



Broad Agency Announcement
Positioning System for Deep Ocean Navigation (POSYDON)
STRATEGIC TECHNOLOGY OFFICE
DARPA-BAA-15-30

April 23, 2015

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PART I: OVERVIEW INFORMATION

- **Federal Agency Name** – Defense Advanced Research Projects Agency (DARPA), Strategic Technology Office
- **Funding Opportunity Title** – Positioning System for Deep Ocean Navigation (POSYDON)
- **Announcement Type** – Initial announcement
- **Funding Opportunity Number** – DARPA-BAA-15-30
- **Catalog of Federal Domestic Assistance Numbers (CFDA)** – Not applicable
- **Dates**
 - Posting Date: April 23, 2015
 - Proposal Abstract Due Date: May 7, 2015
 - Questions Due: May 13, 2015
 - Proposal Due Date: June 11, 2015
 - BAA Closing Date: October 20, 2015
 - Proposers' Day: May 1, 2015
- **Anticipated individual awards** - Multiple awards are anticipated.
- **Types of instruments that may be awarded** - Procurement contract or other transaction.
- **Agency contact**
 - Points of Contact
The BAA Coordinator for this effort may be reached at:
DARPA-BAA-15-30@darpa.mil.
DARPA/STO
ATTN: DARPA-BAA-15-30
675 North Randolph Street
Arlington, VA 22203-2114

PART II: FULL TEXT OF ANNOUNCEMENT

1. Funding Opportunity Description

The Defense Advanced Research Projects Agency often selects its research efforts through the Broad Agency Announcement (BAA) process. This BAA is being issued, and any resultant selection will be made, using procedures under Federal Acquisition Regulation (FAR) 35.016. Any negotiations and/or awards will use procedures under FAR 15.4, Contract Pricing, as specified in the BAA. Proposals received as a result of this BAA shall be evaluated in accordance with evaluation criteria specified herein through a scientific review process.

DARPA BAAs are posted on the Federal Business Opportunities (FedBizOpps) website, <https://www.fbo.gov/>. The following information is for those wishing to respond to the BAA.

DARPA is soliciting innovative research proposals in the area of undersea navigation systems. Proposed research should investigate innovative approaches that enable revolutionary advances in science, devices, or systems. Specifically excluded is research that primarily results in evolutionary improvements to the existing state of practice.

1.1 PROGRAM OVERVIEW

The Global Positioning System (GPS) is the predominant means of obtaining positioning, navigation, and timing (PNT) information for both military and civilian systems and applications. However, the radio frequency basis for GPS also means that its signals cannot penetrate seawater, and thus undersea GPS is effectively denied. Undersea vehicles use inertial measurement units (IMU) and other dead reckoning sensors to navigate while submerged. Performance of inertial sensors for dead reckoning continues to improve and come in smaller packages. However, while dead reckoning sensors may provide sole-source navigation for short duration missions, accumulation of inertial error eventually requires external measurements to maintain or restore accurate performance. As a result, undersea vehicles must regularly surface to receive GPS signals and fix their position, and this presents a risk of detection. In addition, the cost and power draw of state-of-the art undersea navigation sensors, such as a navigation grade IMU and Doppler velocity log (DVL), are significant.

To combat these vulnerabilities and limitations, DARPA is soliciting proposals for the Positioning System for Deep Ocean Navigation (POSYDON) program to develop an undersea system that provides omnipresent, robust positioning. DARPA envisions that the POSYDON program will distribute a small number of acoustic sources, analogous to GPS satellites, around an ocean basin. By measuring the absolute range to multiple source signals, an undersea platform can obtain continuous, accurate positioning without surfacing for a GPS fix. POSYDON seeks to eliminate the need for expensive IMU and velocity sensors. Host platforms of interest include autonomous underwater vehicles (AUVs) of all types, although DARPA also encourages solutions that can be leveraged by other undersea platforms and systems. POSYDON will not require the platform to surface to obtain and maintain its PNT information, and the platform will not need to make any transmissions, thus maintaining minimum platform detectability.

DARPA intends that execution of the POSYDON program obey all applicable laws and regulations protecting marine life, including Executive Order 12114, Endangered Species Act, and Marine Mammal Protection Act.

When complete, the POSYDON program will provide PNT in the undersea environment. PNT must be available for both the deep ocean and over continental shelves, and preferably in the littoral regions as well. The end system may be an aggregate of one or more performer solutions, integrated together to address all of the POSYDON goals and metrics, with robust individual components. The result will be a cohesive system with availability across diverse undersea environments and mission spaces while being immune-by-design to denial attempts.

1.2 PROGRAM STRUCTURE

To address the goals of the POSYDON program, DARPA seeks innovative proposals in a single technical area of interest, with the program consisting of three phases and 48 months total duration (see Figure 1). Notionally, DARPA envisions Phase I (12 months) to involve preliminary design, focusing primarily on signal processing and ocean modeling, and include at-sea data collections to validate the measurement models and assess signal availability under diverse undersea environmental conditions. Phase II (18 months) focuses on developing and demonstrating a real-time acoustic ranging capability. Compliant proposal submissions require a full technical and cost proposal covering Phase I and Phase II, with Phase II as an option.

Upon completion of Phase II, DARPA anticipates issuing a new BAA for Phase III (18 months) to demonstrate real-time positioning, consisting of an integrated system demonstration and validation of all POSYDON components by Government team members.

A full risk assessment with appropriate metrics and error budgets should be included as part of the Phase I/II proposal. In addition, proposers must describe their vision for Phase III and show a clear path from Phase II to a Phase III fieldable system. Program phase durations listed for POSYDON are nominal, and proposers should tailor each phase timeline to match their proposed level of effort and maturity of the technology.

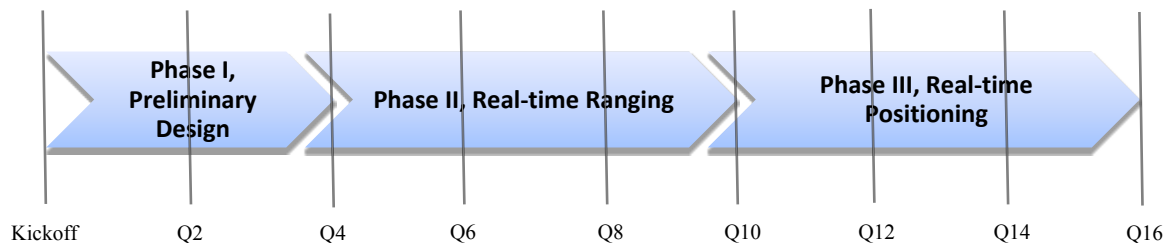


Figure 1. POSYDON Notional Program Timeline

1.3 TECHNICAL DESCRIPTION

The POSYDON program seeks to develop an undersea, ocean basin-scale, PNT system that may be used in lieu of surfacing to obtain a GPS fix. Solutions should be relevant for the deep ocean and continental shelves, and describe both the solution's degree of applicability to littoral regions and a technical pathway for use in the littorals. As stated previously, platforms of interest include AUVs of all types, although DARPA also encourages solutions that can be leveraged by other undersea platforms and systems. Proposals should highlight applicable environments and platforms as well as address any specialized concept of operations (CONOPS) or CONOPS limitations needed to enable successful operation in contested environments.

1.3.1 Technical Elements

Proposers should address Phase I and II in their technical and cost proposals, discussing each of the first three technical elements listed immediately below, plus the last element (adjunct technologies) as an option:

- Acoustic measurement modeling
- Acoustic source and waveforms
- At-sea data collection and demonstration
- Adjunct technologies (optional)

Compliant proposal submissions require a full technical and cost proposal covering Phase I and Phase II, with Phase II and any Adjunct Technologies as options. In addition, proposers must describe their vision for Phase III and show a clear path from Phase II to a Phase III demonstration system.

1.3.1.1 Acoustic Measurement Modeling

Underwater acoustic signal propagation channels present a number of challenges:

- Time-varying multipath propagation and multipath delay
- Doppler spread due to platform motion relative to the acoustic source(s) and ocean environment
- Bandwidth-limited signals
- Convergence zones
- Tomographic calibration of a region as a function of time/environmental variability

Thus, this technical element involves the ability to resolve and interpret on-board, the complex acoustic arrival structure to differentiate position changes from space-time changes in sound speed structure. Proposers should describe any model configuration parameters that must be periodically updated in order to achieve or maintain the desired accuracy and the method for autonomously transmitting those parameters to undersea users.

1.3.1.2 Acoustic Source and Waveforms

The proposal will identify an appropriate acoustic source technology and determine the number, location, and depth of the sources for basin-scale coverage. Utilizing the identified acoustic source technology, describe the technical approach to avoid co-channel interference, provide anti-jam and anti-spoof protection, deliver sufficient signal strength to overcome sources of

environmental and man-made noise, and allow for a one-way communications channel from the source with sufficient data rate to support any system updates to the onboard navigation system.

1.3.1.3 At-Sea Data Collection and Demonstration

This element describes the at-sea data collection effort to validate the two technical elements above. DARPA envisions that the data collects will involve platforms such as ships and/or tethered AUVs outfitted with appropriate acoustic receivers and GPS for ground truth. Data collections will assess ranging performance and signal availability over diverse undersea, operational environments, including along shipping channels, deep ocean, and continental shelves. Additional data collects in the littorals that validate any analysis of those regions are highly desirable. Post processing of Phase I data collects to validate system design parameters is acceptable.

Use of existing acoustic sources or acoustic source designs is encouraged. Please note that “existing” does not necessarily require that the acoustic source be currently deployed. User equipment solutions that demonstrate a significant cost and power advantage over current state-of-the-art undersea navigation sensor suites, such as GPS, depth sensor, navigation grade IMU, and DVL are also of particular interest.

To ensure timely completion of an Environmental Assessment (EA) to meet program timeline targets for the Phase I data collection effort, performers must provide relevant acoustic system and at-sea experiment input to DARPA. DARPA will bear the cost and conduct the initial EA based on this input. Performers will be responsible for any subsequent EA that may be needed to support their data collection. Solutions with a high probability of requiring an Environmental Impact Statement are discouraged. Performers shall include an Environmental Assessment Input sheet, located in Appendix 3, along with their technical proposal. The information contained within the Environmental Assessment Input document should not be marked Source Selection Sensitive, as it will be shared with other Government agencies in order to begin the Environmental Assessment process.

1.3.1.4 Adjunct Technologies (Optional)

To maximize program flexibility, proposals may also optionally describe standalone, adjunct technologies that address the development of other novel component, processing, or modeling approaches that enhance the effectiveness of the undersea positioning concept presented above. However, execution of the other three technical elements should not depend upon any proposed adjunct technology. DARPA envisions that any proposed adjunct technologies will represent highly innovative concepts that, if successful, may result in a major program impact. As such, DARPA also anticipates that at most one adjunct technology will be presented in this optional section. Performers should anticipate that any breakthrough adjunct efforts will be transitioned to an aggregate POSYDON system at any time during any phase of the program. Proposals should clearly describe the direct improvement of the adjunct technology over the state-of-the art, and accordingly, proposals should suggest appropriate metrics, integration, testing, and prototype demonstrations to quantify those improvements in the context of contested and/or challenging undersea environments.

