



Microsystems Technology Office
Office-wide
Broad Agency Announcement
HR001120S0018

March 13, 2020

Table of Contents

PART I: OVERVIEW INFORMATION	4
PART II: FULL TEXT OF ANNOUNCEMENT	5
I. Funding Opportunity Description	5
A. MTO Mission and Thrust Areas	5
B. Topic Areas of Interest	7
II. Award Information	8
A. General Award Information	8
B. Fundamental Research	9
III. Eligibility Information	10
A. Eligible Applicants	10
1. Federally Funded Research and Development Centers (FFRDCs) and Government Entities	10
B. Organizational Conflicts of Interest	11
C. Cost Sharing/Matching	12
D. Other Eligibility Criteria	12
1. Collaborative Efforts	12
IV. Application and Submission Information	12
A. Address to Request Application Package	12
B. Content and Form of Application Submission	13
1. Abstract Format	13
2. Full Proposal Format	14
3. Proprietary Information	26
4. Security Information	27
a. Unclassified Submissions	27
b. Both Classified and Unclassified Submissions	27
c. Classified Submissions	27
5. Disclosure of Information and Compliance with Safeguarding Covered Defense Information Controls	30
6. Human Subjects Research (HSR)/Animal Use	30
7. Approved Cost Accounting System Documentation	31
8. Section 508 of the Rehabilitation Act (29 U.S.C. § 749d)/FAR 39.2	31
9. Grant Abstract	31
10. Small Business Subcontracting Plan	31
11. Intellectual Property	31
a. For Procurement Contracts	31
b. For All Non-Procurement Contracts	32
12. Patents	32
13. System for Award Management (SAM) and Universal Identifier Requirements	32
14. Funding Restrictions	32
C. Submission Information	33
1. Submission Dates and Times	33
a. Abstract Due Date	33
b. Full Proposal Date	33

c.	Frequently Asked Questions (FAQ)	33
2.	Abstract Submission Information	33
3.	Proposal Submission Information.....	34
a.	For Proposers Requesting Grants or Cooperative Agreements:	34
b.	For Proposers Requesting Technology Investment Agreements	36
c.	For Proposers Requesting Contracts or Other Transaction Agreements	37
d.	Classified Submission Information.....	38
4.	Other Submission Requirements	38
V.	Application Review Information	38
A.	Evaluation Criteria.....	38
1.	Overall Scientific and Technical Merit.....	38
2.	Potential Contribution and Relevance to the DARPA Mission.....	39
3.	Cost Realism.....	39
B.	Review and Selection Process	40
1.	Review Process.....	40
2.	Handling of Source Selection Information	40
3.	Federal Awardee Performance and Integrity Information (FAPIS).....	40
VI.	Award Administration Information	41
A.	Selection Notices	41
1.	Abstracts	41
2.	Proposals.....	41
B.	Administrative and National Policy Requirements	41
1.	Meeting and Travel Requirements.....	41
2.	FAR and DFARS Clauses	41
3.	Controlled Unclassified Information (CUI) on Non-DoD Information Systems	41
4.	Representations and Certifications	41
5.	Terms and Conditions.....	42
C.	Reporting	42
D.	Electronic Systems.....	42
1.	Wide Area Work Flow (WAWF)	42
2.	i-Edison.....	42
VII.	Agency Contacts.....	43
VIII.	Other Information	43
A.	Protesting	43

ATTACHMENT 1: Cost Volume Proposer Checklist

ATTACHMENT 2: Proposal Summary Slide Template

PART I: OVERVIEW INFORMATION

- **Federal Agency Name** – Defense Advanced Research Projects Agency (DARPA), Microsystems Technology Office (MTO)
- **Funding Opportunity Title** – Microsystems Technology Office (MTO) Office-wide
- **Announcement Type** – Initial Announcement
- **Funding Opportunity Number** – HR001120S0018
- **Catalog of Federal Domestic Assistance Numbers (CFDA)** – 12.910 Research and Technology Development
- **Dates** (All times listed herein are Eastern Time)
 - **Posting Date:** March 13, 2020
 - **Abstract Due Date:** Abstracts may be submitted on a rolling basis until 1:00PM on January 3, 2022.
 - **Proposal Due Date:** Proposals may be submitted on a rolling basis until 1:00PM on March 13, 2022.
 - **Closing Date:** March 13, 2022
 - **Estimated period of performance start:** Approximately 120 calendar days after proposal submission
- **Concise description of the funding opportunity** - This announcement seeks revolutionary research ideas for topics not being addressed by ongoing MTO programs or other published solicitations.
- **Anticipated individual awards** – Multiple awards are anticipated.
- **Anticipated funding type** - 6.1, 6.2, and/or 6.3
- **Types of instruments that may be awarded** – Procurement contract, grant, cooperative agreement or other transaction
- **Agency contact**
 - Dr. Mark Rosker
Director, Microsystems Technology Office
BAA Coordinator: HR001120S0018@darpa.mil
DARPA/MTO
ATTN: HR001120S0018
675 North Randolph Street
Arlington, VA 22203-2114

THOSE INTENDING TO SUBMIT A PROPOSAL FOR AN ASSISTANCE INSTRUMENT (GRANT OR COOPERATIVE AGREEMENT) ARE STRONGLY ENCOURAGED TO READ THE INSTRUCTIONS PROVIDED AT SECTION IV.C.3.a REGARDING THE TIME REQUIRED TO RECEIVE VALIDATION OF SUBMISSIONS MADE THROUGH GRANTS.GOV. PROPOSALS THAT ARE VALIDATED AFTER THE PROPOSAL DUE DATE/TIME WILL BE CONSIDERED LATE AND, AS SUCH, WILL NOT BE REVIEWED.

PART II: FULL TEXT OF ANNOUNCEMENT

I. Funding Opportunity Description

The Defense Advanced Research Projects Agency (DARPA) often selects its research efforts through the Broad Agency Announcement (BAA) process. This BAA is being issued, and any resultant selection will be made, using the procedures under Federal Acquisition Regulation (FAR) 6.102(d)(2) and 35.016, and 2 C.F.R. § 200, as applicable. Any negotiations and/or awards will use procedures under FAR 15.4, Contract Pricing, and 2 C.F.R. § 200, as applicable. 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 Beta SAM website, under the Contract Opportunities (FBO) link, at <https://Beta.SAM.gov/>, and, as applicable, the Grants.gov website at <http://www.grants.gov/>. The following information is for those wishing to respond to the BAA.

The Microsystems Technology Office (MTO) at DARPA regularly publishes BAAs requesting responses to specific program topics. This announcement seeks revolutionary research ideas for topics not addressed by ongoing MTO programs or other published BAA solicitations.

To avoid proposals that duplicate existing activities or are responsive to other published MTO solicitations, potential bidders are highly encouraged to review current MTO programs and solicitations, respectively listed at <http://www.darpa.mil/about-us/offices/mto> and <http://www.darpa.mil/work-with-us/opportunities>. Contacting MTO program managers to discuss their research interests is also encouraged. A current list of program managers is available at <http://www.darpa.mil/about-us/people>.

A. MTO Mission and Thrust Areas

Since its inception in 1991, MTO has helped create and prevent strategic surprise through investments in compact microelectronic components such as microprocessors, microelectromechanical systems (MEMS), and photonic devices. MTO's revolutionary work applying advanced capabilities in areas such as wide-band gap materials, phased array radars, high-energy lasers, and infrared imaging have helped the United States establish and maintain technological superiority for more than two decades.

MTO seeks to develop high-risk, high-reward technologies that continue DARPA's mission of creating and preventing strategic surprise, help to secure the Department of Defense's (DoD) technological superiority, and address the complex threats facing U.S. national security. 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.

As MTO evolves to address future microsystems-related challenges, the office has identified four thrust areas: (1) Embedded Microsystem Intelligence and Localized Processing, (2) Next Generation Front-End Component Technologies for Electromagnetic (EM) Spectrum

Dominance, (3) Microsystem Integration for Increased Functional Density and Security, and (4) Disruptive Defense Microsystem Applications. Each of these overlapping spaces present significant opportunities for exploring new and creative technologies.

