Technology (IT) and leveraging specialized experiences of the command's personnel and contracting resources, SWRMC has implemented various programs to increase the reliability and maintainability of shipboard Combat Systems (CS) and Hull, Mechanical, Electrical and Electronics (HM&E). This process encompasses dedicated field technical support, enhanced availability planning, emergent systematic technical and repair assistance, automated maintenance techniques, documentation and procedures in accordance with defined Navy maintenance philosophies and systematic program management oversight.

Recent Department of the Navy manpower realignment initiatives have and will continue to significantly reduce the military personnel manning assigned to SWRMC. Expected Department of the Navy homeport transfers and force realignments will result in an increase in the number of fleet assets homeported in SWRMC's area of primary responsibility in the next few years. Despite SWRMC's efficient use of manpower reduction initiatives and programs such as Lean Enterprise Process Improvement, and its internal re-alignment into Product Families, this increase in homeported and visiting fleet assets combined with reduced military manpower levels will necessitate further augmentation of the assigned government civil service work force with contractor support personnel to support fleet assets in SWRMC's area of primary responsibility.

1.1 SCOPE OF WORK

The SWRMC Hull, Mechanical, Electrical and Electronics (HM&E) Fleet Technical Assistance Technical Support Services Contract requires the selected Offeror (Contractor) to provide engineering, technical, training, installation, repair and program support services. The Contractor shall provide qualified personnel, tooling, equipment and necessary facilities to perform troubleshooting and failure mode analysis, engineering, field engineering, technical support, fleet support, industrial support and installation services to support SWRMC's Production Department, Engineering Department and Waterfront Operations Department programs. The Contractor will be required to have support facilities within the Continental United States (CONUS). The tasks described herein are intended as typical tasks only, and do not specify or limit the actual tasks which may be issued. The Contractor will provide forces afloat and authorized government agencies with the following general support:

- 1.1.1. The assessment and maintenance of shipboard systems and equipment.
- 1.1.2. Training in maintenance and overhaul processes as well as the identification, compilation and production of measures of effectiveness (MOEs).
- 1.1.3. Data analysis.
- 1.1.4. Engineering, reverse engineering, maintenance, troubleshooting, and repair of shipboard equipment.
- 1.1.5. Provide program support for various programs such as Technical Assessment, Repair Guidance and Engineering Teams (e.g., TSRA), Combat System Command, Control,

Communications and Computer Readiness Assessments (C5RA), Shipboard Habitability Assessment Support Programs, SMART Ship Program, Board of Inspection and Survey (INSURV), Power Assessment Repair and Training (PSART), Diesel Inspections, Marine Gas Turbine Inspections, and other engineering assessment programs. The Contractor shall provide the support for both current and future SWRMC programs as may be directed in individual Technical Direction Letters (TDLs).

1.1.6. Provide support for system or equipment grooms, on the job training, formal classroom training, on board maintenance training, feedback for training modules or curricula, and provide functional system or equipment modifications, alterations, and overhauls.

To meet SWRMC emergent requirements the Contractor must be able to meet a two-hour response time. Accomplishment of the tasks described herein which include information systems shall be in accordance with the latest Integrated Technology 21 (IT-21) standards. Some tasks may include development of internet/intranet web sites; development of these web sites will be in accordance with established Navy Policies and Security guidelines.

1.2 PERIOD OF PERFORMANCE/PLACE OF PERFORMANCE

1.2.1. The period of performance shall be for a period of twelve months commencing with the date of award, with four additional option periods of twelve months duration each.

1.2.2. The place of performance shall be identified in individual TDLs, but the majority of the effort associated with this contract shall be performed at U.S. Government and the Contractor's facilities in the San Diego/Southern California area. It is anticipated that infrequent travel to locations outside the San Diego area may also be required, and will be directed in individual TDLs. Examples of such locations outside the San Diego/Southern California area include, but are not limited to, Port Hueneme, CA, Pearl Harbor, HI, Seattle, Bremerton and Everett, WA, Charleston, SC, Norfolk, VA, Philadelphia, PA, Washington, D.C., Yokosuka and Sasebo, Japan, Singapore, the Arabian/Persian Gulf Area of Operations (including Bahrain, Jebel Ali and Dubai), Korea, Guam, and at sea on various U. S. Navy, U. S. Coast Guard, Military Sealift Command (MSC) and Foreign Military Sales (FMS) ships, vessels and craft.

1.2.3. The Contractor may also be directed to perform tasks at other government/commercial activities as designated in individual TDLs.

1.3 GOVERNMENT FURNISHED EQUIPMENT/MATERIALS/FACILITIES

Government Furnished Equipment, Materials or Facilities shall be identified in individual TDLs.

1.4 SECURITY

1.4.1. The work to be performed under this task order may involve access to, handling of, and generation of classified material. The Contractor shall appoint a Security Officer who shall (1) be responsible for all security aspects of the work performed under this task order, (2) assure compliance with all DOD and U.S. Navy specific regulations regarding security, and (3) assure compliance with any written instructions from the Security Officers of the activity issuing a TDL under this task order. Specific security requirements applicable to the work to be performed under each TDL will be identified in the TDL. When applicable, a DD FORM 254 will be prepared by the ordering activity and issued with the TDL. If the work being performed under

the TDL would require access to Government Information Technology Systems, then an applicable clause will be included in the TDL.

1.4.2. The Contractor shall submit visit requests and clearance information, as applicable, to the SWRMC Security Office. Pier lay-down areas, if required, shall be requested from the Naval Base San Diego Port Operations Department prior to the start of work.