1.4 PROGRAM METRICS

In order for the Government to evaluate the effectiveness of a proposed solution, program metrics are provided in a classified addendum to serve as the basis for determining program success. The POSYDON performance metrics involve position accuracies, depths, operational ranges, jam resistance, and navigation sensor suite power draw. Appropriate analysis showing that the proposed solution meets or exceeds these metrics should be included in the proposal, including detailed error budgets, with appropriate placeholders where necessary to allow for proper evaluation, and a projection of system performance based on relevant system analysis, simulation, and any existing data collections. Proposers should also describe the technical details of their approach to provide resistance to jamming, spoofing, and environmental noise. The analyses must account for the diverse undersea environments, including across seasons, along shipping channels, deep ocean, and continental shelves. Additional analysis that includes potential availability in littoral regions is also highly desired. Include detailed assumptions on source level, noise level, waveform modulation and coding, integration time, and other relevant variables to substantiate any performance assertions. Although specific metrics are listed in the classified addendum, proposers should note that the Government has identified these goals with the intention of bounding the scope of effort while affording the maximum flexibility, creativity, and innovation in proposing solutions to the stated problem. Any deviation from the provided metrics should be detailed and justified with schedule, cost, performance, or similar trade analyses, placed in the context of PNT in contested environments. Proposers must consult DARPA-CG-841 to ensure that all descriptions and design details are classified at the correct level and submitted accordingly.

2. AWARD INFORMATION

Multiple awards are possible. The amount of resources made available under this BAA will depend on the quality of the proposals received and the availability of funds.

The Government reserves the right to select for negotiation all, some, one, or none of the proposals received in response to this solicitation, and to make awards without discussions with proposers. The Government also reserves the right to conduct discussions if it is later determined to be necessary. If warranted, portions of resulting awards may be segregated into pre-priced options. Additionally, DARPA reserves the right to accept proposals in their entirety or to select only portions of proposals for award. In the event that DARPA desires to award only portions of a proposal, negotiations may be opened with that proposer. The Government reserves the right to fund proposals in phases with options for continued work at the end of one or more of the phases.

Awards under this BAA will be made to proposers on the basis of the evaluation criteria listed below (see section labeled “Application Review Information”, Sec. 5.), 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. Such additional information may include but is not limited to Representations and Certifications. 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. Proposals identified for negotiation may result in a procurement contract, grant, cooperative agreement, or other

transaction depending upon the nature of the work proposed, the required degree of interaction between parties, whether or not the research is classified as Fundamental Research, and other factors.

In all cases, the Government contracting officer shall have sole discretion to select award instrument type and to negotiate all instrument terms and conditions with selectees. Proposers are advised that regardless of the instrument type proposed, DARPA may select other award instruments, as it deems appropriate. DARPA will apply publication or other restrictions, as necessary, if it determines that the research resulting from the proposed effort will present a high likelihood of disclosing performance characteristics of military systems or manufacturing technologies that are unique and critical to defense. Any award resulting from such a determination will include a requirement for DARPA permission before publishing any information or results on the program. For more information on publication restrictions, see the section below on Fundamental Research.

2.1 FUNDAMENTAL RESEARCH

It is DoD policy that the publication of products of fundamental research will remain unrestricted to the maximum extent possible. National Security Decision Directive (NSDD) 189 established the national policy for controlling the flow of scientific, technical, and engineering information produced in federally funded fundamental research at colleges, universities, and laboratories. The Directive defines fundamental research as follows:

'Fundamental research' means basic and applied research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community, as distinguished from proprietary research and from industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary or national security reasons.

As of the date of publication of this BAA, the Government expects that program goals as described herein either cannot be met by proposers intending to perform fundamental research or the proposed research is anticipated to present a high likelihood of disclosing performance characteristics of military systems or manufacturing technologies that are unique and critical to defense. Therefore, the Government anticipates restrictions on the resultant research that will require the contractor to seek DARPA permission before publishing any information or results relative to the program.

Proposers should indicate in their proposal whether they believe the scope of the research included in their proposal is fundamental or not. While proposers should clearly explain the intended results of their research, the Government shall have sole discretion to select award instrument type and to negotiate all instrument terms and conditions with selectees. Appropriate clauses will be included in resultant awards for non-fundamental research to prescribe publication requirements and other restrictions, as appropriate.

For certain research projects, it may be possible that although the research being performed by the prime contractor is restricted research, a subawardee may be conducting contracted fundamental research. In those cases, it is the prime contractor's responsibility to explain in its proposal why its subawardee's effort is contracted fundamental research.

The following statement or similar provision will be incorporated into any resultant non-fundamental research procurement contract or other transaction:

“There shall be no dissemination or publication, except within and between the contractor and any subawardees, of information developed under this contract or contained in the reports to be furnished pursuant to this contract without prior written approval of DARPA's Public Release Center (DARPA/PRC). All technical reports will be given proper review by appropriate authority to determine which Distribution Statement is to be applied prior to the initial distribution of these reports by the contractor. With regard to subawardee proposals for Contracted Fundamental Research, papers resulting from unclassified contracted fundamental research are exempt from prepublication controls and this review requirement, pursuant to DoD Instruction 5230.27 dated October 6, 1987.

When submitting material for written approval for open publication, the contractor/awardee must submit a request for public release to the DARPA/PRC and include the following information: (1) Document Information: document title, document author, short plain-language description of technology discussed in the material (approx. 30 words), number of pages (or minutes of video) and document type (e.g., briefing, report, abstract, article, or paper); (2) Event Information: event type (conference, principal investigator meeting, article or paper), event date, desired date for DARPA's approval; (3) DARPA Sponsor: DARPA Program Manager, DARPA office, and contract number; and (4) Contractor/Awardee's Information: POC name, email and phone. Allow four weeks for processing; due dates under four weeks require a justification. Unusual electronic file formats may require additional processing time. Requests may be sent either via email to prc@darpa.mil or by mail at 675 North Randolph Street, Arlington VA 22203-2114, telephone (571) 218-4235. Refer to the following for link for information about DARPA's public release process: http://www.darpa.mil/NewsEvents/Public_Release_Center/Public_Release_Center.aspx.”

3. ELIGIBILITY INFORMATION

All responsible sources capable of satisfying the Government's needs may submit a proposal that shall be considered by DARPA.

3.1 ELIGIBLE APPLICANTS

3.1.1 Federally Funded Research And Development Centers (FFRDCs) And Government Entities

Federally Funded Research and Development Centers (FFRDCs) and Government entities (e.g., Government/National laboratories, military educational institutions, etc.) are subject to applicable direct competition limitations and cannot propose to this BAA in any capacity unless they meet the following conditions: (1) FFRDCs must clearly demonstrate that the proposed work is not otherwise available from the private sector; and (2) FFRDCs must provide a letter on official letterhead from their sponsoring organization citing the specific authority establishing their eligibility to propose to Government solicitations and compete with industry, and their compliance with the associated FFRDC sponsor agreement and terms and conditions. This information is required for FFRDCs proposing to be prime contractors or subawardees. Government entities must clearly demonstrate that the work is not otherwise available from the private sector and provide written documentation citing the specific statutory authority and contractual authority, if relevant, establishing their ability to propose to Government solicitations. At the present time, DARPA does not consider 15 U.S.C. § 3710a to be sufficient legal authority to show eligibility. While 10 U.S.C. § 2539b may be the appropriate statutory starting point for some entities, specific supporting regulatory guidance, together with evidence of agency approval, will still be required to fully establish eligibility. DARPA will consider FFRDC eligibility submissions on a case-by-case basis; however, the burden to prove eligibility for all team members rests solely with the proposer.

3.1.2 Non-U.S. Organizations

Non-U.S. organizations and/or individuals may participate to the extent that such participants comply with any necessary nondisclosure agreements, security regulations, export control laws, and other governing statutes applicable under the circumstances. See Section 4.2 “Security and Proprietary Issues” regarding the proposers capabilities to perform research and development at the classification level they propose.

3.1.3 Applicants Considering Classified Submissions

Applicants considering classified submissions (or requiring access to classified information during the life-cycle of the program) shall ensure all industrial, personnel, and information system processing security requirements are in place and at the appropriate level (e.g., Facility Clearance (FCL), Personnel Security Clearance (PCL), certification and accreditation (C&A)) and any Foreign Ownership Control and Influence (FOCI) issues are mitigated prior to such submission or access. Additional information on these subjects can be found at: www.dss.mil.

3.2 PROCUREMENT INTEGRITY, STANDARDS OF CONDUCT, ETHICAL CONSIDERATIONS, AND ORGANIZATIONAL CONFLICTS OF INTEREST

Current federal employees are prohibited from participating in particular matters involving conflicting financial, employment, and representational interests (18 U.S.C. §§ 203, 205, and 208). Once the proposals have been received, and prior to the start of proposal evaluations, the Government will assess potential conflicts of interest and will promptly notify the proposer if any appear to exist. The Government assessment does NOT affect, offset, or mitigate the

proposer's responsibility to give full notice and planned mitigation for all potential organizational conflicts, as discussed below.

Without prior approval or a waiver from the DARPA Director, in accordance with FAR 9.503, a contractor cannot simultaneously provide scientific, engineering, technical assistance (SETA) or similar support and also be a technical performer. As part of the proposal submission, all members of the proposed team (prime proposers, proposed subawardees, and consultants) must affirm whether they (their organizations and individual team members) are providing SETA or similar support to any DARPA technical office(s) through an active contract or subcontract. All affirmations must state which office(s) the proposer, subawardees, consultant, or individual supports and identify the prime contract number(s). All facts relevant to the existence or potential existence of organizational conflicts of interest (FAR 9.5) must be disclosed. The disclosure must include a description of the action the proposer has taken or proposes to take to avoid, neutralize, or mitigate such conflict. If in the sole opinion of the Government after full consideration of the circumstances, a proposal fails to fully disclose potential conflicts of interest and/or any identified conflict situation cannot be effectively mitigated, the proposal will be rejected without technical evaluation and withdrawn from further consideration for award.

If a prospective proposer believes a conflict of interest exists or may exist (whether organizational or otherwise) or has questions on what constitutes a conflict of interest, the proposer should send his/her contact information and a summary of the potential conflict via email to the BAA email address before time and effort are expended in preparing a proposal and mitigation plan.

3.3 COST SHARING/MATCHING

Cost sharing is not required; however, it will be carefully considered where there is an applicable statutory condition relating to the selected funding instrument (e.g., for any Other Transactions under the authority of 10 U.S.C. §2371). Cost sharing is encouraged where there is a reasonable probability of a potential commercial application related to the proposed research and development effort.

3.4 OTHER ELIGIBILITY REQUIREMENTS

3.4.1 Collaborative Efforts

Collaborative efforts/teaming are encouraged.

