

# **Broad Agency Announcement**

Harnessing Autonomy for Countering Cyber-adversary Systems  
(HACCS)

HR001117S0051

August 03, 2017



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**Defense Advanced Research Projects Agency**  
Information Innovation Office  
675 North Randolph Street  
Arlington, VA 22203-2114

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## PART I: OVERVIEW INFORMATION

- **Federal Agency Name:** Defense Advanced Research Projects Agency (DARPA), Information Innovation Office (I2O)
- **Funding Opportunity Title:** Harnessing Autonomy for Countering Cyber-adversary Systems (HACCS)
- **Announcement Type:** Initial Announcement
- **Funding Opportunity Number:** HR001117S0051
- **Catalog of Federal Domestic Assistance Numbers (CFDA):** Not Applicable
- **Dates**
  - Posting Date: August 03, 2017
  - Proposers Day: July 31, 2017
  - Proposal Due Date: October 1, 2017, 12:00 noon (ET)
  - BAA Closing Date: October 1, 2017, 12:00 noon (ET)
- **Anticipated Individual Awards:** There are multiple technical areas (TAs) for this solicitation. Currently, DARPA anticipates multiple awards in TA1, TA2 and TA3; and a single award for TA4.
- **Types of Instruments that May be Awarded:** Procurement contracts
- **Agency Contacts**
  - **Technical POC:** Dr. Angelos Keromytis, Program Manager, DARPA/I2O
  - **BAA Email:** [HACCS@darpa.mil](mailto:HACCS@darpa.mil)
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675 North Randolph Street  
Arlington, VA 22203-2114
  - **I2O Solicitation Website:** <http://www.darpa.mil/work-with-us/opportunities>

## **PART II: FULL TEXT OF ANNOUNCEMENT**

### **I. Funding Opportunity Description**

DARPA is soliciting innovative research proposals in the area of automated techniques and software tools for neutralizing cyber-adversary infrastructure. The goal of the Harnessing Autonomy for Countering Cyber-adversary Systems (HACCS) program is to develop technologies for accurately identifying malicious cyber-adversary infiltrated networks, generating reliable software exploits for large numbers of known (n-day) vulnerabilities, and creating effective autonomous software agents that can be inserted in the compromised networks via the n-day exploits to safely and reliably neutralize cyber-adversary software agents. 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.

This Broad Agency Announcement (BAA) is being issued, and any resultant selection will be made, using procedures under Federal Acquisition Regulation (FAR) 6.102(d)(2) and 35.016. Any negotiations and/or awards will use procedures under FAR 15.4. 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 (FBO) website (<https://www.fbo.gov/>).

The following information is for those wishing to respond to this BAA.

#### **A. Background**

Malicious actors are currently able to compromise and use with impunity large numbers of devices owned and operated by third parties. Such collections of compromised and conscripted devices, commonly referred to as botnets, are used for criminal, espionage, and computer network attack purposes (often a combination of all three). Recent examples of botnets and similar malicious code include Mirai, Hidden Cobra, WannaCry, and Petya/NotPetya. The potential scale of their effects make such malware a national security threat. The May 11, 2017, Presidential Executive Order on Strengthening the Cybersecurity of Federal Networks and Critical Infrastructure specifically identifies botnets as a high priority national security issue.

Improving the security posture of Department of Defense (DoD) networks alone is insufficient to counter such threats to national security, as the majority of botnet nodes reside in neutral networks (“gray space”). Current incident response methods are too resource- and time-consuming to address the problem at scale. Active defense methods are insufficiently precise and predictable in their behavior, posing a risk that they may cause processing issues or other side effects. What is needed is the ability to identify and neutralize botnets and other large-scale malware from compromised devices and networks in a scalable, timely, safe, and reliable manner, in accordance with appropriate privacy and other legal authorities. To achieve the necessary scale and timeliness, such a capability must be effective even if the owners of botnet-conscripted networks are unaware of the infection and are not actively participating in the neutralization process.

## B. Program Scope

The HACCS program will investigate the feasibility of creating safe and reliable autonomous software agents that can effectively counter malicious botnet implants and similar large-scale malware. The program will do so by developing a quantitative framework and established parameters for their safe, reliable, and effective use. HACCS performers will develop the techniques and algorithms necessary to measure the accuracy of identifying botnet-infected networks, the accuracy of identifying the type of devices residing in a network, and the stability of potential access vectors. The program will take an experimental approach to verify the implementation of such autonomous agents and the rules under which they operate, and to measure the effectiveness of denying, degrading, and disrupting botnets and individual botnet implants without affecting the systems and networks on which they reside.

The program seeks to:

- Accurately identify and fingerprint botnet-conscripted networks to determine the presence of botnet implants, the number and types of devices present on said networks, and the software services running on these devices with sufficient precision to infer the presence of known vulnerabilities (also referred to as “n-day” vulnerabilities);
- Generate non-disruptive software exploits for a large number of known vulnerabilities that can be used to establish initial presence in each botnet-conscripted network without affecting legitimate system functionality; and
- Create high-assurance software agents that safely, reliably, and autonomously navigate within botnet-conscripted networks, identify botnet implants, and neutralize them or otherwise curtail their ability to operate, while minimizing side effects to these neutral systems and infrastructure.

## C. Program Structure

Proposers may only submit one proposal as lead institution to the HACCS program. Each proposal may cover one or more technical areas (TAs). Proposers may include extra pages for each additional TA addressed in the technical approach (See Section IV.B.1.a).

The program is divided into four TAs that will be working in parallel, starting at program kickoff, and will span three 16-month phases. TA1 performers will develop technologies for accurately finding and fingerprinting botnet infrastructure. TA2 performers will develop technologies for non-disruptive autonomous agent(s) insertion into botnet-conscripted or otherwise compromised networks. TA3 performers will focus on the generation of verifiably safe and reliable autonomous agent(s). TA4 performers will focus on system integration.

The selected HACCS performers are required to collaborate with each other. The Government has determined that an Associate Contractor Agreement (ACA) is necessary to help facilitate an open exchange of information and ensure complete compatibility between software components, the system architecture, equipment, data and other program elements to prevent unnecessary duplication of effort, and to maximize commonality to guarantee appropriate coordination and integration of work. All selected performers will be required to have their ACAs in place prior to the program kick-off meeting.

The Government will assess performer progress with regular technology evaluations and adversarial engagements driven by specific operational scenarios. The operational scenarios may incorporate red teams, U.S. Government cyber operators, and other elements. DARPA encourages technical efforts that allow for flexibility in testing and evaluation, to take advantage of opportunities to access data sets under time constraints, while permitting long-term research and development.

Proposers addressing TA1, TA2, or TA3 are not required to hold or obtain security clearances, but having personnel with Top Secret clearances that are eligible for Sensitive Compartmented Information (SCI) will be viewed positively. It is preferable (but not required) that the Principal Investigator in each TA1, TA2, and TA3 proposal be cleared at that level. Academic and small company participation is explicitly encouraged, regardless of possession of a security clearance.

At the time of proposal submission, all proposers wishing to submit proposals under TA4 must have some personnel with a Top Secret clearance that are eligible for SCI. It is preferable (but not required) that the Principal Investigator in TA4 proposals be cleared at that level.

#### **D. Technical Areas**

There are four TAs within the HACCS program:

- Find and Fingerprint Botnet Infrastructure (TA1)
- Insert Autonomous Agents into Gray Networks (TA2)
- Identify and Neutralize Botnet Implants (TA3)
- Integration (TA4)

##### **Find and Fingerprint Botnet Infrastructure (TA1):**

TA1 performers will develop techniques and systems for identifying the command-and-control (C2), attack, and other activity traffic of botnet nodes and other compromised networks. Such activities and C2 traffic may be stealthy or evasive in nature. TA1 performers will also develop techniques for fingerprinting botnet-conscripted networks to determine the number and types of devices on those networks, and the version(s) of software running on these devices. The latter is expected to be used by transition partners to identify unpatched or misconfigured software that could be used to gain access to the botnet-conscripted networks.

The technologies developed by TA1 performers may use a combination of active, passive, and indirect device enumeration and traffic analysis techniques, along with existing relevant data sets (commercially available or open source). Of particular interest are techniques that associate specific versions of software with corresponding uniquely identifiable, network-observable activity. Also of interest are techniques for fingerprinting a “black box” device (i.e., one for which the software/firmware itself is not directly available or known). Proposers are also expected to address issues relating to the use of Network Address Translation (NAT, including Carrier-Grade NAT), Virtual Private Networks (VPNs), and Internet Protocol version 6 (IPv6).

The primary challenges for TA1 are the accuracy, scale, and speed of botnet identification and device characterization. DARPA will facilitate access to relevant data sources by leveraging both commercial and USG relationships and data exchange agreements. Proposers are encouraged to propose their own data sources and methods, and to identify their data needs

concretely.

TA1 proposals should at a minimum address the following topics:

1. Botnets often contain evasive and/or covert command and control channels. Proposers should discuss how their solutions would identify and consistently uncover such command and control channels. Proposers should describe how their approach would detect a new botnet and identify all of its nodes.
2. Botnets are most effective when they have the largest distributed footprint. Proposers should discuss how their solutions will identify appropriate datasets used in identifying botnet infrastructure, and validate the ability to detect coordinated and distributed activities conducted by botnets.
3. The malicious effects of a botnet are often employed over a short period of time necessitating the detection of an attack in real-time or near real-time. Proposers should discuss how their solutions will achieve rapid identification of the botnet nodes.
4. Depending on the applicable rules of operation for the TA3-generated autonomous agent, certain types of networks or devices may be deemed out of bounds. Proposers should discuss how they can provide the necessary information for enabling autonomous agents to abide by such rules of operation.
5. Accuracy of botnet detection and device fingerprinting are essential to the success of the program. Proposers should discuss how they will evaluate their proposed technologies, and their plan to meet the targets for each program phase (see Section I.E).

