ONR BAA Announcement # ONRBAA15-0005

BROAD AGENCY ANNOUNCEMENT (BAA)

Solid State, High Power Laser Weapon System Demonstrator (LWSD) Design, Development and Demonstration for Surface Navy, USN

INTRODUCTION

This publication constitutes a Broad Agency Announcement (BAA) as contemplated in Federal Acquisition Regulation (FAR) 6.102(d)(2) and 35.016. A formal Request for Proposals (RFP), solicitation, and/or additional information regarding this announcement will not be issued.

The Office of Naval Research (ONR) will not issue paper copies of this announcement. The ONR reserves the right to select for award all, some, or none of the proposals in response to this announcement. The ONR reserves the right to fund all, some, or none of the proposals received under this BAA. ONR provides no funding for direct reimbursement of proposal development costs. Technical and cost proposals (or any other material) submitted in response to this BAA will not be returned. It is the policy of ONR to treat all proposals submitted under this BAA as competition sensitive information and to disclose their contents only for the purposes of evaluation.

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I. GENERAL INFORMATION

A. Agency Name –

Office of Naval Research
875 North Randolph Street – One Liberty Center
Arlington, VA 22203-1995

B. Research Opportunity Title –

Solid State High Power Laser Weapon System Demonstrator (LWSD) Design, Development and Test for Surface Navy, USN

C. Program Name –

Solid State High Power Laser Weapon System Demonstrator (LWSD)

D. Research Opportunity Number –

ONRBAA15-0005

E. Response Date –

Full Proposals: 27 January 2015 at 2:00 PM (Eastern Standard Time)

F. Research Opportunity Description –

Background:

For many years the Navy has been interested in developing laser-based weapons capable of enhancing the ability of a ship to acquire, track, identify, engage, and defeat a variety of surface and air threats. Recent advancements in the power and durability of commercially available Solid State Laser (SSL) technologies have enabled the Navy to execute a quick-reaction effort and operationally field an SSL weapon. The Navy Laser Weapon System (LaWS) AN/SEQ-3(XN-1) was installed on the USS Ponce in the summer of 2014. After a series of test and certification steps, LaWS is now the first-ever fully approved laser weapon system deployed by any United States military service.

LaWS provides not only an initial weapon capability for the Ponce, but also significant lessons learned about the operational requirements, technology limitations, and costs to field this new class of weapon in the difficult maritime and shipboard environment. The Navy recognizes that multiple technology improvements and architecture improvements may contribute to a more robust system that enhances system lethality, readiness, durability, and maintainability for implementation on a variety of Navy platforms, including DDG-class destroyers. As a result, the Office of Naval Research (ONR), Naval Air Warfare and Weapons Department (Code 35), in cooperation with the Naval Sea Systems Command (NAVSEA) Directed Energy and Electric Weapon Systems Program Office (PMS405), is interested in

advancing the technical maturity of SSL-based weapons through the design, development, integration, ship-based installation, and testing of an innovative SSL weapon demonstrator.

Overview:

The Office of Naval Research seeks to continue the advancement of SSL weapon system designs, architectures, and component technologies. The government believes that improvements in lethality may be achieved through maturation and optimization of a variety of system characteristics, including laser power (government estimates indicate that systems with laser power of 100-150 kW may be supportable using ship power and cooling), beam quality, beam director architecture, and other physical and optical aspects of the laser, beam director, and system design. Furthermore, the government believes that duty cycle, operability, and maintainability improvements may be accomplished through system architecture, system design attributes, and maturation and optimization of component technologies, potentially including modification of commercially available components.

Under this BAA, the government plans a design, build, test, and demonstration effort to mature the system, sub-systems, and component technologies necessary to produce a Laser Weapon System Demonstrator (LWSD) consisting of a performer-supplied Tactical Laser Core Module (TLCM), integrated by the performer with required government-furnished elements and subsystems. The LWSD will be installed by the Government aboard a Navy test ship with representative support system constraints (e.g. ship's power and cooling, sensors, etc.) and demonstrated at sea. During the at sea demonstration, the LWSD will be operated from the ship to execute live-fire engagements in day and night conditions under operationally derived test scenarios consistent with ship self-defense missions including countering threats from adversary Fast Attack Craft/Fast In-Shore Attack Craft (FAC/FIAC), Unmanned Aerial Vehicles (UAV), and sensor systems used for Intelligence, Surveillance, and Reconnaissance (ISR). The goal of this project is to successfully engage and defeat both single and multiple threat representative targets with performance characteristics significantly improved over current and previous systems.***** The program also has the objective of achieving a Technology Readiness Level (TRL) of 6 for the system in order to support the Navy's potential consideration of a Program of Record (PoR) milestone decision.

The Government seeks balanced approaches in proposals that reflect: 1) the most advantageous use of existing subsystems and components where appropriate, 2) technical maturation of components or designs, of current and previous systems, that provide significantly enhanced lethality, higher duty cycle, reduced maintenance, improved durability, or lower system cost, and 3) a cost effective approach to achieving maturation of technologies, integration of the design, and an at-sea demonstration. The Government will use a three-phased acquisition structure, with an overall 30-month timeline from contract award to project completion with the at-sea testing. This BAA calls for fully integrated system level proposals for the LWSD. Proposals that only address partial solutions or component level technologies will not be considered for award.

The Government is interested in an integrated TLCM, as demonstrated in Figure 1 below, which will include, at a minimum:

- The high power SSL subsystem,
- The beam director subsystem (including accommodation for Mission Specific Modules described later in this document),
- The targeting and tracking subsystem,

- The fire control subsystem, and
- The necessary power or cooling subsystems to address interface or capacity issues that might be presented by the available ship utilities.

Program funding and timeline currently only support testing on the USS Paul Foster, which is the Navy's Self Defense Test Ship (SDTS). However, the design approach should address the possibility of subsequent installation on a DDG-51 FLT IIA class destroyer with minimal modifications and cost. The DDG-class destroyer is a primary candidate for future shipboard installation and represents a realistic goal for the design envelope and operating constraints.

Note that the characteristics of previous and current Navy systems should be generally understood within the community through technical interchanges at venues like the Directed Energy Professional Society meetings and conferences. However, a classified Performance Description document summarizing the characteristics of previous and current Navy systems is available through the classified information request process described in Section VII.1.i of this BAA.

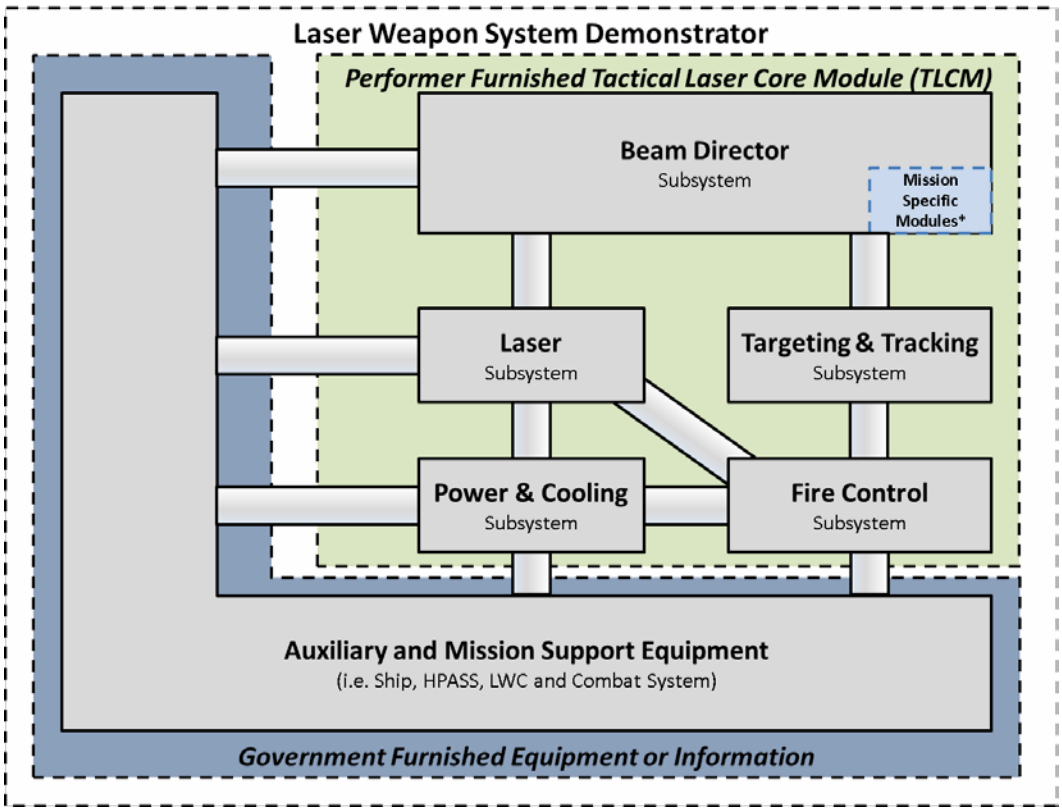

Figure 1 - Navy Laser Weapon System Demonstrator Block Diagram

Program Objectives:

The following objectives are provided to assist Offerors in developing their LWSD design approach:

- Balanced approaches to technology maturation and system designs that implement cost-effective trade-offs between laser power, beam quality, optical path, duty cycle, aperture, mechanical robustness, and other physical/optical attributes of the system to achieve enhanced lethality, integration, sustainability and reliability over previous demonstrations and prototypes;
- Mechanically robust and efficient laser systems;
- Systems that provide scalable architectures for both lower and higher power level capabilities;
- System designs that allow for adjustable power on target to provide a range of effects from deny to disrupt, damage, and defeat;
- Laser sub-systems with beam attributes (divergence, beam quality, etc.) consistent with predictive avoidance requirements;
- Maturation of beam director and tracking technologies to achieve low jitter performance;
- System configurations that can sustain long-term exposure to the maritime environment and the Navy's operational environment (corrosion, shock, vibration, moisture, electromagnetic environmental effects, etc.);
- Engagements and sensing of single and multiple targets (serially) in both daytime and nighttime operations at tactically significant ranges;
- Tracking and targeting capabilities relevant to the following missions:
    - Counter FAC/FIAC
    - Counter UAV
    - Counter ISR (for sensors operating in the visible and infrared wavelengths)
    - Combat Identification
- Operates for at least one (1) month of testing at sea with minimal manpower and maintenance requirements;
- Capability to be installed and tested on the Self Defense Test Ship (SDTS), the USS Paul Foster (eDD-964);
- Meets all Navy safety requirements for installation and operation;
- Integrates with required Government Furnished Equipment (GFE); and
- Provides interfaces for a Virtual Test Bed representing the Navy's AEGIS Combat System, and
- Sized and configured to enable future re-installation on a DDG-51 Flt IIa with minimal modifications.

The TLCM developed by the performer will require integration with, and use of, certain GFE and Government Furnished Information (GFI), as well as other government property, as identified below, to assemble the full LWSD capability and accomplish the at-sea testing:

- The Self Defense Test Ship, the USS Paul Foster, eDD-964.
- The Laser Weapon Console developed under the LaWS program, which serves as the operator interface to the weapon. This is a Navy certified system and will be required for the program.
- The Hybrid Predictive Avoidance Safety System (HPASS), which serves a number of system safety functions and also prevents interference with satellites during testing. This is a Navy certified system and is a required sub-system for the program.

- Interface function and control information for three (3) Mission Specific Module (MSM) bays, required as part of the performer's design of the beam director system.
- Interface and capacity specifications for ship power and cooling.
- Interface function and control information for ship sensors and combat systems that will pass and receive cue from the TLCM for target locations.
- Ship environmental data (shock, vibration, corrosion, etc.).

In addition to the required GFE, the Government has made significant investments in SSL technologies which may be provided as GFE if requested, and encourages proposers to leverage those investments consistent with design applicability, technology maturity, and program schedule and cost constraints. There is significant additional GFI available which may prove useful to the proposer. The full list of available GFE/GFI is provided in Appendix A. Proposals must identify and include all costs associated with the use of optional GFE.

Leveraging Government Facilities and Subject Matter Experts (SMEs)

Offerors must propose and cost all tasks and phases necessary to complete the effort under this BAA. However, the Government is always considering ways to more cost effectively accomplish program goals and objectives. There may be certain tasks within a proposers proposed approach that may be more cost effectively completed with use of unique government Subject Matter Experts (SMEs) or facilities. The Navy recognizes that it has facilities and SMEs that may provide unique capabilities, use of which may be cost-effective for the Government program. As such, the Government requests that, to the extent possible consistent with the proposers design and technical approach, proposers separately identify any novel means for leveraging unique government expertise and facilities that could be used to achieve the most cost effective government/industry working relationship for the program. Offerors should identify the government facility or SME, the scope of the effort that would be accomplished by use of the government facility or SME, and a point of contact for verification that the proposed government facilities or SME is available for the effort proposed. Offerors should not provide costs for this information. This information will not factor into the cost evaluation factor, but will be given some consideration in the evaluation criteria, specifically "Design Maturity and Risk Reduction Approach".

Upon completion of proposal evaluations and selection of a proposal for award, to the extent that the selected proposal provided information on government facilities or SMEs, the government may choose to independently verify that Offeror's identified government facilities or SMEs are available for the efforts identified, and obtain costs for the efforts to be performed via intragovernmental arrangement between ONR and the relevant Navy activity. To the extent that leveraging government facilities and SMEs is more cost effective for the program, the Government reserves the right to negotiate the selected proposer's contract to exclude these efforts/costs.