4. APPLICATION AND SUBMISSION INFORMATION

4.1 ADDRESS TO REQUEST APPLICATION PACKAGE

This solicitation contains all information required to submit a proposal. No additional forms, kits, or other materials are needed. This notice, with the security classification guide and classified addendum, constitutes the total solicitation. No additional information is available, except as provided at FBO.gov, nor will a formal Request for Proposal (RFP) or additional solicitation regarding this announcement be issued. Requests for the same will be disregarded.

4.2 CONTENT AND FORM OF APPLICATION SUBMISSION

4.2.1 Security And Proprietary Issues

NOTE: If proposals are classified, the proposals must indicate the classification level of not only the proposal itself, but also the anticipated award document classification level.

DARPA policy is to treat all submissions as source selection information (see FAR 2.101 and 3.104), and to disclose their contents only for the purpose of evaluation. Restrictive notices notwithstanding, during the evaluation process, submissions may be handled by support contractors for administrative purposes and/or to assist with technical evaluation. All DARPA support contractors performing this role are expressly prohibited from performing DARPA-sponsored technical research and are bound by appropriate nondisclosure agreements.

Submissions will not be returned. The original of each submission received will be retained at DARPA and all other non-required copies destroyed. A certification of destruction may be requested, provided the formal request is received at this office within 5 days after unsuccessful notification.

a. Proprietary Information

Proposers are responsible for clearly identifying proprietary information. Submissions containing proprietary information must have the cover page and each page containing such information clearly marked with a label such as “Proprietary” or “Company Proprietary.” Note, “Confidential” is a classification marking used to control the dissemination of U.S. Government National Security Information as dictated in Executive Order 13526 and should not be used to identify proprietary business information.

b. Security Information

Classified submissions shall be transmitted in accordance with the following guidance. Additional information on the subjects discussed in this section may be found at <http://www.dss.mil/>.

If a submission contains Classified National Security Information as defined by Executive Order 13526, the information must be appropriately and conspicuously marked with the proposed classification level and declassification date. Similarly, when the classification of a submission is in question, the submission must be appropriately and conspicuously marked with the proposed classification level and declassification date. Submissions requiring DARPA to make a final classification determination shall be marked as follows:

“CLASSIFICATION DETERMINATION PENDING. Protect as though classified _____ (insert the recommended classification level, e.g., Top Secret, Secret or Confidential)”

NOTE: Classified submissions must indicate the classification level of not only the submitted materials, but also the classification level of the anticipated award.

Proposers submitting classified information must have, or be able to obtain prior to contract award, cognizant security agency approved facilities, information systems, and appropriately cleared/eligible personnel to perform at the classification level proposed. All proposer personnel performing Information Assurance (IA)/Cybersecurity related duties on classified Information Systems shall meet the requirements set forth in DoD Manual 8570.01-M (Information Assurance Workforce Improvement Program).

Proposers choosing to submit classified information from other collateral classified sources (i.e., sources other than DARPA) must ensure (1) they have permission from an authorized individual at the cognizant Government agency (e.g., Contracting Officer, Program Manager); (2) the proposal is marked in accordance with the source Security Classification Guide (SCG) from which the material is derived; and (3) the source SCG is submitted along with the proposal.

Proposals submitted under this BAA may be unclassified. However, parts of the effort being solicited by this BAA may be classified or otherwise involve access to, or generation of, classified information. Proposers may submit a classified proposal based on the POSYDON Security Classification Guide (SCG). A formal request for the Security Classification Guide (SCG) and Classified Addendum via a DD Form 254, "DoD Contract Security Classification Specification," is provided as an attachment to the BAA. A formal request for the DARPA-BAA-15-30 Security Classification Guide and Classified Addendum may be submitted by filling out the Security Classification Guide and Classified Addendum Request Form (found in APPENDIX 2 to this BAA) and emailing the Request Form to DARPA-BAA-15-30@darpa.mil with subject line titled "Request DARPA-BAA-15-30 Security Classification Guide and Classified Addendum."

Confidential and Secret Information

Use transmission, classification, handling, and marking guidance provided by previously issued SCGs, the DoD Information Security Manual (DoDM 5200.01, Volumes 1 - 4), and the National Industrial Security Program Operating Manual, including the Supplement Revision 1, (DoD 5220.22-M and DoD 5200.22-M Sup. 1) when submitting Confidential and/or Secret classified information.

Confidential and Secret classified information may be submitted via ONE of the two following methods:

- Hand-carried by an appropriately cleared and authorized courier to the DARPA CDR. Prior to traveling, the courier shall contact the DARPA Classified Document Registry (CDR) at 703-526-4052 to coordinate arrival and delivery.

OR

- Mailed via U.S. Postal Service (USPS) Registered Mail or USPS Express Mail. All classified information will be enclosed in opaque inner and outer covers and double-wrapped. The inner envelope shall be sealed and plainly marked with the assigned classification and addresses of both sender and addressee.

The inner envelope shall be addressed to:

Defense Advanced Research Projects Agency
ATTN: (Name of the Technical Office and Technical Office POC)
Reference: (BAA Number)
675 North Randolph Street
Arlington, VA 22203-2114

The outer envelope shall be sealed with no identification as to the classification of its contents and addressed to:

Defense Advanced Research Projects Agency
Security & Intelligence Directorate, Attn: CDR
675 North Randolph Street
Arlington, VA 22203-2114

Top Secret Information

Use classification, handling, and marking guidance provided by previously issued SCGs, the DoD Information Security Manual (DoDM 5200.01, Volumes 1 - 4), and the National Industrial Security Program Operating Manual, including the Supplement Revision 1, (DoD 5220.22-M and DoD 5200.22-M Sup. 1). Top Secret information must be hand-carried by an appropriately cleared and authorized courier to the DARPA CDR. Prior to traveling, the courier shall contact the DARPA CDR at 703-526-4052 to coordinate arrival and delivery.

Sensitive Compartmented Information (SCI)

SCI must be marked, managed and transmitted in accordance with DoDM 5105.21 Volumes 1 - 3. Questions regarding the transmission of SCI may be sent to the DARPA Technical Office PSO via the BAA mailbox or by contacting the DARPA Special Security Officer (SSO) at 703-812-1970.

Successful proposers may be sponsored by DARPA for access to SCI. Sponsorship must be aligned to an existing DD Form 254 where SCI has been authorized. Questions regarding SCI sponsorship should be directed to the DARPA Personnel Security Office at 703-526-4543.

Special Access Program (SAP) Information

SAP information must be marked in accordance with DoDM 5205.07 Volume 4 and transmitted by specifically approved methods which will be provided by the Technical Office PSO or their staff.

Proposers choosing to submit SAP information from an agency other than DARPA are required to provide the DARPA Technical Office Program Security Officer (PSO) written permission from the source material's cognizant Special Access Program Control Officer (SAPCO) or designated representative. For clarification regarding this process, contact the DARPA Technical Office PSO via the BAA mailbox or the DARPA SAPCO at 703-526-4102.

Additional SAP security requirements regarding facility accreditations, information security, personnel security, physical security, operations security, test security, classified transportation plans, and program protection planning may be specified in the DD Form 254.

NOTE: prior to drafting the submission, if use of SAP Information Systems is to be proposed, proposers must first obtain an Authorization-to-Operate from the DARPA Technical Office PSO (or other applicable DARPA Authorization Official) using the Risk Management Framework (RMF) process outlined in the Joint Special Access Program (SAP) Implementation Guide (JSIG), Revision 3, dated October 9, 2013 (or successor document).

4.2.2 Proposal Abstract Information

Proposers are strongly encouraged to submit a proposal abstract in advance of a proposal. This procedure is intended to minimize unnecessary effort in proposal preparation and review. The time and date for submission of proposal abstracts is specified in Section 4.5.1 below. DARPA will acknowledge receipt of the submission and assign a control number that should be used in all further correspondence regarding the proposal abstract.

DARPA will respond to abstracts with a statement as to whether DARPA is interested in the idea. DARPA will attempt to reply to abstracts via email within thirty (30) calendar days of receipt. If DARPA does not recommend the proposer submit a full proposal, DARPA will provide detailed feedback to the proposer regarding the rationale for this decision. Regardless of DARPA's response to an abstract, proposers may submit a full proposal. Abstracts will be reviewed in the order they are received. DARPA will review all full proposals submitted using the published evaluation criteria and without regard to any comments resulting from the review of an abstract.

Abstracts sent in response to DARPA-BAA-15-30 may be submitted via DARPA's BAA Website (<https://baa.darpa.mil>). Visit the website to complete the two-step registration process. Submitters will need to register for an Extranet account (via the form at the URL listed above) and wait for two separate e-mails containing a username and temporary password. After accessing the Extranet, submitters may then create an account for the DARPA BAA website (via the "Register your Organization" link along the left side of the homepage), view submission instructions, and upload/finalize the abstract. Proposers using the DARPA BAA Website may encounter heavy traffic on the submission deadline date; it is highly advised that submission process be started as early as possible.

All abstracts submitted electronically through the DARPA BAA Submission website must be uploaded as zip files (.zip or .zipx extension). The final zip file should only contain the document(s) requested herein and must not exceed 50 MB in size. Only one zip file will be accepted per abstract; abstracts not uploaded as zip files will be rejected by DARPA.

Technical support for BAA Website may be reached at action@darpa.mil, and is typically available during regular business hours, (9:00 AM- 5:00 PM EST Monday - Friday).

Proposers may submit a proposal abstract on CD-ROM to meet their specific requirements, including the security classification of the abstract. One (1) electronic copy of the abstract (PDF preferred) on a CD-ROM shall be submitted. The CD-ROM must be clearly labeled with DARPA-BAA-15-30, proposer organization, abstract titled (short title recommended), and Copy 1 of 1.

4.2.3 Proposal Information

The typical proposal should express a consolidated effort in support of one or more related technical concepts or ideas. Disjointed efforts should not be included into a single proposal.

Restrictive notices notwithstanding, proposals may be handled, for administrative purposes only, by a support contractor. This support contractor is prohibited from competition in DARPA technical research and is bound by appropriate nondisclosure requirements. Proposals and/or proposed abstracts may not be submitted by fax or e-mail; any so sent will be disregarded.

Proposals not meeting the format described in the BAA may not be reviewed.

The preferred method of proposal submission is through DARPA's BAA website.

Full proposals sent in response to DARPA-BAA-15-30 may be submitted via DARPA's BAA Website (<https://baa.darpa.mil>). Visit the website to complete the two-step registration process. Submitters will need to register for an Extranet account (via the form at the URL listed above) and wait for two separate e-mails containing a username and temporary password. After accessing the Extranet, submitters may then create an account for the DARPA BAA website (via the "Register your Organization" link along the left side of the homepage), view submission instructions, and upload/finalize the proposal. Proposers using the DARPA BAA Website may encounter heavy traffic on the submission deadline date; it is highly advised that submission process be started as early as possible. Classified submissions and proposals requesting assistance instruments (grants or cooperative agreements) should NOT be submitted through DARPA's BAA Website (<https://baa.darpa.mil>), though proposers will likely still need to visit <https://baa.darpa.mil> to register their organization (or verify an existing registration) to ensure the BAA office can verify and finalize their submission.