### **Insert Autonomous Agents into Gray Networks (TA2):**

TA2 performers will develop techniques and systems for generating non-disruptive exploits using available information about known (*n-day*) vulnerabilities. These exploits will be used to insert TA3-generated autonomous agents into botnet-infected networks, and to enable the lateral movement and operation of these agents within these networks.

This information may be limited to an English-language description of the vulnerability, a semi-structured entry in a database, or a piece of software or input for testing the presence of such a vulnerability. The vulnerability descriptions found in the National Vulnerability Database (NVD) are a good starting point for considering techniques responsive to the requirements of this TA. The primary challenges for TA2 will be scaling vulnerability discovery and exploit generation to complex software running on real operating systems, extending software reasoning systems and technologies to support analysis of classes of vulnerabilities beyond memory corruption, and accurately characterizing the stability and potential side effects of the generated exploits. Types of bugs and classes of vulnerability beyond memory corruption that are of interest include, but are not limited to, web and mobile application vulnerabilities, privilege confusion and/or escalation, and credential reuse. Proposers should describe the classes of vulnerability that they will investigate and justify their selection in the context of the broader program.

TA2 proposals should at a minimum address the following topics:

1. Vulnerability information is often made available in the form of unstructured data. Proposers should describe how their solutions would extract semantic meaning from



public repositories of such information.

2. Techniques for identifying vulnerabilities unique to botnet implants will be essential for neutralizing such malware. In addition, embedded computing devices co-resident with botnet-conscripted devices can provide unique vantage points for countering malicious botnet implants. Proposers should explain how their proposed solution would develop autonomous agent insertion techniques specific Internet of Things (IoT) devices. Also of interest are techniques that leverage the use of cloud computing by co-resident devices as a means of inserting autonomous agents on said devices.
3. Proposers should explain how their technologies will generate insertion techniques (e.g., exploits) that are stable, safe, reliable, and non-disruptive, even in the presence of devices that are incorrectly fingerprinted. Of particular interest are techniques for measuring the effect of exploits on inserted software.

### **Identify and Neutralize Botnet Implants (TA3):**

TA3 performers will develop techniques and systems for generating autonomous agents that can safely, reliably, and autonomously navigate within partially known or fully unknown networks toward each device controlled by a malicious botnet implant. TA2-generated n-day exploits will enable the insertion of these agents. TA2-generated n-day exploits, or other bugs (e.g., credential reuse) may also facilitate the lateral movement of the agents within the botnet-conscripted network. The agent may be able to gain access to the infected device(s), or achieve a vantage point from which to suppress the network traffic (e.g., command-and-control activity) of the malicious implant. Strong proposals will address techniques for guaranteeing the correct and safe operation of the agents, and for enabling the clean termination of such agents when their task is completed or when they determine that the network they were inserted in is botnet-free. Stealthy operation is not a priority for the TA3-generated agents.

The primary challenges for TA3 will be enabling safe and effective autonomy of the agents, and providing correct-by-construction or equivalent assurances to agent generation and operation, with particular attention paid to avoiding or minimizing-and-quantifying disruption of the systems and networks infected by malicious botnet implants.

TA3 proposals should at a minimum address the following topics:

1. Agents must be capable of autonomous lateral movement, operation, and short-term persistence in partially known or fully unknown heterogeneous environments. Proposals should describe methods for achieving such autonomy.
2. Accurate evaluation of the overall effectiveness, safety, and reliability of agent autonomy will be essential. Strong proposals will describe metrics that will enable evaluation.
3. Proposals should address correctness of agent implementation, and correctness of rules of operation, including lateral movement boxing and terminating conditions for agents.

### **Integration (TA4):**

TA4 performers will provide the unifying framework (or integrate into an existing one) for the components developed by the performers in the first three TAs, and will implement other necessary capabilities such as the actual neutralization effects that will be used against the

malicious botnet implants. The integrator will also act as the Voice-of-the-Offense for the program, and will coordinate testing and evaluation of the system components and the integrated system, possibly in conjunction with existing DoD cyber exercises. DARPA anticipates the integrator to primarily act in the Voice-of-the-Offense role during the first half of the program, with the bulk of the integration work occurring in the second half. DARPA strongly encourages proposers to offer up to two successive 12-month options for integration work that will take place beyond the 4-year research and development portion of the program.

TA4 proposals should at a minimum address the following topics:

1. The final HACCS system will likely require seamless access to multiple public, commercial, and/or Government-generated sources of information. Proposals should describe how such potentially heterogeneous sources would be integrated.
2. Exercises and close interaction with transition partners will be an essential element of the HACCS program. Proposals should discuss approaches for enabling participation in relevant cyber exercises and supporting potential transition partner interactions.
3. As the Voice-of-the-Offense, the TA4 Integration performer will be ultimately responsible for the quantitative as well as qualitative evaluation of the HACCS system. Strong proposals will discuss meaningful metrics and methods for evaluating the overall effectiveness of this effort.

### **E. Program Phases and Metrics**

The HACCS program is divided into three 16-month phases. TA4 proposals should include two optional, successive, 12-month option phases beginning at the end of Phase 3, which will allow time for transition efforts expected to continue past the official program end date. All proposers should expect to work in parallel with an increasing level of realism and scale.

Provided below are metrics indicative of expected progress. Proposers are encouraged to provide additional metrics, as appropriate for their technical approach and methodology.

#### **Technical Area 1**

<b>Phase 1</b>	<ul style="list-style-type: none"> <li>• Characterize 5% of the global IP address space</li> <li>• 80% accuracy of botnet detection and network fingerprinting</li> </ul>
<b>Phase 2</b>	<ul style="list-style-type: none"> <li>• Characterize 25% of IP address space</li> <li>• 90% accuracy</li> </ul>
<b>Phase 3</b>	<ul style="list-style-type: none"> <li>• Characterize 80% of IP address space</li> <li>• 95% accuracy</li> </ul>

### Technical Area 2

<b>Phase 1</b>	<ul style="list-style-type: none"><li>• 10 n-day exploit instances</li><li>• 1 additional vulnerability class</li></ul>
<b>Phase 2</b>	<ul style="list-style-type: none"><li>• 100 n-day exploit instances</li><li>• 2 additional vulnerability classes</li></ul>
<b>Phase 3</b>	<ul style="list-style-type: none"><li>• 1,000 n-day exploit instances</li><li>• 2 additional vulnerability classes</li></ul>

### Technical Area 3

<b>Phase 1</b>	<ul style="list-style-type: none"><li>• Demonstrate lateral movement and effect in 10 computer-simulated topologies</li><li>• 30% of autonomous agent code verified</li></ul>
<b>Phase 2</b>	<ul style="list-style-type: none"><li>• 1,000 computer-simulated topologies</li><li>• 75% of autonomous agent code verified</li><li>• Formally specified Rules of Operation</li></ul>
<b>Phase 3</b>	<ul style="list-style-type: none"><li>• 10,000 computer-simulated topologies</li><li>• 95% of autonomous agent code verified</li><li>• Formally verified Rules of Operation</li></ul>

### Technical Area 4

<b>Phase 1</b>	<ul style="list-style-type: none"><li>• Voice-of-the-Offense</li></ul>
<b>Phase 2</b>	<ul style="list-style-type: none"><li>• Design and implement integration framework</li></ul>
<b>Phase 3</b>	<ul style="list-style-type: none"><li>• Demonstrate system in DoD exercise</li></ul>

## F. Schedule and Milestones

For each year of the effort, there will be quarterly meetings with the DARPA technical team, which include two site visits and two Principal Investigator (PI) meetings. During these reviews, DARPA will assess progress toward solution via performer briefings, technical discussions, demonstrations, and informal end-of-phase evaluations based on the target goals of each phase.

PI meetings will focus on open technical exchange that includes discussion of difficulties encountered and possible solutions. The goals of the PI meetings will be to: (a) review and share innovations/accomplishments of the program; (b) review and discuss plans and options for technology demonstrations and prototypes; (c) review and discuss results from meetings and events conducted prior to the tests and evaluations; (d) demonstrate prototypes; and (e) plan for the next six-month period.

The Government will specify the locations for the technical interchanges, PI meetings, and other events. For budgeting purposes, assume the locations of the two PI meetings held each year will be in the Washington, D.C. metro area. In addition to site visits, regular meetings are encouraged to enhance communication and collaborations, as required, among the performers. Should important issues arise between program reviews, the Government team will be available to support informal interim meetings and teleconferences.

Proposals should include a detailed schedule that is consistent with the maturity of their approaches and the risk reduction required for their concepts, and their program plan. These schedules will be synchronized across performers, as required, and monitored and revised as necessary, throughout the program's period of performance. A start date of April 2, 2018, should be assumed for budgeting purposes. Subject to the availability of funding, the program is intended to last for four (4) years.

## **G. Deliverables**

Performers are responsible for providing, at a minimum, the following deliverables, as applicable:

- Slide Presentations – Annotated slide presentations will be submitted within two weeks after program kick-off meeting and after each review.
- Monthly Coordination Reports – A monthly technical coordination report describing progress made, resources expended, and any issues requiring the attention of the Government team will be provided within 10 days after the end of each month. Monthly expenditure reports and uploading of required deliverables to the DARPA TFIMS-2 reporting system are required by all program performers.
- Software – All computer software developed or delivered under the program shall be delivered as source (including entire version control history) and as object (executable) code. Include the source listings and source code for the target computer systems. Delivered software under this effort is to be completely maintainable and modifiable with no reliance on any non-delivered computer programs or documentation.
- Software Documentation – Software documentation shall be provided within one month after the end of each phase documenting source code, algorithm description documentation, hardware description language specifications, system diagrams, part numbers and other data necessary to maintain and to produce copies of the software.
- Hardware – At the conclusion of the last phase, all hardware procured or developed under the program shall be delivered. The delivery is to include sufficient documentation so as to be completely operable, maintainable and modifiable with no reliance on any non-delivered hardware or hardware documentation developed or procured under the program.
- Final Technical Report – The final report, due at contract completion, will concisely summarize the effort conducted and provide any lessons learned during the development of the technology.