1. Embedded Microsystem Intelligence and Localized Processing

Creating the capability to rapidly assess and make decisions at the tactical edge will fundamentally alter the future battlespace. Intelligent microsystems – self-tuning, self-optimizing, and mission reconfigurable, at an acceptable size, weight, power, and cost (SWAP-C) – have been a longtime focus of MTO research investments. However, past attempts to realize this goal were constrained by limitations in the available local processing capability. Advances in artificial intelligence and machine learning-specific processors, graphic processing units (GPUs), and other special purpose computation technologies offer a new path to overcome such limitations. MTO seeks to explore the development of sensors and systems that enable specialized computation at the tactical edge and microsystems capable of learning, moving beyond those with pre-set functions. One area of particular interest within this topic is technologies to achieve improved cognitive electronic warfare (EW).

2. Next Generation Front-End Component Technologies for Electromagnetic (EM) Spectrum Dominance

For many DoD command, control, communications, computing, intelligence, surveillance, and reconnaissance (C4ISR) and EW systems, the analog and mixed-signal front-end fundamentally determines key performance characteristics, such as bandwidth, tuning range, dynamic range, etc. Often these requirements greatly exceed the needs of the commercial sector. Thus, these technologies tend to be niche and largely ignored by the commercial electronics industry, but they hold extraordinary value for the DoD. To maintain dominance in the EM battlespace, MTO is investing in a new set of emerging material, device, and circuit approaches that provide leap-ahead performance in the sensing and modulation for radio frequency (RF), active and passive photonic, electro-optical/infrared (EO/IR), and magnetic-field applications. The office is also pursuing alternatives to large, costly optical/RF systems, exploring highly integrated microsystems, and new fabrication technologies to enable the proliferation of compact optical/RF systems in a variety of SWaP-C constrained platforms. Finally, MTO is exploring compact next-generation positioning, navigation, and timing technologies.

3. Microsystem Integration for Increased Functional Density and Security

Over the past decades, microelectronics advancement has proceeded through several waves – the first wave was controlled by device scaling, the second by the introduction of new materials and architectures, and the third through the creation of 3D devices. MTO has assumed a leadership role in the ongoing “Fourth Wave” revolution that will be dominated by 3D heterogeneous integration at multiple length scales. Fine-scale integration will bridge the technical gap between traditional assembly technology and the lithography-defined back-end-of-the-line dense interconnects. A key part of this vision is that fine-scale integration can serve as a means to tie together the incredibly powerful but widely available commercial

capabilities with DoD-specific discriminators. In addition to the tools and methods to realize fine-scale integration, MTO aims to address its associated challenges for these increasingly complex circuits and systems-on-chip (SoC). These include next-generation of electronic design automation (EDA) tools, new approaches ensure secure and trusted microsystems, and microsystem thermal management technologies.

4. Disruptive Defense Microsystem Applications

MTO seeks to increase the pace of innovation by identifying and rapidly demonstrating disruptive applications of innovative microsystems component technologies, including those developed under the prior three thrusts. MTO aims to explore high-risk/high-reward technologies in their infancy to identify disruptive potential well in advance of operational use. If successful, activities under this thrust should hasten adoption of advanced microsystem technologies and enable future DoD C4ISR, EW, and directed energy (DE) systems.

B. Topic Areas of Interest

Research areas of current interest to MTO include, but are not limited to, the following topics:

- Advanced RF and EO/IR filters and related front-end components
- Advanced imaging architectures and systems
- Advanced photonic & electronic interconnects
- Atomic physics
- Chip-scale sensors
- Cold-atom microsystem component technologies
- Cognitive and other advanced EW technologies
- Compound semiconductor-based electronics and other emerging device technologies
- Computational architectures and algorithms for next generation artificial intelligence (AI)
- Directed energy component technologies, physics of effects, and protection techniques
- Electro-optical/infrared (EO/IR) technologies
- Electronics and micro sensors for harsh environments
- Energy-efficient computing and advanced signal processing
- Hardware assurance, reliability & validation
- Heterogeneous integration/assembly technologies (2D, 2.5D, and 3D)
- High energy lasers
- High power microwave technologies
- Low power electronics
- Low temperature electronics
- Low volume microsystems manufacturing and assembly
- Materials to enable next-generation microelectronics
- Microelectromechanical system technology
- Microsystem design & CAD
- Microsystems for position, navigation & timing
- Microsystems for RF/optical transceivers
- Mixed-signal electronics
- Novel photonic devices

- Processing techniques for imaging and spectral recognition
- Quantum devices
- Signal processing algorithms and techniques to reduce hardware requirements
- Thermal management of microsystems
- Other microsystems technology topic areas

II. Award Information

A. General Award Information

This BAA is primarily, but not solely, intended for early stage research (studies) that may lead to larger, focused, MTO programs in the future. Studies are defined as single phase efforts of short duration (< 12 months) costing less than \$1,000,000. Whereas proposers are strongly encouraged to submit studies to this BAA, multi-phase efforts will also be considered. Multi-phase efforts are defined as efforts with more than one phase that may span longer than 12 months and that may cost more than \$1,000,000. Multi-phase efforts must also cover clearly identifiable research topic areas with quantitative technical metrics. Proposals for studies that are 12 months or less in duration, cost \$500,000 or less, and for which the performer is seeking an assistance instrument (grant or cooperative agreement) are provided a streamlined proposal preparation process (see Section IV.B.2, “Full Proposal Format”).

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

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

Awards under this BAA will be made to proposers on the basis of the evaluation criteria listed below (see section labeled “Application Review Information,” Sec. V.), and program balance to provide overall value to the Government. The Government reserves the right to request any additional, necessary documentation once it makes the award instrument determination. Such additional information may include but is not limited to Representations and Certifications (see Section VI.B.4., “Representations and Certifications”). The Government reserves the right to remove proposers from award consideration should the parties fail to reach agreement on award terms, conditions and cost/price within a reasonable time or the proposer fails to timely provide requested additional information. Proposals identified for negotiation may result in a procurement contract, grant, cooperative agreement, or other transaction, depending upon the nature of the work proposed, the required degree of interaction between parties, whether or not the research is classified as Fundamental Research, and other factors.

Proposers looking for innovative, commercial-like contractual arrangements are encouraged to consider requesting Other Transactions. To understand the flexibility and options associated with Other Transactions, consult <http://www.darpa.mil/work-with-us/contract-management#OtherTransactions>.

In accordance with 10 U.S.C. § 2371b(f), the Government may award a follow-on production contract or Other Transaction (OT) for any OT awarded under this BAA if: (1) that participant in the OT, or a recognized successor in interest to the OT, successfully completed the entire prototype project provided for in the OT, as modified; and (2) the OT provides for the award of a follow-on production contract or OT to the participant, or a recognized successor in interest to the OT.

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.

For the effort solicited under this BAA, OT agreements are encouraged for non-traditional teams and those proposing research with potential commercial application. As a resource, the Model OT Agreement for ERI programs has been provided on the DARPA Acquisition Innovation website, under the title “Microsystems Technology Office (MTO) Electronics Resurgence Initiative (ERI)” (see <https://acquisitioninnovation.darpa.mil/samples-and-resources/darpa-ot-programs>).

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 cannot identify whether the work under this BAA may be considered fundamental research and may award both fundamental and non-fundamental research.

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 determine whether the proposed research shall be considered fundamental and to select the award instrument type. Appropriate language will be included in resultant awards for non-fundamental research to prescribe publication requirements and other restrictions, as appropriate. This language can be found at <http://www.darpa.mil/work-with-us/additional-baa>.

For certain research projects, it may be possible that although the research to be performed by a potential awardee is non-fundamental research, its proposed subawardee's effort may be fundamental research. It is also possible that the research performed by a potential awardee is fundamental research while its proposed subawardee's effort may be non-fundamental research. In all cases, it is the potential awardee's responsibility to explain in its proposal which proposed efforts are fundamental research and why the proposed efforts should be considered fundamental research.