All full proposals submitted electronically through the DARPA BAA Submission website must be uploaded as zip files (.zip or .zipx extension). The final zip file should only contain the document(s) requested herein and must not exceed 50 MB in size. Only one zip file will be accepted per full proposal and full proposals not uploaded as zip files will be rejected by DARPA.

Technical support for DARPA's BAA Website may be reached at action@darpa.mil, and is typically available during regular business hours, (9:00 AM- 5:00 PM EST Monday - Friday).

Proposers may submit a hard copy of the proposal and an electronic copy on CD-ROM to meet their specific requirements, including the security classification of the proposal. Proposers

submitting hard copy full proposals must submit an original and one (1) electronic copy of the proposal (PDF preferred) on a CD-ROM. Each hard copy and CD-ROM must be clearly labeled with DARPA-BAA-14-41, proposer organization, proposal title (short title recommended), and Copy 1 of 1.

All administrative correspondence and questions on this solicitation, including requests for information on how to submit a proposal to this BAA, should be directed to one of the administrative addresses below; e-mail is preferred.

BAA Administrator
E-mail: DARPA-BAA-15-30@darpa.mil

DARPA/STO
ATTN: DARPA-BAA-15-30
675 North Randolph Street
Arlington, VA 22203-2114
Office Website: http://www.darpa.mil/Our_Work/STO/
Solicitations Page: http://www.darpa.mil/Opportunities/Solicitations/STO_Solicitations.aspx

DARPA intends to use electronic mail for correspondence regarding DARPA-BAA-15-30. Proposals and proposal abstracts may not be submitted by fax or e-mail; any so sent will be disregarded. DARPA encourages use of the Internet for retrieving the BAA and any other related information that may subsequently be provided.

4.2.4 Restrictive Markings on Proposals

All proposals should clearly indicate limitations on the disclosure of their contents. Proposers who include in their proposals data that they do not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes, shall-

(1) 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 this proposal. If, however, a contract is awarded to this proposer 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 it is obtained from another source without restriction. The data subject to this restriction are contained in sheets [insert numbers or other identification of sheets]; and

(2) Mark each sheet of data it wishes 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.

Markings like "Company Confidential" or other phrases that may be confused with national security classifications shall be avoided. See Section 6.0, for additional information.

4.3 FORMATTING CHARACTERISTICS

4.3.1 Proposal Abstract Format

Proposal abstracts are encouraged in advance of proposals in order to provide potential proposers with a rapid response to minimize unnecessary effort. Proposal abstracts should follow the format provided below. The cover sheet should be clearly marked "PROPOSAL ABSTRACT" and the total length should not exceed nine (9) pages, excluding cover page and official transmittal letter. All pages shall be printed on 8-1/2 by 11 inch paper with type not smaller than 12 point. Smaller font may be used for figures, tables and charts. The page limitation for proposal abstracts includes all figures, tables, and charts. No formal transmittal letter is required. All proposal abstracts must be written in English.

4.3.1.1. {1} Cover sheet to include:

1. BAA number
2. Technical area (see Sec 1.1)
3. Lead Organization Submitting proposal
4. Type of organization, selected among the following categories: "LARGE BUSINESS," "SMALL DISADVANTAGED BUSINESS," "OTHER SMALL BUSINESS," "HBCU," "MI," "OTHER EDUCATIONAL," or "OTHER NONPROFIT"
5. Contractor's reference number (if any)
6. Other team members (if applicable) and type of organization for each
7. Abstract title
8. Technical point of contact to include: salutation, last name, first name, street address, city, state, zip code, telephone, fax (if available), electronic mail (if available)
9. Administrative point of contact to include: salutation, last name, first name, street address, city, state, zip code, telephone, fax (if available), electronic mail (if available)
10. Estimated funds requested from DARPA for each phase proposed and the total estimated proposed cost; and the amount of cost share (if any)
11. Date abstract was prepared.

Abstracts may be structured as you wish. Here is one example of an abstract structure. You may wish to only accept the technical portions and eliminate the teaming/org chart, funding information, and discussion of other research off. The proposer may choose any combination of suggested portions listed below; however, the total length must not exceed 9 pages.

4.3.1.2 {1} Executive Summary:

Includes a title and an abstract that provides a concise summary of work to be performed and basic approaches to be used.

4.3.1.3 {1} Summary of Innovative Claims for the Proposed Research:

Succinctly describe the uniqueness and benefits of the proposed approach relative to the current state-of-art and alternative approaches.

4.3.1.4 {4} Summary of Technical Approach:

The technical rationale, technical approach, and constructive plan for accomplishments of technical goals in support of innovative claims and deliverable production should be summarized.

4.3.1.5 {1} Organization and Teaming Chart:

A clearly defined organization chart for the program team that includes, as applicable:

1. programmatic relationship of team members;
2. unique capabilities of team members;
3. task responsibilities of team members;
4. teaming strategy among the team members;
5. key personnel along with the amount of effort to be expended by each person during each year.

4.3.1.6 {1} Summary of Deliverables and Approach to Intellectual Property:

Deliverables associated with the proposed research and the plans and capability to accomplish technology transition and commercialization. Include in this section all proprietary claims to results, prototypes, intellectual property, or systems supporting and/or necessary for the use of the research, results, and/or prototype. If there are no proprietary claims, this should be stated. This section should list all technical data, computer software, or computer software documentation to be provided with other than unlimited rights in accordance with DFARS Clause 252.227-7017 IDENTIFICATION AND ASSERTION OF USE, RELEASE, OR DISCLOSURE RESTRICTIONS (JUNE 1995).

4.3.1.7 {1} Summary of Estimated Cost, Schedule, and Milestones:

Summarize, in table form, estimated cost, schedule, and milestones for the proposed research.

4.3.2 Proposal Format

All proposals must be in the format given below. Nonconforming proposals may be rejected without review. Proposals shall consist of two volumes. All pages shall be printed on 8-1/2 by 11 inch paper with type not smaller than 12 point. Smaller font may be used for figures, tables and charts. The page limitation for proposals includes all figures, tables, and charts. Volume I, Technical and Management Proposal, may include an attached bibliography of relevant technical papers or research notes (published and unpublished) which document the technical ideas and approach upon which the proposal is based. Copies of not more than three (3) relevant papers may be included with the submission. The bibliography and attached papers are not included in the page counts given below. The submission of other supporting materials along with the proposals is strongly discouraged and will not be considered for review. Maximum page lengths for each section are shown in braces { } below. The first number within the braces corresponds to maximum page length for those proposers electing not to submit an optional adjunct technology. The second number corresponds to those proposers providing an adjunct technology in addition to the required technical elements. All proposals must be written in English.

4.3.2.1 Volume I, Technical and Management Proposal

Section I. Administrative {No more than 2 pages}

- A. Cover sheet to include:
 - (1) BAA number
 - (2) Technical area
 - (3) Lead Organization Submitting proposal
 - (4) Type of organization, selected among the following categories: “LARGE BUSINESS”, “SMALL DISADVANTAGED BUSINESS”, “OTHER SMALL BUSINESS”, “HBCU”, “MI”, “OTHER EDUCATIONAL”, OR “OTHER NONPROFIT”
 - (5) Contractor’s reference number (if any)
 - (6) Other team members (if applicable) and type of organization for each
 - (7) Proposal title
 - (8) Technical point of contact to include: salutation, last name, first name, street address, city, state, zip code, telephone, fax (if available), electronic mail (if available)
 - (9) Administrative point of contact to include: salutation, last name, first name, street address, city, state, zip code, telephone, fax (if available), electronic mail (if available)
 - (10) Date proposal was submitted
 - (11) Total funds requested from DARPA, and the amount of cost share (if any)
- B. Official transmittal letter

Section II. Summary of Proposal {No more than 11, 14 pages}

- A. {4, 5} Innovative claims for the proposed research. This section is the centerpiece of the proposal and should succinctly describe the uniqueness and benefits of the proposed approach relative to the current state-of-art alternate approaches.
- B. {3, 4} Deliverables associated with the proposed research and the plans and capability to accomplish technology transition and commercialization. Include in this section all proprietary claims to the results, prototypes, intellectual property, or systems supporting and/or necessary for the use of the research, results, and/or prototype. If there are not proprietary claims, this should be stated.
- C. {2, 3} Technical rationale, technical approach, and constructive plan for accomplishment of technical goals in support of innovative claims and deliverable production. (In the proposal, this section should be supplemented by a more detailed plan in Section III.)
- D. {2, 2} A clearly defined organization chart for the program team which includes, as applicable: (1) the programmatic relationship of team member; (2) the unique capabilities of team members; (3) the task of responsibilities of team members; (4) the teaming strategy among the team members; and (5) the key personnel along with the amount of effort to be expended by each person during each year.
- E. A three slide summary of the proposal in PowerPoint that quickly and succinctly indicates the concept overview, key innovations, expected impact, and other unique aspects of the proposal. The format for the summary slides is included as APPENDIX 1 to this BAA and does not count against the page limit.

Section III. Detailed Proposal Information {No more than 29, 34 pages}

A. {3, 4} Statement of Work (SOW) - In plain English, clearly define the technical tasks/subtasks to be performed, their durations, and dependencies among them. The page length for the SOW will be dependent on the amount of the effort. For each task/subtask, provide:

- A general description of the objective (for each defined task/activity);
- A detailed description of the approach to be taken to accomplish each defined task/activity);
- Identification of the primary organization responsible for task execution (prime, sub, team member, by name, etc.);
- The completion criteria for each task/activity - a product, event or milestone that defines its completion.
- Define all deliverables (reporting, data, reports, software, etc.) to be provided to the Government in support of the proposed research tasks/activities.

Reporting Deliverables	
Item	Date/Frequency
(LIST)	(LIST)

Tech Deliverables		
Item	Deliverable Date	Deliverable Location
(LIST)	(LIST)	(LIST)

IP Claims	(LIST)
Data Restrictions	(LIST)

Note: It is recommended that the SOW be developed so that each Phase of the program is separately defined. Do not include any proprietary information in the SOW.

B. {3, 3} Description of the results, products, transferable technology, and expected technology transfer path enhancing that of Section II. B. This should also address mitigation of life-cycle and sustainment risks associated with transitioning intellectual

property for U.S. military applications, if applicable. See also Section 7.1 “Intellectual Property.”

- C. {3, 4} Detailed technical rationale enhancing that of Section II.
- D. {8, 9} Detailed technical approach enhancing and completing that of Section II.
- E. {2, 2} Risk assessment and mitigation plan
- F. {2, 3} Comparison with other ongoing research indicating advantages and disadvantages of the proposed effort.
- G. {2, 2} Discussion of proposer’s previous accomplishments and work in closely related research areas.
- H. {1, 1} Description of the facilities that would be used for the proposed effort. This section should address how safeguarding of materials will be handled at each facility to include classified materials when applicable.
- I. {2, 2} Detail personnel support enhancing that of Section II, including formal teaming agreements which are required to execute this program.
- J. {3, 4} Cost schedules and measurable milestones for the proposed research, including estimates of cost for each task in each year of the effort delineated by the primes and major subcontractors, total cost, and any company cost share. **Note: Measurable milestones should capture key development points in tasks and should be clearly articulated and defined in time relative to start of effort.** These milestones should enable and support a decision for the next part of the effort. Additional interim non-critical management milestones are also highly encouraged at regular intervals. Where the effort consists of multiple portions which could reasonably be partitioned for purposes of funding, these should be identified as options with separate cost estimates for each. Additionally, proposals should clearly explain the technical approach(es) that will be employed to meet or exceed each program metric and provide ample justification as to why the approach (es) is/are feasible. The milestones must not include proprietary information.