2.0 APPLICABLE DOCUMENTS

This Statement of Work (SOW) or TDL may specify the applicability of various military and industrial specifications, standards, and handbooks. Unless otherwise specified, the revision level and date for each specification cited within this solicitation or TDL shall be the specific version listed in the Department of Defense Index of Specifications and Standards (DODISS) current on the date of task order award. When required for the performance of ordered tasks, the Contractor shall obtain the required documents from the technical originator of the individual TDL as Government Furnished Information. As a minimum, the following documents apply:

- 2.1. OPNAVINST 4790.4 (series)
- 2.2. Ships' Maintenance and Material Management Manual
- 2.3. MIL-STD-2052 Systems Design Standard
- 2.4. NAVSEA S9AAO-AN-SPN-010, General Specifications for Ships of the U.S. Navy
- 2.5. NAVSEA S9AAO-AB-GOS-010, General Specifications for Overhaul
- 2.6. MIL-STD-001379, Contract Training Programs
- 2.7. DOD-STD-480A, Configuration Control and Engineering Changes
- 2.8. MIL-STD-481A, Configuration Control and Engineering Changes
- 2.9. NAVSEA S9086-AA-STM-010/CH-001, Naval Ships Technical Manuals
- 2.10. Institute of Electrical and Electronics Engineers Standards
- 2.11. CINCPACTFLTINST 4700.10, Fleet Technical Support Policies
- 2.12. COMNAVAIRPACTINST 4700.1, Ship Material Manual
- 2.13. NAVSEA S9081-AB-GIB-010/MAINT, Reliability Centered Maintenance Handbook
- 2.14. OPNAVINST 4700.7J, Maintenance Policy for Naval Ships
- 2.15. COMFLTFORCOMINST 4790.3, Joint Fleet Maintenance Manual
- 2.16. NAVSEA S9086-HY-STM-003/CH 254, Condensers

- 2.17. OPNAVINST 9233.1A, U.S. Navy Diesel Inspection and Inspector Training and Certification Program
- 2.18. OPNAVINST 9234.1A, Marine Gas Turbine Inspector (MGTI) Program
- 2.19. CINCPACFLTINST 4341.1H, Fleet Technical Assistance (FTA) Program
- 2.20. NAVSEA SS521-AA-MAN-010, U.S. Navy Diving and Manned Hyperbaric Systems Safety Certification Manual
- 2.21. NAVSEA 0994-LP-001-9010, U.S. Navy Diving Manual
- 2.22. MIL-STD-1330D, Standard Practice for Precision Cleaning and Testing of Shipboard Oxygen, Helium, Helium-Oxygen, Nitrogen and Hydrogen Systems

3.0 SYNOPSIS OF REQUIREMENTS

The specific tasks to be accomplished under this task order will be specified in the individual TDL. The Contractor shall perform tasks assigned within the parameters of these specific TDLs as outlined therein. Support may involve work on or support of work on non-nuclear equipment, surface ship systems, submarine systems, aircraft carrier systems, small boat/vessel and associated towing equipment systems, and any other equipment and systems which are related to, similar to, or interface with the primary equipment and systems when such work is an integral part of the listed systems.

3.1. Maintenance and Repair Support. The Contractor shall be required to provide assessment, maintenance and repair support as outlined in the following typical tasks, which are representative but not all-inclusive of the support required in this area:

- 3.1.1. Identify causes for equipment/system failure to the component level.
- 3.1.2. Provide forces afloat, both in support of Battle Group Initiatives and individual ships and submarines, and/or other Government agencies with the repair, renovation, and restoration of the effected equipment/system as defined by TDLs.
- 3.1.3. Provide on the job training to forces afloat and other government personnel relative to the operation, maintenance, grooming, overhaul, and repair of specific systems or equipment.
- 3.1.4. Develop and maintain listings of material deficiencies accordance with OPNAVINST 4790.4 (series), including the automated completion and interface with ships' CSMP.
- 3.1.5. Prepare and develop maintenance action reporting documentation (including automated interfacing), OPNAV FORM 4790 2K, preliminary statements of work, Formal Work Packages (FWPs) and Controlled Work Packages (CWPs) required to restore systems and/or equipment to optimal operation at the "O" organizational level in support of SWRMC work items.
- 3.1.6. Provide proposed work schedules, progress updates, material delivery schedules, briefing outlines, and in-brief/out-brief narratives for all SWRMC work items in progress.

3.1.7. Provide forces afloat and/or involved Navy technical activities, including regional repair activities, with testing and grooming of systems and equipment.

3.1.8. Establish a baseline of current material condition after each scheduled major availability using maintenance and diagnostic data, operational condition assessments, and other information.

3.1.9. Provide and maintain historical archives of engineering evaluations and recommended changes for improvements of systems and equipment.

3.1.10. Oversee depot and repair facilities to accomplish installations, modifications, overhaul, repair and training for equipment and systems.

3.1.11. Troubleshoot equipment malfunctions and failures, and restore operation by replacement, or repair, as appropriate.

3.1.12. Study operational procedures or maintenance problems and recommend solutions including changes to operational and maintenance documentation.

3.2. Program Support. The Contractor shall be required to provide program support of the following typical programs and functional checks, which are representative but not all-inclusive of the support required in this area (support will include any and all existing or new programs that affect shipboard maintenance for which SWRMC is cognizant):

3.2.1. Technical Assessments (TSRA).

3.2.2. Combat System Readiness Reviews (C5RA).

3.2.3. Shipboard Habitability Assessment & Repair Program.

3.2.4. Underway Material Inspections (UMI) and Final Contract Trials (FCT).

3.2.5. Diesel Engine Inspection (DEI) (Requires U.S. Navy Certified Inspectors).

3.2.6. Marine Gas Turbine Inspection (MGTI) (Requires U.S. Navy Certified Inspectors).

3.2.7. SMART Ship Technology, including, but not limited to, Damage Control System (DCQ), Machinery Control System (MCS), Integrated Condition Assessment System (ICAS, SMART Ship, and ICAN), and Integrated Bridge System (IBS).

3.2.8. Attend various meetings and conferences as defined by TDLs. The contractor shall attend conferences, provide input to various forums to take place, take note of class problems and maintenance concerns involving Pacific Fleet assets, gather all new information put out to the technical community during the conference and provide a detailed trip report. When tasked, host and scribe the conference, provide minutes and agenda items.