III. Eligibility Information

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

A. Eligible Applicants

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, that (a) cites the specific authority establishing their eligibility to propose to Government solicitations and compete with industry, and (b) certifies the FFRDC's compliance with the associated FFRDC sponsor agreement's terms and conditions. These conditions are a requirement 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 and compete with industry. This information is required for Government Entities proposing to be awardees or subawardees.

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.

(1) 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.

(2) For classified proposals, applicants will ensure all industrial, personnel, and information systems processing security requirements are in place and at the appropriate level (e.g., Facility Clearance Level (FCL), Automated Information Security (AIS), Certification and Accreditation (C&A), and any Foreign Ownership Control and Influence (FOCI) issues are mitigated prior to submission. Additional information on these subjects can be found at <http://www.dss.mil>.

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. Cost sharing is encouraged where there is a reasonable probability of a potential commercial application related to the proposed research and development effort.

For more information on potential cost sharing requirements for Other Transactions for Prototype, see <http://www.darpa.mil/work-with-us/contract-management#OtherTransactions>.

D. Other Eligibility Criteria

1. Collaborative Efforts

Collaborative efforts/teaming are encouraged.

IV. Application and Submission Information

A. Address to Request Application Package

This announcement, any attachments, and any references to external websites herein constitute the total solicitation. If proposers cannot access the referenced material posted in the announcement found at <http://www.darpa.mil/>, contact the administrative contact listed herein.

PROPOSERS ARE CAUTIONED THAT EVALUATION RATINGS MAY BE LOWERED AND/OR PROPOSALS REJECTED IF PROPOSAL PREPARATION (PROPOSAL FORMAT, CONTENT, ETC.) AND/OR SUBMITTAL INSTRUCTIONS ARE NOT FOLLOWED.

B. Content and Form of Application Submission

1. Abstract Format

Abstracts should follow the format described below in this section. The cover sheet should be clearly marked "ABSTRACT" and the total length of Section II should not exceed 6 pages, which includes all figures, tables, and charts. All pages shall be printed on 8-1/2 by 11 inch paper with type not smaller than 12 point. Smaller font may be used for figures, tables and charts. No formal transmittal letter is required. All abstracts must be written in English.

Section I. Administrative

A. Cover sheet to include:

- (1) BAA number;
- (2) MTO Topic(s) of Interest (see Section I.B.);
- (3) Lead Organization submitting proposal abstract;
- (4) Type of organization, selected among the following categories:
Large Organization, Small Disadvantaged Organization, Other Small Organization, HBCU, MI, Other Educational, Other Nonprofit;
- (5) Proposer's internal reference number (if any);
- (6) Other team members (if applicable) and type of organization for each;
- (7) Abstract title;
- (8) Technical point of contact to include:
Salutation, last name, first name, street address, city, state, zip code (+4), telephone, fax (if available), electronic mail;
- (9) Administrative point of contact to include:
Salutation, last name, first name, street address, city, state, zip code (+4), telephone, fax (if available), electronic mail;
- (10) Total funds requested from DARPA, and the amount of cost share (if any); AND
- (11) Date abstract was submitted.

(Note: An official transmittal letter is not required when submitting a Proposal Abstract.)

Section II. Abstract Details

A. Innovative Claims

Summary of innovative claims for the proposed research. This section is the centerpiece of the abstract and should succinctly describe the uniqueness and benefits of the proposed approach relative to the current state-of-art alternate approaches.

B. Technical Approach

Technical rationale, technical approach, and constructive plan for accomplishment of technical goals in support of innovative claims and deliverable production.

C. Deliverables

Deliverables associated with the proposed research and the plans and capability to accomplish technology transition and commercialization.

D. Other Research

General discussion of other research in this area.

E. Cost and Schedule

Provide a cost estimate for resources (e.g. labor, materials) and any subcontractors over the proposed timeline of the project, broken down by Government fiscal year.

F. Capabilities/Management Plan

A clearly defined organization chart for the program team which includes, as applicable: (1) the programmatic relationship of team member; (2) the unique capabilities of team members; (3) the task of responsibilities of team members; (4) the teaming strategy among the team members; and (5) the key personnel along with the amount of effort to be expended by each person during each year.

2. Full Proposal Format

All full proposals must be in the format given below. Proposals shall consist of two volumes: Volume I – Technical and Management Proposal (3 sections), and Volume II – Cost Proposal (4 sections). The submission of other supporting materials along with the proposals is strongly discouraged and will not be considered for review. All pages shall be printed on 8-1/2 by 11 inch paper with type not smaller than 12 point. Smaller font may be used for figures, tables and charts.

Section II of Volume I, Technical and Management Proposal, shall not exceed: 1) 15 pages for studies proposals that are less than 12 months in duration, cost less than \$500,000, and are seeking an assistance instrument (grant or cooperative agreement); and 2) 26 pages for all other proposals. The page limitation for full proposals includes all figures, tables, and charts. All proposals must be written in English. There is no page limit for Volume II - Cost Proposal. All full proposals must be written in English.

A summary slide of the proposed effort, in PowerPoint format, should be submitted with the proposal. A template slide is provided as Attachment 2 to the BAA. Submit this PowerPoint file in addition to Volumes I and II of your full proposal. This summary slide does not count towards the total page count.

a. Volume I, Technical and Management Proposal (3 sections)

Section I. Administrative

A. Cover sheet to include:

- (1) BAA number;
- (2) MTO Topic(s) of Interest (see above Section I.B. Topic Areas of Interest);
- (3) Lead Organization submitting proposal;
- (4) Type of organization, selected among the following categories:
Large Organization, Small Disadvantaged Organization, Other Small Organization, HBCU, MI, Other Educational, Other Nonprofit;
- (5) Proposer's internal reference number (if any);
- (6) Other team members (if applicable) and type of organization for each;
- (7) Proposal title;
- (8) Technical point of contact to include:
Salutation, last name, first name, street address, city, state, zip code (+4), telephone, fax (if available), electronic mail;
- (9) Administrative point of contact to include: salutation, last name, first name, street address, city, state, zip code (+4), telephone, fax (if available), electronic mail;
- (10) Total funds requested from DARPA, and the amount of cost share (if any); AND
- (11) Date proposal was submitted.

B. Official transmittal letter.**Section II. Detailed Proposal Information****A. Executive Summary**

Summarize the technical approach, anticipated performance, and expected outcomes of the proposed effort. The executive summary should be concise and to the point. Tables, graphs, and diagrams can be used as supplemental material along with narrative to convey the information.

B. Technical Approach

This section is the centerpiece of the proposal and should succinctly summarize the innovative claims for the proposed research and clearly describe the proposed approach without using any jargon. Thoroughly and quantitatively describe the uniqueness and benefits of the proposed approach relative to the current state-of-art and alternate approaches. This section should demonstrate that the proposer has a clear understanding of the state-of-the-art and should provide sufficient justification for the feasibility of the proposed approach(es).

C. Statement of Work (SOW)

In plain English, clearly define the technical tasks/subtasks to be performed, their durations and dependencies among them. The page length for the SOW will be dependent on the amount of the effort. The SOW must not include proprietary information. For each task/subtask, provide:

1. A general description of the objective (for each defined task/activity);
2. A detailed description of the approach to be taken to accomplish each defined task/activity;
3. Identification of the primary organization responsible for task execution (prime, sub, team member, by name, etc.);

4. The completion criteria for each task/activity - a product, event or milestone that defines its completion.
5. Define all deliverables (reporting, data, reports, software, etc.) to be provided to the Government in support of the proposed research tasks/activities; AND
6. Clearly identify any tasks/subtasks (prime or subcontracted) that will be accomplished on-campus at a university.

Note: Each Phase of the program must be separately defined in the SOW. Include a SOW for each subcontractor and/or consultant in the Cost Proposal Volume. Do not include any proprietary information in the SOW(s).

D. Schedule, Measurable Milestones, and Deliverables

Provide the schedule and measurable milestones for the proposed research. (Note: Measurable milestones should capture key development points in tasks and should be clearly articulated and defined in time relative to start of effort.) Where the effort consists of multiple portions that could reasonably be partitioned for purposes of funding, these should be identified as options. Additionally, describe the material and/or data deliverables associated with the proposed research and the due date for each within the proposed schedule.