## **H. Government-Furnished Property/Equipment/Information**

Proposals should clearly state any assumptions regarding the use of proposed Government test facilities and capabilities, as well as any proposed Government Furnished Equipment (GFE) used as part of their development, test, and evaluation approach. The Government does not guarantee availability of any proposed GFE, so proposers should address alternatives to prepare for any eventuality.

## **I. Intellectual Property**

The program will emphasize creating and leveraging open source technology and architecture. Intellectual property rights asserted by proposers are strongly encouraged to be aligned with open source regimes.

A key goal of the program is to establish an open, standards-based, multi-source, plug-and-play architecture that allows for interoperability and integration. This includes the ability to easily add, remove, substitute, and modify software and hardware components. This will facilitate rapid innovation by providing a base for future users or developers of program technologies and deliverables. Therefore, it is desired that all noncommercial software (including source code), software and algorithm description documentation, hardware designs and documentation, and technical data generated by the program be provided as deliverables to the Government, with a minimum of Government Purpose Rights (GPR), as lesser rights may adversely impact the lifecycle costs of affected items, components, or processes. See Section VI.B.2 for more details on intellectual property.

## **J. Security Clearance Requirements**

See Section III.D.

## **II. Award Information**

### **A. Awards**

Multiple awards are anticipated. The level of funding for individual awards made under this solicitation has not been predetermined and will depend on the quality of the proposals received and the availability of funds. Awards will be made to proposers whose proposals are determined to be the most advantageous and provide the best value to the Government, all factors considered, including the potential contributions of the proposed work, overall funding strategy, and availability of funding. See Section V for further information.

The Government reserves the right to:

- select for negotiation all, some, one, or none of the proposals received in response to this solicitation;
- make awards without discussions with proposers;
- conduct discussions with proposers if it is later determined to be necessary;
- segregate portions of resulting awards into pre-priced options;
- accept proposals in their entirety or to select only portions of proposals for award;
- fund proposals in increments and/or with options for continued work at the end of one or more phases;
- request additional documentation once the award instrument has been determined (e.g., representations and certifications); and
- remove proposers from award consideration should the parties fail to reach agreement on award terms within a reasonable time or the proposer fails to provide requested additional information in a timely manner.

Proposals selected for award negotiation will result in a procurement contract. No other types of contract vehicle will be considered.

In all cases, the Government contracting officer shall have sole discretion to select award instrument type, regardless of instrument type proposed, and to negotiate all instrument terms and conditions with selectees. 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.

### **B. 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 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 may be met by proposers intending to perform fundamental research and proposers not intending to perform fundamental research or the proposed research may present a high likelihood of disclosing performance characteristics of military systems or manufacturing technologies that are unique and critical to defense. Based on the nature of the performer and the nature of the work, the Government anticipates that some awards will include restrictions on the resultant research that will require the awardee 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. This clause can be found at [www.darpa.mil/work-with-us/additional-baa](http://www.darpa.mil/work-with-us/additional-baa).

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

### **C. Disclosure of Information and Compliance with Safeguarding Covered Defense Information Controls**

The following provisions and clause apply to all solicitations and contracts; however, the definition of "controlled technical information" clearly exempts work considered fundamental research and therefore, even though included in the contract, will not apply if the work is fundamental research.

DFARS 252.204-7000, "Disclosure of Information"

DFARS 252.204-7008, "Compliance with Safeguarding Covered Defense Information Controls"

DFARS 252.204-7012, "Safeguarding Covered Defense Information and Cyber Incident Reporting"

The full text of the above solicitation provision and contract clauses can be found at <http://www.darpa.mil/work-with-us/additional-baa#NPRPAC>.

Compliance with the above requirements includes the mandate for proposers to implement the security requirements specified by National Institute of Standards and Technology (NIST) Special Publication (SP) 800-171, "Protecting Controlled Unclassified Information in Nonfederal Information Systems and Organizations" (see <https://doi.org/10.6028/NIST.SP.800-171r1>) that are in effect at the time the BAA is issued, or as authorized by the Contracting Officer, not later than December 31, 2017.

For awards where the work is considered fundamental research, the contractor will not have to implement the aforementioned requirements and safeguards; however, should the nature of the work change during performance of the award, work not considered fundamental research will be subject to these requirements.



### **III. Eligibility Information**

#### **A. Eligible Applicants**

DARPA welcomes engagement from all responsible sources capable of satisfying the Government's needs, including academia (colleges and universities); businesses (large, small, small disadvantaged, etc.); other organizations (including non-profit); entities (foreign, domestic, and government); FFRDCs; minority institutions; and others.

DARPA welcomes engagement from non-traditional sources in addition to current DARPA performers.

#### **1. Federally Funded Research and Development Centers (FFRDCs) and Government Entities**

##### **a. FFRDCs**

FFRDCs 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. (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's terms and conditions. This information is required for FFRDCs proposing to be awardees or subawardees.

##### **b. Government Entities**

Government Entities (e.g., Government/National laboratories, military educational institutions, etc.) are subject to applicable direct competition limitations. 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.

##### **c. Authority and Eligibility**

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 and Government entity eligibility submissions on a case-by-case basis; however, the burden to prove eligibility for all team members rests solely with the proposer.

#### **2. Foreign Participation**

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.

## **B. Organizational Conflicts of Interest**

### FAR 9.5 Requirements

In accordance with FAR 9.5, proposers are required to identify and disclose all facts relevant to potential OCIs involving the proposer's organization and *any* proposed team member (subawardee, consultant). Under this Section, the proposer is responsible for providing this disclosure with each proposal submitted to the BAA. The disclosure must include the proposer's, and as applicable, proposed team member's OCI mitigation plan. The OCI mitigation plan must include a description of the actions the proposer has taken, or intends to take, to prevent the existence of conflicting roles that might bias the proposer's judgment and to prevent the proposer from having unfair competitive advantage. The OCI mitigation plan will specifically discuss the disclosed OCI in the context of each of the OCI limitations outlined in FAR 9.505-1 through FAR 9.505-4.

### Agency Supplemental OCI Policy

In addition, DARPA has a supplemental OCI policy that prohibits contractors/performers from concurrently providing Scientific Engineering Technical Assistance (SETA), Advisory and Assistance Services (A&AS) or similar support services and being a technical performer. Therefore, as part of the FAR 9.5 disclosure requirement above, a proposer must affirm whether the proposer or *any* proposed team member (subawardee, consultant) is providing SETA, A&AS, or similar support to any DARPA office(s) under: (a) a current award or subaward; or (b) a past award or subaward that ended within one calendar year prior to the proposal's submission date.

If SETA, A&AS, or similar support is being or was provided to any DARPA office(s), the proposal must include:

- The name of the DARPA office receiving the support;
- The prime contract number;
- Identification of proposed team member (subawardee, consultant) providing the support; and
- An OCI mitigation plan in accordance with FAR 9.5.

### Government Procedures

In accordance with FAR 9.503, 9.504 and 9.506, the Government will evaluate OCI mitigation plans to avoid, neutralize or mitigate potential OCI issues before award and to determine whether it is in the Government's interest to grant a waiver. The Government will only evaluate OCI mitigation plans for proposals that are determined selectable under the BAA evaluation criteria and funding availability.

The Government may require proposers to provide additional information to assist the Government in evaluating the proposer's OCI mitigation plan.

If the Government determines that a proposer failed to fully disclose an OCI; or failed to provide the affirmation of DARPA support as described above; or failed to reasonably provide additional information requested by the Government to assist in evaluating the proposer's OCI mitigation plan, the Government may reject the proposal and withdraw it from consideration for award.

### **C. 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., OTs under the authority of 10 U.S.C. § 2371).

### **D. Other Eligibility Requirements**

#### **1. Ability to Receive Awards in Multiple Technical Areas - Conflicts of Interest**

While proposers may submit proposals for all four technical areas, proposers selected for TA4 cannot be selected for any portion of the other three technical areas, whether as a prime, subcontractor, or in any other capacity from an organizational to individual level. This is to avoid OCI situations between the technical areas. The decision as to which proposal to consider for award is at the discretion of the Government.

#### **2. Ability to Support Classified Development**

Proposers addressing either TA1, TA2, or TA3 are not required to hold or obtain security clearances. Future TA1, TA2, and TA3 performers may benefit from having a Principal Investigator that has a Top Secret clearance and is eligible for Sensitive Compartmented Information (SCI), but it is not required and having or not having cleared personnel will not be considered during TA1-3 evaluations. Academic and small company participation is explicitly encouraged, regardless of any possession of a security clearance.

At the time of proposal submission, all proposers wishing to submit proposals under TA4 must have some personnel with a Top Secret clearance that are eligible for SCI. It is preferable (but not required) that the Principal Investigator in TA4 proposals be cleared at that level.

## **IV. Application and Submission Information**

### **A. Address to Request Application Package**

This document contains all information required to submit a response to this solicitation. No additional forms, kits, or other materials are needed except as referenced herein. No request for proposal (RFP) or additional solicitation regarding this opportunity will be issued, nor is additional information available except as provided at the Federal Business Opportunities website (<https://www.fbo.gov>), or referenced herein.

### **B. Content and Form of Application Submission**

#### **1. Proposals**

Proposals consist of Volume 1: Technical and Management Proposal (including mandatory Appendix A, optional Appendix B, and optional classified Appendix C); Volume 2: Cost Proposal; and the Level of Effort Summary by Task Excel spreadsheet.