3.2.9. Develop and maintain various databases in support of these programs.

3.2.10. Develop and maintain specialized (e.g., pen-based) computer programs as specified in each TDL.

3.2.11. Troubleshoot and repair of SWRMC owned software and hardware, including FAST and any follow-on or successor programs.

3.2.12. Provide functional checks to include the identification and documentation of system/equipment problems and correct/repair failures, as well as identification and documentation of support deficiencies and recommend corrective action.

3.2.13. Develop and provide on the job training for functional checks for forces afloat maintenance personnel. Tasks may occasionally include the development of test specifications.

3.3. Installation Support. The Contractor shall be required to provide installation support for the SWRMC role in Alteration Installation Teams (AIT), Ship Alterations (SHIPALTs) and Machinery Alterations (MACHALTs) as outlined in the following typical tasks, which are representative but not all-inclusive of the support required in this area:

3.3.1. Provide assets for installation.

3.3.2. Provide oversight of installation functions.

3.3.3. Perform initial and final checkouts of equipment.

3.3.4. Complete operational tests of all installations upon completion.

3.3.5. Provide shop facilities to prefabricate parts and components.

3.3.6. Adapt and modify documentation as defined by TDLs.

3.3.7. Ensure data provided is correct.

3.3.8. Develop schedules, installation plans, plans of action and milestones (POA&M), databases, and status reports as required.

3.4. On-Board Maintenance Training Support. The Contractor shall be required to provide on-board maintenance training support as outlined in the following typical tasks, which are representative but not all-inclusive of the support required in this area:

3.4.1. Plan, develop, prepare, and conduct maintenance training both on board ship and in the classroom.

3.4.2. Conduct on the job training, in conjunction with repair tasking, in the proper operation and maintenance of various systems and equipment.

3.4.3. Develop on board maintenance training curricula, student handouts and instructor guides for use in accomplishing on board maintenance training or familiarization workshops for forces afloat personnel or personnel who are tasked with repairing, operating or maintaining ship board systems and equipment. Much of the on board maintenance training curricula, student

handouts and instruction guides will be computer-based. On board maintenance training curricula that is not computer-based will be converted to computer-based training as directed by the Task Order Manager (TOM).

3.4.4. Maintain records of all maintenance training conducted for Government personnel including identification of person(s) trained, parent command of person trained, location of training, subject of training, date of training conducted, and duration of training.

3.4.5. Revise existing curriculum to meet changing overall training and/or course objectives.

3.4.6. Evaluate aforementioned maintenance training curriculum. Validate the effectiveness of the maintenance training and the meeting of the maintenance training objectives. Provide appropriate recommendations.

3.5. Computer Hardware and Software Support. All support provided in this category shall be IT-21 compliant. The Contractor shall be required to provide computer hardware and software support as outlined in the following typical tasks, which are representative but not all-inclusive of the support required in this area:

3.5.1. Perform data entry operations using various types of devices such as Portable Data Takers (PDT), pen computers, scanners, keyboards, keypads, and assorted pointing devices (mouse, etc.).

3.5.2. Provide fault isolation for bus and system interfaces between data generation entities (machinery), data collection entities (LAN clients), and data utilization entities (application software running on the client).

3.6. Provide Hyperbaric Facilities Engineering Support. The Contractor shall be required to provide hyperbaric facilities support in the form of labor and materials for the operation, maintenance, repair and testing of installed hyperbaric facilities, including preparation and submittal of all required documents, records and manuals. The contractor shall perform design, fabrication, installation, maintenance, repair, testing, and refurbishment of hyperbaric facilities in accordance with NAVSEA SS521-AA-MAN-010, "U.S. Navy Diving and Manned Hyperbaric Systems Safety Certification Manual" and NAVSEA 0994-LP-001-9010, "U.S. Navy Diving Manual." The contractor shall also perform system and component cleaning and have personnel certified in accordance with MIL-STD-1330D.

3.7. Provide Rigid Hull Inflatable Boat Assessment, Maintenance and Repair Support. The Contractor shall be required to provide specialized technical support representative services and guide in conducting systems/equipment assessment, maintenance documentation, and corrective maintenance services pertinent to the maintenance, repair, correction of material condition discrepancies, or replacement of various classes of Rigid Hull Inflatable Boats (RHIBs), including as a minimum 5-, 7-, 9-, 11-, and 13-Meter RHIBs. This support shall include receiving RHIBs from ships entering CNO availability periods, assessing the condition of each RHIB, providing condition report with recommendations, performing repairs as authorized by the SWRMC TPOC, surveying boats found to be beyond economical repair and making each RHIB Ready for Issue back to the ship. This support shall also include maintaining the SWRMC rotating pool assets in ready condition and providing replacement RHIBs to ships suffering casualties to their Ready Lifeboat assets.

3.8. Provide Patrol Craft Assessment, Maintenance and Repair Support. The Contractor shall be required to provide specialized technical support representative services in conducting systems/equipment assessment, maintenance documentation, and corrective maintenance services pertinent to the maintenance, repair, correction of material condition discrepancies, or replacement of installed small boat HM&E Systems and support equipment as follows:

3.8.1. Conduct all boat/support equipment and vehicle assessments in accordance with 3M System maintenance requirements. Accomplish repairs and HM&E project maintenance onboard assigned homeland harbor defense/security small craft/support vehicles.

