

Statement of Work (SOW)
Technical Services for
Navy Technology Center for Safety and Survivability

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1 INTRODUCTION

The Naval Research Laboratory (NRL) anticipates negotiation of a competitive, indefinite delivery indefinite quantity (IDIQ) contract for technical services to support the Navy Technology Center for Safety and Survivability (NTCSS).

1.1 Background

The Naval Research Laboratory (NRL), Navy Technology Center for Safety and Survivability (NTCSS) conducts basic and applied R&D programs for solution of current and future Navy problems in the fields of combustion, fire extinguishment, fire research, damage control and atmospheric hazards. The NRL has two (2) Fire Research facilities: one is located in Chesapeake Beach, Maryland and the other is located in Mobile, Alabama. The Mobile, Alabama location serves as the principal place of performance. The facility in Mobile is the ex-USS SHADWELL and is known as the Shipboard & Field Operations section. The shipboard facility investigates new fire protection systems, agents, equipment and techniques for fire safety on surface ships, submarines, aircraft and naval shore facilities. The ex-USS Shadwell is also involved in developing doctrine and tactics with final proof of concept being accomplished with Fleet personnel. NRL has a local staff which oversees operations, to include maintenance planning and research support.

The ex-Shadwell is moored at Little Sand Island and is accessible only by the facility's five small boats (LCM-8, LCM-3, 20-35 ft commercial small boats). It has shore connections for electrical power and telephone. It receives fuel and water by barge. In addition to two emergency diesel generators, Shadwell operates a number of original and modified HVAC, compressed air, fuel distribution, and damage control systems.

The fire research conducted aboard ex-USS Shadwell and on Little Sand Island requires engineering support to include hull mechanical & electrical (HM&E) system and small boat maintenance, precision machine work, and fabrication of engineering designs.

1.2 Scope

The contractor will develop conceptual designs, develop and execute facility modification plans, conduct periodic and corrective maintenance, and assist with real-scale test in support of the NTCSS research programs. The contractor will provide technical and logistics support, and ensure selected employees are certified to operate ex-USS SHADWELL hydraulic crane and forklift, in four areas:

- DESIGN AND PROTOTYPE DEVICE SUPPORT
- ENGINEERING/TECHNICIAN MANPOWER SUPPORT
- SMALL BOAT MAINTENANCE
- SHADWELL PLANNED AND CORRECTIVE MAINTENANCE

It is anticipated that the first two areas will be tasked on an as-required basis, while the second two areas will comprise a continuous, ongoing task.

2 GENERAL REQUIREMENTS

The Naval Research Laboratory (NRL) Requirements for On-Site Contractors (ROSC) dated 8 December 2008 provides general instructions for Contractors conducting business at/on NRL property. Compliance with

specific paragraphs of the NRL ROSC cited in the Section 2 - General Requirement and Section 4 - Special Requirements is mandatory, other requirements in the NRL ROSC are provided for information purposes only.

2.1 *Period of Performance*

The period of performance is for 3 years. The period of performance reads as follows:

- 09 October 2013 through 08 October 2016

2.2 *Non-Personal Services*

The Government will neither supervise contractor employees nor control the method by which the contractor performs the required tasks.

The Government will not assign tasks to, or prepare work schedules for, individual contractor employees.

The Contractor **shall** be responsible for managing its employees and guarding against any actions that are of the nature of personal services, or give the perception of personal services as defined in FAR-Part 37, Service Contracting, dated 31 May 2011.

The Contractor **shall** notify the Contracting Officer (KO) if any Government requested actions constitute, or are perceived to constitute personal services.

2.3 *Business Relations*

The contractor **shall** integrate and coordinate all activity needed to execute this contract.

2.4 *Organizational Conflict of Interest*

Contractor and subcontractor personnel performing work under this contract may receive, have access to or participate in the development of proprietary or source selection information (e.g., cost or pricing information, budget information or analyses, specifications or work statements, etc.) or perform evaluation services which may create a current or subsequent Organizational Conflict of Interests (OCI) as defined in FAR Subpart 9.5.