All pages shall be formatted for printing on 8-1/2 by 11-inch paper with 1-inch margins, single-line spacing, and a font size not smaller than 12 point. Font sizes of 8 or 10 point may be used for figures, tables, and charts. Document files must be in .pdf, .odx, .doc, .docx, .xls, or .xlsx formats. Submissions must be written in English. All pages of Volume 1 should be numbered.

A summary slide of the proposed effort, in PowerPoint™ format, should be submitted with the proposal. A template slide is provided as a new attachment to the BAA. Submit this PowerPoint™ file in addition to Volumes 1 and 2 of your full proposal, and the Level of Effort Summary by Task Excel™ spreadsheet. This summary slide does not count towards the total page count.

Reminder – Proposals may address any combination of technical areas.

Proposals not meeting the format prescribed herein may not be reviewed.

#### **a. Volume 1: Technical and Management Proposal**

The maximum page count for Volume 1 is 30 pages with a required minimum of 10 technical pages (Technical Approach section), including all figures, tables and charts but not including the cover sheet, table of contents, references, or appendices. A proposal responsive to more than one technical area may include 10 additional technical pages per additional technical area (e.g., a proposal for two technical areas has a maximum allowed page count of 40 pages). Each technical area submission must be able to stand on its own merit and be evaluated independently, with its own statement of work. DARPA may select individual components from a proposal, and thus the technical work and cost breakdown must be clearly delineated along technical area boundaries within each proposal. A submission letter is optional and is not included in the page count. Appendix A does not count against the page limit and is mandatory.

Appendix B does not count against the page limit and is optional. Additional information not explicitly called for here must not be submitted with the proposal, but may be included

in the bibliography in Appendix B. Such materials will be considered for the reviewers' convenience only and not evaluated as part of the proposal.

Appendix C does count against the page limit and is optional. Appendix C must arrive at DARPA via appropriate channels by the proposal due date.

Volume 1 must include the following components:

**i. Cover Sheet:** Include the following information.

- Label: “Proposal: Volume 1”
- BAA number (HR001117S0051)
- Technical Area(s)
- Proposal title
- Lead organization (prime contractor) name
- Type of organization, selected from the following categories: Large Business, Small Disadvantaged Business, Other Small Business, HBCU, MI, Other Educational, or Other Nonprofit
- Technical point of contact (POC) including name, mailing address, telephone, and email
- Administrative POC including name, mailing address, telephone number, and email address
- Security POC including name, mailing address, telephone number, and email address and Commercial and Government Entity (CAGE) code (if different than proposing entities CAGE)
- Award instrument requested: procurement contract (specify type)
- Total amount of the proposed effort
- Place(s) and period(s) of performance
- Other team member (subcontractors and consultants) information (for each, include Technical POC name, organization, type of organization, mailing address, telephone number, and email address)
- Proposal validity period (minimum 120 days)
- Data Universal Numbering System (DUNS) number<sup>1</sup>
- Taxpayer identification number<sup>2</sup>
- Commercial and Government Entity (CAGE) code<sup>3</sup>
- Proposer's reference number (if any)

**ii. Table of Contents**

**iii. Executive Summary:** Provide a synopsis of the proposed project, including

<sup>1</sup> The DUNS number is used as the Government's contractor identification code for all procurement-related activities. Go to <http://fedgov.dnb.com/webform/index.jsp> to request a DUNS number (may take at least one business day). For further information regarding this subject, please see [www.darpa.mil/work-with-us/additional-baa](http://www.darpa.mil/work-with-us/additional-baa) for further information.

<sup>2</sup> See <http://www.irs.gov/businesses/small/international/article/0,,id=96696,00.html> for information on requesting a TIN. Note, requests may take from 1 business day to 1 month depending on the method (online, fax, mail).

<sup>3</sup> A CAGE Code identifies companies doing or wishing to do business with the Federal Government. For further information regarding this subject, please see [www.darpa.mil/work-with-us/additional-baa](http://www.darpa.mil/work-with-us/additional-baa).

answers to the following questions:

- What is the proposed work attempting to accomplish or do?
- How is it done today, and what are the limitations?
- Who or what will be affected and what will be the impact if the work is successful?
- How much will it cost, and how long will it take?

The executive summary should include a description of the key technical challenges, a concise review of the technologies proposed to overcome these challenges and achieve the project's goal, and a clear statement of the novelty and uniqueness of the proposed work.

**iv. Innovative Claims and Deliverables:** Describe the innovative aspects of the project in the context of existing capabilities and approaches, clearly delineating the uniqueness and benefits of this project in the context of the state of the art, alternative approaches, and other projects from the past and present. Describe how the proposed project is revolutionary and how it significantly rises above the current state of the art.

Describe the deliverables associated with the proposed project and any plans to commercialize the technology, transition it to a customer, or further the work. Discuss the mitigation of any issues related to sustainment of the technology over its entire lifecycle, assuming the technology transition plan is successful.

**v. Technical Plan:** Outline and address technical challenges inherent in the approach and possible solutions for overcoming potential problems. Demonstrate a deep understanding of the technical challenges and present a credible (even if risky) plan to achieve the project's goal. Discuss mitigation of technical risk. Provide appropriate measurable milestones (quantitative if possible) at intermediate stages of the project to demonstrate progress, and a plan for achieving the milestones.

**vi. Management Plan:** Provide a summary of expertise of the proposed team, including any subcontractors/consultants and key personnel who will be executing the work. Resumes count against the proposal page limit so proposers may wish to include them in Appendix B below. Identify a principal investigator (PI) for the project. Provide a clear description of the team's organization including an organization chart that includes, as applicable, the relationship of team members; unique capabilities of team members; task responsibilities of team members; teaming strategy among the team members; and key personnel with the amount of effort to be expended by each person during the project. Provide a detailed plan for coordination including explicit guidelines for interaction among collaborators/subcontractors of the proposed project. Include risk management approaches. Describe any formal teaming agreements that are required to execute this project. List Government-furnished materials or data assumed to be available.

**vii. Personnel, Qualifications, and Commitments:** List key personnel (no more than one page per person), showing a concise summary of their qualifications, discussion of previous accomplishments, and work in this or closely related research

areas. Indicate the level of effort in terms of hours to be expended by each person during each contract year and other (current and proposed) major sources of support for them and/or commitments of their efforts. DARPA expects all key personnel associated with a proposal to make a substantial time commitment to the proposed activity and the proposal will be evaluated accordingly. It is DARPA’s intention to put key personnel conditions into the awards, so proposers should not propose personnel that are not anticipated to execute the award.

Include a table of key individual time commitments as follows:

Key Individual	Project	Status (Current, Pending, Proposed)	Hours on Project		
			Phase 1	Phase 2	Phase 3
Name 1	HACCS	Proposed	x	x	x
	Project Name 1	Current	x	x	n/a
	Project Name 2	Pending	n/a	x	x
Name 2	HACCS	Proposed	x	x	x
	Project Name 3	Proposed	x	x	x

**viii. Capabilities:** Describe organizational experience in relevant subject area(s), existing intellectual property, or specialized facilities. Discuss any work in closely related research areas and previous accomplishments.

**ix. Statement of Work (SOW):** The SOW must provide a detailed task breakdown, citing specific tasks and their connection to the interim milestones and metrics, as applicable. Each year of the project should be separately defined. The SOW must not include proprietary information. For each defined task/subtask, provide:

- A general description of the objective.
- A detailed description of the approach to be taken to accomplish each defined task/subtask.
- Identification of the primary organization responsible for task execution (prime contractor, subcontractor(s), consultant(s)), by name.
- A measurable milestone, (e.g., a deliverable, demonstration, or other event/activity that marks task completion).
- A definition of all deliverables (e.g., data, reports, software) to be provided to the Government in support of the proposed tasks/subtasks.
- Identify any tasks/subtasks (by the prime or subcontractor) that will be accomplished at a university and believed to be fundamental research.

**x. Schedule and Milestones:** Provide a detailed schedule showing tasks (task name, duration, work breakdown structure element as applicable, performing organization), milestones, and the interrelationships among tasks. The task structure must be consistent with that in the SOW. Measurable milestones should be clearly articulated and defined in time relative to the start of the project.

**xi. Appendix A:** This section is mandatory and must include all of the following components. If a particular subsection is not applicable, state “NONE”.

- (1). **Team Member Identification:** Provide a list of all individual team members from the prime, subcontractor(s), and consultant(s), as applicable. Identify specifically whether any are a non-US organization or individual, FFRDC and/or Government entity. Use the following format for this list:

Individual Name	Role (Prime, Subcontractor or Consultant)	Organization	Non-US?		FFRDC or Govt?
			Org	Ind.	

- (2). **Government or FFRDC Team Member Proof of Eligibility to Propose:** If none of the team member organizations (prime or subcontractor) are a Government entity or FFRDC, state “NONE”.

If any of the team member organizations are a Government entity or FFRDC, provide documentation (per Section III.A.1) citing the specific authority that establishes the applicable team member’s eligibility to propose to Government solicitations to include: (1) statutory authority; (2) contractual authority; (3) supporting regulatory guidance; and (4) evidence of agency approval for applicable team member participation.

- (3). **Government or FFRDC Team Member Statement of Unique Capability:** If none of the team member organizations (prime or subcontractor) are a Government entity or FFRDC, state “NONE”.

If any of the team member organizations are a Government entity or FFRDC, provide a statement (per Section III.A.1) that demonstrates the work to be performed by the Government entity or FFRDC team member is not otherwise available from the private sector.

- (4). **Organizational Conflict of Interest Affirmations and Disclosure:** If none of the proposed team members is currently providing SETA or similar support as described in Section III.B, state “NONE”.