3.8.2. Provide engineering technical personnel support at the MESH-1 boat maintenance facility at Naval Facility Imperial Beach, CA (with the potential for other site support) for the continuous maintenance of (as a minimum) the following types of craft and associated equipment:

- 3.8.2.1. Boston Whalers
- 3.8.2.2. Minnow Patrol Boats
- 3.8.2.3. Motor Whale Boats
- 3.8.2.4. 34 Foot SeaArk Patrol Boats
- 3.8.2.5. 32 Foot Kingston Patrol Boats
- 3.8.2.6. 50 Foot Personnel Boats
- 3.8.2.7. 7 and 11 Meter Rib Boats
- 3.8.2.8. HMMV Tow Vehicles
- 3.8.2.9. Various Classes of Tow Trailers
- 3.8.2.10. Portable Boat Power Generator Equipment
- 3.8.2.11. Peterbilt transportation support vehicles
- 3.8.2.12. Various light- and medium-duty trucks
- 3.8.2.13. Various sizes of diesel-powered and electric forklifts
- 3.8.2.14. Personal Watercraft (“Jet Skis”) reconnaissance assets

3.8.3. The contractor may also be required to provide oversight-level management functions of such repair efforts described above as required to support NAVSEA-level oversight and support of said patrol craft continuous maintenance.

3.8.4 Performance Based Standards:

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Program Element:	Performance Objective:	Performance Standard:	Acceptable Quality Level (AQL):	Quality Surveillance Plan Typical Monitoring Methods:
3.1 Maintenance and Repair Support	Scope of work reviewed.	Within one working day of receipt.	Discrepancies found reported and alternative solutions recommended.	Technical review of proposals and proposal questions.
	Provide assessment, maintenance and repair support in support of Fleet readiness.	Identify causes of equipment/system failure to the component level.	Causes of failure identified or action recommended to take troubleshooting to further level.	Physical oversight, ship's force feedback and review of technical reports developed.
	Provide assistance in repair and restoration of effected equipment or system.	Actions taken as authorized by SWRMC.	Equipment or system restored to operational status or action recommended to take repairs to further level.	Physical oversight, ship's force feedback and review of technical reports developed.
	Provide technical assistance and on the job training.	Ship's force trained in operation, maintenance, grooming and repair of specific systems or equipment.	Ship's force able to operate and maintain systems or equipment in ready status.	Physical oversight, ship's force feedback and review of technical reports developed.
	Material deficiencies documented.	In accordance with the 3M Manual OPNAVINST 4790.4 (series).	CSMP upload provided to ship's force.	Review of deliverables provided.
	Assist ship's force in documenting known material deficiencies.	In accordance with the 3M Manual OPNAVINST 4790.4 (series).	Work packages provided to ship's force.	Review of deliverables provided.
	Work progressed.	Production schedule, material status reports and progress updates provided.	In accordance with schedule established for work accomplishment.	Review of deliverables provided.
	Provide assistance in testing and grooming of systems and equipment.	In accordance with Technical Manuals or other approved documentation.	Test results reported with corrective action recommended, if required.	Review of test memoranda.

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	Establish material condition baseline after major availability.	Test memoranda, maintenance reports and other condition assessment data compiled.	Baseline report provided to government.	Review of baseline report.
	Historical archive maintained.	Engineering evaluations and recommended changes compiled.	Archives readily accessible by government personnel.	Government technical personnel feedback.
	Provide oversight assistance.	Depot or other repair facilities provided guidance in accordance with Technical Manuals and standard engineering practices.	Equipment or system restored to operational status or action recommended to take repairs to further level.	Physical oversight, ship's force feedback and review of technical reports developed.
	Troubleshooting of equipment failures and malfunctions.	In accordance with Technical Manuals or other approved documentation.	Equipment or system restored to operational status or action recommended to take repairs to further level.	Physical oversight, ship's force feedback and review of technical reports developed.
	Operational procedures and maintenance problems studied.	In accordance with Technical Manuals or other approved documentation.	Changes to operational or maintenance procedures recommended as required.	Review of deliverables provided.
3.2 Program Support	Scope of work reviewed.	Within one working day of receipt.	Discrepancies found reported and alternative solutions recommended.	Technical review of proposals and proposal questions.
	Support provided for Functional Checks (TSRA, C5RA, INSURV, etc.)	In accordance with Functional Check Schedule.	Conditions found and actions taken reported to Assessment Director.	Physical oversight, ship's force feedback and review of technical reports developed.
	Program initiatives supported as required (DEI, MGTI, SmartShip, etc.).	SWRMC programs supported as necessary.	Meetings attended, databases developed and maintained, SWRMC software and hardware support provided.	Physical oversight, ship's force feedback and review of technical reports developed.

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3.3 Installation Support	Scope of work reviewed.	Within one working day of receipt.	Discrepancies found reported and alternative solutions recommended.	Technical review of proposals and proposal questions.
	Provide assets for installation.	In accordance with approved SHIPALT, MACHALT, BOATALT or other technical documentation.	Installation accomplished or changes to documentation recommended to allow for completion.	Physical oversight, ship's force feedback and review of technical reports developed.
	Provide oversight assistance.	In accordance with approved SHIPALT, MACHALT, BOATALT or other technical documentation.	Installation accomplished or changes to documentation recommended to allow for completion.	Physical oversight, ship's force feedback and review of technical reports developed.
	Work progressed.	Production schedule, material status reports and progress updates provided.	In accordance with schedule established for work accomplishment.	Review of deliverables provided.
	Installation testing accomplished.	In accordance with approved SHIPALT, MACHALT, BOATALT or other technical documentation.	Testing and check-out accomplished or changes to documentation recommended to allow for completion.	Physical oversight, ship's force feedback and review of technical reports developed.
3.4 On-board Maintenance Training Support	Scope of work reviewed.	Within one working day of receipt.	Discrepancies found reported and alternative solutions recommended.	Technical review of proposals and proposal questions.
	Develop curricula for OBMT.	In accordance with Technical Manuals or other approved documentation.	Curricula established and approved by government.	Review of deliverables provided.
	Evaluate and maintain curricula for OBMT.	In accordance with changes promulgated.	Course objectives met and changes approved by the government.	Review of deliverables provided.
	Conduct OBMT	In accordance with approved curricula.	Ship's force able to operate and maintain systems or equipment in ready status.	Physical oversight, ship's force feedback and review of technical reports developed.