E. Results and Technology Transfer

Description of the results, products, transferable technology, and expected technology transfer. This should also address mitigation of life-cycle and sustainment risks associated with transitioning intellectual property for U.S. military applications, if applicable. See also Section IV.B.11, "Intellectual Property." If there are no proprietary claims, this should be stated.

F. Risk Analysis and Mitigation Plan

Identify the major technical and programmatic risks in the program. Include a risk matrix. For each risk, assign a probability of occurrence on a scale of 1-10, where 10 indicates a high likelihood that the risk will impact program success, as well as an assessment of impact, also on a scale of 1-10, where 10 indicates that this risk would maximally limit the program from delivering prototypes on schedule or meeting performance objectives. For each item with total risk (likelihood × impact) exceeding 40, include a plan for mitigating the risk and assessing risk reduction.

G. Teaming and Management Plan

Describe the formal teaming arrangements which will be used to execute this effort. Describe the programmatic relationship between investigators and the rationale for choosing this teaming strategy. Present a coherent organization chart and integrated management strategy for the program team. For each person, indicate: (1) name, (2) affiliation, (3) abbreviated listing of all technical area tasks they will work on with roles, responsibilities, and percent time indicated, (4) discussion of the proposers' previous accomplishments, relevant expertise and/or unique capabilities.

This section may also discuss proposer's previous accomplishments and work in closely related research areas.

H. National Security Impact Statement

To reduce the potential for unintended foreign access to critical U.S. national security technologies developed under this effort, proposals shall describe:

- How the proposed work contributes to U.S. national security and U.S. technological capabilities. The proposer may also summarize previous work that contributed to U.S. national security and U.S. technological capabilities.
- Plans and capabilities to transition technologies developed under this effort to U.S. national security applications and/or to U.S. industry. The proposer may also discuss previous technology transitions to the benefit of U.S. interests.
- Any plans to transition technologies developed under this effort to foreign governments or to companies that are foreign owned, controlled or influenced. The proposer may also discuss previous technology transition to these groups.
- How the proposer will assist its employees and agents performing work under this effort to be eligible to participate in the U.S. national security environment.

The National Security Impact Statement shall be no more than one page.

I. Facilities and Equipment

Description of the facilities and equipment that would be used for the proposed effort for both the prime and each subcontractor.

J. DARPA Embedded Entrepreneur Initiative (optional sub-section; does not count toward page count)

To catalyze the conversion of scientific discovery to impact, the Microsystems Technology Office offers applicants the opportunity for additional funding and transition assistance through participation in the Embedded Entrepreneur Initiative. The DARPA Embedded Entrepreneur Initiative will provide additional funding, up to \$250,000, to employ one entrepreneur-in-residence or one corporate business development lead. The entrepreneurial lead's ultimate goal is to develop a robust go to market strategy for entering into defense and commercial markets. All commercialization and transition activities will be timed to suit the Performer's stage of maturity. Often, the Embedded Entrepreneurial work is most useful in year two or three of a Program. Activities conducted can include, but are not limited to; cost modeling, end user engagement, market analysis and mapping, competitive analysis, techno-economic analysis, manufacturing and scale-up strategy, IP securement strategy, and financial plan creation. Embedded Entrepreneur participants will work closely with DARPA's Commercial Strategy team and their extensive network of U.S. investors, strategic partners, and mentors.

Proposers wishing to participate in the Embedded Entrepreneur Initiative must:

- Include an initial hypothesis describing how the proposed technology will transition from its current state to future integration into a product or capability.
- Include separately costed tasks describing plans to build and refine a viable Go to Market Strategy over the course of the DARPA program. Tasks contributing to the build of a robust Go to Market Strategy can include, but are not limited to; cost modeling, end user engagement, market analysis and mapping, competitive analysis, techno-economic analysis, manufacturing and scale-up strategy, IP securement strategy, and financial plan creation.

Participation in the Embedded Entrepreneur Initiative is voluntary but highly recommended. Participants are not expected to form a new company or leave their current research positions to pursue transition, but are expected to, throughout the lifecycle of the proposed effort, identify appropriate partners for enabling transition. Embedded Entrepreneur Initiative funding requests should be consistent with the proposed work scope and proposed timeline, but are anticipated to be in the range of \$250,000 per Performer.

Section III. Additional Information

Information in this section may include a brief bibliography of relevant technical papers and research notes (published and unpublished) that document the technical ideas upon which the proposal is based. Copies of not more than three (3) relevant papers may be included in the submission.

b. Volume II, Cost Proposal (4 sections) - *Proposals seeking assistance instruments under a total proposed amount of \$500,000 with a period of performance of 12 months or less*

All proposers, including FFRDCs, must submit the following:

Section I. Administrative

Cover sheet to include:

- (1) BAA number;
- (2) MTO Topic(s) of Interest (see Section I.B.);
- (3) Lead Organization submitting proposal;
- (4) Type of organization, selected among the following categories:
Large Organization, Small Disadvantaged Organization, Other Small Organization, HBCU, MI, Other Educational, Other Nonprofit;
- (5) Proposer's internal reference number (if any);
- (6) Other team members (if applicable) and type of organization for each;
- (7) Proposal title;
- (8) Technical point of contact to include:
Salutation, last name, first name, street address, city, state, zip code (+4), telephone, fax (if available), electronic mail (if available);
- (9) Administrative point of contact to include:

Salutation, last name, first name, street address, city, state, zip code (+4), telephone, fax (if available), and electronic mail (if available);

(10) Award instrument requested:

Cost-Plus-Fixed Fee (CPFF), Cost-contract—no fee, cost sharing contract—no fee, or other type of procurement contract (*specify*), Grant, Cooperative Agreement, or Other Transaction;

(11) Place(s) and period(s) of performance;

(12) Total proposed cost separated by basic award and option(s), if any, by calendar year and by government fiscal year;

(13) Name, address, and telephone number of the proposer's cognizant Defense Contract Management Agency (DCMA) administration office (*if known*);

(14) Name, address, and telephone number of the proposer's cognizant Defense Contract Audit Agency (DCAA) audit office (*if known*);

(15) Date proposal was prepared;

(16) DUNS number;

(17) TIN number;

(18) CAGE Code;

(19) Subcontractor Information;

(20) Proposal validity period; AND

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

Attachment 1, the Cost Volume Proposer Checklist, must be included with the coversheet of the Cost Proposal.

Section II. Detailed Cost Information (Prime and Subcontractors)

The proposers', to include eligible FFRDCs', cost volume shall provide cost and pricing information (See Note 1), or other than cost or pricing information if the total price is under the referenced threshold, in sufficient detail to substantiate the program price proposed (e.g., realism and reasonableness). In doing so, the proposer shall provide, **for both the prime and each subcontractor**, a "Summary Cost Breakdown" by phase and performer fiscal year, and a "Detailed Cost Breakdown" by phase, technical task/sub-task, and month. The breakdown/s shall include, at a minimum, the following major cost items along with associated backup documentation:

A. Direct Labor

Include Fringe Benefits, Facilities and Administrative (F&A), General and Administrative, as applicable (proposer must provide a copy of the current rate agreement, if applicable, and clearly describe the application of all proposed indirect cost rates);

B. Indirect Costs

Include Fringe Benefits, Facilities and Administrative (F&A), General and Administrative, as applicable (proposer must provide a copy of the current rate agreement, if applicable, and clearly describe the application of all proposed indirect cost rates);

C. Travel

Provide the purpose of the trip (justifying its relevancy to the proposed project), number of trips, number of days per trip, departure and arrival destinations, number of people, etc.

D. Other Direct Costs (ODCs)

ODCs should be itemized with costs (proposer must provide supporting rationale justifying the relevancy of the items to the proposed project and explaining how the proposed costs/budget was developed).

E. Material

Materials should be itemized with costs (proposer must provide supporting rationale justifying the relevancy of the items to the proposed project and explaining how the proposed costs/budget was developed).

F. Equipment

Equipment should be itemized with costs (proposer must provide supporting rationale justifying the relevancy of the items to the proposed project and provide documentation (i.e., vendor quote, past/recent purchase order, catalog price lists, etc.) supporting the proposed price for each item.