If any of the proposed team members (individual or organization) is currently performing SETA or similar support, furnish the following information:

Prime Contract Number	DARPA Technical Office supported	A description of the action the proposer has taken or proposes to take to avoid, neutralize, or mitigate the conflict



- (5). **Intellectual Property (IP):** If no IP restrictions are intended, state “NONE”. The Government will assume unlimited rights to all IP not explicitly identified as having less than unlimited rights in the proposal.

For all technical data or computer software that will be furnished to the Government with other than unlimited rights, provide (per Section VI.B.1) a list describing all proprietary claims to results, prototypes, deliverables or systems supporting and/or necessary for the use of the research, results, prototypes and/or deliverables. Provide documentation proving ownership or possession of appropriate licensing rights to all patented inventions (or inventions for which a patent application has been filed) to be used for the proposed project. Use the following format for these lists:

NONCOMMERCIAL				
Technical Data and/or Computer Software To be Furnished With Restrictions	Summary of Intended Use in the Conduct of the Research	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
(List)	(Narrative)	(List)	(List)	(List)
(List)	(Narrative)	(List)	(List)	(List)

COMMERCIAL				
Technical Data and/or Computer Software To be Furnished With Restrictions	Summary of Intended Use in the Conduct of the Research	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
(List)	(Narrative)	(List)	(List)	(List)
(List)	(Narrative)	(List)	(List)	(List)

- (6). **Human Subjects Research (HSR):** If HSR is not a factor in the proposal, state “NONE”.

If the proposed work will involve human subjects, provide evidence of or a plan for review by an institutional review board (IRB). For further information on this subject, see Section VI.B.2.

- (7). **Animal Use:** If animal use is not a factor in the proposal, state “NONE”.

If the proposed research will involve animal use, provide a brief description of the plan for Institutional Animal Care and Use Committee (IACUC) review and approval. For further information on this subject, see Section VI.B.2.

- (8). **Representations Regarding Unpaid Delinquent Tax Liability or a Felony Conviction under Any Federal Law:** For further information regarding this subject, please see [www.darpa.mil/work-with-us/additional-baa](http://www.darpa.mil/work-with-us/additional-baa).

Please also complete the following statements.

(1) The proposer 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) The proposer is [ ] is not [ ] a corporation that was convicted of a felony criminal violation under a Federal law within the preceding 24 months.

- (9). Cost Accounting Standards (CAS) Notices and Certification:** For any proposer who submits a proposal which, if accepted, will result in a CAS-compliant contract, must include a Disclosure Statement as required by 48 CFR 9903.202.

Further information regarding the CAS notices and certification can be found in the FAR 52.230-1, as well as at [www.darpa.mil/work-with-us/additional-baa](http://www.darpa.mil/work-with-us/additional-baa).

If this section is not applicable, state “NONE”.

**xii. Appendix B:** If desired, include a brief bibliography to relevant papers, reports, or resumes. Do not include technical papers. This section is optional, and the materials will not be evaluated as part of the proposal review.

**xiii. Appendix C:** If highly relevant Technical and Management Volume information is classified, proposers may submit a description thereof in a separate Appendix C through appropriate channels. Note that Appendix C counts against the Technical Volume page limit. Proposers should note on their cover page whether or not an Appendix C is part of the proposal. Appendix C must be received by the proposal due date and time or it will not be reviewed. See Section IV.B.3.b.

## **b. Volume 2 - Cost Proposal**

This volume is mandatory and must include all the listed components. No page limit is specified for this volume.

The cost proposal should include a working spreadsheet file (.xls or equivalent format) that provides formula traceability among all components of the cost proposal. The spreadsheet file should be included as a separate component of the full proposal package. Costs must be traceable between the prime and subcontractors/consultants, as well as between the cost proposal and the SOW.

Pre-award costs will not be reimbursed unless a pre-award cost agreement is negotiated prior to award.

**i. Cover Sheet:** Include the same information as the cover sheet for Volume 1, but with the label “Proposal: Volume 2.”

**ii. Cost Summary Tables:** For each TA addressed by the proposal, provide a

single-page summary table broken down by fiscal year listing cost totals for labor, materials, other direct charges (ODCs), indirect costs (overhead, fringe, general and administrative (G&A)), and any proposed fee for the project. Include costs for each task in each fiscal year of the project by prime and major subcontractors, total cost and proposed cost share, if applicable. For each TA addressed by the proposal, provide a second table containing the same information broken down by project phase.

**iii. Cost Details:** For each TA addressed by the proposal, provide the following cost details for each task by month. Include supporting documentation describing the method used to estimate costs. Identify any cost sharing.

**(1) Direct Labor:** Provide labor categories, rates and hours. Justify rates by providing examples of equivalent rates for equivalent talent, past commercial or Government rates from a Government audit agency such as the Defense Contract Audit Agency (DCAA), the Office of Naval Research (ONR), the Department of Health and Human Services (DHHS), etc.

**(2) Indirect Costs:** Identify all indirect cost rates (such as fringe benefits, labor overhead, material overhead, G&A, or F&A, etc.) and the basis for each.

**(3) Materials:** Provide an itemized list of all proposed materials, equipment, and supplies for each year including quantities, unit prices, proposed vendors (if known), and the basis of estimate (e.g., quotes, prior purchases, catalog price lists, etc.). For proposed equipment/information technology (as defined in FAR 2.101) purchases equal to or greater than \$50,000, include a letter justifying the purchase. Include any requests for Government-furnished equipment or information with cost estimates (if applicable) and delivery dates.

**(4) Travel:** Provide a breakout of travel costs including the purpose and number of trips, origin and destination(s), duration, and travelers per trip.

**(5) Subcontractor/Consultant Costs:** Provide above info for each proposed subcontractor/consultant. Subcontractor cost proposals must include interdivisional work transfer agreements or similar arrangements. If the proposer has conducted a cost or price analysis to determine reasonableness, submit a copy of this along with the subcontractor proposal.

The proposer is responsible for the compilation and submission of all subcontractor/consultant cost proposals. At a minimum, the submitted cost volume must contain a copy of each subcontractor or consultant non-proprietary cost proposal (i.e. cost proposals that do not contain proprietary pricing information such as rates, factors, etc.) Proprietary subcontractor/consultant cost proposals may be included as part of Volume 2. Proposal submissions will not be considered complete unless the Government has received all subcontractor/consultant cost proposals.

If proprietary subcontractor/consultant cost proposals are not included as part of Volume 2, they may be emailed separately to [HACCS@darpa.mil](mailto:HACCS@darpa.mil). Email messages must include “Subcontractor Cost Proposal” in the subject line and identify the principal investigator, prime proposer organization and proposal title in the body of the message. Any proprietary subcontractor or consultant proposal documentation which is not uploaded to BAAT as part of the proposer’s submission or provided by separate email shall be made immediately available to the Government, upon request, under separate cover (i.e., mail, electronic/email, etc.), either by the proposer or by the subcontractor/consultant organization.

Please note that a ROM or similar budgetary estimate is not considered a fully qualified subcontract cost proposal submission. Inclusion of a ROM or similar budgetary estimate, or failure to provide a subcontract proposal, will result in the full proposal being deemed non-compliant.

**(6) ODCs:** Provide an itemized breakout and explanation of all anticipated other direct costs.

**iv. Proposals Requesting a Procurement Contract:** Provide the following information where applicable.

**(1) Proposals for \$750,000 or more:** Provide “certified cost or pricing data” (as defined in FAR 2.101) or a request for exception in accordance with FAR 15.403.

**(2) Proposals for \$700,000 or more:** Pursuant to Section 8(d) of the Small Business Act (15 U.S.C. § 637(d)), it is Government policy to enable small business and small disadvantaged business concerns to be considered fairly as subcontractors to organizations performing work as prime contractors or subcontractors under Government contracts, and to ensure that prime contractors and subcontractors carry out this policy. In accordance with FAR 19.702(a)(1) and 19.702(b), prepare a subcontractor plan, if applicable. The plan format is outlined in FAR 19.704.

**(3) Proposers without an adequate cost accounting system:** If requesting a cost-type contract, provide the DCAA Pre-award Accounting System Adequacy Checklist to facilitate DCAA’s completion of an SF 1408. 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, proposers should complete the SF 1408 found at <http://www.gsa.gov/portal/forms/download/115778> and submit the completed form with the proposal. 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.

**c. Level of Effort Summary by Task Spreadsheet**

Provide a one-page table summarizing estimated level of effort per task (in hours) broken

out by senior, mid-level and junior personnel, in the format shown below in Figure 1. Also include dollar-denominated estimates of travel, materials and equipment. For this table, consider materials to include the cost of any data sets or software licenses proposed. For convenience, an Excel™ template is available for download along with the BAA. Submit the Level of Effort Summary Excel™ file (do not convert the Excel™ file to pdf format) in addition to Volume 1 and Volume 2 of your full proposal. This Excel™ file does not count towards the total page count.