The Contractor **shall** notify the Contracting Officer immediately whenever it becomes aware that such access or participation may result in any actual or potential OCI.

The Contractor **shall** promptly submit a mitigation plan to the Contracting Officer to avoid or mitigate any such OCI.

The Contractors mitigation plan will be determined to be acceptable solely at the discretion of the Contracting Officer and in the event the Contracting Officer unilaterally determines that any such OCI cannot be satisfactorily avoided or mitigated, the Contracting Officer may affect other remedies as he or she deems necessary, including prohibiting the Contractor from participation in subsequent contracted requirements which may be affected by the OCI.

2.5 *Data Rights*

The Government has unlimited rights to all documents/material produced under this contract. All documents and materials, to include the source codes of any software, produced under this contract will be Government owned and the property of the Government with all rights and privileges of ownership/copyright belonging exclusively to the Government. These documents and materials cannot be used or sold by the contractor without written permission from the Contracting Officer. All materials supplied to the Government

will be the sole property of the Government and may not be used for any other purpose. This right does not abrogate any other Government rights.

2.6 Contract Administration and Management

The following subsections specify requirements for contract management and contractor personnel administration.

2.7 Contract Management

The Contractor **shall** establish clear organizational lines of authority and responsibility to ensure effective management of the resources assigned to this contract.

2.8 Personnel Administration

The Contractor **shall** provide for employees during designated Government non-work days or other periods where Government offices are closed due to weather or security conditions.

The Contractor **shall** maintain the currency of their employees by providing initial and refresher training as required to meet the SOW requirements.

The Contractor **shall** make necessary travel arrangements for employees.

The Contractor **shall** designate one employee to serve as the Project Leader, who will be the point of contact for all technical performance issues, receiving direction from and providing responses to the Contracting Officer's Representative (COR).

The Contractor **shall** designate that one or more on-site employees with the responsibility of supervising and directing the Contractor's on-site employees.

2.9 Contract Administration

The Contractor **shall** establish processes and assign appropriate resources to effectively administer this contract.

The Contractor **shall** respond to Government requests for contractual actions within five work days.

The Contractor **shall** assign work effort and maintain proper and accurate time keeping records of personnel assigned to work on this contract.

The Contractor **shall** provide periodic reports of financial and technical status, and document results of work accomplished. [CDRL A001, A002, A003].

2.10 Contractor's Management Plan (CMP)

The contractor **shall** submit a Contractor's Management Plan (CMP) defining the contractor's approach to implementing the contract. [CDRL A004]

The CMP provides the Government insight to the systems, processes, and structure within which the contractor operates. The CMP should include a quality control plan if not defined in a separate plan.

A draft CMP is to be delivered with the contractor's proposal. Three copies of the complete version **shall** be submitted 30 days after contract award to the KO and COR, and within 5 working days when changes are made thereafter.

The Contractor **shall** receive the contracting officers acceptance in writing of any proposed change to his management plan once the CMP has been accepted by the Government.

The contractor **shall** develop and maintain an effective quality control program to ensure services are performed in accordance with this SOW.

2.11 Contractor Furnished Equipment, Materials, Subcontracts and Supplies

Equipment and unexpended materials and supplies purchased by the contractor under this contract become the property of the Government at the end of the performance period, including all options.

The Contractor **shall** provide supplies for contractor personnel.

The Contractor **shall** provide any other equipment, material, and supplies, not furnished by the Government, but required to perform the work defined under Paragraph 3, Performance Requirements, below

The Contractor **shall** be responsible for any subcontract management necessary for performing efforts described in Paragraph 3, Performance Requirements, below.