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	Maintain records of OBMT provided.	Identify persons trained, command, location of training, subject of training, date and duration.	Records readily accessible by government personnel.	Government technical personnel feedback.
3.5 Computer Hardware and Software Support	Scope of work reviewed.	Within one working day of receipt.	Discrepancies found reported and alternative solutions recommended.	Technical review of proposals and proposal questions.
	Perform data entry operations.	Within acceptable industry standards.	Data entered and applicable reports provided to government, or reason for inability to enter data reported.	Physical oversight, ship's force feedback and review of technical reports developed.
	Provide connection integrity.	Fault isolation maintained between monitoring equipment and equipment being monitored.	Data quality maintained for automatic recorders.	Physical oversight, ship's force feedback and review of technical reports developed.
3.6 Hyperbaric Facilities Engineering Support	Scope of work reviewed.	Within one working day of receipt.	Discrepancies found reported and alternative solutions recommended.	Technical review of proposals and proposal questions.
	Scope of work accomplished.	In accordance with Technical Manuals or other approved documentation.	Equipment or system restored to operational status or action recommended to take repairs to further level.	Physical oversight, ship's force feedback and review of technical reports developed.
3.7 RHIB Assessment, Maintenance and Repair Support	Scope of work reviewed.	Within one working day of receipt.	Discrepancies found reported and alternative solutions recommended.	Technical review of proposals and proposal questions.
	Assessment accomplished.	In accordance with Technical Manuals or other approved documentation.	Conditions found reported with recommended actions.	Review of conditions found report.

	Maintenance and Repairs accomplished.	In accordance with Technical Manuals or other approved documentation.	Equipment or system restored to operational status or action recommended to take repairs to further level.	Physical oversight, ship's force feedback and review of technical reports developed.
3.8 Patrol Craft Assessment, Maintenance and Repair Support	Scope of work reviewed.	Within one working day of receipt.	Discrepancies found reported and alternative solutions recommended.	Technical review of proposals and proposal questions.
	Assessment accomplished.	In accordance with Technical Manuals or other approved documentation.	Conditions found reported with recommended actions.	Review of conditions found report.
	Maintenance and Repairs accomplished.	In accordance with Technical Manuals or other approved documentation.	Equipment or system restored to operational status or action recommended to take repairs to further level.	Physical oversight, ship's force feedback and review of technical reports developed.

3.9. FACILITIES

The Government requires the Contractor to have and maintain a local facility within 15 miles of Naval Base San Diego (32nd Street) with office space and shop space to facilitate timely response to emergent Fleet requirements. A separate Contractor facility may be used for shop space at any remote location if desired. The requirement for maintaining the facility shall not be construed to mean the Government will be obliged to pay any direct costs in conjunction therewith. Further, the Contractor shall not be entitled to any direct payment in connection with any personnel set in readiness at or brought to such facility in preparation for or in expectation of work to be performed under the contract. Payment for labor hours and materials will be made only for such hours and materials actually expended in performance under the contract. The Contractor shall staff each site with permanent representatives commensurate with the expected workload as described on the Statement of Work and/or individual TDL. It is anticipated that the Contractor's shop shall require delta-connected, 115 VAC, 60 Hz, 3-phase, 100 amp, shipboard electrical power wired outlets. It is also anticipated that the Contractor's shop space should have at least (but not be limited to) the following:

- 3.9.1. Ammeters (1-10 amps & 0-100 amps).
- 3.9.2. Frequency meters (60 HZ, 400 HZ).
- 3.9.3. Voltmeters (2 each digital & 2 each analog).
- 3.9.4. Compressed air (1-100 PSI).

- 3.9.5. Safety material (i.e. glasses, gloves, face shields).
- 3.9.6. Battery Charger.
- 3.9.7. Dynamometer.
- 3.9.8. Forklift or Lifting Frame (minimum 5-ton capacity).
- 3.9.9. The Contractor shall have access to a machine shop containing as a minimum:
 - 3.9.9.1. Lathe.
 - 3.9.9.2. Milling machine.
 - 3.9.9.3. Drill press.
 - 3.9.9.4. Sand blasting capability.
 - 3.9.9.5. Parts cleaning tank.
 - 3.9.9.6. Belt sanders.
 - 3.9.9.7. Fiberglas repair services.
 - 3.9.9.8. Welding services.
 - 3.9.9.9. Pedestal grinder.

3.10. CONTRACTOR FURNISHED EQUIPMENT

The Contractor shall furnish all necessary materials and equipment required for the performance of the individual TDL. The Contractor shall be responsible for providing all hand tools necessary in the performance of this task order. Hand tools are defined as standard tools of the trade such as hammers, drills, screwdrivers, pliers, connector crimp tools, awls, saws, etc. and typical tools required to perform tasks as set forth in specific TDLs. It shall be the Contractor's responsibility to maintain all Contractor furnished test equipment properly calibrated and in a state of repair (ready for use) to the extent necessary to avoid impacting the performance requirements of this task order. The support called for in this task order shall be performed on board vessels, at the Contractor's facility, and/or at Government and/or commercial facilities in conjunction with forces afloat, IMA personnel and other Government agencies utilizing Government equipment, facilities, and special tools. Responsibility for the provision of basic mechanical and electrical tools and test equipment such as wrenches, hammers, pliers, meggers, meters and other common hardware shall rest with the Contractor (at no cost to the Government). Some tasks will require Contractor-owned and/or operated computer hardware/software to perform under this contract. The Contractor shall be responsible for acquiring at no cost to the Government such computer hardware/software as is reasonably necessary for task order performance. Hardware and software shall meet IT-21 specifications. Laptop computers will be required for some shipboard programs. It is anticipated that the Contractor shall require (but not be limited to) at least the following minimum test equipment:

3.10.1. Hand held digital read-out tachometers.

3.10.2. Electrical simulation equipment.

3.10.3. Sufficient general-purpose electronic test equipment to perform, as a minimum, the tasks listed in paragraphs 3.1-3.8 above. The Contractor shall have access to Computer-Aided Design (CAD) capability (AutoCAD version 13 or 14) sufficient to reproduce engineering level drawings of shipboard systems and equipment interconnections.