Throughout the program, the performer is expected to employ a tailored yet rigorous systems engineering process (both hardware and software) in order to successfully execute Preliminary Design Review (PDR), Critical Design Review (CDR), risk reduction testing, component and subassembly verification testing, and system demonstration. The performer's systems engineering process should ensure the capture of technical knowledge acquired in the execution of the TLCM project as well as a configuration management approach for managing the design. The extent of the knowledge captured will enable the assessment of adequacy of the analytical methods and design practices, and their correlation with test results. The

performer's process should establish a series of tracking tools that enable efficient assessment of program progress to include:

- Technical Performance Measures (TPMs). The performer should provide a manageable set of TPMs that relate to and are consistent with all levels of the system configuration, tracks the maturity of key risk areas, and forecasts the achievement of systems requirements.
- Risk Management Approach. As part of a Risk Management and Mitigation Plan (RMMP) the performer is expected to identify key technical risk areas consistent with achieving TLCM project objectives against the Integrated Master Schedule (IMS).

Program Phases:

The government plans a safety-conscious program with a logical progression from design and risk reduction through fabrication and assembly, with initial land-based testing to validate system performance, and culminating in meeting the program objective in a test or set of tests at-sea. This notional three-phased plan is shown graphically in Figure 2 below.

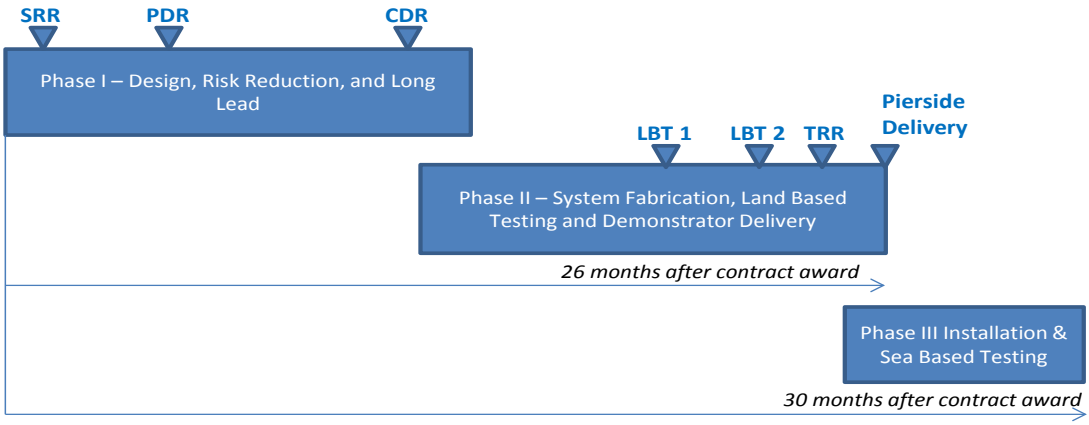

Figure 2 – Program Phases

**NOTE: Phase I (Base Period), Phase II (Option I) and Phase III (Option III).*

Phase I Activities and Deliverables:

The objectives of Phase I, will include development and refinement of the TLCM design package and risk reduction efforts from System Requirements Review (SRR) through PDR and completes after the CDR. Long lead items are expected to be identified in proposals and finalized by the PDR. The government will authorize purchase and fabrication of required long lead items during Phase I after the PDR and when the relevant aspects of the design are at appropriate maturity. Any purchase of long-lead items required prior to PDR in order to meet the program timelines must include a justification and date required in the proposal. There is additional time allocated in Phase I for post CDR design actions and final documentation.

The government expects Phase I activities to address:

- Conducting design and performance trade studies to develop a TLCM design;
- Initiating and maintaining a Technical Data Package (TDP) to document design and interfaces throughout the program;
- Conducting a SRR;
- Conducting a PDR;
- Conducting a CDR, addressing both land and sea based test configurations,
- Establishing and executing a Risk Management and Mitigation Plan (RMMP) to identify plans to address highest risk technology areas and validate performance capabilities;
- Support safety risks assessments associated with using the TLCM on government test ranges;
- Conducting Phase II planning based on the TDP; and
- Developing Long Lead purchase schedule and procuring material as needed.

The results of the Phase I program must convince the government that (1) the proposed TLCM can feasibly be built to meet the design and performance objectives with acceptable risk in the Government's

discretion; (2) the Phase II plan presents a credible and affordable approach to delivering the LWSD pier-side within 26 months of Phase I award; and (3) continuation into Phase II is warranted.

The government desires the following deliverables, in contractor format, during the performance of Phase I.

- Design TDP, including Interface Control Documents (ICD) and Interface Functional Documents (IFD), updated quarterly;
- SRR Briefing Charts and Documentation*;
- RMMP, updated quarterly to reflect results of design evolution and any risk reduction activities;
- Quarterly update of the IMS, Review materials, and any adjustments to anticipated technical activities in Phase II and/or Phase III with associated cost-level adjustments to cost and schedule;
- All test reports from sub-system, system, and risk reduction activities;
- Phase II and III demonstration plans (including cost and schedule), updated quarterly;
- Safety plans and documentation, updated quarterly;
- PDR Briefing Charts and Documentation, including Long Lead Item/Critical Hardware Parts List and Procurement Schedule*;
- CDR Briefing Charts and Documentation*; and
- Monthly Progress Reports (Technical and Financial).

*The tailored SRR, PDR, and CDR deliverables are described in Appendix B.

Phase II Activities and Deliverables:

The objectives of Phase II, will include subassembly, assembly, and system level testing as well as residual risk reduction activities. The government expects that Phase II performer activities to address:

- TLCM procurement, fabrication, assembly, and integration with other subsystems to complete the fully functional LWSD;

- Continue to execute the RMMP and collaborate with the Government to develop a System Demonstration Plan that covers all joint system level demonstration activities (i.e. land based and sea based testing);
- Continue to support required government assessments of safety risks associated with using the TLCM;
- Conduct land based testing (subject to associated readiness reviews) to verify system safety and system performance capabilities;
- Support a government Test Readiness Review (TRR) to validate that the LWSD is ready for Phase III installation and testing aboard the SDTS;
- Implement minor system alterations as identified in the TRR to support SDTS operations; and
- Deliver LWSD pier-side, ready for installation on the SDTS.

The government envisions two Land Based Tests (LBTs) will be performed in the latter stages of Phase II, one to validate the performance of the beam control system and a second to validate the overall performance of the TLCM. Readiness reviews will be conducted by the government to ensure the LWSD is ready for land-based testing, meeting all check out, range safety and environmental requirements. Any reviews required by the Navy's LSRB and the WSESRB will also be conducted in conjunction with these pre-test review activities. Specifically, LBT1 will be a critical risk reduction test series exercising the beam director, tracking and targeting systems, and verifying that the LWC/HPASS functions properly. LBT1 is not expected to include the SSL subsystem operated at high power levels. LBT1 provides the Objective Quality Evidence (OQE) required by the government to confirm that the LWSD can be safely operated, and safely certify the conduct of a second land based test (LBT2). LBT2, the system level performance testing, will exercise the full weapon capability, including the high power SSL for targets below and above the horizon. It is expected to include targeting, tracking, aim-point maintenance and test firings to confirm duty cycle and power performance metrics firing against representative surface and air targets on (or over) water, within an at-sea test range. The time separation between LBT1 and LBT2 will depend on the maturity level of the performer system and scheduling of available government test ranges. LBT2 builds on the results of LBT1 and supports the data collection and OQE requirement for a tailored shipboard Test Readiness Review (TRR) to be conducted by the government as described in Appendix B.

In order to ensure adequate testing preparation, initial versions of the operating and maintenance manuals for the LWSD should be developed prior to LBT1.

For purposes of cost and schedule estimation, Offerors should assume that LBT1 and LBT2 will be conducted on-site at the Port Hueneme shore-based "open air" government test range and aimed over water at surface and air targets. The government currently envisions that each test series will last two (2) weeks. Proposals may offer alternative land based test schedules, however they must include rationale based on significant comparative technical, cost, or schedule improvements.

It is envisioned that the performer will be primarily responsible for operating the laser during Phase II testing, with support from the Government. However, the Government may elect to operate the laser during a portion of land based testing as a training opportunity in preparation for Phase III.

A successful TRR for ship-board testing is required prior to proceeding with any identified shipboard integration modifications and final delivery of the LWSD. The Government will take possession of the LWSD at the conclusion of Phase II, with pier-side delivery to the test range.

The government desires the following deliverables, in contractor format, during the performance of Phase II.

- LWSD delivery in sea based configuration, including all hardware and software, operating instructions and limitations
- Design TDP, including ICDs and IFDs, updated quarterly
- Preliminary operating and maintenance manuals
- Diagnostic, test, and support equipment needed to support system testing
- Integrated Master Schedule (IMS), updated monthly
- Test reports for all LBTs
- Phase III demonstration plans (including cost and schedule), updated quarterly;
- RMMP, updated quarterly to reflect results of design evolution and any risk reduction activities;
- System Demonstration Plan, updated quarterly
- System Safety Assessment Reports (SSAR), Sub-system Safety Hazard Analysis Reports (SSHA), System Safety Program Plan (SSPP), and any other safety plans and documentation, updated quarterly
- TRR presentation and documentation
- Interim Quarterly Review Briefing Charts
- Monthly Progress Reports (Technical and Financial)

The conclusion of Phase II and the start of Phase III may overlap for several months depending on the results from the Phase II TRR and the scale of modifications required after the TRR to support the installation and test activities during Phase III.

Phase III Activities and Deliverables:

In Phase III, the government will assume responsibility for LWSD installation and testing on the SDTS, with technical assistance from the performer. The performer is expected to develop the final "as built" documentation of the LWSD, as well as final operating and maintenance manuals. It is expected that under government direction, the performer will support the complete installation and integration of the LWSD with the SDTS structure, and power/cooling systems. The performer will also be expected to provide support for check out testing of the installed LWSD.

Following installation, the performer will provide on-board support and technical service representatives during LWSD deployment. These personnel will provide technical, operations and maintenance support for the LWSD throughout the deployment. It is currently anticipated that ship-based testing will consist of two test periods of two-week duration, separated by up to a month of time in which the system remains installed on the ship but not tested. As requested by the government, the performer may also participate in test data collection and analysis and post-test performance assessments, and documentation development.

The government desires the following deliverables, in contractor format, during the performance of Phase III.

- Final "As Built" Technical Data Package (TDP), including ICDs and IFDs
- Final operating and maintenance manuals
- Test reports documenting the technical performance of the LWSD during the at-sea tests

- Monthly Progress Reports (Technical and Financial)
- Final Report

Additional Program Information:

Proposals submitted in response to this BAA should address the following attributes, to the greatest degree possible, consistent with the maturity of the proposed design.

LWSD Design

Proposals should address conceptual design overviews, descriptions, and system block diagrams in sufficient detail to illustrate design considerations, enable ease of understanding, and provide context for any salient features or configurations. At a minimum the technical proposal should address the following:

1) Overall system level attributes and performance, including:
   a) Physical configuration, estimated shapes, dimensions, weights, centers of gravity, and location relationships between containers, housings, and modules.
   b) Power and cooling characteristics, expected wall-plug efficiency,.
   c) Design features at the system and/or subsystem level which address shipboard environmental protection, survivability, and maintenance.
   d) Maximum continuous engagement time at full power and indicate limiting design element(s).
   e) Maximum engagement time at full system power and a 50% duty cycle consisting of 15 second shots. Indicate limiting design element(s).
   f) Predicted Power in the Bucket (PIB) curves at a nominal range of 10 km. Plot the curves in clearly labeled dimensional quantities (Power in Watts on the vertical axis, bucket diameter in centimeters on the horizontal axis). Use HEL wave-front characteristics and beam jitter consistent with the proposed system design but assume perfect atmosphere (i.e. no turbulence, scattering, or absorption knockdown). Include a comparative plot showing the performance that could be expected for a perfect Gaussian HEL beam at the same wavelength and total power if it were used in place of the performer's HEL sub-system. Provide a listing of the system parameters and values used to generate the above plots and the computer model(s) which were used in the simulation. Explicitly indicate whether the system parameters are based on experimentally validated performance, extrapolation from measurements at other than full design conditions, or engineering estimates and/or assumptions.
2) Description of Beam Director subsystem design and performance, including estimated or known design parameters for:
   a) Characteristics of the optical elements/pathways from laser subsystem to exit aperture.
   b) Mount performance and compensation approaches for low/high-frequency ship motion inertial sensing, contribution to system jitter, and techniques for optical alignment.
3) Description of Solid State Laser subsystem design and performance, including:
   a) Total power at the laser exit aperture, polarization, shape of the near field beam, anticipated temporal variations in power and shape.
   b) The Beam Quality (BQ) of the laser. Reference should be made to how this assessment relates to the methodology described in the document "*A Beam Quality Metric for High Energy Lasers*", provided as reference in the GFI list of Appendix B. Unless otherwise explained, this should be the BQ used in the modeling of expected overall system performance.

4) Description of Targeting and Tracking and Fire Control subsystems design and performance, including known or estimated performance (with explanation of basis) of the following:
   a) Active or passive characteristics and modes with estimates of range limits for detection, tracking, and identification of surface and air targets.
   b) Methodologies for selecting and maintaining aim-point, minimizing dynamic lag from crossing targets, algorithms and techniques to address target shapes and dynamic pose.
   c) Detection and identification criteria in daytime and nighttime modes and associated performance, target acquisition and reliability of track in the solar corridor.
   d) Elements that contribute to overall system jitter.

Design Maturity and Risk Reduction Approach

The Office of Naval Research has defined an aggressive, three phase program for achieving successful LWSD testing and demonstration. It is therefore critical that the LWSD system and subsystems have adequate maturity and an acceptable level of technical and integration risk inherent in their design. Proposals should address an Initial RMMP containing the following information:

1. Risk areas and risk mitigation plans for all three phases, with mitigation plan detailed through the use of risk matrix charts and detailed, time-oriented, schedule and risk waterfalls with a goal to be below the "high" thresholds by PDR.
2. Methodology for decomposing risks through the system architecture and design to the Configuration Item (CI) level.

Program Execution Plan

Offerors should demonstrate a credible plan for achieving the objectives of Phase I, Phase II, and Phase III as outlined in the paragraphs entitled Overview, Program Objectives, and Program Phases, stated above.