Section V. Additional Information {No more than 12 pages}

A brief bibliography of relevant technical papers and research notes (published and unpublished) which document the technical ideas upon which the proposal is based. Copies of not more than three (3) relevant papers can be included in the submission.

Attachment 1. Environmental Assessment Input {No Page Limit}

Information required to begin the Environmental Assessment. See Appendix 3 for required information.

4.3.2.2 Volume II, Cost Proposal {No Page Limit}

All proposers, including FFRDCs, must submit the following:

Cover sheet to include:

- (1) BAA number;
- (2) Technical area;
- (3) Lead Organization Submitting proposal;
- (4) Type of organization, selected among the following categories: “LARGE BUSINESS”, “SMALL DISADVANTAGED BUSINESS”, “OTHER SMALL BUSINESS”, “HBCU”, “MI”, “OTHER EDUCATIONAL”, OR “OTHER NONPROFIT”;

- (5) Contractor's reference number (if any);
- (6) Other team members (if applicable) and type of organization for each;
- (7) Proposal title;
- (8) Technical point of contact to include: salutation, last name, first name, street address, city, state, zip code, telephone, fax (if available), electronic mail (if available);
- (9) Administrative point of contact to include: salutation, last name, first name, street address, city, state, zip code, telephone, fax (if available), and electronic mail (if available);
- (10) Award instrument requested: cost-plus-fixed-fee (CPFF), cost-contract—no fee, cost sharing contract – no fee, or other type of procurement contract (*specify*), or other transaction;
- (11) Place(s) and period(s) of performance;
- (12) Total proposed cost separated by basic award and option(s) (if any);
- (13) Name, address, and telephone number of the proposer's cognizant Defense Contract Management Agency (DCMA) administration office (*if known*);
- (14) Name, address, and telephone number of the proposer's cognizant Defense Contract Audit Agency (DCAA) audit office (*if known*);
- (15) Date proposal was prepared;
- (16) DUNS number
- (17) TIN number
- (18) Cage Code
- (19) Subcontractor Information
- (20) Proposal validity period

Proposers without an accounting system considered adequate for determining accurate costs, must complete an SF 1408 if a cost-type contract is to be negotiated. To facilitate this process, complete the SF 1408 found at <http://www.gsa.gov/portal/forms/download/115778> and submit the completed form with your proposal. Proposals requesting a cost-type contract without this form may be deemed non-conforming to this solicitation. The Government recognizes that this form is intended for an auditor to use when evaluating a contractor's cost accounting system. However, your preliminary responses to the questions will expedite the accounting system review. To complete the form, check the boxes on the second page, then provide a narrative explanation of your accounting system to supplement the checklist on page one.

The Government strongly encourages that the proposer provide a detailed cost breakdown to include:

- (1) total program cost broken down by major cost items to include:
 - i. direct labor, including individual labor categories or persons, with associated labor hours and numbered direct labor rates
 - ii. If consultants are to be used, proposer must provide consultant agreement or other document which verifies the proposed loaded daily/hourly rate
 - iii. Indirect costs including Fringe Benefits, Overhead, General and Administrative Expense, Cost of Money, etc. (Must show base amount and rate)
 - iv. Travel – Number of trips, number of days per trip, departure and arrival destinations, number of people, etc.

- v. Other Direct Costs – Should be itemized with costs or estimated costs. Backup documentation will be submitted to support proposed costs. An explanation of any estimating factors, including their derivation and application, must be provided. Please include a brief description of the proposers' procurement method to be used
- (2) major program tasks by fiscal year
- (3) an itemization of major subcontracts and equipment purchases, to include: a cost proposal as detailed as the Proposer's cost proposal
- (4) an itemization of any information technology (IT) purchase, as defined in FAR Part 2.101
- (5) a summary of projected funding requirements by month
- (6) the source, nature, and amount of any industry cost-sharing. Where the effort consists of multiple portions which could reasonably be partitioned for purposes of funding, these should be identified as options with separate cost estimates for each
- (7) identification of pricing assumptions of which may require incorporation into the resulting award instrument (e.g., use of Government Furnished Property/Facilities/Information, access to Government Subject Matter Expert/s, etc.)

The prime contractor is responsible for compiling and providing all subcontractor proposals for the Procuring Contracting Officer (PCO). Subcontractor proposals should include Interdivisional Work Transfer Agreements (ITWA) or similar arrangements. Where the effort consists of multiple portions which could reasonably be partitioned for purposes of funding, these should be identified as options with separate cost estimates for each. NOTE: for IT and equipment purchases, include a letter stating why the proposer cannot provide the requested resources from its own funding.

The Government requests and recommends that tables included in the cost proposal also be provided in an editable (i.e., MS Excel™) format with calculations formulae intact to allow traceability of the cost proposal numbers across the prime and subcontractors. This includes the calculations and adjustments that are utilized to generate the Summary Costs from the source labor hours, labor costs, material costs, etc., input data. The Government prefers receiving cost data as Excel files; however, this is not a requirement. If the PDF submission differs from the Excel submission, the PDF will take precedence. Each copy must be clearly labeled with the DARPA BAA number, proposer organization, and proposal title (short title recommended).

The Government also requests and recommends that the Cost Proposal include MS Excel™ file(s) that provide traceability between the Bases of Estimates (BOEs) and the proposed costs across all elements and phases. This includes the calculations and adjustments that are utilized to generate the Summary Costs from the source labor hours, labor costs, material costs, etc. input data. It is requested that the costs and Subcontractor proposals be readily traceable to the Prime Cost Proposal in the provided MS Excel™ file(s). The Government prefers receiving cost data as Excel files; however, this is not a requirement.

Supporting cost and pricing information in sufficient detail to substantiate the summary cost estimates in 4.4.2.2 above. Include a description of the method used to estimate costs and supporting documentation. Note: "cost or pricing data" as defined in FAR 2.101 shall be required if the proposer is seeking a procurement contract award of \$700,000 or greater unless the proposer requests an exception from the requirement to submit cost or pricing data. "Cost or

pricing data” are not required if the proposer proposes an award instrument other than a procurement contract (e.g., a grant, cooperative agreement, or other transaction.). All subcontractor proposal documentation must be prepared at the same level of detail as that required of the prime contractor. The prime and subcontractor proposals should be uploaded together if possible to DARPA’s BAA Website (<https://baa.darpa.mil/>). If the subcontractor proposal contains proprietary information not releasable to the prime, the subcontractor may upload their proposal separately but identify the proposal as a subcontract proposal and provide the name and proposal title of the prime contractor. Subcontractor proposals submitted by hard copy can be submitted in a sealed envelope by the prime or directly by the subcontractor. If submitted directly by the subcontractor the subcontractor must identify the proposal as a subcontract proposal and provide the name and proposal title of the prime contractor. Subcontractors must provide the same number of hard copies and/or electronic proposals as is required of the prime contractor.

NOTE: Nonconforming proposals may be rejected without review.

4.4 SUBMISSION DATES AND TIMES

4.4.1 Proposal Abstract Submission Deadline

The proposal abstract must be submitted to the DARPA BAA Website (https://baa.darpa.mil) (preferred) or one (1) CD-ROM mailed to DARPA/STO, 675 North Randolph Street, Arlington, VA 22203-2114 (Attn.: DARPA-BAA-15-30) on or before 4:00 p.m., EDT, May 7, 2015. Proposal abstracts received after this time and date may not be reviewed.

4.4.2 Full Proposal Submission Deadline

The full proposal must be submitted to the DARPA BAA Website (https://baa.darpa.mil) (preferred) or one (1) hard copy and one (1) CD-ROM mailed to DARPA/STO, 675 North Randolph Street, Arlington, VA 22203-2114 (Attn.: DARPA-BAA-15-30) on or before 4:00 p.m., EDT, June 11, 2015 in order to be considered during the initial round of selections; however, proposals received after this deadline may be received and evaluated up to six months (180 days) from date of posting on FedBizOpps. Full proposals submitted after the due date specified in the BAA or due date otherwise specified by DARPA after review of proposal abstracts may be selected contingent upon the availability of funds. Proposers are warned that the likelihood of available funding is greatly reduced for proposals submitted after the initial closing date deadline. Failure to comply with the submission procedures may result in the submission not being evaluated.

DARPA will acknowledge receipt of complete submissions via e-mail and assign control numbers that should be used in all further correspondence regarding proposals.

DARPA will post a consolidated Question and Answer list in response to any relevant and/or BAA clarification question(s) after May 23, 2015, before final full proposals are due. In order to receive a response to your question, submit your question by May 13, 2015 to DARPA-BAA-15-30@darpa.mil.

4.5 FUNDING RESTRICTIONS

Not applicable.

4.6 OTHER SUBMISSION REQUIREMENTS

Not applicable.

5. APPLICATION REVIEW INFORMATION

5.1 EVALUATION CRITERIA

Proposals will be evaluated using the following criteria, listed in descending order of importance:

5.1.1 Overall Scientific and Technical Merit; 5.1.2 Potential Contribution and Relevance to the DARPA Mission; 5.1.3 Proposer's Capabilities and/or Related Experience; 5.1.4 Plans and Capabilities to Accomplish Technology Transition; and 5.1.5 Cost Realism and Schedule Realism.

5.1.1 Overall Scientific and Technical Merit

The proposed technical approach is feasible, achievable, complete and supported by a proposed technical team that has the expertise and experience to accomplish the proposed tasks.

Task descriptions and associated technical elements provided are complete and in a logical sequence with all proposed deliverables clearly defined such that a final product that achieves the goal can be expected as a result of award. The proposal clearly identifies major technical risks and clearly defines feasible planned mitigation strategies and efforts to address those risks. The proposal clearly explains the technical approach(es) that will be employed to meet or exceed each program goal and system metric listed in Sections 1.1 – 1.4 and the classified addendum, and provides ample justification as to why the approach(es) is / are feasible. The proposal clearly details error budgets and a projection of system performance based on relevant analysis, simulation, and any existing data collections. Other factors to be considered will include the structure, clarity, and responsiveness to the statement of work; the quality of proposed deliverables; and the linkage of the statement of work, technical approach(es), risk mitigation plans, costs, and deliverables of the prime contractor and all subcontractors through a logical, well structured, and traceable technical plan.

5.1.2 Potential Contribution and Relevance to the DARPA Mission

The potential contributions of the proposed effort are relevant to the national technology base. Specifically, DARPA's mission is to maintain the technological superiority of the U.S. military and prevent technological surprise from harming our national security by sponsoring revolutionary, high-payoff research that bridges the gap between fundamental discoveries and their application.