3.11. PERSONNEL QUALIFICATIONS

Personnel utilized by the Contractor in the performance of this task order shall, as a minimum, meet the experience, educational, and/or other background requirements set forth below and shall be fully capable of performing in an efficient, reliable, and professional manner. If the Offeror does not identify the labor categories listed below by the same specific title, then a cross-reference list shall be provided in the Offeror's proposal identifying the differences. The Government may request to review resumes of contractor personnel proposed to be assigned and the Offeror shall be prepared to provide resumes. If personnel are not currently in the employ of the contractor, a written agreement from the potential employee to work for the Offeror will be included as part of the technical proposal. If the Ordering Officer or TOM questions the qualifications or competence of any individual proposed or performing under the TDL, the burden of proof to substantiate that individual's qualifications as prescribed herein shall rest with the Contractor. The Contractor must have the personnel, organization, and administrative control necessary to ensure that all services performed meet all requirements as specified in the applicable TDL(s). The work history of each Contractor employee shall contain experience directly related to the tasks and functions to be assigned. The Ordering Officer reserves the right to determine if a given work history contains necessary, sufficiently detailed, and related experience to reasonably ensure the ability for effective and efficient performance. The Contractor shall staff each site with permanent representatives commensurate with the expected workload as described by the Statement of Work and/or applicable TDL. The various "Engineer" labor categories do not permit substitution of experience for the required engineering degree unless otherwise noted or approved by the TOM and Contracting Officer. When technical experience is required, the proposed resume should provide proof of hands-on experience (vice managerial experience of other persons performing hands-on-work). General and specialized experience may be acquired concurrently. The experience acquired within specialized areas cannot be acquired concurrently. Resumes shall be submitted as part of Volume 1, Technical and Past Performance, for the non-DOL labor categories listed in paragraphs 3.11.1.1, 3.11.1.2, and 3.11.1.3.

NOTE:

Training or experience may be substituted for academic requirements where indicated.

3.11.1. Minimum Requirements (Non-Department of Labor Categories).

3.11.1.1. Administrative Program Manager:

3.11.1.1.1. Education: A Bachelors Degree (in any discipline) from an accredited four (4) year university or college. In lieu of a Bachelors Degree, a minimum of twenty-five (25) years experience in Navy shipboard engineering systems and programs is acceptable, which must include a minimum of twenty (20) years engineering experience in design, installation, operation, maintenance and repair of Navy shipboard systems.

3.11.1.1.2. General Experience: A minimum of twenty (20) years experience in Navy shipboard engineering systems and programs. A minimum of fifteen (15) years engineering experience in design, installation, operation, maintenance and repair of Navy shipboard systems.

3.11.1.1.3. Specialized Experience: A minimum of fifteen (15) years of specialized experience, with at least ten (10) of the fifteen (15) years as administrative experience involving direct control and responsibility over subordinate groups. The administrative experience must include defining project objectives and requirements, directing, coordinating and completing project efforts, interfacing with government personnel, and providing progress reports.

3.11.1.2. Technical Program Manager:

3.11.1.2.1. Education: A Bachelors Degree (in any discipline) from an accredited four (4) year university or college. In lieu of a Bachelors Degree, a minimum of twenty (20) years experience in Navy shipboard engineering systems and programs is acceptable, which must include a minimum of fifteen (15) years engineering experience in design, installation, operation, maintenance and repair of Navy shipboard systems.

3.11.1.2.2. General Experience: A minimum of fifteen (15) years experience in Navy shipboard engineering systems and programs. A minimum of ten (10) years engineering experience in design, installation, operation, maintenance and repair of Navy shipboard systems.

3.11.1.2.3. Specialized Experience: A minimum of ten (10) years of specialized experience, with at least eight (8) of the ten (10) years as administrative experience involving direct control and responsibility over subordinate groups working in an engineering discipline. The administrative experience must include defining project objectives and requirements, directing, coordinating and completing project efforts, interfacing with government personnel, and providing progress reports. A minimum of five (5) years experience in naval nuclear propulsion plant operations, maintenance and repair is required.

3.11.1.3. Project Manager:

3.11.1.3.1. Education: A Bachelors Degree (in any discipline) from an accredited four (4) year university or college. In lieu of a Bachelors Degree, a minimum of fifteen (15) years experience in Navy shipboard engineering systems and programs is acceptable, which must include a minimum of twelve (12) years engineering experience in design, installation, operation, maintenance and repair of Navy shipboard systems.

3.11.1.3.2. General Experience: A minimum of ten (10) years engineering experience in design, installation, operation, maintenance and repair of Navy shipboard systems.

3.11.1.3.3. Specialized Experience: A minimum of eight (8) years of specialized experience, with at least five (5) of the eight (8) years as project manager involving direct control and responsibility over subordinate groups working in an engineering discipline. The management experience must include defining project objectives and requirements, directing, coordinating and completing project efforts, interfacing with government personnel, and providing progress reports.

3.11.1.4. Electrical Engineer:

3.11.1.4.1. Education: A Bachelors Degree (electrical or electronics engineering) from an accredited four (4) year university or college. A Bachelor's Degree in engineering technology is acceptable when the individual possesses a state accredited engineer-in-training (EIT) certificate.

3.11.1.4.2. General Experience: A minimum of five (5) years experience in design, installation, operation, maintenance and repair of Navy shipboard systems.

3.11.1.4.3. Specialized Experience: A minimum of five (5) years of specialized experience, with at least three (3) of the five (5) years as engineering experience in design or engineering support for shipboard systems. At least two (2) years experience in system overhaul/installation and testing of naval shipboard systems. At least two (2) years experience with Computer Aided Design systems is required.