G. Consultants

If consultants are to be used, proposer must provide a copy of the consultant's proposed SOW as well as a signed consultant agreement or other document which verifies the proposed loaded daily / hourly rate and any other proposed consultant costs (e.g. travel);

H. Subcontracts

Include an itemization of all subcontracts. Additionally, the prime contractor is responsible for compiling and providing, as part of its proposal submission to the Government, subcontractor proposals prepared at the same level of detail as that required by the prime. Subcontractor proposals include Interdivisional Work Transfer Agreements (ITWA) or similar arrangements. If seeking a procurement contract, the prime contractor shall provide a cost reasonableness analysis of all proposed subcontractor costs/prices. Such analysis shall indicate the extent to which the prime contractor has negotiated subcontract costs/prices and whether any such subcontracts are to be placed on a sole-source basis.

All proprietary subcontractor proposal documentation, prepared at the same level of detail as that required of the prime, which cannot be uploaded to the DARPA BAA website (<https://www.baa.darpa.mil>, BAAT) or Grants.gov as part of the proposer's submission, 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 organization. This does not relieve the proposer from the requirement to include, as part of their submission (via BAAT or Grants.gov, as applicable), subcontract proposals that do not include proprietary pricing information (rates, factors, etc.).

A Rough Order of Magnitude (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 submit a fully qualified subcontract cost proposal, will result in the full proposal being deemed non-compliant.

I. Government Furnished Equipment/Property/Information

The cost proposal should include identification of pricing assumptions of which may require incorporation into the resulting award instrument (i.e., use of Government Furnished Property/Facilities/Information, access to Government Subject Matter Experts, etc.).

J. Cost-Sharing

Include the source, nature, and amount of any industry cost-sharing;

K. Contracted Fundamental Research

Include any written justification required per Section II.B, “Fundamental Research,” pertaining to prime and/or subcontracted effort being considered Contracted Fundamental Research;

L. Small Business Subcontracting Plan

If applicable. See Section IV.B.10, “Small Business Subcontracting Plan” below.

Note 1:

Proposers are required to provide the aforementioned cost breakdown as an editable MS Excel spreadsheet, inclusive of calculations formulae, with tabs (material, travel, ODC’s) provided as necessary. Providing information in this manner will assist the Government in understanding what is being proposed both technically and in terms of cost reasonableness. As a resource, the DARPA Standard Cost Proposal Spreadsheet (DCPS) is provided on the DARPA website at <http://www.darpa.mil/work-with-us/contract-management> (under “Resources” on the right hand side of the webpage). Please note that there are multiple versions of the DCPS spreadsheet. The version that should be utilized for this BAA is the one that breaks out cost by task (single Technical Area). As stated within the general tab of the DCPS, the purpose of this cost proposal spreadsheet is to assist the Government in completing a rapid analysis of proposed costs. Use of this spreadsheet is not required but strongly encouraged.

Where the effort consists of multiple portions which could reasonably be partitioned for purposes of funding, these should be identified as options with separate cost estimates.

Please see below subsection c. for details on Proposal Format sections “III. Other Transaction Request, if applicable” and “IV. Other Cost Information” for additional requirements, if applicable.

c. Volume II, Cost Proposal (4 sections) - *All proposals not meeting the above subsection b criteria*

All proposers, including FFRDCs, must submit the following:

Section I. Administrative

Cover sheet to include:

- (1) BAA number;
- (2) MTO Topic(s) of Interest (see Section I.B.);
- (3) Lead Organization submitting proposal;
- (4) Type of organization, selected among the following categories:
Large Organization, Small Disadvantaged Organization, Other Small Organization, HBCU, MI, Other Educational, Other Nonprofit;
- (5) Proposer's internal reference number (if any);
- (6) Other team members (if applicable) and type of organization for each;
- (7) Proposal title;
- (8) Technical point of contact to include:
Salutation, last name, first name, street address, city, state, zip code (+4), telephone, fax (if available), electronic mail (if available);
- (9) Administrative point of contact to include:
Salutation, last name, first name, street address, city, state, zip code (+4), telephone, fax (if available), and electronic mail (if available);
- (10) Award instrument requested:
Cost-Plus-Fixed Fee (CPFF), Cost-contract—no fee, cost sharing contract—no fee, or other type of procurement contract (*specify*), Grant, Cooperative Agreement, or Other Transaction;
- (11) Place(s) and period(s) of performance;
- (12) Total proposed cost separated by basic award and option(s), if any, by calendar year and by government fiscal year;
- (13) Name, address, and telephone number of the proposer's cognizant Defense Contract Management Agency (DCMA) administration office (*if known*);
- (14) Name, address, and telephone number of the proposer's cognizant Defense Contract Audit Agency (DCAA) audit office (*if known*);
- (15) Date proposal was prepared;
- (16) DUNS number;
- (17) TIN number;
- (18) CAGE Code;
- (19) Subcontractor Information;
- (20) Proposal validity period; AND
- (21) Any Forward Pricing Rate Agreement, other such approved rate information, or such documentation that may assist in expediting negotiations (if available).

Attachment 1, the Cost Volume Proposer Checklist, must be included with the coversheet of the Cost Proposal.

Section II. Detailed Cost Information (Prime and Subcontractors)

The proposers', to include eligible FFRDCs', cost volume shall provide cost and pricing information (See Note 1), or other than cost or pricing information if the total price is under the referenced threshold, in sufficient detail to substantiate the program price proposed (e.g., realism and reasonableness). In doing so, the proposer shall provide, **for both the prime and each subcontractor**, a "Summary Cost Breakdown" by phase and performer fiscal year, and a

“Detailed Cost Breakdown” by phase, technical task/sub-task, and month. The breakdown/s shall include, at a minimum, the following major cost items along with associated backup documentation:

A. Direct Labor

A breakout clearly identifying the individual labor categories with associated labor hours and direct labor rates, as well as a detailed Basis-of-Estimate (BOE) narrative description of the methods used to estimate labor costs;

B. Indirect Costs

Include Fringe Benefits, Overhead, General and Administrative Expense, Cost of Money, Fee, etc. (must show base amount and rate);

C. Travel

Provide the purpose of the trip, number of trips, number of days per trip, departure and arrival destinations, number of people, etc.;

D. Other Direct Costs (ODCs)

ODCs should be itemized with costs; back-up documentation is to be submitted to support proposed costs;

E. Material/Equipment

(i) For IT and equipment purchases, include a letter stating why the proposer cannot provide the requested resources from its own funding.

(ii) A priced Bill-of-Material (BOM) clearly identifying, for each item proposed, the quantity, unit price, the source of the unit price (i.e., vendor quote, engineering estimate, etc.), the type of property (i.e., material, equipment, special test equipment, information technology, etc.), and a cross-reference to the Statement of Work (SOW) task/s that require the item/s. At time of proposal submission, any item that exceeds \$1,000 must be supported with basis-of-estimate (BOE) documentation such as a copy of catalog price lists, vendor quotes or a written engineering estimate (additional documentation may be required during negotiations, if selected).

(iii) If seeking a procurement contract and items of Contractor Acquired Property are proposed, exclusive of material, the proposer shall clearly demonstrate that the inclusion of such items as Government Property is in keeping with the requirements of FAR Part 45.102. In accordance with FAR 35.014, “Government property and title,” it is the Government’s intent that title to all equipment purchased with funds available for research under any resulting contract will vest in the acquiring nonprofit institution (e.g., Nonprofit Institutions of Higher Education and Nonprofit Organizations whose primary purpose is the conduct of scientific research) upon acquisition without further obligation to the Government. Any such equipment shall be used for the conduct of basic and applied scientific research. The above transfer of title to all equipment purchased with funds available for research under any resulting contract is not allowable when the acquiring entity is a for-profit organization; however, such organizations can, in accordance with FAR 52.245-1(j), be given priority to acquire such property at its full acquisition cost.