Offerors should describe the systems engineering approach that will be used to focus engineering efforts among multiple subsystems and developers, including their proposed process, analytic methodologies, technical analysis or simulation efforts, validation approach, and any Model-Based Systems Engineering.

Offerors should also describe their management plan and tools for managing the technical work, subcontractors, and material vendors. Offerors should provide substantiation that the proposed program team and key personnel have the requisite experience in demonstration programs of similar size and complexity to ensure successful LWSD program execution.

The Offeror should provide a Statement of Work (SOW) and Integrated Master Schedule (IMS). The SOW, IMS, and cost proposal should be consistent and fully integrated employing a common work breakdown structure and numbering scheme.

Navy Relevance

The Government seeks information that describes the relevance of the proposed approach for future Navy operational employment. Examples of such information include:

1) Modifications to the proposed design that would be necessary to install the TLCM on a U.S. Navy DDG 51 FLT IIA and be survivable for a long term deployment at sea, including estimates for

schedule and cost to do so. Cost estimates should be separate and clear from the 30-month demonstration proposal and will not be evaluated as part of the proposal cost for this BAA.

2) Anticipated long term availability, reliability, and maintainability with justification for the basis of estimate.
3) Descriptions of any system elements that will or could be configured as Line Replaceable Units (LRUs).
4) Description of the architecture or design elements that would facilitate maintenance and/or repair of the system at sea.
5) The scalability of the proposed system and subsystem elements to lower and higher power levels in order to support installation on a variety of Navy platforms.
6) The capability of the system to dynamically adjust the power on target to achieve a range of effects.
7) Architecture and system designs that feature graceful degradation of weapon performance in the event of subsystem failures.
8) Elements of the design which provide cost effective future upgrade options by following Modular Open Systems Architecture (MOSA) principles and practices
9) Any assertions of rights in Intellectual Property (IP), including substantiation of claims and licensing terms (see section IV.3 of this BAA)
10) Manufacturing readiness and production rate capability of existing industry base to fabricate special technologies and components associated with the proposed design. Identify technologies or components that are uniquely available from one vendor or country.

Cost Realism and Total Program Affordability

Proposals shall include Phase I cost information detailed to WBS Level 4. The Phase I cost estimate should be fully documented using the spreadsheet template found in section IV and substantiated with basis of estimates for prime and subcontractor efforts to WBS Level 4. The proposal shall also include cost information for Phase II to WBS Level 3 and for Phase III to WBS Level 2. The purpose of the Phase II and III cost estimates is to ensure that the government has adequate understanding of the full scope of activities that must be accomplished in order to achieve shipboard demonstration within 30 months and their estimated cost. This information will assist the government in assessing the affordability of the proposer's total program.

Proposals for all three phases must clearly describe the proposers costs to implement the required GFE, as well as any optional GFE they choose to incorporate, government facilities to be used, and SME support (whether contractor or government) as this will count towards the total program cost to the Government. Proposers should not include the actual cost of the GFE itself in their proposal.

System Safety and the Navy Laser Weapon Safety Program

Safety is a critical element for the SSL-TM program. Adherence to safety principles, practices, and policies will be thoroughly reviewed as part of the ongoing activities throughout the project and specifically as part of the PDR/CDR. The TLCM must adhere to all relevant Navy and Military Standards (MIL-STD) safety requirements for testing, and undergo independent safety reviews prior to authorization of open-air testing on a government range. Safety relevant documents are included as GFI in Appendix B.

In addition, the Offeror should allocate sufficient resources in schedule and cost to support reviews required by the Navy Weapon Safety program. Updated design documents, software (source code), and

briefing materials are required well in advance of reviews with the Navy Weapon System Explosive Safety Review Board (WSESRB), the Software System Safety Technical Review Panel (SSSTRP), and the Navy Laser Safety Review Board (LSRB). Updates to these panels should be planned to occur at 6 month intervals through all three phases of the project.

Data Rights

Data rights will be an important consideration regarding the ability to transition the information and technology developed in this program to development of an operational system. The Government desires, at a minimum, Government Purpose Rights to the technical data and software (including software code) developed to enable the Government to:

1) Flexibly brief stakeholders regarding technical progress and accomplishments,
2) Allow validation of technical claims and accomplishments by independent technical (potentially non-Government) experts,
3) Facilitate discussion of technical challenges and applications with the broader technical community,
4) Enable integration of alternative system components, and
5) Flexibly conduct reviews with required Navy safety review boards

For any data to be furnished with restrictions, the proposer should describe how their proposed assertions will not restrict the government's ability to successfully review and transition program information. For any software to be furnished with data rights restrictions, the proposer is expected to describe the means by which access to any source code will be provided to government SMEs.

G. Point(s) of Contact (POC) –

Questions of a technical nature should be submitted to:
SSL Program Officer: Mr. Peter A. Morrison
Office of Naval Research
875 North Randolph Street – Suite 1153
Code ONR 352
Arlington, VA 22203-1995
E-mail Address: peter.a.morrison@navy.mil

Questions of a business nature should be submitted to:
Contracting Officer: Ms. Vanessa Seymour
Office of Naval Research
875 North Randolph Street – Suite W1274
Code ONR BD251
Arlington, VA 22203-1995
E-mail Address: vanessa.seymour@navy.mil

Any questions regarding this solicitation must be provided to the Technical Point of Contact and Business Point of Contact listed in this solicitation. All questions shall be submitted in writing by electronic mail.

Comments or questions submitted should be concise and to the point, eliminating any unnecessary verbiage. In addition, the relevant part and paragraph of the Broad Agency Announcement (BAA) should be referenced.

Questions submitted within two (2) weeks prior to a deadline may not be answered, and the due date for submission of the white paper and/or full proposal will not be extended.
Amendments will be posted to one or more of the following webpages:

- Federal Business Opportunities (FEDBIZOPPS) Webpage - https://www.fbo.gov/
- ONR Broad Agency Announcement (BAA) Webpage - http://www.onr.navy.mil/en/Contracts-Grants/Funding-Opportunities/Broad-Agency-Announcements.aspx

Questions of a security nature should be submitted to:
Diana Pacheco
Industrial Security Specialist
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Arlington, VA 22203-1995
E-mail Address: diana.pacheco@navy.mil

Note: All UNCLASSIFIED communications shall be submitted via e-mail to the Technical Point of Contract (POC) with a copy to the designated Business POC.

CLASSIFIED questions shall be handled through the ONR Security POC. Specifically, any entity wanting to ask a CLASSIFIED question shall send an email to the ONR Security POC with copy to both the Technical POC and the Business POC stating that the entity would like to ask a CLASSIFIED question.
DO NOT E-MAIL ANY CLASSIFIED QUESTIONS. The Security POC will contact the entity and arrange for the CLASSIFED question to be asked through a secure method of communication.

H. Instrument Type(s) – Contracts

Awards will be issued as Cost Plus Fixed Fee (CPFF) type contracts.

Any contract awards resulting from this BAA will incorporate the most current FAR, DFARS, NMCARS and ONR clauses.

Examples of model contracts can be found on the ONR website at the following link:

http://www.onr.navy.mil/Contracts-Grants/submit-proposal/contracts-proposal/contract-model-awards.aspx . ONR Contract specific representations and certifications can be accessed on the following page of the ONR website: http://www.onr.navy.mil/en/Contracts-Grants/submit- proposal/contracts-proposal.aspx.

I. Other Information –

Work funded under a BAA may include basic research, applied research, and some advanced technology development (ATD). With regard to any restrictions on the conduct or outcome of work funded under this BAA, ONR will follow the guidance on and definition of "contracted fundamental research" as provided in the Under Secretary of Defense Acquisition, Technology and Logistics (AT&L) Memorandum of 24 May 2010. As defined therein the definition of "contracted fundamental research", in a DoD contractual context, includes [research performed under] grants and contracts that are (a) funded by Research, Development, Test, and Evaluation Budget Activity 1 (Basic Research), whether performed by universities or industry or (b) funded by Budget Activity 2 (Applied Research) and performed on campus at a university. The research shall not be considered fundamental in those rare and exceptional circumstances where the applied research effort presents a high likelihood of disclosing performance characteristics of military systems or manufacturing technologies that are unique and critical to defense, and where agreement on restrictions have been recorded in the contract or grant.

Pursuant to DoD policy, research performed under grants and contracts that are a) funded by Budget Activity 2 (Applied Research) and NOT performed on-campus at a university or b) funded by Budget Activity 3 (Advanced Technology Development) does not meet the definition of "contracted fundamental research." In conformance with the USD(AT&L) guidance and National Security Decision Directive 189, ONR will place no restriction on the conduct or reporting of unclassified "contracted fundamental research," except as otherwise required by statute, regulation or Executive Order. For certain research projects, it may be possible that although the research being performed by the prime contractor is restricted research, a subcontractor may be conducting "contracted fundamental research." In those cases, it is the **prime contractor's responsibility** in the proposal to identify and describe the subcontracted unclassified research and include a statement confirming that the work has been scoped, negotiated, and determined to be fundamental research according to the prime contractor and research performer.

Normally, fundamental research is awarded under grants with universities and under contracts with industry. Non-fundamental research is normally awarded under contracts and may require restrictions during the conduct of the research and DoD pre-publication review of such research results due to subject matter sensitivity. Potential Offerors should consult with the appropriate ONR Technical POCs to determine whether the proposed effort would constitute basic research, applied research or advanced research.

FAR Part 35 restricts the use of the Broad Agency Announcements (BAAs), such as this, to the acquisition of basic and applied research and that portion of advanced technology development not related to the development of a specific system or hardware procurement. Contracts and grants and other assistance agreements made under BAAs are for scientific study and experimentation directed towards advancing the state of the art and increasing knowledge or understanding.

As regards to the present BAA, the Research and Development efforts to be funded will consist of applied research and advanced technology development. The funds available to support awards are Budget Activity 2 and Budget Activity 3.

THIS ANNOUNCEMENT IS NOT FOR THE ACQUISITION OF TECHNICAL, ENGINEERING AND OTHER TYPES OF SUPPORT SERVICES.

II. AWARD INFORMATION

A. Period of Performance – Anticipated Number of Awards: one (1)

It is the Government's intent to make one (1) award. However, the Government reserves the right to select for negotiation all, some, or one of the proposals received, or to make no awards if it is determined that none of the proposals submitted will adequately meet the performance objectives, or if the funding available is not sufficient to make an award under this BAA. It is also the Government's intent to make award without discussions with proposers; however, the Government reserves the right to conduct discussions if it is later determined to be necessary.

The contract will be structured to contain a twelve (12) month Base Period (Phase I), a fourteen (14) month Option Period I Period (Phase II), and a six (6) month Option Period II Period (Phase III). A sea-based LWSD demonstration is required no later than thirty (30) months after contract award. To support this schedule, the LWSD must be delivered pier side at the SDTS no later than twenty-six (26) months after contract award.

This BAA calls for fully integrated system level proposals for the LWSD. Proposals submitted in response to this BAA must contain all three (3) phases. Proposals that only address partial solutions or component level technologies will not be considered for an award under this BAA.

The Contracting Officer shall have sole discretion to negotiate all contract terms and conditions with selectee. The Government reserves the right to request any additional, necessary documentation from selectee. The Government reserves the right to remove proposers from award consideration should the parties fail to reach agreement on award terms, conditions, and cost/price within a reasonable time, or the proposer fails to timely provide requested additional information.

B. Production and Testing of Prototypes -

In the case of funded proposals for the production and testing of prototypes, ONR may modify the contract to add a contract line item or contract option for the provision of advanced component development or for the delivery of additional prototype units. However, such a contract addition shall be subject to the limitations contained in Section 819 of the National Defense Authorization Act for Fiscal Year 2010.

III. ELIGIBILITY INFORMATION

All responsible sources from academia and industry may submit proposals under this BAA. Historically Black Colleges and Universities (HBCUs) and Minority Institutions (MIs) are encouraged to submit

proposals and join others in submitting proposals. However, no portion of this BAA will be set aside for HBCU and MI participation, due to the impracticality of reserving discrete or severable items of this research for exclusive competition among the entities.

Federally Funded Research & Development Centers (FFRDCs), including Department of Energy National Laboratories, are not eligible to receive awards under this BAA. However, teaming arrangements between FFRDCs and eligible principal bidders are allowed so long as they are permitted under the sponsoring agreement between the Government and the specific FFRDC.

Navy laboratories and warfare centers as well as other Department of Defense and civilian agency laboratories are also not eligible to receive awards under this BAA and should not directly submit either white papers or full proposals in response to this BAA. If any such organization is interested in one or more of the programs described herein, the organization should contact an appropriate ONR Technical POC to discuss its area of interest. The various scientific divisions of ONR are identified at http://www.onr.navy.mil/. As with FFRDCs, these types of federal organizations may team with other responsible sources from academia and industry that are submitting proposals under this BAA.

University Affiliated Research Centers (UARCs) are eligible to submit proposals under this BAA unless precluded from doing so by their Department of Defense UARC contract.

Teams are also encouraged and may submit proposals in any and all areas. However, Offerors must be willing to cooperate and exchange software, data and other information in an integrated program with other contractors, as well as with system integrators, selected by ONR.

Due to system complexity and the technical integration risks associated with ~~on~~ this program, ONR seeks the strongest team possible to ensure an affordable demonstration within the aggressive program schedule objective. Offerors are encouraged to consider teaming approaches that (1) minimize execution risk; and 2) result in the most affordable demonstration program to advance ONR's objectives. Offerors may elect to team with one another and participate on multiple teams. However, proposals submitted in response to this BAA should reflect a complete and integrated approach.

Some topics cover export controlled technologies. Research in these areas is limited to "U.S. persons" as defined in the International Traffic in Arms Regulations (ITAR) -22 CFR § 120.1 et seq.

Cost sharing is not expected and will not be used as a factor during the merit review of any proposal hereunder. However, the Government may consider voluntary cost sharing if proposed.