SOW Task	Duration (months)	Intensity (hrs/mo)	Labor Hours for Prime						Labor Hours for Subcontractor/Consultants						Total	
			Sr	Skill set(s)	Mid	Skill set(s)	Jr	Skill set(s)	Total	SubC-Sr	Skill set(s)	SubC-Mid	Skill set(s)	SubC-Jr		Skill set(s)
1.1.0 <Phase 1 Task 1 name>	7	135	240		680		24		944	-					200	1,144
1.1.1 <Subtask 1.1.1 name>	4	90	80		280		-		360	-					200	560
1.1.2 <Subtask 1.1.2 name>	3	195	160		400		24		584	-					-	584
1.2.0 <Phase 1 Task 2 name>	6	385	108		400		1,800		2,308	1,400					-	3,708
1.2.1 <Subtask 1.2.1 name>	3	656	48		320		1,600		1,968	600					-	2,568
1.2.2 <Subtask 1.2.2 name>	3	113	60		80		200		340	800					-	1,140
:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
<b>Phase 1 Total Hours</b>			348		1,080		1,824		3,252	1,400					200	4,652
<b>Phase 1 Costs</b> <i>First column is prime, second is total subcontractor, third is total consultant, fourth is total</i>			<b>Travel</b>						\$ 44,000	\$ 12,000					\$ 2,000	\$ 58,000
			<b>Materials &amp; Equipment</b>						\$ 8,000	\$ -					\$ -	\$ 8,000
2.1.0 <Phase 2 Task 1 name>	8	100	176		560		64		800	100					100	1,000
2.1.1 <Subtask 2.1.1 name>	7	51	96		240		24		360	100					100	560
2.1.2 <Subtask 2.1.2 name>	4	110	80		320		40		440	-					-	440
2.2.0 <Phase 2 Task 2 name>	6	417	180		520		1,800		2,500	1,240					-	3,740
2.2.1 <Subtask 2.2.1 name>	4	435	140		400		1,200		1,740	400					-	2,140
2.2.2 <Subtask 2.2.2 name>	4	190	40		120		600		760	840					-	1,600
:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
<b>Phase 2 Total Hours</b>			356		1,080		1,864		3,300	1,340					100	4,640
<b>Phase 2 Costs</b> <i>First column is prime, second is total subcontractor, third is total consultant, fourth is total</i>			<b>Travel</b>						\$ 47,000	\$ 12,000					\$ 2,000	\$ 61,000
			<b>Materials &amp; Equipment</b>						\$ 4,000	\$ -					\$ -	\$ 4,000
3.1.0 <Phase 3 Task 1 name>	9	71	120		400		120		640	100					100	840
3.1.1 <Subtask 3.1.1 name>	3	93	40		200		40		280	100					100	480
3.1.2 <Subtask 3.1.2 name>	6	60	80		200		80		360	-					-	360
3.2.0 <Phase 3 Task 2 name>	6	460	160		800		1,800		2,760	1,200					-	3,960
3.2.1 <Subtask 3.2.1 name>	4	370	80		400		1,000		1,480	600					-	2,080
3.2.2 <Subtask 3.2.2 name>	3	427	80		400		800		1,280	600					-	1,880
:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
<b>Phase 3 Total Hours</b>			280		1,200		1,920		3,400	1,300					100	4,800
<b>Phase 3 Costs</b> <i>First column is prime, second is total subcontractor, third is total consultant, fourth is total</i>			<b>Travel</b>						\$ 48,000	\$ 12,000					\$ 2,000	\$ 62,000
			<b>Materials &amp; Equipment</b>						\$ -	\$ -					\$ -	\$ -
<b>Project Total Hours</b>			984		3,360		5,608		9,952	4,040					400	14,092
<b>Total Project Costs</b> <i>First column is prime, second is total subcontractor, third is total consultant, fourth is total</i>			<b>Travel</b>						\$ 139,000	\$ 36,000					\$ 6,000	\$ 181,000
			<b>Materials &amp; Equipment</b>						\$ 12,000	\$ -					\$ -	\$ 12,000

Figure 1: Example level-of-effort summary table. Numbers illustrate roll-ups and subtotals. The SubC column captures all subcontractor hours and the Conslt column captures all consultant hours. The Skill set(s) columns should indicate area of expertise (e.g., engineer, software developer, data scientist, subject matter expert).

#### d. Summary Slide

The submission of a PowerPoint™ slide summarizing the proposed effort is mandatory. A template PowerPoint™ slide will be provided on the Federal Business Opportunities (FedBizOpps) website as an attachment. Submit the PowerPoint™ file (do not convert PowerPoint™ file to pdf format) in addition to Volume 1 and Volume 2 of your full proposal. This summary slide does not count towards the total page count.

## 2. Proprietary and Classified Information

DARPA policy is to treat all submissions as source selection information (see FAR 2.101 and 3.104) and to disclose the 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.

#### 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.

#### **b. Classified Information**

The ONLY classified submission materials that DARPA will accept under this solicitation is an optional Appendix C, for proposers to present classified qualifications. Please note that Appendix C counts as part of the Technical Volume page limit. See Section IV.E.2 for further instructions regarding classified Appendix C submissions.

Appendix C submissions must be appropriately and conspicuously marked with the proposed classification level and declassification date. Use classification and marking guidance provided by the DoD Information Security Manual (DoDM 5200.1, Volumes 1-4) and the National Industrial Security Program Operating Manual (DoD 5220.22-M). When marking information previously classified by another Original Classification Authority (OCA), also use the applicable security classification guides. Classified Appendix C submissions must indicate the classification level of not only the submitted materials, but also the anticipated classification level of the award document. Please send emails to [HACCS@darpa.mil](mailto:HACCS@darpa.mil) if you have any questions.

If a proposer believes an Appendix C contains classified information (as defined by Executive Order 13526), but requires DARPA to make a final classification determination, the information must be marked and protected as though classified at the appropriate classification level (as defined by Executive Order 13526). Submissions requesting 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., Confidential, Secret, or Top Secret].*”

Proposers submitting a classified Appendix C or requiring access to classified information during the lifecycle of the project shall ensure all industrial, personnel, and information system processing security requirements (e.g., facility clearance, personnel security clearance, certification and accreditation) are in place and at the appropriate level, and any foreign ownership control and influence issues are mitigated prior to submission or access. Additional information on these subjects is at <http://www.dss.mil>.

Classified Appendix C submissions will not be returned. The original of each classified submission received will be retained at DARPA, and all other copies destroyed. A destruction certificate will be provided if a formal request is received by DARPA within 5 days of notification of non-selection.

If a determination is made that the award instrument may result in access to classified information, a DD Form 254, “DoD Contract Security Classification Specification,” will be issued by DARPA and attached as part of the award. A DD Form 254 will not be provided to proposers at the time of submission.

### **C. Submission Date and Time**

Proposers are warned that the submission deadline as outlined herein are strictly enforced. Note: some proposal requirements may take from 1 business day to 1 month to complete. See the proposal checklist in Section VIII.D for further information.

When utilizing the DARPA BAA Submission Website, as described below in Section IV.E.1 below, a control number will be provided at the conclusion of the submission process. This control number should be used in all further correspondence regarding your proposal submission.

Failure to comply with the submission procedures outlined herein may result in the submission not being evaluated.

The proposal package -- full proposal (Volume 1 and 2, the Level of Effort Summary by Task Spreadsheet, and the Summary Slide) and, as applicable, proprietary subcontractor cost proposals -- must be submitted per the instructions outlined herein and received by DARPA no later than **October 1, 2017 at 12:00 noon (ET)**. Submissions received after this date and time will not be reviewed.

### **D. Funding Restrictions**

Not applicable.

### **E. Other Submission Requirements**

#### **1. Unclassified Submission Instructions**

Proposers must submit all parts of their submission package using the same method; submissions cannot be sent in part by one method and in part by another method nor should duplicate submissions be sent by multiple methods. Email submissions will not be accepted.

##### **a. Proposals Requesting a Procurement Contract**

DARPA/I2O will employ an electronic upload submission system (<https://baa.darpa.mil/>) for UNCLASSIFIED proposals requesting award of a procurement contract under this solicitation.

First time users of the DARPA BAA Submission Website must complete a two-step account creation process at <https://baa.darpa.mil/>. The first step consists of registering for an Extranet account by going to the above URL and selecting the “Account Request” link. Upon completion of the online form, proposers will receive two separate emails; one will contain a user name and the second will provide a temporary password. Once both emails have been received, proposers must go back to the submission website and log in using that user name and password. After accessing the Extranet, proposers must create a user account for the DARPA BAA Submission Website by selecting the “Register Your Organization” link at the top of the page. The DARPA BAA Submission Website will display a list of solicitations open for submissions. Once a proposer’s user account is created, they may view instructions on uploading their proposal.

Proposers who already have an account on the DARPA BAA Submission Website may simply log in at <https://baa.darpa.mil/>, select this solicitation from the list of open DARPA solicitations and proceed with their proposal submission. Note: Proposers who have created a DARPA BAA Submission Website account to submit to another DARPA Technical Office's solicitations do not need to create a new account to submit to this solicitation.

All submissions submitted electronically through DARPA's BAA website must be uploaded as zip files (.zip or .zipx extension). The final zip file should contain only the files requested herein and must not exceed 50 MB in size. Only one zip file will be accepted per submission. Note: Submissions not uploaded as zip files will be rejected by DARPA.

Please note that all submissions MUST be finalized, meaning that no further editing will be possible, when submitting through the DARPA BAA Submission Website in order for DARPA to be able to review your submission. If a submission is not finalized, the submission will not be deemed acceptable and will not be reviewed.

Website technical support may be reached at [Action@darpa.mil](mailto:Action@darpa.mil) and is typically available during regular business hours (9:00 AM – 5:00 PM ET, Monday-Friday). Questions regarding submission contents, format, deadlines, etc. should be emailed to [HACCS@darpa.mil](mailto:HACCS@darpa.mil).

*Since proposers may encounter heavy traffic on the web server, they should not wait until the day proposals are due to request an account and/or upload the submission. Full proposals should not be submitted via Email. Any full proposals submitted by Email will not be accepted or evaluated.*

## **2. Classified Submission Instructions**

If a proposer is electing to submit an optional Appendix C as part of their submission, classified materials must be submitted in accordance with the guidelines outlined herein and must not be submitted electronically by any means, including the DARPA BAA Submission Website, as described above. Use submission, classification, handling, and marking guidance provided by previously issued Security Classification Guides (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, Secret, and/or Top Secret classified information.

***Please note that Appendix C submissions are NOT to exceed the level of TOP SECRET.***

If submissions contain information previously classified by another Original Classification Authority (OCA), proposers must also follow any applicable SCGs when transmitting their documents. Applicable classification guide(s) must be included to ensure the submission is protected at the appropriate classification level.