2.12 Contractor Personnel, Disciplines, and Specialties

The minimum education, training, and experience required by contractor personnel to perform support tasks identified in this SOW are defined in the following labor category descriptions:

2.12.1 Project Manager

Must possess a Bachelor's degree, minimum, in engineering from an accredited college or university. A Master's degree, and/or a professional engineer's license would be a plus. Must have knowledge and experience in engineering disciplines of mechanical, or electrical. Must have at least ten (10) years experience managing projects with a value of at least \$500K, and the experience managing multiple tasks simultaneously. Manages programs to ensure that implementation and prescribed activities are carried out in accordance with program objectives. Controls expenditures in accordance with budget allocations, and manages phases of a program to meet established schedule.

2.12.2 Senior Engineer

Must possess a Bachelor's degree, minimum, in engineering from an accredited college or university. A Master's degree, and/or a professional engineer's license would be a plus. Must have knowledge and experience in engineering disciplines of mechanical, or electrical. Experience/education in design of Pipe, HVAC, Structural systems, and/or Electrical systems is required. Advanced analytical skills such as Finite Element Analysis are a plus.

2.12.3 Draftsman

Must have an Associate's degree in computer aided design, minimum. Experience with computers is required. Effective communication skills with diverse types such as engineers, scientists, technicians, craftsmen, and suppliers is also required. Must be fluent in the English language. Basic skills in MS Word, Excel, e-mail software, and internet use are required.

2.12.4 Administrator

Acts as contract administrator. Assists in procurement, technical reports and job cost reporting including typing data entry and other contract/project related support. Must have knowledge and experience related to general administrative and accounting practices.

2.12.5 Electrician

Must have a minimum of ten (10) years experience in marine electrical work. Must have experience in low and high voltage AC and DC circuits, diesel fueled generators, AC and DC electric motors,

and AC and DC lighting systems. Experience with transformers, rectifiers, and variable frequency controllers is also required. Must possess the ability to read and understand design drawings and blueprints, safety manuals, and operating manuals sufficiently enough to safely accomplish the assigned tasks. Experience operating high-pressure watermist systems, and maintaining boat propulsion systems such as Volvo-Penta outdrives are a plus. Must have knowledge of and ability to conform to applicable electrical safety codes and regulations, as well as marine shipboard electrical work practices.

2.12.6 Welder/Fitter

Must have a minimum of three (3) years' experience with fitting metal plate and piping structures. Must possess AWS certifications in SMAW, FCAW, GTAW, and GMAW welding procedures, and have experience working with carbon steel, stainless steel, aluminum and copper-nickel metals. Must possess the ability to read and understand design drawings and blueprints, safety manuals, and operating manuals sufficiently enough to safely accomplish assigned tasks. A license to operate a hydraulic crane, a hydraulic forklift, and having knowledge and experience with industrial hoisting and rigging practices are a plus. The capability to follow industrial welding safety practices is a must.

2.12.7 Laborer

Must have a high school diploma minimum. Must possess the ability to interpret and follow instructions, follow established safety practices, and work with most any hand tools.

2.13 Location and Hours of Work

Accomplishment of the results contained in this SOW requires work primarily at the ex-USS Shadwell in Mobile Alabama. There is potential for some work in Chesapeake Bay, MD. Engineering design work is to be performed at the Contractor's facility.

Additionally, the Contractor **shall** support NRL tasks at other geographically dispersed locations, as necessary.

2.14 Travel / Temporary Duty (TDY)

Travel to other government facilities or contractor facilities may be required.

The Contractor **shall** submit all travel requirements (including plans, agenda, itinerary and dates) for pre-approval to the Government and is on a strictly cost reimbursable basis.

The Contractor **shall** bill costs for travel in accordance with FAR 31.205-46 Travel Costs (subject to local policy & procedures).

3 REQUIREMENTS

The Contractor **shall** perform the tasks and deliver all supplies, equipment, and items as set forth herein.

3.1 DESIGN AND PROTOTYPE DEVICE SUPPORT

3.1.1 The Contractor **shall** develop engineering design solutions to support NRL NTCSS research program efforts.

3.1.2 The Contractor **shall** perform detailed engineering design and analysis for facility modifications to support specific fire test mission needs.