IV. APPLICATION AND SUBMISSION INFORMATION

A. Application and Submission Process – Full Proposals

Full Proposals: The due date for receipt of Full Proposals is 2:00 PM (Eastern Standard Time) on Tuesday, 27 January 2015. Proposals received after the published due date and time will not be considered for funding under a separate BAA at a later time. Proposals exceeding the page limit may not be evaluated. It is anticipated that the final selection will be made on or about Tuesday, 31 March 2015.

B. Content and Format of Full Proposals -

Full Proposals submitted under this BAA are expected to be unclassified; however, classified proposals are permitted. If a classified proposal is submitted and selected for award, the resultant contract will be unclassified.

Unclassified Proposal Instructions:

Unclassified White Papers and Full Proposals shall be submitted in accordance with Section IV. Application and Submission Information.

Classified Proposal Instructions:

Classified White Papers and Full Proposals shall be submitted directly to the attention of ONR's Document Control Unit at the following address:

OUTSIDE ENVELOPE (no classification marking):
Office of Naval Research
Document Control Unit
ONR Code 43
875 North Randolph Street
Arlington, VA 22203-1995

The inner wrapper of the classified proposal should be addressed to the attention of Peter A. Morrison (peter.a.morrison@navy.mil), ONR Code 352 and marked in the following manner:

INNER ENVELOPE (stamped with the overall classification of the material)
Program: Solid State, High Power Laser Weapon System Demonstrator (LWSD) Design, Development and Demonstration for Surface Navy, USN
Office of Naval Research
Attn: Peter A. Morrison
ONR Code: 352
875 North Randolph Street
Arlington, VA 22203-1995

An 'unclassified' Statement of Work (SOW) must accompany any classified proposal.

Proposal submissions will be protected from unauthorized disclosure in accordance with FAR Subpart 15.207, applicable law, and DoD/DoN regulations. Offerors are expected to appropriately mark each page of their submission that contains proprietary information.

STATEMENT OF WORK

An 'unclassified' SOW must accompany any classified proposal. For both classified and unclassified proposals, a non-proprietary version of the SOW must also be submitted

For both classified and unclassified proposals, a non-proprietary version of the Statement of Work must also be submitted. Do not put proprietary data or markings in or on the Statement of Work. For proposals containing data that the Offeror does not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes, the contractor shall mark the title page with the following legend:

"This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed--in whole or in part--for any purpose other than to evaluate the proposal. If, however, a contract is awarded to this Offeror as a result of--or in connection with-- the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if is obtained from another source without restriction. The data subject to this restriction are contained in (insert numbers or other identification of sheets)."

Also, the Offeror shall mark each sheet of data that they wish to restrict with the following legend:

"Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal."

To ensure consistency in performer and government nomenclature and a common understanding of detail expected in the proposal, the proposer shall use a common work breakdown structure (WBS) and numbering scheme for their design technical data packages, statement of work, integrated master schedule, and cost proposal. Offeror's may tailor their WBS appropriate to their management approach and proposed tasks, but should provide a level of detail consistent with the guidance provided in MIL-STD-881C (available as GFI) to ensure the government has adequate understanding of the proposed approach to allow an informed evaluation.

a. **FULL PROPOSALS**

i. INSTRUCTIONS FOR CONTRACTS

NOTE: Submission instructions for BAAs issued after FY 2010 have changed significantly from previous requirements. Potential Offerors are advised to carefully read and follow the instructions below. The new format and requirements have been developed to streamline and ease both the submission and the review of proposals.

Proposal Package: The following four documents with attachments comprise a complete proposal package:

(1) Technical Proposal Template (pdf)
(2) Technical Content (word)
(3) Cost Proposal Spreadsheet (excel)
(4) Adequacy Checklist for Pre Award Audit (SF 1408) (as applicable)
(5) Stand-alone non-proprietary Statement of Work (SOW) in word format

NOTE(s): The electronic file name for all documents submitted under this BAA must not exceed 68 characters in length, including the file name extension. Subcontractor proposal packages may be submitted separately, but must comply with all requirements.

These documents can be found at: http://www.onr.navy.mil/Contracts-Grants/submit-proposal/contracts-proposal/cost-proposal.aspx. All have instructions imbedded into them that will assist in completing the documents. Also, both the Technical Proposal Template and the Cost Proposal Spreadsheet require completion of cost-related information. Please note that attachments can be incorporated into the Technical Proposal Template for submission.

For proposals below the simplified acquisition threshold (less than or equal to $150K), the Technical Proposal Template and Technical Content documents, and Cost Proposal Spreadsheet are required. In addition, if a purchase order will be awarded, the effort will be fixed price. Purchase orders can also contain options, if authorized under the BAA, as long as the total amount of the base and all options does not exceed $150k.

Intellectual Property: Offerors responding to this BAA must submit a separate list of all technical data or computer software that will be furnished to the Government with other than unlimited rights. The Government will assume unlimited rights if Offerors fail to identify any intellectual property restrictions in their proposals. Include in this section all proprietary claims to results, prototypes, and/or deliverables. If no restrictions are intended, then the Offeror should state "NONE."

Offerors shall provide a good faith representation that they either own or possess appropriate licensing rights to all other intellectual property that will be utilized under their proposal.

Additionally, Offerors shall provide a short summary for each item asserted with less than unlimited rights that describes the nature of the restriction and the intended use of the intellectual property in the conduct of the proposed research.

Patented Invention: Offerors shall provide, for each patented invention (or invention for which a patent application has been filed, or inventions already conceived or reduced to practice) to be provided to the Government without at least a worldwide, nonexclusive, nontransferable, irrevocable, paid-up license to practice, or have practiced for or on its behalf, the invention throughout the world, a short summary that describes the nature of any restriction on the Government's use, including the conditions under which the Government may acquire a license to the invention, and the intended use of the invention in any deliverable under any proposed award instrument. The Government may use the short summary during the source selection evaluation process to evaluate the impact of any restrictions or conditions and may request additional information from the proposer, as may be necessary, to evaluate that impact.
Proposers shall list, and include documentation proving their ownership of, or possession of, appropriate licensing rights to, all patented inventions (or inventions for which a patent application has been filed, or inventions already conceived or reduced to practice) that will be utilized under their proposal for the ONR program. For each invention that the proposer will utilize, the proposer shall provide, to the extent known and applicable, the patent number, serial number, inventor name(s), assignee names (if any), filing date, filing date of any related provisional application, and a summary of the patent title, together with either (1) a representation that the proposer owns the invention, or (2) proof of possession of appropriate licensing rights in the invention. If the proposer will not utilize any patented inventions, or inventions for which a patent application has been filed, or inventions already conceived or reduced to practice, then the proposer should state "NONE.

The format requirements for any attachments are as follows:

- Paper Size- 8.5 x 11 inch paper
- Margins – 1 inch
- Spacing- single or double spaced
- Font- Times New Roman, 12 point
- Maximum Number of Pages permitted: Seventy-five (75) pages. Cover page, table of contents, resumes, and current and pending project and proposal submissions information are excluded from the page limitation. Full proposals exceeding the page limitation may not be evaluated.

For proposed subcontracts or interorganizational transfers over $150,000, Offerors must provide a separate fully completed Cost Proposal Spreadsheet in support of the proposed costs. This spreadsheet, along with supporting documentation, must be provided either in a sealed envelope with the prime's proposal or via e-mail directly to both the Program Officer and the Business Point of Contact at the same time the prime proposal is submitted. The e-mail should identify the proposal title, the prime Offeror and that the attached proposal is a subcontract, and should include a description of the effort to be performed by the subcontractor.

Offerors should submit one (1) original, plus nine (9) hard copy and two (2) electronic copy on CD-ROM as discussed with the cognizant Program Officer, of their proposal package. The electronic copy should be submitted in a secure, pdf-compatible format, except for the electronic file for the Cost Proposal Spreadsheet which should be submitted in a Microsoft Excel 2007 compatible format. All attachments should be submitted in a secure, pdf-compatible format.

The secure pdf-compatible format is intended to prevent unauthorized editing of the proposal prior to any award. A password should not be required for opening the proposal document, but the Government must have the ability to print and copy text, images, and other content. Offerors may also submit their Technical Proposal Template and Content in an electronic file that allows for revision (preferably in Microsoft Word) to facilitate the communication of potential revisions. Should an Offeror amend its proposal, the amended proposal should be submitted following the same hard and electronic copy guidance applicable to the original proposal.

Any proposed options that are identified in the Technical Proposal Template or Technical Content documents, but are not fully priced out in the Cost Proposal Spreadsheet, will not be included in any resulting contract, cooperative agreement, or other transaction. If proposing options, they must be separately priced and separate spreadsheets should be provided for the base period and each option. In addition to providing summary by period of performance (base and any options), the Contractor is also responsible for providing a breakdown of cost for each task identified in the Statement of Work. The sum of all costs by task worksheets MUST equal the total cost summary.

The electronic submission of the Excel spreadsheet should be in a "useable condition" to aid the Government with its evaluation. The term "useable condition" indicates that the spreadsheet should visibly include and separately identify within each appropriate cell any and all inputs, formulas, calculations, etc. The Offeror should not provide "value only spreadsheets" similar to a hard copy.

Fixed Fees on ONR Contracts: The Government Objective is set in accordance with the DFARS 215.404-71. See the below table for range and normal values:

Contract Risk Factor	Contract Type	Assigned Value (Normal range)	Normal Value
Technical (1)		3% - 7% (2)	5%
Management/Cost Control (1)		3% - 7% (2)	5%
Contract Type Risk	Firm Fixed Price	2% - 6% (3)	3% - 5% (4)
Contract Type Risk	Cost Plus Fixed Fee	0% - 1% (2)	0.5%

1. Assign a weight (percentage) to each element according to its input to the total performance risk. The total of the two weights equal 100 percent.
2. Assign a weighting score relative to the Risk Factor.
3. Depends on the specific Contract Type (With/without financing, performance-based payments, and/or progress payments).
4. Depends on the specific Contract Type.

Technology Incentive (TI) is rarely utilized at ONR, because the contracts issued by ONR typically are not eligible for TI (See DFARS 215.404-71-2(c)(2)). Any consideration of TI requires strong and convincing justification in the proposal, which are then subject to negotiation and determination of a fair and reasonable fee, within the context of the specific award. Typically the range of fee is 5% to7.5% on an ONR awarded contract.

For submission instructions, see sub-section F. Submission of White Papers and Full Proposals for Contracts, Cooperative Agreements, and Other Transaction Agreements.

C. Significant Dates and Times –

Event	Date	Time
Full Proposal Due Date	27 January 2015	2:00 PM Eastern Standard Time
Notification of Selection Full Proposals*	31 March 2015	
Award*	29 May 2015	

*These dates are estimates as of the date of this announcement.

NOTE: Due to changes in security procedures since September 11, 2001, the time required for hard-copy written materials to be received at the Office of Naval Research has increased. Materials submitted through the U.S. Postal Service, for example, may take seven days or more to be received, even when sent by Express Mail. Thus any hard-copy proposal should be submitted long enough before the deadline established in the solicitation so that it will not be received late and thus be ineligible for award consideration.

D. Submission of Late Proposals -

Any proposal, modification, or revision that is received at the designated Government office after the exact time specified for receipt of proposals is "late" and will not be considered unless it is received before award is made, the contracting officer determines that accepting the late proposal would not unduly delay the acquisition and:

a. If it was transmitted through an electronic commerce method authorized by the announcement, it was received at the initial point of entry to the Government infrastructure not later than 5:00 P.M. one working day prior to the date specified for receipt of proposals; or
b. There is acceptable evidence to establish that it was received at the Government installation designated for receipt of proposals and was under the Government's control prior to the time set for receipt of proposals; or
c. It was the only proposal received.

However, a late modification of an otherwise timely and successful proposal that makes its terms more favorable to the Government will be considered at any time it is received and may be accepted.
Acceptable evidence to establish the time or receipt at the Government installation includes the time/date stamp of that installation on the proposal wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.
If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at the Government office designated for receipt of proposals by the exact time specified in the announcement, and urgent Government requirements preclude amendment of the announcement closing date, the time specified for receipt of proposals will be deemed to be extended to the same time of day specified in the announcement on the first work day on which normal Government processes resume.

The contracting officer must promptly notify any Offeror if its proposal, modifications, or revision was received late and must inform the Offeror whether its proposal will be considered.

E. Address for the Submission of Full Proposals for Contracts

Hard Copies of the Full Proposal and the DVD or CD-ROM of the Full Proposal should be sent to the Office of Naval Research as indicated below. All supporting documentation should be submitted with the DVD or CD-ROM of the Full Proposal.

Primary Point of Contact	Secondary Point of Contact
Office of Naval Research Attn: Peter A. Morrison ONR Department Code: 352 875 North Randolph Street, RM 1153 Arlington, VA 22203-1995	Office of Naval Research Attn: Frank Peterkin ONR Department Code: 352 875 North Randolph Street, RM 1142 Arlington, VA 22203-1995

V. EVALUATION INFORMATION

A. Evaluation Criteria –

Awards under this BAA will be made to proposers on the basis of the evaluation criteria listed below, and program balance to provide overall value to the Government. The Government reserves the right to

request any additional, necessary documentation once it makes the award instrument determination. The Government reserves the right to remove proposers from award consideration should the parties fail to reach agreement on award terms, conditions, and cost/price within a reasonable time, or the proposer fails to timely provide requested additional information. Evaluations will be conducted using the following evaluation criteria:

1. Overall scientific and technical merits of the System Design
2. Design Maturity and Risk Reduction Approach
3. Program Execution Plan
4. Potential Navy Relevance
5. Cost Realism and Total Program Affordability

Factors 1 through 3 are of equal importance. Factors 4 and 5 are of equal importance but of lesser importance than factors 1 through 3.

(1) Scientific and Technical Merit of the System Design

The Government will assess the overall scientific and technical merit of the proposer's LWSD concept and design approach, including the adequacy, feasibility, and credibility of its predicted performance to meet the program objective. This factor includes the extent to which the proposal reflects a mature, substantiated, and quantitative understanding of the program technical objectives, the degree to which the projected performance is validated by test, measurements, or simulation, and the fidelity of the design with respect to the described concept of employment.