3.11.1.5. Mechanical Engineer:

3.11.1.5.1. Education: A Bachelors Degree (mechanical engineering) from an accredited four (4) year university or college. A Bachelor's Degree in engineering technology is acceptable when the individual possesses a state accredited engineer-in-training (EIT) certificate.

3.11.1.5.2. General Experience: A minimum of five (5) years experience in design, installation, operation, maintenance and repair of Navy shipboard systems.

3.11.1.5.3. Specialized Experience: A minimum of five (5) years of specialized experience, with at least three (3) of the five (5) years as engineering experience in design or engineering support for shipboard systems. At least two (2) years experience in system overhaul/installation and testing of naval shipboard systems. At least two (2) years experience with Computer Aided Design systems is required.

3.11.1.6. Senior Software Engineer:

3.11.1.6.1. Education: A Bachelors Degree (software engineering or computer science) from an accredited four (4) year university or college.

3.11.1.6.2. General Experience: A minimum of ten (10) years experience in the design, development, installation, maintenance and analysis of software systems directly related to the tasks described in paragraphs 3.1-3.9 above.

3.11.1.6.3. Specialized Experience: A minimum of ten (10) years of specialized experience, with at least six (6) of the ten (10) as engineering experience in design or support of computer software systems. At least four (4) of the ten (10) years as experience in naval software systems supporting naval shipboard systems.

3.11.1.7. Software Engineer:

3.11.1.7.1. Education: A Bachelors Degree (software engineering or computer science) from an accredited four (4) year university or college.

3.11.1.7.2. General Experience: A minimum of five (5) years experience in the design, development, installation, maintenance and analysis of software systems directly related to the tasks described in paragraphs 3.1-3.9 above.

3.11.1.7.3. Specialized Experience: A minimum of five (5) years of specialized experience, with at least three (3) of the five (5) as engineering experience in design or support of computer software systems. At least two (2) of the five (5) years as experience in naval software systems supporting naval shipboard systems.

3.11.1.8. Junior Engineer:

3.11.1.8.1. Education: A Bachelors Degree (electrical, mechanical, software or computer science engineering) from an accredited four (4) year university or college.

3.11.1.8.2. General Experience: No additional requirements.

3.11.1.8.3. Specialized Experience: No additional requirements.

3.11.1.9. Systems Analyst:

3.11.1.9.1. Education: An Associate Degree (computer related field).

3.11.1.9.2. General Experience: A minimum of four (4) years managerial experience on Naval engineering projects including design, maintenance, repair, testing, installation, or ship upgrade of Navy shipboard systems. Must be able to compile reports, charts and tables based on established statistical methods. May be required to direct or lead the work of others.

3.11.1.9.3. Specialized Experience: A minimum of two (2) years analytical experience in Navy shipboard systems analysis. A basic knowledge and experience with the 3-M System (PMS, CSMP, OARS, COSAL, ILS, and/or the Ship Alteration and Fleet Modernization Programs. Must be knowledgeable of relationships, policies, and procedures for Ship maintenance between SWRMC, NAVSEA, TYCOMS, and Naval Shipyards.

3.11.1.10. Data Analyst:

3.11.1.10.1. Education: A High School Diploma.

3.11.1.10.2. General Experience: A minimum of two (2) years experience in areas of computer program analysis, design and development of management information systems, work breakdown

structures, or work simplification techniques. A minimum of one (1) year experience working on Naval engineering projects including design, maintenance, repair, testing, installation, or ship upgrade of Navy shipboard systems listed. Must be knowledgeable in commonly used SWRMC concepts, practices, and procedures.

3.11.1.10.3. Specialized Experience: No additional requirements.

3.11.2. Minimum Requirements (Department of Labor Categories). The following United States Department of Labor (DOL) wage determination occupation codes/titles will be utilized to support this task order effort. The personnel utilized must meet the minimum requirements described in the DOL Employment Standards for each occupation category listed below:

3.11.2.1. 14073 – Computer Programmer III

3.11.2.2. 14074 – Computer Programmer IV

3.11.2.3. 14102 – Computer Systems Analyst II

3.11.2.4. 14103 – Computer Systems Analyst III

3.11.2.5. 01612 – Word Processor II

3.11.2.6. 01613 – Word Processor III

3.11.2.7. 21030 – Material Coordinator

3.11.2.8. 21040 – Material Expediter

3.11.2.9. 23370 – General Maintenance Worker

3.11.2.10. 23470 – Laborer

3.11.2.11. 23580 – Maintenance Trades Helper

3.11.2.12. 30081 – Engineering Technician I

3.11.2.13. 30082 – Engineering Technician II

3.11.2.14. 30083 – Engineering Technician III

3.11.2.15. 30084 – Engineering Technician IV

3.11.2.16. 30085 – Engineering Technician V

3.11.2.17. 30086 – Engineering Technician VI

3.11.3. “Non-Key” Personnel Resume Requirements. During the performance of this task order the Contractor may be requested to submit resumes for approval when the qualifications or experience of a specific "Non-Key" personnel are questioned by the Contracting Officer,

Ordering Officer or TOM. The Contractor bears all burdens of proof to demonstrate "Non-Key" personnel meet all of the requirements of their labor categories.