5.1.3 Proposer's Capabilities and/or Related Experience

The proposer's prior experience in similar efforts must clearly demonstrate an ability to deliver products that meet the proposed technical performance within the proposed budget and schedule. The proposed team has the expertise to manage the cost and schedule. Similar efforts completed/ongoing by the proposer in this area are fully described including identification of other Government sponsors.

5.1.4 Plans and Capability to Accomplish Technology Transition

The proposer clearly demonstrates its capability to transition the technology to the research, industrial, and/or operational military communities in such a way as to enhance U.S. defense. In addition, the evaluation will take into consideration the extent to which the proposed intellectual property (IP) rights will potentially impact the Government's ability to transition technology.

5.1.5 Cost Realism and Schedule Realism

The proposed schedule aggressively pursues performance metrics in the shortest timeframe and accurately accounts for that timeframe. The proposed schedule identifies and mitigates any potential schedule risk.

The proposed costs are realistic for the technical and management approach and accurately reflect the technical goals and objectives of the solicitation. The proposed costs are consistent with the proposer's Statement of Work and reflect a sufficient understanding of the costs and level of effort needed to successfully accomplish the proposed technical approach. The costs for the prime proposer and proposed subawardees are substantiated by the details provided in the proposal (e.g., the type and number of labor hours proposed per task, the types and quantities of materials, equipment and fabrication costs, travel and any other applicable costs).

It is expected that the effort will leverage all available relevant prior research in order to obtain the maximum benefit from the available funding. For efforts with a likelihood of commercial application, appropriate direct cost sharing may be a positive factor in the evaluation. The evaluation criterion recognizes that undue emphasis on cost may motivate proposers to offer low-risk ideas with minimum uncertainty and to staff the effort with junior personnel in order to be in a more competitive posture. DARPA discourages such cost strategies.

5.2 REVIEW AND SELECTION PROCESS

DARPA will conduct a scientific/technical review of each conforming proposal. Proposals will not be evaluated against each other since they are not submitted in accordance with a common work statement. DARPA's intent is to review proposals as soon as possible after they arrive; however, proposals may be reviewed periodically for administrative reasons.

Award(s) will be made to proposers whose proposals are determined to be the most advantageous to the Government, all factors considered, including the potential contributions of the proposed work to the overall research program and the availability of funding for the effort.

It is the policy of DARPA to ensure impartial, equitable, comprehensive proposal evaluations and to select the source (or sources) whose offer meets the Government's technical, policy, and programmatic goals. Pursuant to FAR 35.016, the primary basis for selecting proposals for acceptance shall be technical, importance to agency programs, and fund availability. In order to provide the desired evaluation, qualified Government personnel will conduct reviews and (if necessary) convene panels of experts in the appropriate areas.

For evaluation purposes, a proposal is the document described in "Proposal Information", Section 4.4.2. Other supporting or background materials submitted with the proposal will be considered for the reviewer's convenience only and not considered as part of the proposal.

Restrictive notices notwithstanding, proposals may be handled for administrative purposes by support contractors. These support contractors are prohibited from competition in DARPA technical research and are bound by appropriate non-disclosure requirements.

Subject to the restrictions set forth in FAR 37.203(d), input on technical aspects of the proposals may be solicited by DARPA from non-Government consultants /experts who are strictly bound by the appropriate non-disclosure requirements.

It is the policy of DARPA to treat all proposals as competitive information and to disclose their contents only for the purpose of evaluation. No proposals will be returned. Upon completion of the source selection process, the original of each proposal received will be retained at DARPA and all other copies will be destroyed.

6. AWARD ADMINISTRATION INFORMATION

6.1 SELECTION NOTICES

As soon as the evaluation of a proposal is complete, the proposers will be notified that 1) the proposal has been selected for funding pending contract negotiations, or 2) the proposal has not been selected. These official notifications will be sent via **email** to the Technical POC identified on the proposal coversheet.

6.2 ADMINISTRATIVE AND NATIONAL POLICY REQUIREMENTS

6.2.1 Meeting And Travel Requirements

There will be a program kickoff meeting in the Arlington, VA vicinity and all key participants are required to attend. Performers should also anticipate regular program-wide PI meetings and periodic site visits at the Program Manager's discretion to the Arlington, VA vicinity. Proposers shall include within the content of their proposal details and costs of any travel or meetings they deem to be necessary throughout the course of the effort, to include periodic status reviews by the government.

6.2.2 Human Subjects Research

All research selected for funding involving human subjects, to include use of human biological specimens and human data, must comply with the federal regulations for human subjects protection. Further, research involving human subjects that is conducted or supported by the DoD must comply with 32 CFR 219, Protection of Human Subjects (and DoD Instruction 3216.02, Protection of Human Subjects and Adherence to Ethical Standards in DoD-Supported Research (<http://www.dtic.mil/whs/directives/corres/pdf/321602p.pdf>)).

Institutions awarded funding for research involving human subjects must provide documentation of a current Assurance of Compliance with Federal regulations for human subjects protection, such as a Department of Health and Human Services, Office of Human Research Protection Federal Wide Assurance (<http://www.hhs.gov/ohrp>). All institutions engaged in human subjects research, to include subawardees, must also hold a valid Assurance. In addition, all personnel involved in human subjects research must provide documentation of completion of human subjects research training.

For all proposed research that will involve human subjects in the first year or phase of the project, the institution must provide evidence of or a plan for review by an Institutional Review Board (IRB) upon final proposal submission to DARPA as part of their proposal, prior to being selected for funding. The IRB conducting the review must be the IRB identified on the institution's Assurance of Compliance with human subjects protection regulations. The protocol, separate from the proposal, must include a detailed description of the research plan, study population, risks and benefits of study participation, recruitment and consent process, data collection, and data analysis. It is recommended that you consult the designated IRB for guidance on writing the protocol. The informed consent document must comply with federal regulations (32 CFR 219.116). A valid Assurance of Compliance with human subjects protection regulations along with evidence of completion of appropriate human subjects research training by all investigators and personnel involved with human subjects research should accompany the protocol for review by the IRB.

In addition to a local IRB approval, a headquarters-level human subjects administrative review and approval is required for all research conducted or supported by the DoD. The Army, Navy, or Air Force office responsible for managing the award can provide guidance and information about their component's headquarters-level review process. Note that confirmation of a current Assurance of Compliance with human subjects protection regulations and appropriate human subjects research training is required before headquarters-level approval can be issued.

The time required to complete the IRB review/approval process varies depending on the complexity of the research and the level of risk involved with the study. The IRB approval process can last between one and three months, followed by a DoD review that could last between three and six months. Ample time should be allotted to complete the approval process. DoD/DARPA funding cannot be used towards human subjects research until ALL approvals are granted.

6.2.3 Animal Use

Award recipients performing research, experimentation, or testing involving the use of animals shall comply with the rules on animal acquisition, transport, care, handling, and use as outlined in: (i) 9 CFR parts 1-4, Department of Agriculture rules that implement the Animal Welfare Act of 1966, as amended, (7 U.S.C. § 2131-2159); (ii) National Institutes of Health Publication No. 86-23, "Guide for the Care and Use of Laboratory Animals" (8th Edition); and (iii) DoD Instruction 3216.01, "Use of Animals in DoD Programs."

For projects anticipating animal use, proposals should briefly describe plans for Institutional Animal Care and Use Committee (IACUC) review and approval. Animal studies in the program will be expected to comply with the Public Health Service (PHS) Policy on Humane Care and Use of Laboratory Animals, available at <http://grants.nih.gov/grants/olaw/olaw.htm>.

All award recipients must receive approval by a DoD-certified veterinarian, in addition to an IACUC approval. No animal studies may be conducted using DoD/DARPA funding until the United States Army Medical Research and Materiel Command (USAMRMC) Animal Care and Use Review Office (ACURO) or other appropriate DoD veterinary office(s) grant approval. As a part of this secondary review process, the award recipient will be required to complete and submit an ACURO Animal Use Appendix, which may be found at https://mrmc-www.army.mil/index.cfm?pageid=Research_Protections.acuro&rn=1.

6.2.4 Export Control

Per DFARS 204.7304, all procurement contracts, other transactions and other awards, as deemed appropriate, resultant from this solicitation will include the DFARS Export Control clause (252.204-7008).

6.2.5 Subcontracting

Pursuant to Section 8(d) of the Small Business Act (15 U.S.C. § 637(d)), it is the policy of the Government to enable small business and small disadvantaged business concerns to be considered fairly as subcontractors to contractors performing work or rendering services as prime contractors or subcontractors under Government contracts, and to assure that prime contractors and subcontractors carry out this policy. Each proposer who submits a contract proposal and includes subcontractors is required to submit a subcontracting plan in accordance with FAR 19.702(a) (1) and should do so with their proposal. The plan format is outlined in FAR 19.704.

6.2.6 Electronic And Information Technology

All electronic and information technology acquired through this solicitation must satisfy the accessibility requirements of Section 508 of the Rehabilitation Act (29 U.S.C. § 794d) and FAR 39.2. Each proposer who submits a proposal involving the creation or inclusion of electronic and information technology must ensure that Federal employees with disabilities will have access to and use of information that is comparable to the access and use by Federal employees who are not individuals with disabilities and members of the public with disabilities seeking information or services from DARPA will have access to and use of information and data that is comparable to the access and use of information and data by members of the public who are not individuals with disabilities.

6.2.7 Employment Eligibility Verification

As per FAR 22.1802, recipients of FAR-based procurement contracts must enroll as federal contractors in E-verify and use the system 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.” This clause will not be included in grants, cooperative agreements, or Other Transactions.

6.2.8 System for Award Management (SAM) and Universal Identifier Requirements

Unless the proposer is exempt from this requirement, as per FAR 4.1102 or 2 CFR 25.110 as applicable, all proposers must be registered in the System for Award Management (SAM) and have a valid Data Universal Numbering System (DUNS) number prior to submitting a proposal. All proposers must maintain an active registration in SAM with current information at all times during which they have an active Federal award or proposal under consideration by DARPA. All proposers must provide the DUNS number in each proposal they submit.

Information on SAM registration is available at www.sam.gov.

6.2.9 Reporting Executive Compensation and First-Tier Subcontract Awards

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. A similar award term will be used in all grants and cooperative agreements.

6.2.10 Updates of Information Regarding Responsibility Matters

Per FAR 9.104-7(c), FAR clause 52.209-9, Updates of Publicly Available Information Regarding Responsibility Matters, will be included in all contracts valued at \$500,000 or more where the contractor has current active Federal contracts and grants with total value greater than \$10,000,000.

Representations by Corporations Regarding an Unpaid Delinquent Tax Liability or a Felony Conviction under any Federal Law

6.2.11 Representations by Corporations Regarding an Unpaid Delinquent Tax Liability or a Felony Conviction under any Federal Law

The following representation will be included in all awards:

(a) In accordance with sections 744 and 745 of Division E, Title VII, of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 11-235), none of the funds made available by this or any other Act may be used to enter into a contract with any corporation that —

(1) Has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability, where the awarding agency is aware of the unpaid tax liability, unless the agency has considered suspension or debarment of the corporation and made a determination that this further action is not necessary to protect the interests of the Government; or

(2) Was convicted of a felony criminal violation under any Federal law within the preceding 24 months, where the awarding agency is aware of the conviction, unless the agency has considered suspension or debarment of the corporation and made a determination that this action is not necessary to protect the interests of the Government.