F. Consultants

If consultants are to be used, proposer must provide a copy of the consultant's proposed SOW as well as a signed consultant agreement or other document which verifies the proposed loaded daily / hourly rate and any other proposed consultant costs (e.g. travel);

G. Subcontracts

Include an itemization of all subcontracts. Additionally, the prime contractor is responsible for compiling and providing, as part of its proposal submission to the Government, subcontractor proposals prepared at the same level of detail as that required by the prime. Subcontractor proposals include Interdivisional Work Transfer Agreements (ITWA) or similar arrangements. If seeking a procurement contract, the prime contractor shall provide a cost reasonableness analysis of all proposed subcontractor costs/prices. Such analysis shall indicate the extent to which the prime contractor has negotiated subcontract costs/prices and whether any such subcontracts are to be placed on a sole-source basis.

All proprietary subcontractor proposal documentation, prepared at the same level of detail as that required of the prime, which cannot be uploaded to the DARPA BAA website (<https://www.baa.darpa.mil>, BAAT) or Grants.gov as part of the proposer's submission, 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 organization. This does not relieve the proposer from the requirement to include, as part of their submission (via BAAT or Grants.gov, as applicable), subcontract proposals that do not include proprietary pricing information (rates, factors, etc.).

A Rough Order of Magnitude (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 submit a fully qualified subcontract cost proposal, will result in the full proposal being deemed non-compliant.

H. Cost-Sharing

Include the amount of any industry cost-sharing (the source and nature of any proposed cost-sharing should be discussed in the narrative portion of the cost volume).

I. Fundamental Research

Include any written justification required per Section II.B, "Fundamental Research," pertaining to prime and/or subcontracted effort being considered Contracted Fundamental Research

J. Small Business Subcontracting Plan

If applicable. See Section IV.B.10, "Small Business Subcontracting Plan" below.

Note 1:

(a) "Cost or Pricing Data" as defined in FAR 15.403-4 shall be required if the proposer is seeking a procurement contract per the referenced threshold, unless the proposer requests and is granted an exception from the requirement to submit cost or pricing data. Per DoD Class Deviation 2018-O0012, dated 13 April 2018, the threshold for obtaining certified cost and

pricing data is \$2,000,000. Per DFARS 215.408(5), DFARS 252.215-7009, Proposal Adequacy Checklist, applies to all proposers/proposals seeking a FAR-based award (contract).

(b) In accordance with DFARS 215.403-1(4)(D), DoD has waived cost or pricing data requirements for nonprofit organizations (including educational institutions) on cost-reimbursement-no-fee contracts. In such instances where the waiver stipulated at DFARS 215.403-1(4)(D) applies, proposers shall submit information other than cost or pricing data to the extent necessary for the Government to determine price reasonableness and cost realism; and cost or pricing data from subcontractors that are not nonprofit organizations when the subcontractor's proposal exceeds the cost and pricing data threshold at FAR 15.403-4(a)(1).

(c) Per Section 873 of the FY2016 National Defense Authorization Act (Pub L. 114-92), "Pilot Program For Streamlining Awards For Innovative Technology Projects," small businesses and nontraditional defense contractors (as defined therein) are alleviated from submission of certified cost and pricing data for new contract awards valued at less than \$7,500,000. In such instances where this "waiver" applies, proposers seeking a FAR-based contract shall submit information other than certified cost or pricing data to the extent necessary for the Government to determine price reasonableness and cost realism; and certified cost or pricing data from subcontractors that are not small businesses or nontraditional defense contractors when such subcontract proposals exceed the cost and pricing data threshold at FAR 15.403-4(a)(1).

(d) "Cost or pricing data" are not required if the proposer proposes an award instrument other than a procurement contract (i.e., cooperative agreement, grant, or other transaction).

Note 2:

Proposers are required to provide the aforementioned cost breakdown as an editable MS Excel spreadsheet, inclusive of calculations formulae, with tabs (material, travel, ODC's) provided as necessary. The Government also requests that the MS Excel file(s) provide traceability between the Bases of Estimate (BOEs) and the proposed costs across all elements and phases. This includes the calculations and adjustments that are utilized to generate the Summary Costs from the source labor hours, labor costs, material costs, etc. input data. It is requested that the costs and Subcontractor proposals be readily traceable to the Prime Cost Proposal in the provided MS Excel file(s) – although this is not a requirement, providing information in this manner will assist the Government in understanding what is being proposed both technically and in terms of cost realism. NOTE: If the PDF submission differs from the Excel submission, the PDF will take precedence.

As a resource, the DARPA Standard Cost Proposal Spreadsheet (DCPS) is provided on the DARPA website at <http://www.darpa.mil/work-with-us/contract-management> (under "Resources" on the right hand side of the webpage). Please note that there are multiple versions of the DCPS spreadsheet. The version that should be utilized for this BAA is the one that breaks out cost by task (single Technical Area). As stated within the general tab of the DCPS, the purpose of this cost proposal spreadsheet is to assist the Government in completing a rapid analysis of proposed costs. Use of this spreadsheet is not required but strongly encouraged.

Section III. Other Transaction Request, if applicable

All proposers requesting an Other Transaction (OT) must include a detailed list of payment milestones (Milestone Plan). Each milestone must include the following:

- Milestone description
- Completion/Exit criteria (to include identifying all associated data deliverables excluding those specifically providing project status)
- Due date
- Payment/funding schedule (to include, if cost share is proposed, awardee and Government share amounts)
- For each data deliverable, identify the proposed Government data rights (keeping in mind the how each data deliverable will need to be used by the Government given the goals and objectives of the proposed project).

It is noted that, at a minimum, milestones should relate directly to accomplishment of program technical metrics as defined in the BAA and/or the proposer's proposal. Agreement type, expenditure or fixed-price based, will be subject to negotiation by the Agreements Officer. Do not include proprietary data.

Section IV. Other Cost Information

Where the effort consists of multiple portions which could reasonably be partitioned for purposes of funding, these should be identified as options with separate cost estimates.

The cost proposal should include identification of pricing assumptions of which may require incorporation into the resulting award instrument (i.e., use of Government Furnished Property/Facilities/Information, access to Government Subject Matter Experts, etc.).

The proposer should include supporting cost and pricing information in sufficient detail to substantiate the summary cost estimates and should include a description of the method used to estimate costs and supporting documentation.

Cost proposals submitted by FFRDC's (prime or subcontractor) will be forwarded, if selected for negotiation, to their sponsoring organization contracting officer for review to confirm that all required forward pricing rates and factors have been used.

3. Proprietary Information

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

cleared/eligible personnel to perform at the classification level proposed. All proposer personnel performing Information Assurance (IA)/Cybersecurity related duties on classified Information Systems shall meet the requirements set forth in DoD Manual 8570.01-M (Information Assurance Workforce Improvement Program).

When a proposal includes a classified portion, and when able according to security guidelines, we ask that proposers send an e-mail to HR001120S0018@darpa.mil as notification that there is a classified portion to the proposal. When sending the classified portion via mail according to the instructions, proposers should submit six (6) hard copies of the classified portion of their proposal and two (2) CD-ROMs containing the classified portion of the proposal as a single searchable Adobe PDF file. Please ensure that all CDs are well-marked. Each copy of the classified portion must be clearly labeled with HR001120S0018, proposer organization, proposal title (short title recommended), and Copy _ of _.

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

Confidential and Secret Information

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

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

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

OR

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

The inner envelope shall be addressed to:

Defense Advanced Research Projects Agency
ATTN: Program Security Officer, MTO
Reference: HR001120S0018
675 North Randolph Street
Arlington, VA 22203-2114

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

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

Top Secret Information

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

Sensitive Compartmented Information (SCI)

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

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

Special Access Program (SAP) Information

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

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

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

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

5. 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.

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.

6. Human Subjects Research (HSR)/Animal Use

Proposers that anticipate involving human subjects or animals in the proposed research must comply with the approval procedures detailed at <http://www.darpa.mil/work-with-us/additional-baa>, to include providing the information specified therein as required for proposal submission.

7. Approved Cost Accounting System Documentation

Proposers that do not have a Cost Accounting Standards (CAS) compliant accounting system considered adequate for determining accurate costs that are negotiating a cost- type procurement contract must complete an SF 1408. For more information on CAS compliance, see <http://www.dcaa.mil/cas.html>. 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. For more information, see http://www.dcaa.mil/preaward_accounting_system_adequacy_checklist.html.