***Proposers desiring to submit a classified Appendix C must provide an original and two (2) hard copies and one (1) electronic copy of the of the classified Appendix C document. The electronic copy of Appendix C must be placed on a CD-ROM.***



*Appendix C documents may not be submitted by any other means. Unclassified email at HACCS@darpa.mil can be used to communicate with DARPA regarding this solicitation, but DO NOT include any classified information.*

**a. Confidential and Collateral Secret Information**

Classified information at the Confidential or Secret level must be submitted by one of the following methods:

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

or

- Mailed by U.S. Postal Service Registered Mail or Express Mail.

All classified information will be enclosed in opaque inner and outer covers and double wrapped. The inner envelope must be sealed and plainly marked with the assigned classification and addresses of both sender and addressee. The inner envelope must be addressed to:

Defense Advanced Research Projects Agency  
ATTN: I2O BAA Coordinator  
Reference: HR001117S0051  
675 North Randolph Street  
Arlington, VA 22203-2114

The outer envelope must be sealed without identification as to the classification of its contents and addressed to:

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

**b. Top Secret (TS) Information**

TS information must be hand carried, by appropriately cleared and authorized courier(s), to DARPA. Prior to traveling, the courier(s) must contact the DARPA CDR at 703-526-4052 for instructions.

## V. Application Review Information

### A. Evaluation Criteria

Proposals will be evaluated using the following criteria listed in descending order of importance: Overall Scientific and Technical Merit; Potential Contribution and Relevance to the DARPA Mission; and Cost Realism.

– *Overall Scientific and Technical Merit:*

The proposed technical approach is innovative, feasible, achievable, and complete.

The effort is supported by a proposed technical team that has the expertise and experience to accomplish the proposed tasks.

The task descriptions and associated technical elements are complete and in a logical sequence, with all proposed deliverables clearly defined such that a viable attempt to achieve project goals is likely as a result of award. The proposal identifies major technical risks and clearly defines feasible mitigation efforts.

Proposers should also take note of the information provided in Section I, as DARPA will also look at how a proposer addresses the technical challenges relevant to each TA, as well as view how key personnel will work on those challenges.

– *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 make pivotal early technology investments that create or prevent strategic surprise for U.S. National Security.

This includes considering the extent to which any proposed intellectual property restrictions will potentially impact the Government’s ability to transition the technology.

– *Cost Realism:*

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 and the basis for the estimates).

### B. Review and Selection Process

The review process identifies proposals that meet the evaluation criteria described above and are, therefore, selectable for negotiation of awards by the Government. DARPA policy is to ensure impartial, equitable, comprehensive proposal evaluations and to select proposals that meet DARPA technical, policy, and programmatic goals. If necessary, panels of experts in the appropriate areas will be convened. As described in Section IV, proposals must be deemed conforming to the solicitation to receive a full technical review against the evaluation criteria; proposals deemed non-conforming will be removed from consideration.

DARPA will conduct a scientific/technical review of each conforming proposal. Conforming proposals comply with all requirements detailed in this BAA; proposals that fail to do so may be deemed non-conforming and may be removed from consideration. 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

Selections may be made at any time during the period of solicitation. Pursuant to FAR 35.016, the primary basis for selecting proposals for award negotiation shall be technical, importance to agency programs, and fund availability. If applicable, conforming proposals based on a previously submitted abstract will be reviewed without regard to feedback resulting from review of that abstract. Furthermore, a favorable response to an abstract is not a guarantee that a proposal based on the abstract will ultimately be selected for award negotiation. Proposals that are determined selectable will not necessarily receive awards.

For evaluation purposes, a proposal is defined to be the document and supporting materials as described in Section IV.B. 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. No submissions, classified or unclassified, will be returned.

## **VI. Award Administration Information**

### **A. Selection Notices**

After proposal evaluations are complete, proposers will be notified as to whether their proposal was selected for award negotiation as a result of the review process. Notification will be sent by email to the technical and administrative POCs identified on the proposal cover sheet. If a proposal has been selected for award negotiation, the Government will initiate those negotiations following the notification.

### **B. Administrative and National Policy Requirements**

#### **1. Intellectual Property**

Proposers should note that the Government does not own the intellectual property of technical data/computer software developed under Government contracts; it acquires the right to use the technical data/computer software. Regardless of the scope of the Government's rights, performers may freely use their same data/software for their own commercial purposes (unless restricted by U.S. export control laws or security classification). Therefore, technical data and computer software developed under this solicitation will remain the property of the performers, though DARPA desires to have a minimum of Government Purpose Rights (GPR) to technical data/computer software developed through DARPA sponsorship.

If proposers desire to use proprietary software or technical data or both as the basis of their proposed approach, in whole or in part, they should: (1) clearly identify such software/data and its proposed particular use(s); (2) explain how the Government will be able to reach its program goals (including transition) within the proprietary model offered; and (3) provide possible nonproprietary alternatives in any area that might present transition difficulties or increased risk or cost to the Government under the proposed proprietary solution.

Proposers expecting to use, but not to deliver, commercial open source tools or other materials in implementing their approach may be required to indemnify the Government against legal liability arising from such use.

All references to "Unlimited Rights" or "Government Purpose Rights" are intended to refer to the definitions of those terms as set forth in the Defense Federal Acquisition Regulation Supplement (DFARS) Part 227.

#### **a. Intellectual Property Representations**

All proposers must provide a good faith representation of either ownership or possession of appropriate licensing rights to all other intellectual property to be used for the proposed project. Proposers must 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. If proposers desire to use proprietary software or technical data or both as the basis of their proposed approach, in whole or in part, they should: (1) clearly identify such software/data and its proposed particular use(s); (2) explain how the Government will be able to reach its program goals (including transition) within the proprietary model offered; and (3) provide possible nonproprietary alternatives in any area that might present transition difficulties or increased

risk or cost to the Government under the proposed proprietary solution.

## **b. Patents**

All proposers must include documentation proving ownership or possession of appropriate licensing rights to all patented inventions to be used for the proposed project. If a patent application has been filed for an invention, but it includes proprietary information and is not publicly available, a proposer must provide documentation that includes: the patent number, inventor name(s), assignee names (if any), filing date, filing date of any related provisional application, and summary of the patent title, with either: (1) a representation of invention ownership, or (2) proof of possession of appropriate licensing rights in the invention (i.e., an agreement from the owner of the patent granting license to the proposer).

## **c. Procurement Contracts**

- **Noncommercial Items (Technical Data and Computer Software):** Proposers requesting a procurement contract must list all noncommercial technical data and computer software that it plans to generate, develop, and deliver, in which the Government will acquire less than unlimited rights and to assert specific restrictions on those deliverables. In the event a proposer does not submit the list, the Government will assume that it has unlimited rights to all noncommercial technical data and computer software generated, developed, and delivered, unless it is substantiated that development of the noncommercial technical data and computer software occurred with mixed funding. If mixed funding is anticipated in the development of noncommercial technical data and computer software generated, developed, and/or delivered, proposers should identify the data and software in question as subject to 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 5 years, at which time the Government will acquire unlimited rights unless the parties agree otherwise. The Government may use the list during the 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. Failure to provide full information may result in a determination that the proposal is not compliant with the solicitation. A template for complying with this request is provided in Section IV.B.2.a.xi.(5).
- **Commercial Items (Technical Data and Computer Software):** Proposers requesting a procurement contract must list all commercial technical data and commercial computer software that may be included in any deliverables contemplated under the research project, and assert any applicable restrictions on the Government’s use of such commercial technical data and/or computer software. In the event a proposer does not submit the list, the Government will assume there are no restrictions on the Government’s use of such commercial items. The Government may use the list during the evaluation process to evaluate the impact of any identified restrictions and may request additional information from the proposer to evaluate the proposer’s assertions. Failure to provide full information may result in a determination that the proposal is not compliant with

the solicitation. A template for complying with this request is provided in Section IV.B.2.a.xi.(5).

## **2. Human Research Subjects/Animal Use**

Proposers that anticipate involving Human Research Subjects or Animal Use must comply with the approval procedures detailed at [www.darpa.mil/work-with-us/additional-baa](http://www.darpa.mil/work-with-us/additional-baa).

## **3. 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 project involving the creation or inclusion of electronic and information technology must ensure that: (1) 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 (2) 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.

## **4. System for Award Management (SAM) and Universal Identifier Requirements**

All proposers must be registered in SAM unless exempt per FAR 4.1102. FAR 52.204-7, “System for Award Management” and FAR 52.204-13, “System for Award Management Maintenance” are incorporated into this BAA. See [www.darpa.mil/work-with-us/additional-baa](http://www.darpa.mil/work-with-us/additional-baa) for further information.

Note that new registrations can take an average of 7-10 business days to process in SAM. SAM registration requires the following information:

- DUNS number
- TIN
- CAGE Code. If a proposer does not already have a CAGE code, one will be assigned during SAM registration.
- Electronic Funds Transfer information (e.g., proposer’s bank account number, routing number, and bank phone or fax number).

## **C. Reporting**

### **1. Technical and Financial Reports**

The number and types of technical and financial reports required under the contracted project will be specified in the award document, and will include, as a minimum, monthly financial status reports and a yearly status summary. A final report that summarizes the project and tasks will be required at the conclusion of the performance period for the award. The reports shall be prepared and submitted in accordance with the procedures contained in the award document.

### **2. Representations and Certifications**

If a procurement contract is contemplated, prospective awardees will need to be registered in the SAM database prior to award and complete electronic annual representations and certifications consistent with FAR guidance at 4.1102 and 4.1201; the representations and

certifications can be found at [www.sam.gov](http://www.sam.gov). Supplementary representations and certifications can be found at [www.darpa.mil/work-with-us/additional-baa](http://www.darpa.mil/work-with-us/additional-baa).