(b) The Offeror represents that –

(1) It is ☐ is not ☐ a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability,

(2) It is ☐ is not ☐ a corporation that was convicted of a felony criminal violation under a Federal law within the preceding 24 months.

6.2.12 Cost Accounting Standards (CAS) Notices and Certification

As per FAR 52.230-2, any procurement contract in excess of \$700,000 resulting from this solicitation will be subject to the requirements of the Cost Accounting Standards Board (48 CFR 99), except those contracts which are exempt as specified in 48 CFR 9903.201-1. Any proposer submitting a proposal which, if accepted, will result in a CAS compliant contract, must submit representations and a Disclosure Statement as required by 48 CFR 9903.202 detailed in FAR 52.230-2. The disclosure forms may be found at http://www.whitehouse.gov/omb/procurement_casb.

6.2.13 Controlled Unclassified Information (CUI) on Non-DoD Information Systems

Controlled Unclassified Information (CUI) refers to unclassified information that does not meet the standards for National Security Classification but is pertinent to the national interests of the United States or to the important interests of entities outside the Federal Government and under law or policy requires protection from unauthorized disclosure, special handling safeguards, or prescribed limits on exchange or dissemination. All non-DoD entities doing business with DARPA are expected to adhere to the following procedural safeguards, in addition to any other relevant Federal or DoD specific procedures, for submission of any proposals to DARPA and any potential business with DARPA:

- Do not process DARPA CUI on publicly available computers or post DARPA CUI to publicly available webpages or websites that have access limited only by domain or Internet protocol restriction.
- Ensure that all DARPA CUI is protected by a physical or electronic barrier when not under direct individual control of an authorized user and limit the transfer of DARPA CUI to subawardees or teaming partners with a need to know and commitment to this level of protection.

- Ensure that DARPA CUI on mobile computing devices is identified and encrypted and all communications on mobile devices or through wireless connections are protected and encrypted.
- Overwrite media that has been used to process DARPA CUI before external release or disposal.

6.2.14 Safeguarding of Unclassified Controlled Technical Information

Per DFARS 204.7303, DFARS 252.204-7012, Safeguarding of Unclassified Controlled Technical Information, applies to this solicitation and all FAR-based awards resulting from this solicitation.

6.3 REPORTING

The number and types of reports will be specified in the award document, but will include as a minimum monthly financial status reports. The reports shall be prepared and submitted in accordance with the procedures contained in the award document and mutually agreed on before award. Reports and briefing material will also be required as appropriate to document progress in accomplishing program metrics. A Final Report that summarizes the project and tasks will be required at the conclusion of the performance period for the award, notwithstanding the fact that the research may be continued under a follow-on vehicle.

6.4 ELECTRONIC SYSTEMS

6.4.1 Representations and Certifications

In accordance with FAR 4.1201, prospective proposers shall complete electronic annual representations and certifications at <http://orca.bpn.gov>.

6.4.2 Wide Area Work Flow (WAWF)

Unless using another approved electronic invoicing system, performers will be required to submit invoices for payment directly via the Internet/WAWF at <http://wawf.eb.mil>. Registration to WAWF will be required prior to any award under this BAA.

6.4.3 i-EDISON

The award document for each proposal selected for funding will contain a mandatory requirement for patent reports and notifications to be submitted electronically through i-Edison (<http://s-edison.info.nih.gov/iEdison>).

7. AGENCY CONTACTS

Unclassified administrative, technical or contractual questions should be sent via e-mail to DARPA-BAA-15-30@darpa.mil. All requests must include the name, email address, and phone number of a point of contact.

Points of Contact

The BAA Coordinator for this effort may be reached at:
DARPA-BAA-15-30@darpa.mil.

DARPA/STO
 ATTN: DARPA-BAA-15-30
 675 North Randolph Street
 Arlington, VA 22203-2114

8. OTHER INFORMATION

8.1 INTELLECTUAL PROPERTY

8.1.1 PROCUREMENT CONTRACT PROPOSERS

8.1.1.1 Noncommercial Items (Technical Data and Computer Software)

Proposers responding to this BAA requesting a procurement contract to be issued under the FAR/DFARS, shall identify all noncommercial technical data, and noncommercial computer software that it plans to generate, develop, and/or deliver under any proposed award instrument in which the Government will acquire less than unlimited rights, and to assert specific restrictions on those deliverables. Proposers shall follow the format under DFARS 252.227-7017 for this stated purpose. In the event that proposers do not submit the list, the Government will assume that it automatically has “unlimited rights” to all noncommercial technical data and noncommercial computer software generated, developed, and/or delivered under any award instrument. If mixed funding is anticipated in the development of noncommercial technical data, and noncommercial computer software generated, developed, and/or delivered under any award instrument, then proposers should identify the data and software in question, as subject to Government Purpose Rights (GPR). In accordance with DFARS 252.227-7013 Rights in Technical Data - Noncommercial Items, and DFARS 252.227-7014 Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation, the Government will automatically assume that any such GPR restriction is limited to a period of five (5) years in accordance with the applicable DFARS clauses, at which time the Government will acquire “unlimited rights” unless the parties agree otherwise. Proposers are advised that the Government will use the list during the source selection evaluation process to evaluate the impact of any identified restrictions, and may request additional information from the proposer, as may be necessary, to evaluate the proposer’s assertions. If no restrictions are intended, then the proposer should state “NONE.” It is noted an assertion of “NONE” indicates that the Government has “unlimited rights” to all noncommercial technical data and noncommercial computer software delivered under the award instrument, in accordance with the DFARS provisions cited above. Failure to provide full information may result in a determination that the proposal is not compliant with the BAA – resulting in nonselectability of the proposal.

A sample list for complying with this request is as follows:

NONCOMMERCIAL				
Technical Data Computer Software	Summary of Intended Use in the Conduct of	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions

To be Furnished With Restrictions	the Research			
(LIST)	(NARRATIVE)	(LIST)	(LIST)	(LIST)

8.1.1.2 Commercial Items (Technical Data and Computer Software)

Proposers responding to this BAA requesting a procurement contract to be issued under the FAR/DFARS, shall identify all commercial technical data, and commercial computer software that may be embedded in any noncommercial deliverables contemplated under the research effort, along with any applicable restrictions on the Government's use of such commercial technical data and/or commercial computer software. In the event that proposers do not submit the list, the Government will assume that there are no restrictions on the Government's use of such commercial items. The Government may use the list during the source selection evaluation process to evaluate the impact of any identified restrictions, and may request additional information from the proposer, as may be necessary, to evaluate the proposer's assertions. If no restrictions are intended, then the proposer should state "NONE." Failure to provide full information may result in a determination that the proposal is not compliant with the BAA – resulting in nonselectability of the proposal.

A sample list for complying with this request is as follows:

COMMERCIAL			
Technical Data Computer Software To be Furnished With Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
(LIST)	(LIST)	(LIST)	(LIST)

8.2 NONPROCUREMENT CONTRACT PROPOSERS – NONCOMMERCIAL AND COMMERCIAL ITEMS (TECHNICAL DATA AND COMPUTER SOFTWARE)

Proposers responding to this BAA requesting an Other Transaction for Prototype shall follow the applicable rules and regulations governing that instrument, but in all cases should appropriately identify any potential restrictions on the Government's use of any Intellectual Property contemplated under that award instrument. This includes both Noncommercial Items and Commercial Items. Although not required, proposers may use a format similar to that described in Paragraphs 1.a and 1.b above. The Government may use the list during the source selection evaluation process to evaluate the impact of any identified restrictions, and may request additional information from the proposer, as may be necessary, to evaluate the proposer's assertions. If no restrictions are intended, then the proposer should state "NONE." Failure to provide full information may result in a determination that the proposal is not compliant with the BAA – resulting in nonselectability of the proposal.

8.3 ALL PROPOSERS – PATENTS

Include documentation proving your ownership of or possession of appropriate licensing rights to all patented inventions (or inventions for which a patent application has been filed) that will be

utilized under your proposal for the DARPA program. If a patent application has been filed for an invention that your proposal utilizes, but the application has not yet been made publicly available and contains proprietary information, you may provide only the patent 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 you own the invention, or 2) proof of possession of appropriate licensing rights in the invention.

8.4 ALL PROPOSERS-INTELLECTUAL PROPERTY REPRESENTATIONS

Provide a good faith representation that you either own or possess appropriate licensing rights to all other intellectual property that will be utilized under your proposal for the DARPA program. Additionally, proposers 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.

9. APPENDIX 1: PROPOSAL SLIDE SUMMARY

Organization Name	Concept
Describe How It Works / Innovative Claims	

Organization Name	Contract/Proposal Specifics
	<ul style="list-style-type: none"><input type="checkbox"/> Intellectual Property<input type="checkbox"/> Data rights summary<input type="checkbox"/> Deliverables

Organization Name Schedule/Cost		
Base	# Months	###M
Option 1	## Months	###M
Option 2	## Months	###M
Program Total	## Months	###M

- **Proposed award type [i.e. Cost Plus Fixed Fee (CPFF), Cost Plus Award Fee (CPAF), Cost Plus Incentive Fee (CPIF), Fixed Firm Price (FFP), Grant, etc.]**

10. APPENDIX 2: CLASSIFIED ADDENDUM REQUEST FORM

APPENDIX 2: DARPA-BAA-15-30 SECURITY CLASSIFICATION GUIDE AND
CLASSIFIED ADDENDUM REQUEST FORM

Date: _____

Company Name: _____

Company Address (Unclassified): _____

Company Address (Classified): _____

Unclassified Fax: _____

Point of Contact Name: _____

POC Phone Number: _____

POC Fax Number: _____

POC E-mail: _____

Company CAGE code: _____

Security or FSO Phone Number: _____

Security or FSO Fax Number: _____

Security or FSO e-mail: _____

Company Secure Fax number: _____

APPENDIX 3: ENVIRONMENTAL ASSESSMENT INPUT

**Environmental Assessment Input
Attachment 1 to Technical Proposal**

To ensure timely completion of an Environmental Assessment (EA) to meet program timeline targets for the data collection effort, performers must provide relevant acoustic system and at-sea experiment input to DARPA. While the below list is not exhaustive, we request at the minimum:

1. Number and type of source(s), e.g., three J9 transducers spaced 50 meters apart
2. Source location (please include as much detail as possible, e.g., the sources will be deployed in a box bound by coordinates X, Y, and Z)
3. Source intensity (dB re: 1 μ Pa @ 1 meter)
4. Source depth (meters)
5. Source frequency (Hz)
6. Waveform type(s)
7. Source duration
8. Ping length
9. Source duty cycle or pulse interval
10. Horizontal and vertical beamwidths
11. Depression/elevation angles (positive down)
12. Speed of the source
13. Track of the source (e.g., random, stationary, waypoints)
14. Location of the action (i.e., the area(s) where the receivers will operate)
15. Date/timeframe of the action
16. Description of the action
17. Number of days of performing active operations in an area and season
18. Maximum number of transmission hours
19. Participants/platforms used
20. Any non-acoustic sources (e.g., electromagnetic sources, lasers)
21. Any expended material
22. Alternatives such as different locations, different source usage, and different seasons
23. Operational requirements (e.g., water depths, distance from shore)

NOTE: Do not mark the Environmental Assessment Input document as Source Selection Sensitive. This document will be shared with other Government agencies in order to begin the Environmental Assessment process. Failure to comply with this request may impact program schedule.