This factor assesses the extent to which a proposal is innovative, and significantly advances performance attributes beyond the current state of parameters of currently demonstrated systems. This factor also assesses the extent to which the technical approach is comprehensive, systematic and sound, and that the technical elements of design are well integrated into a cohesive system design. The government will also evaluate the proposal with respect to implementation of general weapon safety principles as well as level of clarity and detail in explaining how the system design and architecture follows the practices and requirements of the Navy's Laser Safety Program while also demonstrating an overall commitment to safe system operation.

The government will assess how well the proposal demonstrates a complete understanding of the LWSD design and required interfaces with GFE as well as the integration challenges for the SDTS. The proposer's ability to describe the overall system performance will be a driving factor in the government's evaluation of the technical approach.

(2) Design Maturity and Risk Reduction Approach

The government will assess the level of technical risk in the system design and the technology maturity of the proposed system and sub-system elements. This evaluation criterion will be used to assess the initial RMMP and whether the proposal demonstrates an adequate understanding of the technical, integration, cost, and schedule risks inherent in the proposed design and approach. The government will evaluate whether the RMMP fully identifies critical technical issues and risks, demonstrates understanding of the sources and drivers of technical risk, and describes a robust plan for managing those risks. The mitigation efforts should be detailed, defined, and feasible, with substantiated projections of when risk is retired during the effort.

The Government will also evaluate the maturity of the overall system and supporting technologies implemented in the LWSD design. This will include the degree to which the proposed approach leverages existing systems, sub-systems and capabilities as appropriate to achieve cost-effective solutions that balance improvements in performance while still feasibly meeting overall program technical and schedule objectives for the sea-based demonstration.

(3) Program Execution Plan

This evaluation criterion will be used to assess the proposer's plan for executing Phases I, II and III. The overall programmatic approach will be reviewed to assess the extent to which the proposed program, schedule and teaming approach demonstrates that the proposer has a vision for credibly achieving LWSD delivery within 26 months of Phase I award. To make this assessment, the Government will assess the systems engineering approach, management approach, and program team and key personnel, as well as the SOW and IMS. The Government will assess the extent to which the proposed SOW and Integrated Master schedule are credible, executable, and address program objectives, deliverables and success metrics for each phase. The IMS will be reviewed to assess whether it properly shows the dependencies among the tasks, displays the critical path and demonstrates a reasonable probability of successful completion.

The proposed management plan will be reviewed to determine the extent to which the proposed program structure efficiently coordinates and manages large distributed efforts, asserts effective supervision of personnel, and facilitates seamless integration of and cooperation among team members and supporting activities. The Government will also assess proposed tools for managing program schedule and cost. The Government will review the approach for managing subcontractors to mitigate system integration risk, ensure quality control, and maintain cost and schedule. The Government will also assess whether the proposed management approach provides sufficient government visibility into the team's program management system to evaluate progress toward achieving program objectives. The Government will also assess the proposed level of interaction with the Government team to determine whether it enables early identification and resolution of issues and adequate interface with supporting activities and Government Furnished Equipment (e.g., test range, SDTS, LWC, HPASS). The Government will also assess the proposed approach for managing program security and safety activities.

This evaluation criterion will also be used to assess the proposer's key personnel, including the Program Manager, Chief Engineer, Chief Systems Engineer, and Segment Leads. Resumes will be reviewed to assess the extent to which key personnel have adequate qualifications and have relevant experience on prior

demonstration activities of similar scope and complexity. The government will also assess whether key personnel are allocated sufficient time on the program to perform their described roles.

(4) Potential Navy Relevance

This factor assesses the potential for the proposer's laser weapon design to provide capabilities relevant for Navy missions and system architecture suitable for implementation on current and future Navy surface ship platforms. The Government will assess the extent to which the proposed design, program plan, and deliverables will produce data and performance traceable to a potential operational system on a Navy surface combatant, such as a DDG-51 Flight IIA surface combatant. Other areas to be assessed in this factor are the level of fidelity in the land and sea based system demonstrations and estimates of remaining

development activities, costs, and schedule to achieve an operationally relevant system integrated on a Navy surface combatant.

The government will also assess the potential of the proposer's system design, architecture, and underlying technologies to support multiple Navy missions, system upgrades, and large-scale production in the event of transition. Key elements of this assessment will include any descriptions of the scalability of the system architecture to lower and higher power levels to address different Navy platforms and associated missions and the manufacturability prospects for technologies unique to the proposer's laser weapon design.

Also under this factor, data rights assertions will be evaluated and measured against the government's desire to maximize MOSA principles and practices. Where IP assertions are made, they will be evaluated to determine whether they are well delineated and substantiated, whether the licensing terms are clear and enforceable, and weighed for impact on system performance, safety, and the Government's ability to competitively procure and upgrade future systems.

(5) Cost Realism and Total Program Affordability

The objective of this criterion is to establish that the proposed costs are realistic and reasonable for the technical and management approach offered, as well as to determine the proposer's practical understanding of the total program effort. The proposal will be reviewed to determine if the costs proposed are based on realistic assumptions, reflect a sufficient understanding of the technical goals and objectives of the BAA, and are consistent with the proposer's technical approach (to include the proposed Statement of Work). Phase I cost proposals will be evaluated to WBS Level 4. This will involve review, at the prime and subcontract level, of the type and number of labor hours proposed per task as well as the types and kinds of materials, equipment, and fabrication costs proposed to assess whether the proposed costs are reasonable for the proposed activities. The Phase II and III cost proposals will be evaluated at WBS Level 3 and Level 2 respectively. This factor will also be used to assess the full cost of the proposed project (including cost of integration with GFE) to evaluate total program affordability.

B. Commitment to Small Business - (For Contract Awards Only)

The Office of Naval Research is strongly committed to providing meaningful subcontracting opportunities for small businesses, small disadvantaged businesses (SDBs), woman-owned small businesses (WOSBs), historically underutilized business zone (HUBZone) small businesses, veteran-owned small business (VOSBs), service disabled veteran-owned small businesses (SDVOSBs), historically black colleges and universities, and minority institutions, and other concerns subject to socioeconomic considerations through its awards.

Businesses unfamiliar with doing business with the government and require assistance may contact the state-specific Department of Defense (DoD) Procurement Technical Assistance Center (PTAC). DoD PTACs serve as a resource for businesses pursing and performing under contracts with DoD, other federal agencies, state and local governments and with government prime contractors. Assistance provided by the PTACs is usually free of charge. PTAC support includes registration in systems such as SAM, identification of contract opportunities, understanding requirements and preparing and submitting proposals. The PTACs have a presence in each state, Puerto and Guam. To locate a local PTAC visit: http://www.dla.mil/SmallBusiness/Pages/ProcurementTechnicalAssistanceCenters.aspx or http://www.aptac-us.org/new/ .

1.) Subcontracting Plan - For proposed awards to be made as contracts that exceed $650,000, large businesses and non-profits (including educational institutions) shall provide a Subcontracting Plan (hereafter known as the 'Plan') that contains all elements required by FAR Subpart 19.704, FAR 52.219-9 and as supplemented by DFARS 252.219-7003.

NOTE: Small businesses are exempt from this requirement.

The Plan must be submitted as an attachment to the "Proposal Checklist" and will not be included in the page count. If a company has a Master Subcontracting Plan, as described in FAR 19.701 or a Comprehensive Subcontracting Plan, as described in DFARS 219.702, a copy of the Plan shall also be submitted as an attachment to the "Proposal Checklist".

Plans will be reviewed for adequacy, ensuring that the required information, goals, and assurances are included. FAR 19.702 require the apparently successful Offeror to submit an acceptable Plan. If the apparently successful Offeror fails to negotiate a Plan acceptable to the contracting officer within the time limit prescribed by the contracting officer, the Offeror will be ineligible for award.

Offerors shall propose a plan that ensures small businesses (inclusive of SDBs, WOSBs, HUBZone, VOSBs and SDVOSBs, etc…) will have the maximum practicable opportunity to participate in contract performance consistent with its efficient performance.

As a baseline, Offerors shall to the best extent possible propose realistic goals to ensure small business participation in accordance with the current or most recent fiscal year subcontracting goals found on the DoD Office of Small Business Program website at: http://www.acq.osd.mil/osbp/. If proposed goals are below the statutory requirements, then the Offeror shall include in the Plan a viable written explanation as to why small businesses are unable to be utilized and what attempts were taken to ensure that small business were given the opportunity to participate in the effort to the maximum extent practicable.

2.) Small Business Participation Statement –

If subcontracting opportunities exist, all prime Offerors shall submit a Small Business Participation Statement regardless of size in accordance with DFARS 215.304 when receiving a contract for more than the simplified acquisition threshold (i.e., $150,000). All Offerors shall provide a statement of the extent

of the Offeror's commitment in providing meaningful subcontracting opportunities for small businesses and other concerns subject to socioeconomic considerations through its awards and must agree that small businesses, VOSBs, SDVOSBs, HUBZones, SDBs, and WOSBs concerns will have to the maximum practicable opportunity to participate in contract performance consistent with its efficient performance.

This assertion will be reviewed to ensure that it supports this policy by providing meaningful subcontracting opportunities. The statement should be submitted as a part of the proposal package and will not be included in the page count.

3.) Subcontracting Resources -

Subcontracting to a prime contractor can be a good way to participate in the contracting process. The following is a list of potential resources that may assist in locating potential subcontracting partners/opportunities:

*Companies Participating in DoD Subcontracting Program Report
*DAU Small Business Community of Practice (SB COP)
*DefenseLink ≥ $6.5M Award Notices
*DoD OSBP Prime Contractors and Subcontractors with Subcontracting Plans
*Dynamic Small Business Search
*Electronic Subcontracting Reporting System (eSRS)
*Federal Business Opportunities (FEDBIZOPPS)
*Navy SBIR/STTR Search – Website or Brochure
*DoD Procurement Technical Assistance Centers (PTAC)
*Small Business Administration (SBA) Subcontracting Opportunities Directory
*SBA Subnet

For a description and associated websites visit the ONR Office of Small Business webpage at: http://www.onr.navy.mil/Contracts-Grants/small-business.aspx.

For example, in accordance with FAR Subpart 5.206, entities may transmit a notice to a Government Point of Entry (GPE) to seek competition for subcontracts and to increase participation by qualified HUBZone small business, small, small disadvantaged business, women-owned small business, veteran-owned small business and service-disabled veteran- owned small business concerns is encouraged, and to meet established subcontracting plan goal as follows:

(a) A contractor awarded a contract exceeding $150,000 that is likely to result in the award of any subcontracts;
(b) A subcontractor or supplier, at any tier, under a contract exceeding $150,000, which has a subcontracting opportunity exceeding $15,000.

The notices must describe—

(a) The business opportunity;
(b) Any prequalification requirements; and
(c) Where to obtain technical data needed to respond to the requirement.

An example of a GPE is the SBA SUB-Net which is a place in which prime contractors may post solicitations or sources sought notices for small business. The SUB-Net database provides a listing of subcontracting solicitations and opportunities posted by large prime contractors and other non-federal agencies.

C. Options -

The Government will evaluate options for award purposes by adding the total cost for all options to the total cost for the basic requirement. Evaluation of options will not obligate the Government to exercise the options during contract performance.

D. Evaluation Panel -

Technical and cost proposals submitted under this BAA will be protected from unauthorized disclosure in accordance with FAR 3.104-4 and 15.207. Qualified government personnel will perform the evaluation of technical proposals. Restrictive notices notwithstanding, one or more support contractors may be utilized as administrative and technical subject-matter-expert support. However, proposal selection and award decisions are solely the responsibility of Government personnel. Each support contractor's employee having access to technical and cost proposals submitted in response to this BAA will be required to sign a non- disclosure statement prior to receipt of any proposal submissions.

VI. AWARD ADMINISTRATION INFORMATION

A. North American Industry Classification System (NAICS) code – The NAICS code for this announcement is "541712" with a small business size standard of "500 employees".

B. System for Award Management (SAM): All Offerors submitting proposals or applications must:

1) be registered in the SAM prior to submission;
2) maintain an active SAM registration with current information at all times during which it has an active Federal award or an application under consideration by any agency; and
3) provide its DUNS number in each application or proposal it submits to the agency.

The System for Award Management (SAM) is a FREE WEBSITE that consolidates the capabilities you used to find in CCR/FedReg, ORCA, and EPLS. Future phases of SAM will add the capabilities of other systems used in Federal procurement and awards processes.

SAM may be accessed at https://www.sam.gov/portal/public/SAM/

NOTE TO FORMER CCR REGISTRANTS: If you had an active record in CCR, you have an active record in SAM. You do not need to do anything in SAM at this time, unless a change in your business circumstances requires a change in SAM in order for you to be paid or to receive an award. SAM will send notifications to the registered user via email 60, 30, and 15 days prior to expiration of the record. You can search for registered entities in SAM by typing the DUNS number or business name into the search box.

C. Access to Contract Award

Effective 01 October 2011, hard copies of award/modification documents are no longer mailed to Offerors. All Office of Naval Research (ONR) award/modification documents will be available via the Department of Defense (DoD) Electronic Document Access System (EDA).

EDA is a web-based system that provides secure online access, storage, and retrieval of awards and modifications to DoD employees and vendors.

If you do not currently have access to EDA, complete a self-registration request as a "Vendor" via http://eda.ogden.disa.mil following the steps below:

Click "New User Registration" (from the left Menu)
Click "Begin VENDOR User Registration Process"
Click "EDA Registration Form" under Username/Password (enter the appropriate data)
Complete & Submit Registration form

Allow five (5) business days for your registration to be processed. EDA will notify you by email when your account is approved.

Registration questions may be directed to the EDA help desk toll free at 1-866-618-5988, Commercial at 801-605-7095, or via email at cscassig@csd.disa.mil (Subject: EDA Assistance).