3.12. LEVEL OF EFFORT

3.12.1. Labor. The level of effort estimated to ordered during each year of this task order is 394,000 man-hours of direct labor (1,970,000 man-hours of direct labor over the life of the task order if all four option years are exercised). The estimated composition by labor category of the estimated total man-hours is as follows:

LABOR CATEGORY	BASE	OPTION 1	OPTION 2	OPTION 3	OPTION 4
Admin Program Manager	1,000	1,000	1,000	1,000	1,000
Tech Program Manager	2,000	2,000	2,000	2,000	2,000
Project Manager	3,000	3,000	3,000	3,000	3,000
Electrical Engineer	6,000	6,000	6,000	6,000	6,000
Mechanical Engineer	6,000	6,000	6,000	6,000	6,000
Senior Software Engineer	6,000	6,000	6,000	6,000	6,000
Software Engineer	4,000	4,000	4,000	4,000	4,000
Junior Engineer	10,000	10,000	10,000	10,000	10,000
Systems Analyst	6,000	6,000	6,000	6,000	6,000
Data Analyst	6,000	6,000	6,000	6,000	6,000
Computer Programmer III	4,000	4,000	4,000	4,000	4,000
Computer Programmer IV	2,000	2,000	2,000	2,000	2,000
Computer Systems Analyst II	6,000	6,000	6,000	6,000	6,000
Computer Systems Analyst III	4,000	4,000	4,000	4,000	4,000
Word Processor II	2,000	2,000	2,000	2,000	2,000
Word Processor III	4,000	4,000	4,000	4,000	4,000
Material Coordinator	2,000	2,000	2,000	2,000	2,000
Material Expediter	2,000	2,000	2,000	2,000	2,000
General Maintenance Worker	20,000	20,000	20,000	20,000	20,000
Laborer	20,000	20,000	20,000	20,000	20,000
Maintenance Trades Helper	26,000	26,000	26,000	26,000	26,000
Engineering Technician I	4,000	4,000	4,000	4,000	4,000
Engineering Technician II	10,000	10,000	10,000	10,000	10,000
Engineering Technician III	6,000	6,000	6,000	6,000	6,000
Engineering Technician IV	50,000	50,000	50,000	50,000	50,000
Engineering Technician V	118,000	118,000	118,000	118,000	118,000
Engineering Technician VI	70,000	70,000	70,000	70,000	70,000
TOTAL MAN-HOURS	394,000	394,000	394,000	394,000	394,000

3.12.2. Travel, Material and Other Direct Costs. The estimated travel, material, and other direct costs required for execution of this contract is as follows:

OTHER COSTS	BASE	OPTION 1	OPTION 2	OPTION 3	OPTION 4
Travel	\$1,761,200	\$1,814,036	\$1,868,457	\$1,924,511	\$1,982,246
Other Direct Costs & Materials	\$6,224,000	\$6,410,720	\$6,603,042	\$6,801,133	\$7,005,167
TOTAL TRAVEL, MAT'L & ODC'S	\$7,985,200	\$8,224,756	\$8,471,499	\$8,725,644	\$9,987,413

3.13. MANDATORY NUCLEAR AND SAFETY TRAINING

During the performance of this task order all Contractor personnel that perform non-nuclear work on nuclear powered vessels must receive training (at no cost to the government) in the areas delineated below prior to commencing work:

3.13.1. For work exclusive of the propulsion plant and exclusive of nuclear spaces and systems as defined in NAVSEAINST C9210.4 (series), training is required, at no cost to the government, in the following:

3.13.1.1. US citizenship and security requirements.

3.13.1.2. Mercury exclusion.

3.13.1.3. General ship safety and drill requirements.

3.13.1.4. Basic radiation awareness, control areas, and signs.

3.13.2. For work that may be near or bordering secondary containment boundaries or bordering spaces and systems defined in NAVSEAINST C9210.4 (series), training is required on secondary containment boundaries.

3.13.3. For non-nuclear system work in or affecting propulsion system spaces or systems including those listed in NAVSEAINST C9210.4 (series), training is required in the following:

3.13.3.1. Security requirements or NNPI IAW NAVSEAINST 5511.32 (series).

3.13.3.2. Maintenance cleanliness requirements within propulsion spaces.

3.13.3.3. Spaces access requirements, including dosimeter.

3.13.4. Refresher training is required at least annually (and semi-annually for personnel requiring paragraph 3.13.4 training). Simple training records including lesson plan, brief outline of class content and attendance records will be maintained and made available to SWRMC on request. Liaison with the cognizant ship's department (e.g., Reactor Department, Engineering Department, Repair Department) is required to determine if any additional specific training is required prior to start of work. Any additional training will be completed prior to commencing work.

3.14. CONTRACT DATA REQUIREMENTS.

3.14.1. COSTS.

3.14.1.1. The Contractor shall establish and maintain a method of tracking costs incurred which meets the following requirements:

3.14.1.1.1. Costs shall be tracked at the TDL level.

3.14.1.1.2. Costs incurred on each TDL shall be segregated by the Labor Travel and Material CLINs

3.14.1.1.3. Costs should be tracked for both current and cumulative costs.

3.14.1.2. The Contractor shall prepare and present the following:

3.14.1.2.1. Earned Value Management System (EVMS) Forecast Review: The Contractor shall present a bi-weekly review of selected TDLs. This review shall integrate cost and schedule performance data with technical performance measures, identify the magnitude and impact of actual and potential problem areas causing significant cost and schedule variances, integrate cost and schedule variance measures with risk mitigation actions, and provide valid, timely program status information to the Government.

3.14.1.2.1.1. The TDL to be covered during the EVMS Forecast Review shall be designated by the TOM.

3.14.1.2.1.2. The EVMS Forecast Review shall include a forecast of Budget at Completion (BAC), Estimate at Completion (EAC) and Variance at Completion (VAC) of the entire life of the selected TDL.

3.14.1.2.1.3. The EVMS Forecast Review shall be presented to the TOM by the Technical Program Manager (TPM).

3.14.1.2.2. Monthly Contract Financial and Performance Report: The Contractor shall submit a monthly summary report of all work accomplished and expenses incurred on the task order.

3.14.1.2.2.1. Work accomplished shall be identified by individual ship, system, component, and date(s) accomplished. This summary should be concise and summarize the deficiency, action taken to correct the deficiency, and current status of the task.

3.14.1.2.2.2. Financial data shall be presented summarizing all costs incurred to date on each TDL, categorized by Material, Travel and Labor CLINs. As part of the Labor CLIN tracking, total hours expended on each TDL shall be tracked and reported.

3.14.2. VISIT REQUESTS.

3.14.2.1. The Contractor shall establish a method of submitting visit requests as required by and to support individual TDLs.