8. Section 508 of the Rehabilitation Act (29 U.S.C. § 749d)/FAR 39.2

All electronic and information technology acquired or created through this BAA must satisfy the accessibility requirements of Section 508 of the Rehabilitation Act (29 U.S.C § 794d)/FAR 39.2.

9. Grant Abstract

Per Section 8123 of the Department of Defense Appropriations Act, 2015 (Pub. L. 113-235), all grant awards must be posted on a public website in a searchable format. To comply with this requirement, proposers requesting grant awards must submit a maximum one (1) page abstract that may be publicly posted and explains the program or project to the public. The proposer should sign the bottom of the abstract confirming the information in the abstract is approved for public release. Proposers are advised to provide both a signed PDF copy, as well as an editable (e.g., Microsoft word) copy. Abstracts contained in grant proposals that are not selected for award will not be publicly posted.

10. Small Business Subcontracting Plan

Pursuant to Section 8(d) of the Small Business Act (15 U.S.C. § 637(d)) and FAR 19.702(a)(1), each proposer who is a small business concern and seeking a procurement contract that has subcontracting possibilities is required to submit a subcontracting plan with their proposal. The plan format is outlined in FAR 19.704. As of the date of publication of this BAA, per FAR 19.702, the threshold for submission of a small business subcontracting plan is \$700,000 (total contract amount including options).

11. Intellectual Property

All proposers must provide a good faith representation that the proposer either owns or possesses the appropriate licensing rights to all intellectual property that will be utilized under the proposed effort.

a. For Procurement Contracts

Proposers responding to this BAA requesting procurement contracts will need to complete the certifications at DFARS 252.227-7017. See www.darpa.mil/work-with-us/additional-baa for

further information. If no restrictions are intended, the proposer should state “none.” The table below captures the requested information:

Technical Data 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)

b. For All Non-Procurement Contracts

Proposers responding to this BAA requesting a Grant, Cooperative Agreement, Technology Investment Agreement, or Other Transaction for Prototypes shall follow the applicable rules and regulations governing these various award instruments, but, in all cases, should appropriately identify any potential restrictions on the Government’s use of any Intellectual Property contemplated under the award instrument in question. This includes both Noncommercial Items and Commercial Items. Proposers are encouraged use a format similar to that described in Paragraph a. above. If no restrictions are intended, then the proposer should state “NONE.”

12. Patents

Include documentation proving your ownership of or possession of appropriate licensing rights to all patented inventions (or inventions for which a patent application has been filed) that will be utilized under your proposal for the DARPA program. If a patent application has been filed for an invention that your proposal utilizes, but the application has not yet been made publicly available and contains proprietary information, you may provide only the patent number, inventor name(s), assignee names (if any), filing date, filing date of any related provisional application, and a summary of the patent title, together with either: (1) a representation that you own the invention, or (2) proof of possession of appropriate licensing rights in the invention.

13. 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 <http://www.darpa.mil/work-with-us/additional-baa> for further information.

International entities can register in SAM by following the instructions in this link: https://www.fsd.gov/fsd-gov/answer.do?sysparm_kbid=dbf8053adb119344d71272131f961946&sysparm_search=KB0013221.

14. Funding Restrictions

Not applicable.

C. Submission Information

DARPA will acknowledge receipt of all submissions and assign an identifying control number that should be used in all further correspondence regarding the submission. DARPA intends to use electronic mail correspondence regarding this BAA. Submissions may not be submitted by fax or e-mail; any so sent will be disregarded.

Submissions will not be returned. An electronic copy of each submission received will be retained at DARPA and all other non-required copies destroyed. A certification of destruction may be requested, provided the formal request is received by DARPA within 5 days after notification that a proposal was not selected.

All administrative correspondence and questions on this solicitation, including requests for clarifying information on how to submit an abstract or full proposal to this BAA should be directed to HR001120S0018@darpa.mil. Proposals and abstracts may not be submitted by fax or e-mail; any so sent will be disregarded. DARPA encourages use of the Internet for retrieving the BAA and any other related information that may subsequently be provided.

1. Submission Dates and Times

a. Abstract Due Date

Abstracts will be accepted on a rolling basis, but must be submitted to DARPA/MTO on or before 1:00 PM, Eastern Time, January 3, 2022. Abstracts received after this time and date may not be reviewed.

b. Full Proposal Date

Full proposals will be accepted on a rolling basis, but must be submitted to DARPA/MTO on or before 1:00 PM, Eastern Time, March 13, 2022, in order to be considered. Proposals received after this deadline will not be reviewed.

c. Frequently Asked Questions (FAQ)

DARPA will post a consolidated Question and Answer (FAQ) document on a regular basis. To access the posting go to: <http://www.darpa.mil/work-with-us/opportunities>. Under the HR001120S0018 summary will be a link to the FAQ. Submit your question/s by e-mail to HR001120S0018@darpa.mil. In order to receive a response sufficiently in advance of the final proposal due date, send your question/s on or before 1:00 PM, Eastern Time, February 15, 2022.

2. Abstract Submission Information

Proposers are strongly encouraged to submit an abstract in advance of a full proposal in order to provide potential proposers with a rapid response and to minimize unnecessary effort in proposal preparation and review. DARPA will acknowledge receipt of the submission and assign a control number that should be used in all further correspondence regarding the abstract.

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

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

NOTE: YOU MUST CLICK THE 'FINALIZE PROPOSAL ABSTRACT' BUTTON AT THE BOTTOM OF THE CREATE PROPOSAL ABSTRACT PAGE. FAILURE TO DO SO WILL RESULT IN YOUR ABSTRACT NOT BEING OFFICIALLY SUBMITTED TO THIS BAA AND THEREFORE NOT BEING REVIEWED.

Please note that the DoD-issued certificate associated with the BAA website is not recognized by all commercial certificate authorities, resulting in untrusted connection errors/messages. You can either bypass the warning (possibly by adding <https://baa.darpa.mil> to your listed of trusted sites, or arpa.mil as a trusted domain), or visit DISA's site to download the Root Certificate Authority (CA): <http://dodpki.c3pki.chamb.disa.mil/rootca.html>.

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

Note: DO NOT SUBMIT ABSTRACTS TO GRANTS.GOV.

3. Proposal Submission Information

The typical proposal should express a consolidated effort in support of one or more related technical concepts or ideas. Disjointed efforts should not be included into a single proposal. Proposals not meeting the format described in the BAA may not be reviewed.

a. For Proposers Requesting Grants or Cooperative Agreements:

Proposers requesting grants or cooperative agreements must submit proposals through one of the following methods: (1) electronic upload per the instructions at <https://www.grants.gov/applicants/apply-for-grants.html>; or (2) hard-copy mailed directly to DARPA. If proposers intend to use Grants.gov as their means of submission, then they must submit their entire proposal through Grants.gov; applications cannot be submitted in part to

Grants.gov and in part as a hard-copy. Proposers using Grants.gov do not submit hard-copy proposals in addition to the Grants.gov electronic submission.

Submissions: Proposers must submit the three forms listed below.

Form 1: SF 424 Research and Related (R&R) Application for Federal Assistance, available on the Grants.gov website at https://apply07.grants.gov/apply/forms/sample/RR_SF424_2_0-V2.0.pdf. This form must be completed and submitted.

To evaluate compliance with Title IX of the Education Amendments of 1972 (20 U.S.C. § 1681 et.seq.), the Department of Defense (DoD) is collecting certain demographic and career information to be able to assess the success rates of women who are proposed for key roles in applications in science, technology, engineering or mathematics disciplines. In addition, the National Defense Authorization Act (NDAA) for FY 2019, Section 1286, directs the Secretary of Defense to protect intellectual property, controlled information, key personnel, and information about critical technologies relevant to national security and limit undue influence, including foreign talent programs by countries that desire to exploit United States' technology within the DoD research, science and technology, and innovation enterprise. This requirement is necessary for all research and research-related educational activities. The DoD is using the two forms below to collect the necessary information to satisfy these requirements. Detailed instructions for each form are available on Grants.gov.