VII. OTHER INFORMATION

A. Applies to Contracts only

i. Government Property/Government Furnished Equipment (GFE) and Facilities
ii. Use of Arms, Ammunition and Explosives
iii. System for Award Management (SAM)
iv. Employment Eligibility Verification
v. FAR / DFARS Clauses
vi. Combating Trafficking in Persons
vii. Updates of Information regarding Responsibility Matters

B. Applies to Contracts, Grants, Cooperative Agreements and Other Transaction Agreements

i. Security Classification
ii. Use of Animals and Human Subjects in Research
iii. Recombinant DNA
iv. Department of Defense High Performance Computing Program
v. Organizational Conflicts of Interest
vi. Project Meetings and Reviews
vii. Reporting Executive Compensation and First-Tier Subcontract Awards

A. Applies to Contracts only:

i. Government Property/Government Furnished Equipment (GFE)/Government Furnished Information (GFI) and Facilities:

Government research facilities and operational military units are available and should be considered as potential government-furnished equipment/facilities. These facilities and resources are of high value, and some are in constant demand by multiple programs. It is unlikely that all facilities would be used for any one specific program. The use of these facilities and resources will be negotiated as the program unfolds. Offerors should indicate in the Proposal Checklist, Section II, Blocks 8 and 9, which of these facilities are critical for the project's success.

The GFI listed stated in Appendix B may be requested by sending an email to Mr. Peter A. Morrison at peter.a.morrison@navy.mil. Offerors should allow at least two (2) business days for

processing requests for the GFI plus time for delivery.

The classified Performance Description document

For access to the classified Performance Description document, Offerors must possess a SECRET facility clearance with SECRET safeguarding. The BAA will be unclassified, but the Performance Description document is classified "SECRET" and therefore will be provided under separate cover. This Appendix will only be provided to interested Offerors who have a SECRET facility clearance with SECRET safeguarding. The Appendix shall be mailed in hardcopy to Offerors upon request. Submit your request to:

Diana Pacheco
Information Security Specialist Office of Naval Research Security Department, Code 43
875 North Randolph Street
Arlington, VA 22203-1995
Email Address: diana.pacheco@navy.mil

With a copy to:
Vanessa Seymour
Sr. Contracting Officer
Office of Naval Research
875 North Randolph Street
Arlington, VA 22203-1995

All requests should include BAA Number, Company Cage Code, Classified Facility mailing address, and your Security Point of Contact information. ONR policy dictates that we cannot send classified material to a P.O. Box, therefore, please provide the actual street address for your classified mailing location. Requests for GFI can be sent immediately after publication of this BAA.

Offerors are required to destroy or return to sender all held copies of classified information received no later than ten (10) days after award notification. Send copy of destruction report to:

Office of Naval Research, 043
Document Control
One Liberty Center, 875 N. Randolph Street
Arlington, VA 22203-1995

Appendix C provides the Department of Defense Contract Security Classification Specification (DD254) for bidding purposes only.

ii. Use of Arms, Ammunition and Explosives:

Safety

The Offeror is required to be in compliance with DoD manual 4145.26-M, *DoD Contractor's Safety Manual for Ammunition and Explosives* if ammunitions and/or explosives are to be utilized under the proposed research effort. (See DFARS 223.370-5 and DFARS 252.223-7002)

If ammunitions and/or explosives (A&E) are to be utilized under the proposed research effort, the Government requires a preaward safety survey in accordance with DFARS PGI 223.370-4(C)(iv) entitled *Preaward survey*. The Offeror is solely responsible for contacting the cognizant DCMA office and obtaining a required preaward safety survey before proposal submission. The Offeror should include required preaward safety surveys with proposal submissions.

If the Offeror proposes that the Government provide Government-furnished A&E containing any nitrocellulose-based propellants and/or nitrate ester-based materials (such as nitroglycerin) or other similar A&E with a tendency to become chemically unstable over time, then NMCARS 5252.223-9000 will also apply to a resulting contract award. (See NMCARS 5223.370-5)

Security

If arms, ammunition and explosives (AA&E) are to be utilized under the proposed research effort, the Government requires a preaward security survey. The Offeror is solely responsible for contacting the cognizant DCMA office and obtaining a required preaward security survey before proposal submission. The Offeror should include a required preaward security survey with proposal submission. (See DoD manual 5100.76-M, *Physical Security of Sensitive Conventional Arms, Ammunition andExplosives*, paragraph C1.3.1.4)

If AA&E are to be utilized under the proposed research effort, the Government may require the Contractor to have perimeter fencing around the place of performance in accordance with DoD 5100.76-M, Appendix 2.

If AA&E are to be utilized under the research effort, the Offeror is required to provide a written copy of the Offeror's AA&E accountability procedures in accordance with DoD 5100.76-M. If the Offeror is required to provide written AA&E accountability procedures, the Offeror should provide the respective procedures with its proposal submission. See DoD 5100.76-M Appendix 2.12.

iii. System for Award Management (SAM):

FAR 52.204-7 System for Award Management and FAR 52.204-13 System for Award Management Maintenance are incorporated into this BAA, and FAR 52.204-13 will be incorporated in all awards.

iv. Employment Eligibility Verification:

As per FAR 22.1802, recipients of FAR-based procurement contracts must enroll as Federal Contractors in E-verify and use E-verify to verify employment eligibility of all employees assigned to the award. All resultant contracts from this solicitation will include FAR 52.222-54, "Employment Eligibility Verification."

v. FAR / DFARS Provisions:

For purposes of illustration and not of limitation, provisions that, as applicable, may be incorporated into an ONR contract resulting from this BAA include the following:

#	Provision
52.204-7	System for Award Management
52.215-16	Facilities Capital Cost of Money
52.215-22	Limitations on Pass Through Charges - Identification of Subcontract Effort
52.216-1	Type of Contract
52.216-27	Single or Multiple Awards
52.217-4	Evaluation of Options Exercised at time of Contract Award
52.217-5	Evaluation of Options
52.222-24	Preaward On-Site Equal Opportunity Compliance Evaluation (Applies if exceeds $10M)
25.226-2	Historically Black College or University and Minority Institution Representation
52.230-7	Proposal Disclosure - Cost Accounting Practice Changes
52.232-15	Progress Payments not included
52.233-2	Service of Protest
52.252-1	Solicitation Provisions Incorporated by Reference
52.252-3	Alterations in Solicitation
52.252-5	Authorized Deviations in Provisions
252.203-7005	Representation Relating to Compensation of Former DoD Officials
252.204-7004	Alternate A, System for Award Management
252.215-7003	Requirements for Submission of Data Other than Certified Cost or Pricing Data - Canadian Commercial Corporation

vi. Combating Trafficking in Persons:

Appropriate language from FAR Clause 52.222-50 will be incorporated in all awards.

vii. Updates of Information regarding Responsibility Matters:

FAR clause 52.209-9, Updates of Publicly Available Information Regarding Responsibility Matter, will be included in all contracts valued at $500,000 where the contractor has current active Federal contracts and grants with total value greater than $10,000,000.

B. Applies to Contracts:

i. Security Classification:
In order to facilitate intra-program collaboration and technology transfer, the Government will attempt to enable technology developers to work at the unclassified level to the maximum extent possible. If access to classified material will be required at any point

during performance, the Offeror must clearly identify such need in Section II, Block 11 of the Technical Proposal Template.

If it is determined that access to classified information will be required during the performance of an award, a Department of Defense (DD) Form 254 will be attached to the contract, and FAR 52.204-2 - Security Requirements will be incorporated into the contract.

Access to classified information and development of classified information will be accomplished in accordance with OPNAVINST 5513.8C, Laser Weapons Systems and Technology security classification guide, ID# 08-07.2.

ii. Use of Animals and Human Subjects in Research
RESERVED

iii. Recombinant DNA
RESERVED

iv. Department of Defense High Performance Computing Program:

The DoD High Performance Computing Program (HPCMP) furnishes the DoD S & T and RDT & E communities with use-access to very powerful high performance computing systems. Awardees of ONR contracts, grants, and other assistance instruments may be eligible to use HPCMP assets in support of their funded activities if ONR Program Officer approval is obtained and if security/screening requirements are favorably completed. Additional information and an application may be found at http://www.hpcmo.hpc.mil/.

v. Organizational Conflicts of Interest:

All Offerors and proposed subcontractors must affirm whether they are providing scientific, engineering, and technical assistance (SETA) or similar support to any ONR technical office(s) through an active contract or subcontract. All affirmations must state which office(s) the offeror supports and identify the prime contract numbers. Affirmations shall be furnished at the time of proposal submission. All facts relevant to the existence or potential existence of organizational conflicts of interest (FAR 9.5) must be disclosed. The disclosure shall include a description of the action the offeror has taken or proposes to take to avoid, neutralize, or mitigate such conflict. Unless a waiver is granted under FAR 9.503, a contractor cannot simultaneously be a SETA and a research and development performer. Proposals that fail to fully disclose potential conflicts of interests will be rejected without technical evaluation and withdrawn from further consideration for award. Additional ONR OCI guidance can be found at http://www.onr.navy.mil/About-ONR/compliance- protections/Organizational-Conflicts-Interest.aspx. If a prospective offeror believes that any conflict of interest exists or may exist (whether organizational or otherwise), the offeror should promptly raise the issue with ONR by sending his/her contact information and a summary of the potential conflict by e-mail to the Business Point of Contact in Section I, item 7 above, before time and effort are expended in preparing a proposal and mitigation plan. If, in the sole opinion of the Contracting Officer after full consideration of the circumstances, any conflict situation cannot be effectively avoided, the proposal may be rejected without technical evaluation and withdrawn from further consideration for award under this BAA.

vi. Project Meetings and Reviews:

Individual program reviews between the ONR sponsor and the performer may be held as necessary. Program status reviews may also be held to provide a forum for reviews of the latest results from experiments and any other incremental progress towards the major demonstrations. These meetings will be held at various sites throughout the country. For costing purposes, offerors should assume that 40% of these meetings will be at or near ONR, Arlington VA and 60% at other contractor or government facilities. (This statement does not apply to international offerors submitting proposals to ONRG. International offerors should contact the cognizant ONRG Administrative Director (AD) for guidance prior to submitting a proposal.) Interim meetings are likely, but these will be accomplished via video telephone conferences, telephone conferences, or via web-based collaboration tools.

vii. Reporting Executive Compensation and First-Tier Subcontract Awards:

The FAR clause 52.204-10, "Reporting Executive Compensation and First-Tier Subcontract Awards," will be used in all procurement contracts valued at $25,000 or more.

Appendix A

Government Property/Government Furnished Equipment (GFE) and Facilities/ Government Furnished Information (GFI)

Government research facilities and operational military units are available and should be considered as potential government-furnished equipment/facilities. Proposers should indicate in the Technical Proposal Template, Section II, Blocks 8 and 9, which of these facilities are critical for the project's success. Proposers should also describe the schedule and ROM cost for these facilities.

Detailed information on Government Property/Facilities, GFE, and most GFI is provided at varying classification levels and some is additionally limited in distribution to U.S. Government Agencies and their Performers due to international trafficking in arms regulations (ITAR). The government encourages careful review of Section VII.2 for guidance on security procedures. Performers are expected to review documentation carefully for distribution statements or classification level prior to proposal preparation and submission to ensure adequate safeguarding and marking of documents and working papers referencing GFI.

The government will make the following available as Government Furnished Equipment (GFE) to the program:

- Hybrid Predicative Avoidance System (HPASS) , Quantity 1
- Laser Weapon Control (LWC) Station, Quantity 1

The government also has the following GFE available to the program, if specifically requested as part of the performer proposal:

- Electrical Storage Module (ESM), with the following capabilities: 660 KW at 450V, 60 Hz, 3-phase AC for approximately 7 minutes at a 50% duty cycle, Quantity 1
- Thermal Storage Skid with the following capabilities: 600 gpm of chilled water at approximately 20 deg C. If additional power or cooling capacity is required, the proposer is expected to include this in their proposal. This capacity is expected to be reduced in Land Based Testing (LBT2) to flow rates commensurate with platform design characteristics. Quantity 1.

Additionally, the government has compiled a significant library of relevant program information which is available to U.S. DoD Contractors with a valid CAGE code as referenced in the submitted DD254 as GFI and is listed in the following table. Classified documents are indicated accordingly.