11. APPENDIX 4: VOLUME 1 COVER SHEET TEMPLATE

**Volume I, Technical and Management Proposal
Cover Sheet**

- (1) BAA Number: _____
- (2) Technical Area: _____
- (3) Lead Organization Submitting Proposal: _____
- (4) Type of Organization, selected among the following categories: "LARGE BUSINESS", "SMALL DISADVANTAGED BUSINESS", "OTHER SMALL BUSINESS", "HBCU", "MI", "OTHER EDUCATIONAL", OR "OTHER NONPROFIT"
- (5) Other team members (if applicable) and type of organization for each:
Company 1 (Other Small Business)
Company 2 (Large Business)
Company 3 (Large Business)
University (Other Educational)
- (6) Contractor's reference number (if any): _____
- (7) Proposal Title: _____
Proposal directed to the attention of (if applicable): _____
- (8) Technical point of contact to include:
Salutation, last name first name
Street Address
Street Address 2
City, State, Zip Code
Telephone, Fax (if available)
Electronic mail (if available)
- (9) Administrative point of contact to include:
Salutation, last name first name
Street Address
Street Address 2
City, State, Zip Code
Telephone, Fax (if available)
Electronic mail (if available)
- (10) Date proposal submitted: _____
- (11) Total funds requested from DARPA, and the amount of cost share (if any): _____

**12. APPENDIX 5: VOLUME 2 COVER SHEET, CHECKLIST AND SAMPLE
TEMPLATES**

**Volume II, Cost Proposal
Cover Sheet**

- (1) BAA Number: _____
- (2) Technical Area: _____
- (3) Lead Organization Submitting Proposal: _____
- (4) Type of Organization, selected among the following categories: “LARGE BUSINESS”, “SMALL DISADVANTAGED BUSINESS”, “OTHER SMALL BUSINESS”, “HBCU”, “MI”, “OTHER EDUCATIONAL”, OR “OTHER NONPROFIT”
- (5) Other team members (if applicable) and type of organization for each:
Company 1 (Other Small Business)
Company 2 (Large Business)
Company 3 (Large Business)
University (Other Educational)
- (6) Contractor’s reference number (if any): _____
- (7) Proposal Title: _____
Proposal directed to the attention of (if applicable): _____
- | | |
|--|---|
| (8) Technical point of contact to include: | (9) Administrative point of contact to include: |
| Salutation, last name first name | Salutation, last name first name |
| Street Address | Street Address |
| Street Address 2 | Street Address 2 |
| City, State, Zip Code | City, State, Zip Code |
| Telephone, Fax (if available) | Telephone, Fax (if available) |
| Electronic mail (if available) | Electronic mail (if available) |
- (10) Award Instrument Requested: cost-plus-fixed-fee (CPFF), cost-contract – no fee, cost sharing contract – no fee, or other type of procurement contract (specify), or other transaction
- (11) Place and period of performance: _____
- (12) Total proposed cost separated by basic award and option(s) (if any): _____
- (13) Proposer’s Cognizant Defense Contract Management Agency (DCMA), Defense Contract Audit Agency (DCAA) Information:
- | | |
|--|----------------------------------|
| DCMA Administration Office (if known): | DCAA Audit Office (if known): |
| Salutation, last name first name | Salutation, last name first name |
| Street Address | Street Address |
| Street Address 2 | Street Address 2 |
| City, State, Zip Code | City, State, Zip Code |
| Telephone, Fax (if available) | Telephone, Fax (if available) |

(14) Any Forward Pricing Rate Agreement, other such approved rate information, or such other documentation that may assist in expediting negotiations (if available).

(15) Date proposal submitted: _____

(16) DUNS number: _____

(17) TIN (Tax Information Number): _____

(18) CAGE Code: _____

(19) Subcontractor Information: _____

(20) Proposal validity period: _____

Volume II, Cost Proposal Checklist and Sample Templates

The following checklist and sample templates are provided to assist the proposer in developing a complete and responsive cost volume. Full instructions appear in Section 4.3.2.2 beginning on Page 25 of DARPA-BAA-15-30. This worksheet must be included with the coversheet of the Cost Proposal.

1. Are all items from Section 4.3.8.2 (Volume II, Cost Proposal) of DARPA-BAA-15-30 included on your Cost Proposal cover sheet?

☐ **YES** ☐ **NO** **Appears on Page(s)** [Type text]

If reply is “No”, please explain:

2. Does your Cost Proposal include (1) a summary cost buildup by Phase, (2) a summary cost buildup by Year, and (3) a detailed cost buildup of for each Phase that breaks out each task and shows the cost per month?

☐ **YES** ☐ **NO** **Appears on Page(s)** [Type text]

If reply is “No”, please explain:

3. Does your cost proposal (detailed cost buildup #3 above in item 2) show a breakdown of the major cost items listed below:

Direct Labor (Labor Categories, Hours, Rates)

☐ **YES** ☐ **NO** **Appears on Page(s)** [Type text]

Indirect Costs/Rates (i.e., overhead charges, fringe benefits, G&A)

☐ **YES** ☐ **NO** **Appears on Page(s)** [Type text]

Materials and/or Equipment

☐ **YES** ☐ **NO** **Appears on Page(s)** [Type text]

Subcontracts/Consultants

☐ **YES** ☐ **NO** **Appears on Page(s)** [Type text]

Other Direct Costs

☐ **YES** ☐ **NO** **Appears on Page(s)** [Type text]

Travel

☐ **YES** ☐ **NO** **Appears on Page(s)** [Type text]

If reply is “No”, please explain:

4. Have you provided documentation for proposed costs related to travel, to include purpose of trips, departure and arrival destinations and sample airfare?

☐ **YES** ☐ **NO** **Appears on Page(s)** [Type text]

If reply is “No”, please explain:

5. Does your cost proposal include a complete itemized list of all material and equipment items to be purchased (a priced bill-of-materials (BOM))?

☐ YES ☐ NO **Appears on Page(s)** [Type text]

If reply is “No”, please explain:

6. Does your cost proposal include vendor quotes or written engineering estimates (basis of estimate) for all material and equipment with a unit price exceeding \$5000?

☐ YES ☐ NO **Appears on Page(s)** [Type text]

If reply is “No”, please explain:

7. Does your cost proposal include a clear justification for the cost of labor (written labor basis-of-estimate (BOE)) providing rationale for the labor categories and hours proposed for each task?

☐ YES ☐ NO **Appears on Page(s)** [Type text]

If reply is “No”, please explain:

8. Do you have subcontractors/consultants? If YES, continue to question 9. If NO, skip to question 13.

☐ YES ☐ NO **Appears on Page(s)** [Type text]

9. Does your cost proposal include copies of all subcontractor/consultant technical (to include Statement of Work) and cost proposals?

☐ YES ☐ NO **Appears on Page(s)** [Type text]

If reply is “No”, please explain:

10. Do all subcontract proposals include the required summary buildup, detailed cost buildup, and supporting documentation (SOW, Bill-of-Materials, Basis-of-Estimate, Vendor Quotes, etc.)?

☐ YES ☐ NO **Appears on Page(s)** [Type text]

If reply is “No”, please explain:

11. Does your cost proposal include copies of consultant agreements, if available?

☐ YES ☐ NO **Appears on Page(s)** [Type text]

If reply is “No”, please explain:

12. If requesting a FAR-based contract, does your cost proposal include a tech/cost analysis for all proposed subcontractors?

☐ YES ☐ NO **Appears on Page(s)** [Type text]

If reply is “No”, please explain:

13. Have all team members (prime and subcontractors) who are considered a Federally Funded Research & Development Center (FFRDC), included documentation that clearly demonstrates work is not otherwise available from the private sector AND provided a letter on letterhead from the sponsoring organization citing the specific authority establishing their eligibility to propose to government solicitations and compete with industry, and compliance with the associated FFRDC sponsor agreement and terms and conditions.

☐ **YES** ☐ **NO** **Appears on Page(s)** [Type text]

If reply is “No”, please explain:

14. Does your proposal include a response regarding Organizational Conflicts of Interest?

☐ **YES** ☐ **NO** **Appears on Page(s)** [Type text]

If reply is “No”, please explain:

15. Does your proposal include a completed Data Rights Assertions table/certification?

☐ **YES** ☐ **NO** **Appears on Page(s)** [Type text]

If reply is “No”, please explain:

SAMPLE – SUMMARY PROPOSAL BUDGET (One per Phase)

SAMPLE: COST ELEMENT SUMMARY

Phase I			
COST ELEMENT	BASE	RATE	AMOUNT
DIRECT LABOR (List each direct labor category separately)	Hours	\$	\$
TOTAL DIRECT LABOR			\$
FRINGE BENEFITS	\$	%	\$
TOTAL LABOR OVERHEAD	\$	%	\$
SUBCONTRACTOR(S), CONSULTANT(S) (List Each Separately)			\$
MATERIALS & EQUIPMENT			\$
MATERIAL OVERHEAD	\$	%	\$
TRAVEL			\$
OTHER DIRECT COSTS (ODC)			\$
General and Administrative (G&A)	\$	%	\$
Independent Research and Development (IR&D)/Bid and Proposal (B&P)	\$	%	\$
SUBTOTAL COSTS			\$
COST OF MONEY (See DD Form 1861)			\$
TOTAL COST			\$
PROFIT/FEE	\$	%	\$
TOTAL PRICE/COST			\$
GOVERNMENT SHARE			\$
RECIPIENT SHARE (if applicable)			\$

Phase II Option			
BASE	RATE	AMOUNT	TOTAL PROPOSED AMOUNT
Hours			
	\$	\$	
		\$	
\$	%	\$	
\$	%	\$	
		\$	
		\$	
\$	%	\$	
		\$	
\$	%	\$	
		\$	
		\$	
\$	%	\$	
		\$	
		\$	
		\$	

SAMPLE: SUBCONTRACTORS & CONSULTANTS PRICE SUMMARY

A	B	C	D	E	F
Subcontractor or Consultant Name	SOW Tasks to be performed*	Type of Award	Subcontractor of Consultant Quoted Price	Cost Proposed by Prime for the Subcontractor or Consultant	Difference (Column D - Column E) IF APPLICABLE
TOTALS					
* Identify Statement of Work, Milestone or Work Breakdown Structure paragraph or provide a narrative explanation as an addendum to this Table that describes the effort to be performed.					