### **3. Wide Area Work Flow (WAWF)**

Unless using another means of invoicing, performers will be required to submit invoices for payment directly at <https://wawf.eb.mil>. If applicable, WAWF registration is required prior to any award under this solicitation.

### **4. FAR and DFARS Clauses**

Solicitation clauses in the FAR and DFARS relevant to procurement contracts and FAR and DFARS clauses that may be included in any resultant procurement contracts are incorporated herein and can be found at [www.darpa.mil/work-with-us/additional-baa](http://www.darpa.mil/work-with-us/additional-baa).

### **5. i-Edison**

Award documents will contain a requirement for patent reports and notifications to be submitted electronically through the i-Edison Federal patent reporting system at <http://s-edison.info.nih.gov/iEdison>.

### **6. Controlled Unclassified Information (CUI) on Non-DoD Information Systems**

Further information on Controlled Unclassified Information on Non-DoD Information Systems is incorporated herein can be found at [www.darpa.mil/work-with-us/additional-baa](http://www.darpa.mil/work-with-us/additional-baa).

## VII. Agency Contacts

DARPA will use email for all technical and administrative correspondence regarding this solicitation.

- **Technical POC:** Dr. Angelos Keromytis, Program Manager, DARPA/I2O
- **Email:** [HACCS@darpa.mil](mailto:HACCS@darpa.mil)
- **Mailing address:**  
DARPA/I2O  
ATTN: HR001117S0051  
675 North Randolph Street  
Arlington, VA 22203-2114
- **I2O Solicitation Website:** <http://www.darpa.mil/work-with-us/opportunities>



## VIII. Other Information

### A. Frequently Asked Questions (FAQs)

Administrative, technical, and contractual questions should be sent via email to [HACCS@darpa.mil](mailto:HACCS@darpa.mil). All questions must be in English and must include the name, email address, and the telephone number of a point of contact.

DARPA will attempt to answer questions in a timely manner; however, questions submitted within 7 days of closing may not be answered. If applicable, DARPA will post FAQs to <http://www.darpa.mil/work-with-us/opportunities>.

### B. Collaborative Efforts/Teaming

It is DARPA's desire to receive comprehensive, quality responses to this solicitation. To facilitate strong, collaborative teaming efforts and business relationships, a website (<https://www.schafertmd.com/darpa/HACCS/chase/teaming/>) has been established. Specific content, communications, networking, and team formation are the sole responsibility of the participants. Neither DARPA nor the DoD endorses the destination web site or the information and organizations contained therein, nor does DARPA or the DoD exercise any responsibility at the destination. This website is provided consistent with the stated purpose of this solicitation.

### C. Proposers Day

The Proposers Day was held on July 31, 2017 in Arlington, VA. The special notice regarding the HACCS Proposers Day, DARPA-SN-17-64, can be found at [https://www.fbo.gov/index?s=opportunity&mode=form&id=44f6fd4e6324aea8301c2c21bf528c89&tab=core&\\_cvview=0](https://www.fbo.gov/index?s=opportunity&mode=form&id=44f6fd4e6324aea8301c2c21bf528c89&tab=core&_cvview=0).

For further information regarding the HACCS Proposers Day, including slides from the event, please see <http://www.darpa.mil/work-with-us/opportunities> under HR001117S0051.

### D. Submission Checklist

The following items apply prior to proposal submission. Note: some items may take up to 1 month to complete.

✓	Item	BAA Section	Applicability	Comment
	Obtain DUNS number	IV.B.2.a.i	Required of all proposers	The DUNS Number is the Federal Government's contractor identification code for all procurement-related activities. See <a href="http://fedgov.dnb.com/webform/index.jsp">http://fedgov.dnb.com/webform/index.jsp</a> to request a DUNS number. Note: requests may take at least one business day.
	Obtain Taxpayer Identification Number (TIN)	IV.B.2.a.i	Required of all proposers	A TIN is used by the Internal Revenue Service in the administration of tax laws. See <a href="http://www.irs.gov/businesses/small/international/article/0,,id=96696,00.html">http://www.irs.gov/businesses/small/international/article/0,,id=96696,00.html</a> for information on requesting a TIN. Note: requests may take from 1 business day to 1 month depending on the method (online, fax, mail).
	Register in the System for Award Management (SAM)	VI.B.4	Required of all proposers	The SAM combines Federal procurement systems and the Catalog of Federal Domestic Assistance into one system. See <a href="http://www.sam.gov">www.sam.gov</a> for information and registration. Note: new registrations can take an average of 7-10 business days. SAM

				<p>registration requires the following information:</p> <ul style="list-style-type: none"> <li>-DUNS number</li> <li>-TIN</li> <li>-CAGE Code. A CAGE Code identifies companies doing or wishing to do business with the Federal Government. If a proposer does not already have a CAGE code, one will be assigned during SAM registration.</li> <li>-Electronic Funds Transfer information (e.g., proposer's bank account number, routing number, and bank phone or fax number).</li> </ul>
	Ensure eligibility of all team members	III	Required of all proposers	Verify eligibility, as applicable, for in accordance with requirements outlined in Section 3.

The following items apply as part of the submission package:

✓	Item	BAA Section	Applicability	Comment
	Volume 1 (Technical and Management Proposal)	IV.B.2	Required of all proposers	Conform to stated page limits and formatting requirements. Include all requested information.
	Appendix A	IV.B.2.a.xi	Required of all proposers	<ul style="list-style-type: none"> <li>-Team member identification</li> <li>- Government/FFRDC team member proof of eligibility</li> <li>- Organizational conflict of interest affirmations</li> <li>- Intellectual property assertions</li> <li>- Human subjects research</li> <li>- Animal use</li> <li>- Unpaid delinquent tax liability/felony conviction representations</li> <li>-CASB disclosure, if applicable</li> </ul>
	Volume 2 (Cost Proposal)	IV.B.2.b	Required of all proposers	<ul style="list-style-type: none"> <li>- Cover Sheet</li> <li>- Cost summary</li> <li>- Detailed cost information including justifications for direct labor, indirect costs/rates, materials/equipment, subcontractors/consultants, travel, ODCs</li> <li>- Cost spreadsheet file (.xls or equivalent format)</li> <li>- Subcontractor plan, if applicable</li> <li>Subcontractor cost proposals</li> <li>- Itemized list of material and equipment items to be purchased with vendor quotes or engineering estimates for material and equipment more than \$50,000</li> <li>- Travel purpose, departure/arrival destinations, and sample airfare</li> </ul>
	Level of Effort Summary by Task Excel spreadsheet	IV.B.2.c	Required of all proposers	A template LoE Excel file will be provided on the FedBizOpps website as an attachment. Submit the LoE Excel file (do not convert Excel file to pdf format).
	PowerPoint Summary Slide	IV.B.2.d		A template PowerPoint slide will be provided on the FedBizOpps website as an attachment. Submit the PowerPoint file (do not convert PowerPoint file to pdf format).

For information concerning agency level protests see <http://www.darpa.mil/work-with-us/additional-baa#NPRPAC>.

## **E. Associate Contractor Agreement Clause (ACA)**

This same or similar clause will be included in contract awards against HR001117S0051. Awards other than FAR based contracts will contain similar agreement language:

(a) It is recognized that success of the HACCS research effort depends in part upon the open exchange of information between the various Associate Contractors involved in the effort. This clause is intended to insure that there will be appropriate coordination and integration of work by the Associate Contractors to achieve complete compatibility and to prevent unnecessary duplication of effort. By executing this contract, the Contractor assumes the responsibilities of an Associate Contractor. For the purpose of this clause, the term Contractor includes subsidiaries, affiliates, and organizations under the control of the contractor (e.g. subcontractors).

(b) Work under this contract may involve access to proprietary or confidential data from an Associate Contractor. To the extent that such data is received by the Contractor from any Associate Contractor for the performance of this contract, the Contractor hereby agrees that any proprietary information received shall remain the property of the Associate Contractor and shall be used solely for the purpose of the HACCS research effort. Only that information which is received from another contractor in writing and which is clearly identified as proprietary or confidential shall be protected in accordance with this provision. The obligation to retain such information in confidence will be satisfied if the Contractor receiving such information utilizes the same controls as it employs to avoid disclosure, publication, or dissemination of its own proprietary information. The receiving Contractor agrees to hold such information in confidence as provided herein so long as such information is of a proprietary/confidential or limited rights nature.

(c) The Contractor hereby agrees to closely cooperate as an Associate Contractor with the other Associate Contractors on this research effort. This involves as a minimum:

- (1) maintenance of a close liaison and working relationship;
- (2) maintenance of a free and open information network with all Government-identified associate Contractors;
- (3) delineation of detailed interface responsibilities;
- (4) entering into a written agreement with the other Associate Contractors setting forth the substance and procedures relating to the foregoing, and promptly providing the Agreements Officer/Procuring Contracting Officer with a copy of same; and,
- (5) receipt of proprietary information from the Associate Contractor and transmittal of Contractor proprietary information to the Associate Contractors subject to any applicable proprietary information exchange agreements between associate contractors when, in either case, those actions are necessary for the performance of either.

(d) In the event that the Contractor and the Associate Contractor are unable to agree upon any such interface matter of substance, or if the technical data identified is not provided as scheduled, the Contractor shall promptly notify the DARPA HACCS Program Manager. The Government will determine the appropriate corrective action and will issue guidance to the affected Contractor.

(e) The Contractor agrees to insert in all subcontracts hereunder which require access to proprietary information belonging to the Associate Contractor, a provision which shall conform substantially to the language of this clause, including this paragraph (e).

(f) Associate Contractors for the HACCS research effort include:

Contractor

Technical Area

(end of clause)