Reference Number	Title	Document Number/ Revision Number	Author	Date of report
US Navy, Chief Of Naval Operations, and Naval Sea Systems Command Instructions				
1	Navy System Safety Program Policy	OPNAV INSTRUCTION 5100.24B	Chief of Naval Operations	6 Feb 2007
2	Navy Safety And Occupational Health (SOH) Program Manual For Forces Afloat - Volume I - SOH And Major Hazard-Specific Programs	OPNAVINST 5100.19E	Chief of Naval Operations	30 May 2007
3	NAVSEA Prohibited and Controlled Chemical List (PCCL)	5090 Ser 04R/138	Commander, Naval Sea Systems Command	26 Nov 2008
4	Human Systems Integration (HSI) Policy In Acquisition and Modernization	NAVSEAINST 3900.8A	Commander, Naval Sea Systems Command	20 May 2005
5	Naval Lithium Battery Program	NAVSEAINST 9310.1B	Commander, Naval Sea Systems Command	13 Jun 1991
6	Integrated Topside Safety and Certification Program for Surface Ships	NAVSEAINST 9700.2	Commander, Naval Sea Systems Command	11 Sep 98
7	Technical Manual For Batteries, Navy Lithium Safety Program Responsibilities And Procedures	S9310-AQ-SAF-010	Naval Sea Systems Command	19 Aug 2004
8	Department Of The Navy Weapon Systems Explosives Safety Review Board	NAVSEAINST 8020.6E, (SER N00/390)	Naval Sea Systems Command	
9	Hazards of Electromagnetic Radiation to Ordnance (HERO) Program	NAVSEAINST 8020.7D	Naval Sea Systems Command	1 Aug 08
10	Navy Laser Hazards Control Program: OPNAVINST 5100.27B	OPNAVINST 5100.27B	Chief of Naval Operations	18 Oct 2005
11	Laser Weapons Systems and Technology Security Classification Guide	08-007.03	NAVSEA	9 APR 13
12	Military Exempt Lasers	SECNAV INST 5100.14D	SECNAV	18 Oct 2005
13	DON CIO Memo 02-10 of 26 Apr 10_Information Assurance Policy Update	DON CIO Memo 02-10	DON CIO	26 Apr 10

Reference Number	Title	Document Number/ Revision Number	Author	Date of report
Solid State Laser Technology Maturation ICDs, IFDs and Architectural Documents				
14	Solid State Laser Mission Specific Module Interface Functional Description	V 1.0	Naval Surface Warfare Center, Dahlgren Division	Nov 2014
15	Hybrid Predictive Avoidance Safety Subsystem (HPASS) Interface Control Document	V1.0c	Naval Surface Warfare Center, Dahlgren Division	May 2013
16	Hybrid Predictive Avoidance and Safety System (HPASS) Increment 2.0 - Interface Control Document LDS-TM-HPASS-ICD-01004-v1.1	V1.1 (DRAFT)	Naval Surface Warfare Center, Dahlgren Division	Sep 2014
17	Solid State Laser – Technology Maturation Combat System Interface Requirements Specification	V1.0	Naval Surface Warfare Center, Dahlgren Division	Sep 2014
18	Solid State Laser – Technology Maturation Advanced Demonstration Model Combat System Interface Functional Description	Version 2.0	Naval Surface Warfare Center, Dahlgren Division	Sep 2014
19	Solid State Laser Weapon System (SSLWS) Concept Of Employment 2021-2022 Operational Architecture Viewpoints		Naval Surface Warfare Center, Dahlgren Division	16 May 2014
20	Solid State Laser Weapon System Concept Of Employment 2021-2022	V2.2	Naval Surface Warfare Center, Dahlgren Division	12 Aug 2014
21	Laser Weapons Control System (LWCS) Interface Functional Description (IFD)	DRAFT	Naval Surface Warfare Center, Dahlgren Division	TBD
22	DoD Open Systems Architecture Contract Guidebook for Program Managers	V1.1	Secretary of Defense	May 2013
23	Solid State Laser Quick Reaction Capability (SSL-QRC) Laser Spillover Hazard Analysis		Naval Surface Warfare Center, Dahlgren Division	August 2013
24	Preliminary SSL-TM-ADM System Compatibility With SDTS Report		Hepburn & Sons	30 Sep 2013
25	Solid State Laser AG9140 SSGTG Pulse Load Study	Ser 939/002	Naval Surface Warfare Center,	7 Jan 2014

Reference Number	Title	Document Number/ Revision Number	Author	Date of report
			Carderock Division, Ship Systems Engineering Station, Philadelphia, PA	
Military Standards				
26	Safety Design Requirements For Military Lasers And Associated Support Equipment	MIL-STD-1425a	Department of Defense	30 AUG 1991
27	Federal Standard Airborne Particulate Cleanliness Classes In Cleanrooms and Clean Zones	FED-STD-209E	General Services Administration	11 Sep 1992
28	Joint Software Systems Safety Engineering Handbook	V1.0	Department of Defense	27 Aug 2010
29	Input / Output Interfaces, Standard Digital Data, Naval Systems	MIL-STD-1397C (SH)	Naval Sea Systems Command	1 Jun 1995
30	Fiber Optics Mechanization of and Aircraft Internal Time Division Command/Response Multiplex Data Bus	MIL-STD -1773	Department of Defense	20 May 1988
31	Electric Power Equipment Basic Requirements	MIL-E-917E (NAVY)	Department of Defense	6 Aug 1993
32	Hazards Of Electromagnetic Radiation To Ordnance Test Guide	MIL-HDBK-240A	Department of Defense	10 March 2011
33	General Guidelines For Electronic Equipment	MIL-HDBK-454B	Department of Defense	15 APR 2007
34	Reliability Test Methods, Plans, and Environments for Engineering Development, Qualifications, and Production	MIL-HDBK-781	Department of Defense	14 Jul 1987
35	Human Engineering	MIL-STD-1472F	Department of Defense	23 Aug 1999
36	Definitions of And Basic Requirements For Enclosures for Electric and Electronic Equipment	MIL-STD-108E	Department of Defense	4 Aug 1966
37	Department Of Defense Test Method Standard Mechanical Vibrations Of Shipboard	MIL-STD-167-1A	Department of Defense	2 Nov 2005

Reference Number	Title	Document Number/ Revision Number	Author	Date of report
	Equipment (Type I – Environmental And Type II – Internally Excited)			
38	Requirements For The Control Of Electromagnetic Interference Characteristics Of Subsystems And Equipment	MIL-STD-461F	Department of Defense	10 Dec 2007
39	Electromagnetic Environmental Effects Requirements For Systems	MIL-STD-464C	Department of Defense	1 Dec 2010
40	Aircraft Electric Power Characteristics	MIL-STD-704E	Department of Defense	1 May 1991
41	Environmental Engineering Considerations And Laboratory Tests	MIL-STD-810G	Department of Defense	31 Oct 2008
42	Work Breakdown Structures For Defense Materiel Items	MIL-STD-881C	Department of Defense	3 Oct 2011
43	System Safety	MIL-STD-882E	Department of Defense	11 May 2012
44	Shock Tests, H.I. (High-Impact) Shipboard Machinery, Equipment, And Systems, Requirements For	MIL-S-901D(NAVY)	Department of Defense	17 Mar 1989
45	Shipboard Bonding, Grounding, And Other Techniques For Electromagnetic Compatibility, Electromagnetic Pulse (EMP) Mitigation, And Safety	MIL-STD-1310H(NAVY)	Department of Defense	17 Sep 2009
46	Interface Standards For Shipboard Systems	MIL-STD-1399C (Navy)	Department of Defense	2 Feb 1988
47	Aircraft Internal Time Division Command Response Multiplex Data Bus	MIL-STD -1553B	Department of Defense	21 Sep 1978
48	Aircraft/Store Electrical Interconnection System	MIL-STD-1760E	Department of Defense	24 Oct 2007
49	Water Cooling of Shipboard Electrical Equipment, General Specification For	MIL-W-21965D Amendment	Department of Defense	27 Jun 1994
50	Water Cooling of Shipboard Electrical Equipment, General Specification For	MIL-W-21965D	Department of Defense	5 Feb 1988

Reference Number	Title	Document Number/ Revision Number	Author	Date of report
Solid State Laser – Technology Maturation Program Management, Safety, Ship Integration and Test & Evaluation Documents				
51	Interface Control Document, SSL-TM Power Systems For Self Defense Test Ship Demonstrations	DRAFT	NAVSEA/PMS405	14 May 2014
52	SSL – TM Test & Evaluation Strategy		NSWC Port Hueneme	30 Sep 2014
53	SSL-TM ADM SDTS Installation Memorandum		NSWC Port Hueneme	2 Oct 2014
54	Solid State Laser Conceptual Cooling Skid Design White Paper	DRAFT	NSWC Philadelphia	10 Jan 2014
55	Solid State Laser – Technology Maturation Advanced Demonstration Model Data Management Plan		Naval Surface Warfare Center, Dahlgren Division	Dec 2013
56	A Beam Quality Metric for High Energy Lasers		Jack Slater / High Energy Laser Joint Technology Office	30 July 2014
57	DDG Solid State Laser Weapon System Integration Study Final Report		Naval Sea Systems Command, SEA05D	Aug2012
58	System Safety Management Plan – Solid State Laser Technology Maturation		Naval Surface Warfare Center, Dahlgren Division	Jun 2013
59	Solid State Laser Maturation Program – Risk Management Plan (BAA 12-019) Phase I/II/III	V1.0	Naval Surface Warfare Center, Dahlgren Division	10 Dec 2013
60	Data Report For Solid State Laser Shipboard Vibration Study Onboard USS Fort Worth (LCS 3) And USS Arleigh Burke (DDG 51)	G60 REPORT 14-036	Naval Surface Warfare Center, Dahlgren Division	Jun 2014
Classified References				
61	Capability of Demonstration Ship Based Solid State Laser Weapons Systems (U)		Office of Naval Research, Arlington, VA	5 Dec 2014

Appendix B

Design Review Guidance
(largely tailored from the Defense Acquisition Guidebook)

System Requirements Review

The Performer shall present the system requirements, system interface control document(s) and system conceptual design for approval and baseline. Draft review materials shall be posted seven calendar days prior to the review. Copies of all materials presented at each review shall be posted within fourteen calendar days of the review completion. The following success criteria will be used for guidance as applicable.

System Requirements Review Success Criteria

- Can the system requirements, as disclosed, satisfy the system capabilities as required by the SOW?
- Are the system requirements sufficiently detailed and understood to enable system functional definition, functional decomposition, test and evaluation?
- Can the requirements be met given the technology maturation expected/achieved?
- Have external interfaces to the system been documented in interface control documents?
- Are adequate processes and metrics in place for the program to succeed?
- Have Human Systems Integration and sustainment requirements been reviewed and included in the overall system design?
- Are the risks known and manageable for development in accordance with the Risk Management Plan?
- Is the program schedule executable (technical and/or cost risks)?
- Is the program properly staffed?
- Is the program executable within the existing budget?
- Is the software functionality in the system specification consistent with the software sizing estimates and the resource-loaded schedule?
- Have programming languages and architectures, security requirements and operational and support concepts been identified?
- Have hazards been reviewed and mitigating courses of action been allocated within the overall system design?

Preliminary Design Review

The Performer shall present the current preliminary design of the system and its subsystems for approval and baseline. Draft review materials shall be posted seven calendar days prior to the review. Copies of all materials presented at each review shall be posted within fourteen calendar days of the review completion. The following success criteria will be used for guidance as applicable.

PDR Hardware Success Criteria

- Is the Preliminary design (hardware and software), including interface descriptions, complete and does it satisfy all requirements in the system functional baseline?
- Has the system allocated baseline been updated and documented to enable detailed design to proceed with proper configuration management?
- Are adequate processes and metrics in place for the program to succeed?
- Have sustainment and human integration design factors been reviewed and included, where needed, in the overall system design?
- Are the risks known and manageable for integrated testing and developmental and operational evaluation?
- Is the program schedule executable (technical/cost risks)?
- Is the program properly staffed?
- Has the programs cost estimate been updated?
- Is the program executable within the existing budget and with the approved system allocated baseline?
- Is the preliminary system level design producible within the production budget?
- Have producibility assessments of key technologies been completed?
- Have long-lead and key supply chain elements been identified?
- Can the risks associated with hazards be mitigated to an acceptable risk level within the existing budget?

PDR Software Success Criteria

- Has the computer system and software architecture design been established, and have all Computer Software Configuration Items (CSCIs), Computer Software Components (CSCs), and Computer Software Units (CSUs) been defined?
- Are Software Requirements Specifications and Interface Requirement Specifications, including verification plans, complete and baselined for all CSCs and do they satisfy the system/subsystem functional requirements?
- Do the Interface Control Documents trace all software interface requirements to the CSCIs and CSUs?
- Has the computer system and software design/development approach been confirmed through analyses, demonstrations, and prototyping in a relevant environment?
- Has the preliminary software design been defined and documented?
- Have software increments been defined and have capabilities been allocated to specific increments?
- Have software trade studies addressing Commercial-off-the-shelf, reuse, and other software-related issues been completed?
- Has the software development process been defined in a baselined Software Development Plan and is it reflected in the Integrated Master Schedule (IMS)?
- Do the software development schedules reflect contractor software processes and IMS software events for current and future development phases?
- Have the software development environment and test/integration labs been established with sufficient fidelity and capacity?
- Have unique software risks been identified/assessed and have mitigation plans been developed/implemented?

- Have software metrics been defined and reporting process implemented, and are they being actively tracked and assessed?
- Have Cyber security requirements (e.g., IATT, IATO, or ATO) been addressed?
- Does the Master Test Plan address all CSCI plans, test facilities, and test plans, including testing required to support incremental approaches (e.g. regression tests)?
- Have the software development estimates (i.e. size, effort (cost), and schedule) been updated?
- Have all required software-related documents been baselined/delivered?

Critical Design Review

The Performer shall present the detailed design of the system, subsystems and components for approval and baseline. In order to preserve schedule, the Contractor may utilize "rolling" CDRs for each subsystem independent of the others, with a final comprehensive system CDR following the final subsystem CDR. Draft review materials shall be posted seven calendar days prior to the review. Copies of all materials presented at each review shall be posted within fourteen calendar days of the review completion. The success criteria, listed below, will be used for guidance as applicable.

The CDR data package shall include the following review items and must be formally approved by the Navy for the program to proceed to fabrication.

<u>Hardware Configuration Item Review Items:</u>

- Design specifications complete to substantiate the requirements of the configuration items and interfaces.
- Supporting documents (trade studies, analysis, and test results) sufficient to substantiate detailed design.
- Detailed configuration item design packages to the component level that include engineering drawings, block diagrams, process data, and logic diagrams (as applicable).
- Interface control drawings.
- Design approach and required access points to perform planned maintenance & transportation.
- Compliance with appropriate safety requirements
- Review any fabrication/production issues and action plans for closure
- Review all test documentation for currency and adequacy.
- Review design to ensure configuration items are adequately protected from applicable environments when integrated into the system.
- Master Test Plan.
- Configuration Management Plan.
- Plans and status of parts procurement for long lead items.
- Design analysis and test data available to substantiate design.
- Review status of manufacturing engineering efforts, tooling, test equipment, new materials proofing, methods, processes and any special tooling and/or test equipment.