3.1.3 The Contractor **shall** develop detailed facility system and compartment drawings.

3.1.4 The Contractor **shall** perform precision machine work, and precision assembly of required devices.

3.2 *ENGINEERING/TECHNICIAN MANPOWER SUPPORT*

3.2.1 The Contractor **shall** support the development, preparation and execution of large-scale fire fighting, damage control, and vulnerability research programs.

3.2.2 The Contractor **shall** complete any designated compartment modifications

3.2.3 The Contractor **shall** install or modify onboard fire main, fire protection systems, ventilation, and electrical distribution systems.

3.2.4 The Contractor **shall** install or modify designated test apparatus required for execution of fire fighting, damage control, or vulnerability analysis programs.

3.2.5 The Contractor **shall** support the NRL Fire Test Team with the execution of test protocols.

3.3 *SMALL BOAT MAINTENANCE*

3.3.1 The Contractor **shall** perform regular planned and corrective, organizational level, maintenance on all boat propulsion, fluid pumping, electrical, and electronic systems as tasked, in accordance with equipment manufacturer guidance.

3.3.2 The Contractor **shall** also facilitate and oversee any depot and intermediate level boat maintenance and repairs requiring outside contract organizations such as local marine facilities and original equipment manufacturers.

3.4 *SHADWELL PLANNED AND CORRECTIVE MAINTENANCE*

3.4.1 The Contractor **shall** perform all maintenance, repair, preservation, and replacement for the facility equipment to include: compressed air systems, fluid pumping systems, ventilation systems, diesel and gasoline engines, hydraulic systems, structures, and lifting equipment. Typical skill sets include: welding, machining, marine electrical, ship fitting, pipe fitting, sheet metal craft, and plumbing.

3.4.2 The Contractor **shall** operate the 9-ton hydraulic, variable geometry Category IV crane.

3.4.3 The Contractor **shall** operate the 3-ton lift capacity diesel powered shipboard forklift.

4 SPECIAL REQUIREMENTS

This section describes the special requirements for this effort. The following sub-sections provide details of various considerations on this effort.

4.1 Security and Safety Compliance

The Contractor **shall** comply with all NRL safety and security requirements with respect to all Contractor employees located at NRL, including the NRL Occupational Safety and Health Manual, 5100.13C, and the NRL Security Manual, 5510.40D. The Contractor **shall** establish the appropriate measures to accomplish these requirements.

The contractor **shall** be knowledgeable and ensure compliance with Federal, State, and OSHA regulations regarding hazardous materials and safety (includes disposal of hazardous material such as oil, and asbestos). These requirements include, but are not limited to: lead, asbestos, confined space, fall protection, lock-out/tag-out, hot work safety and hearing protection IAW OPNAVINST 5510.23 and NRLINST 5510.22.

The contractor **shall** maintain appropriate insurance for performing work in an off-shore environment.

4.2 Government Furnished Materials

The Contractor **shall** perform this effort using government furnished materials.

5 DELIVERABLES

The contractor **shall** provide deliverables with the schedule and format as described in section 3.0 of this contract and outlined in the CDRL's listed below.

CDRL Identifier	Name of Report	Contents
A001	Quarterly Status Report (QSR)	The contractor shall provide project reports that provide a summary of the tasks scheduled/completed, projected tasks scheduled for next period, status of materials, identification of problems and issues along with proposed resolution.
A002	Monthly Financial Status Report (MFSR)	Indicates the progress of the contractor's work on assigned tasks, and the status of the program. Reports costs, and informs of existing or potential problem areas.
A003	Technical Documentation	The Contractor shall provide Technical Documentation on COR request that shall include: engineering logbooks, designs, schematics, requirements documentation, procedures, systems block diagrams, as-built drawings, quality assurance, and test results.
A004	Contractor's Management Plan (CMP)	Describes the contract implementation approach, including the systems and processes, to provide overall coordination of contract management activities, and subcontract management activities if applicable. It provides insight into staffing, organizational structure, and approaches.