Computer Software Configuration Item Review Items:

- Software detailed design, and interface design complete and documented.
- Software Design Document (SDD) that details the full design of the software and the internal interfaces. The SDD describes the structure and detailed design of the units, components and assemblies of the system.
- Software Coding Standard that contains the rules, practices and conventions to be used in coding the software. This includes naming conventions, header format, code format, in-code documentation requirements, and a history of code changes with date and authorization.
- Software Test Procedures that document that the requirements are testable and the plan for software testing at each level of the software architecture.
- Requirements traceability matrix showing all requirements are accounted for in the design and will be tested.
- Supporting documentation (trade studies, analysis, and test results) sufficient to substantiate detailed design.
- Unit and Lower Level Software Units designs satisfy and traceable to CSCI requirements.
- Information flow established between software units; Units sequencing and control methods defined.
- Detailed interfaces include data source, destination, interface name and interrelationships.
- Software Test Descriptions consistent with Software Development Plan.
- Software Development Plan updated per PDR guidance.

CDR Success Criteria:

- Is the system baseline documentation sufficiently complete and correct to enable hardware fabrication and software coding to proceed with proper configuration management?
- Is the Detailed design (hardware and software), including interface descriptions complete and does it satisfy all requirements in the system baseline documentation?
- Is the verification (developmental test and evaluation) assessment to date consistent with the system baseline and does it indicate the potential for test and evaluation success?
- Are adequate processes and metrics in place for the program to succeed?
- Are the risks known and manageable for the demonstration program, and documented in the Risk Mitigation Plan?
- Is the system failure mode, effects, and criticality analysis (FMECA) complete?
- Is the program schedule executable (technical/cost risks)?
- Is the program properly staffed?
- Is the program executable with the existing budget and the approved product baseline?
- Are all Critical Safety Items identified? Addressed?
- Have Cyber security requirements (e.g., IATT, IATO, or ATO) been addressed?
- Is the software functionality in the approved product baseline consistent with the updated software metrics and resource-loaded schedule?
- Have key product characteristics having the most impact on system performance, assembly, cost, reliability, or safety been identified?
- Is the overall design at least 85% complete?

Note: The CDR Review Items can be used for the other design reviews (SRR and PDR) but must be modified as appropriate for the scope of those reviews.

Test Readiness Review (TRR)

The Performer shall present the current design of the system and its subsystems for approval and baseline for testing. Test Readiness is a government review, with a government panel consisting of the Program Officer, local command authority for the test range, range safety officer (RSO), test director, any asset (target or platform) claimant, and select subject matter experts or technical authorities. This review includes any designs or required tasks for modification of the hardware or platform in order to enable integration of test systems onto test platforms, or conduct testing required. Approval of TRR results and required actions rests strictly with the government panel, while resolution of the action will be shared between the government and contractor.

All tests to be reviewed at the TRR will be as outlined in the Test and Evaluation Strategy (T&ES) and Master Test and Evaluation Plan (MTEP), utilizing expendable and reusable targets. The T&ES is provided as GFI, while the MTEP shall be developed jointly as the program progresses through SRR, PDR and CDR. Information on targets, including quantity, type, repetition rates, and typical range scheduling are available in the TE&S. This includes the Requirements Verification Traceability Matrix (RVTM) to assess the allocation of performance metrics to test events. Objective Quality Evidence (OQE) that was derived from the results of any previous testing will be reviewed to verify that the designs built to date have successfully met performance and suitability requirements. The results of any interface testing, installation plans and preparations will be reviewed to ensure that the test units are ready for platform installation and testing. Platform preparations and modifications will also be reviewed to ensure that the platform ship is ready to support installation and integration timelines. Readiness for testing will be assessed by the panel, based on the review of planning documents, procedures, test team status, support systems, targets, instrumentation, and test range preparations. Any remaining risk items will be reviewed as well, including risk mitigation plans.

Draft review materials shall be posted no later than seven calendar days prior to the review. Copies of all materials presented at each review shall be posted within fourteen calendar days of the review completion. The following success criteria will be used for guidance as applicable.

<u>Entrance Criteria</u>

- Technical data package (TDP) complete and configuration management status
- Test plans mapped to program requirements in RVTM
- Test Reports from previous testing (Land-Based Test 1 and Land-Based Test 2) complete and final submissions made
- Required system compliance efforts complete, including environmental, Information Assurance, Laser Clearing House, electromagnetic compatibility, and operational security
- Successful completion of any required system safety analyses (HERO, HAZMAT, LSRB, etc.), including required safety approvals in place for ship, range, and laser safety
- Scenario certification complete (in both T&ES and MTEP)
- Test plan and test procedures approved by Range Safety Officer (RSO)
- Test team in place, and leads designated
    - Laser safety training complete
    - Ship riders completed Tier 1 shipboard work training
- Test articles (targets) acquired

- Required facilities secured
- Instrumentation plan in place and instrumentation resources secured, including atmospheric and laser instruments
- Communications and data systems identified
- Support equipment identified and coordinated
- Approval of Ship Alteration Record (TSAR) and Test Ship Installation Drawings (TSID) in place, and ship modifications completed
- Cyber security requirements satisfied (e.g., IATT, IATO, or ATO)
- Go-No/go criteria established (Weather, Fuel, Manning, Training, Supplies, etc.)
- Interface testing completed with the combat system/range data system, HPASS, and LWC
- Range ready to support testing
- Modeling and simulation predictions complete
- Hazards identified for utilization of any and all CSCI in Land Based testing and SDTS testing. Analyses showing that all hazards in the hardware and software of the CSCI with respect to its installation, operation, maintenance and de-installation during testing (land-based and on the SDTS) have been identified. This analysis should include mitigations for these hazards and risk assessment of the residual risk of these hazards for program acceptance.
- Risk mitigation plans in place

Exit Criteria

- Required safety approvals are in place
- Objective Qualifying Evidence (OQE) from Land Based Testing (LBT-1 and LBT-2) which provide suitable confidence that sea testing, including interfaces to combat system, HPASS and LWC is ready to commence as scheduled and planned
- Verified traceability of planned tests to program requirements and Key Performance Parameters (KPPs)
- Test procedures are consistent with Test Plans and schedules, including any alternate schedules for unforeseen, unexpected delays or weather delays.
- Target preparations complete
- Test team assessed as ready
- Electromagnetic compliance requirements satisfied
- Instrumentation ready, including atmospheric and laser
- Test platform, including ship electrical and cooling modifications
- Range support activities ready
- Voice and data communications plans in place
- Needed certifications and/or waivers in place
- Risk mitigation plans accepted
- Plan for resolving outstanding issues in place

DEPARTMENT OF DEFENSE
CONTRACT SECURITY CLASSIFICATION SPECIFICATION

(The requirements of the DoD Industrial Security Manual apply to all security aspects of this effort.)

1. CLEARANCE AND SAFEGUARDING SER:170-14

a. FACILITY CLEARANCE REQUIRED: SECRET

b. LEVEL OF SAFEGUARDING REQUIRED: SECRET

2. THIS SPECIFICATION IS FOR: *(X and complete as applicable)*

	a. PRIME CONTRACT NUMBER	
	b. SUBCONTRACT NUMBER	
X	c. SOLICITATION OR OTHER NUMBER: BAA 15-005	DUE DATE *(YYYYMMDD)*

3. THIS SPECIFICATION IS: *(X and complete as applicable)*

X	a. ORIGINAL *(Complete date in all cases)*		DATE *(YYYYMMDD)*: 20141211
	b. REVISED *(Supersedes all previous specs)*	REVISION NO.	DATE *(YYYYMMDD)*
	c. FINAL *(Complete Item 5 in all cases)*		DATE *(YYYYMMDD)*

4. IS THIS A FOLLOW-ON CONTRACT? [ ] YES [X] NO. If Yes, complete the following:

Classified material received or generated under _____ *(Preceding Contract Number)* is transferred to this follow-on contract.

5. IS THIS A FINAL DD FORM 254? [ ] YES [X] NO. If Yes, complete the following:

In response to the contractor's request dated _____, retention of the classified material is authorized for the period of _____

6. CONTRACTOR *(Include Commercial and Government Entity (CAGE) Code)*

a. NAME, ADDRESS, AND ZIP CODE	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE *(Name, Address, and Zip Code)*
For BAA Purposes Only An Orginal DD254 will be issue upon contract award		N/A

7. SUBCONTRACTOR

a. NAME, ADDRESS, AND ZIP CODE	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE *(Name, Address, and Zip Code)*
N/A		N/A

8. ACTUAL PERFORMANCE

a. LOCATION	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE *(Name, Address, and Zip Code)*
N/A		N/A

9. GENERAL IDENTIFICATION OF THIS PROCUREMENT

Solid State, High Power Laser Weapon System Demonstrator Design

10. CONTRACTOR WILL REQUIRE ACCESS TO:	YES	NO
a. COMMUNICATIONS SECURITY (COMSEC) INFORMATION		X
b. RESTRICTED DATA		X
c. CRITICAL NUCLEAR WEAPON DESIGN INFORMATION		X
d. FORMERLY RESTRICTED DATA		X
e. INTELLIGENCE INFORMATION		
(1) Sensitive Compartmented Information (SCI)		X
(2) Non-SCI		X
f. SPECIAL ACCESS INFORMATION		X
g. NATO INFORMATION		X
h. FOREIGN GOVERNMENT INFORMATION		X
i. LIMITED DISSEMINATION INFORMATION		X
j. FOR OFFICIAL USE ONLY INFORMATION	X	
k. OTHER *(Specify)*		X

11. IN PERFORMING THIS CONTRACT, THE CONTRACTOR WILL:	YES	NO
a. HAVE ACCESS TO CLASSIFIED INFORMATION ONLY AT ANOTHER CONTRACTOR'S FACILITY OR A GOVERNMENT ACTIVITY		X
b. RECEIVE CLASSIFIED DOCUMENTS ONLY		X
c. RECEIVE AND GENERATE CLASSIFIED MATERIAL	X	
d. FABRICATE, MODIFY, OR STORE CLASSIFIED HARDWARE		X
e. PERFORM SERVICES ONLY		X
f. HAVE ACCESS TO U.S. CLASSIFIED INFORMATION OUTSIDE THE U.S., PUERTO RICO, U.S. POSSESSIONS AND TRUST TERRITORIES		X
g. BE AUTHORIZED TO USE THE SERVICES OF DEFENSE TECHNICAL INFORMATION CENTER (DTIC) OR OTHER SECONDARY DISTRIBUTION CENTER	X	
h. REQUIRE A COMSEC ACCOUNT		X
i. HAVE TEMPEST REQUIREMENTS		X
j. HAVE OPERATIONS SECURITY (OPSEC) REQUIREMENTS		X
k. BE AUTHORIZED TO USE THE DEFENSE COURIER SERVICE		X
l. OTHER *(Specify)*	X	
Item 11. g: Submit request to official listed in Times 16a		

12. PUBLIC RELEASE. Any information *(classified or unclassified)* pertaining to this contract shall not be released for public dissemination except as provided by the Industrial Security Manual or unless it has been approved for public release by appropriate U.S. Government authority. Proposed public releases shall be submitted for approval prior to release [ ] Direct [X] Through *(Specify)*

Office of Naval Research, ONR Code 35, One Liberty Center, 875 North Randolph Street, Arlington, VA 22203-1995

to the Directorate for Freedom of Information and Security Review, Office of the Assistant Secretary of Defense (Public Affairs)* for review.
*In the case of non-DoD User Agencies, requests for disclosure shall be submitted to that agency.

13. SECURITY GUIDANCE. The security classification guidance needed for this classified effort is identified below. If any difficulty is encountered in applying this guidance or if any other contributing factor indicates a need for changes in this guidance, the contractor is authorized and encouraged to provide recommended changes; to challenge the guidance or the classification assigned to any information or material furnished or generated under this contract; and to submit any questions for interpretation of this guidance to the official identified below. Pending final decision, the information involved shall be handled and protected at the highest level of classification assigned or recommended. *(Fill in as appropriate for the classified effort. Attach, or forward under separate correspondence, any documents/guides/extracts referenced herein. Add additional pages as needed to provide complete guidance.)*

1. Submit formal request with BAA Number, BAA Title, Company Name, Company CAGE Code, full facility address, and the requesting security office point of contact information, including telephone number for the to the official listed in Item 16.a.
- Indicate whether Fed-Ex delivery is allowed

Relevant Security Classification Guide(s):
OPNAVINST 5513.8 -07.3 (U) Laser Weapon Systems and Technology
Additional Classification Guides may be provided as required by the Program Officer.

2. Offerors are required to destroy or return to sender all held copies of the Top level Weapon System Mission Descriptions/Requirements within 90 days of the solicitation expiration date listed in Box 2.c of this DD254.

14. ADDITIONAL SECURITY REQUIREMENTS. Requirements, in addition to ISM requirements, are established for this contract. [ ] Yes [X] No
(If Yes, identify the pertinent contractual clauses in the contract document itself, or provide an appropriate statement which identifies the additional requirements. Provide a copy of the requirements to the cognizant security office. Use Item 13 if additional space is needed.)

15. INSPECTIONS. Elements of this contract are outside the inspection responsibility of the cognizant security office. [ ] Yes [X] No
(If Yes, explain and identify specific areas or elements carved out and the activity responsible for inspections. Use Item 13 if additional space is needed.)

16. CERTIFICATION AND SIGNATURE. Security requirements stated herein are complete and adequate for safeguarding the classified information to be released or generated under this classified effort. All questions shall be referred to the official named below.

a. TYPED NAME OF CERTIFYING OFFICIAL	b. TITLE	c. TELEPHONE *(Include Area Code)*
Diana Pacheco (diana.pacheco@navy.mil)	Contracting Officer For Security Matters	(703) 696-8177

d. ADDRESS *(Include Zip Code)*	17. REQUIRED DISTRIBUTION	
Office Of Naval Research One Liberty Center, 875 N Randolph Street Arlington, VA 22203-1995	[X]	a. CONTRACTOR
	[ ]	b. SUBCONTRACTOR
	[ ]	c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR
e. SIGNATURE Diana Pacheco	[ ]	d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION
	[ ]	e. ADMINISTRATIVE CONTRACTING OFFICER
	[X]	f. OTHERS AS NECESSARY 35, 43, 25

DD FORM 254 (BACK), DEC 1999