The Research and Related Senior/Key Person Profile (Expanded) form will be used to collect the following information for all senior/key personnel, including Project Director/Principal Investigator and Co-Project Director/Co-Principal Investigator, whether or not the individuals' efforts under the project are funded by the DoD:

- Degree Type and Degree Year.
- Current and Pending Support, including:
 - A list of all current projects the individual is working on, in addition to any future support the individual has applied to receive, regardless of the source.
 - Title and objectives of the other research projects.
 - The percentage per year to be devoted to the other projects.
 - The total amount of support the individual is receiving in connection to each of the other research projects or will receive if other proposals are awarded.
 - Name and address of the agencies and/or other parties supporting the other research projects
 - Period of performance for the other research projects.

Additional senior/key persons can be added by selecting the “Next Person” button at the bottom of the form. Note that, although applications without this information completed may pass Grants.gov edit checks, if DARPA receives an application without the required information, DARPA may determine that the application is incomplete and may cause your submission to be rejected and eliminated from further review and consideration under the BAA. DARPA reserves the right to request further details from the applicant before making a final determination on funding the effort.

Form 2: Research and Related Senior/Key Person Profile (Expanded), available on the Grants.gov website at https://apply07.grants.gov/apply/forms/sample/RR_KeyPersonExpanded_2_0-V2.0.pdf. This form must be completed and submitted.

Form 3: Research and Related Personal Data, available on the Grants.gov website at https://apply07.grants.gov/apply/forms/sample/RR_PersonalData_1_2-V1.2.pdf. Each applicant must complete the name field of this form, however, provision of the demographic information is voluntary. Regardless of whether the demographic fields are completed or not, this form must be submitted with at least the applicant's name completed.

Grants.gov requires proposers to complete a one-time registration process before a proposal can be electronically submitted. If proposers have not previously registered, this process can take between three business days and four weeks. For more information about registering for Grants.gov, see www.darpa.mil/work-with-us/additional-baa. See the Grants.gov registration checklist at <http://www.grants.gov/web/grants/register.html> for registration requirements and instructions.

Once Grants.gov has received a proposal submission, Grants.gov will send two email messages to advise proposers as to whether or not their proposals have been validated or rejected by the system; IT MAY TAKE UP TO TWO DAYS TO RECEIVE THESE EMAILS. The first email will confirm receipt of the proposal by the Grants.gov system; this email only confirms receipt, not acceptance, of the proposal. The second will indicate that the application has been successfully validated by the system prior to transmission to the grantor agency or has been rejected due to errors. If the proposal is validated, then the proposer has successfully submitted their proposal. If the proposal is rejected, the proposed must be corrected and resubmitted before DARPA can retrieve it. If the solicitation is no longer open, the rejected proposal cannot be resubmitted. Once the proposal is retrieved by DARPA, the proposer will receive a third email from Grants.gov. To avoid missing deadlines, proposers should submit their proposals in advance of the final proposal due date with sufficient time to receive confirmations and correct any errors in the submission process through Grants.gov. For more information on submitting proposals to Grants.gov, visit the Grants.gov submissions page at: <http://www.grants.gov/web/grants/applicants/apply-for-grants.html>.

Proposers electing to submit grant or cooperative agreement proposals as hard copies must complete the same forms as indicated above.

b. For Proposers Requesting Technology Investment Agreements

Proposers requesting Technology Investment Agreements (TIA) awarded under 10 U.S.C. 2371 must include the completed form indicated below. This requirement only applies only to those who expect to receive a TIA as their ultimate award instrument.

The National Defense Authorization Act (NDAA) for FY 2019, Section 1286, directs the Secretary of Defense to protect intellectual property, controlled information, key personnel, and information about critical technologies relevant to national security and limit undue influence,

including foreign talent programs by countries that desire to exploit United States' technology within the DoD research, science and technology, and innovation enterprise. This requirement is necessary for all research and research-related educational activities. The DoD is using the form below to collect the necessary information to satisfy these requirements.

The Research and Related Senior/Key Person Profile (Expanded) form, available on the Grants.gov website at https://apply07.grants.gov/apply/forms/sample/RR_KeyPersonExpanded_2_0-V2.0.pdf, will be used to collect the following information for all senior/key personnel, including Project Director/Principal Investigator and Co-Project Director/Co-Principal Investigator, whether or not the individuals' efforts under the project are funded by the DoD:

- Degree Type and Degree Year.
- Current and Pending Support, including:
 - A list of all current projects the individual is working on, in addition to any future support the individual has applied to receive, regardless of the source.
 - Title and objectives of the other research projects.
 - The percentage per year to be devoted to the other projects.
 - The total amount of support the individual is receiving in connection to each of the other research projects or will receive if other proposals are awarded.
 - Name and address of the agencies and/or other parties supporting the other research projects
 - Period of performance for the other research projects.

Additional senior/key persons can be added by selecting the "Next Person" button at the bottom of the form. Note that, although applications without this information completed may pass Grants.gov edit checks, if DARPA receives an application without the required information, DARPA may determine that the application is incomplete and may cause your submission to be rejected and eliminated from further review and consideration under the BAA. DARPA reserves the right to request further details from the applicant before making a final determination on funding the effort.

c. For Proposers Requesting Contracts or Other Transaction Agreements

Proposers requesting contracts or other transaction agreements must submit proposals via DARPA's BAA Website (<https://baa.darpa.mil>). Note: If an account has already been created for the DARPA BAA Website, this account may be reused. If no account currently exists for the DARPA BAA Website, visit the website to complete the two-step registration process. Submitters will need to register for an Extranet account (via the form at the URL listed above) and wait for two separate e-mails containing a username and temporary password. After accessing the Extranet, submitters may then create an account for the DARPA BAA website (via the "Register your Organization" link along the left side of the homepage), view submission instructions, and upload/finalize the proposal. Proposers using the DARPA BAA Website may encounter heavy traffic on the submission deadline date; it is highly advised that submission process be started as early as possible.

All unclassified full proposals submitted electronically through the DARPA BAA website must be uploaded as zip files (.zip or .zipx extension). The final zip file should not exceed 50 MB in size. Only one zip file will be accepted per submission and submissions not uploaded as zip files will be rejected by DARPA.

NOTE: YOU MUST CLICK THE ‘FINALIZE FULL PROPOSAL’ BUTTON AT THE BOTTOM OF THE CREATE FULL PROPOSAL PAGE. FAILURE TO DO SO WILL RESULT IN YOUR PROPOSAL NOT BEING OFFICIALLY SUBMITTED TO THIS BAA AND THEREFORE NOT BEING REVIEWED.

Classified submissions and proposals requesting assistance instruments (grants or cooperative agreements) should NOT be submitted through DARPA's BAA Website (<https://baa.darpa.mil>), though proposers will likely still need to visit <https://baa.darpa.mil> to register their organization (or verify an existing registration) to ensure the BAA office can verify and finalize their submission.

Please note that the DoD-issued certificate associated with the BAA website is not recognized by all commercial certificate authorities, resulting in untrusted connection errors/messages. You can either bypass the warning (possibly by adding <https://baa.darpa.mil> to your listed of trusted sites, or arpa.mil as a trusted domain), or visit DISA's site to download the Root Certificate Authority (CA): <http://dodpki.c3pki.chamb.disa.mil/rootca.html>.

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

d. Classified Submission Information

See Section IV.B.4, “Security Information,” for guidance on submitting classified abstracts and proposals.

4. Other Submission Requirements

Not applicable.

V. Application Review Information

A. Evaluation Criteria

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

1. Overall Scientific and Technical Merit

The proposed technical approach is innovative, feasible, achievable, and complete.
The proposed technical team has the expertise and experience to accomplish the proposed tasks.
Task descriptions and associated technical elements provided are complete and in a logical

sequence with all proposed deliverables clearly defined such that a final outcome that achieves the goal can be expected as a result of award. The proposal identifies major technical risks and planned mitigation efforts are clearly defined and feasible.

2. Potential Contribution and Relevance to the DARPA Mission

The potential contributions of the proposed effort are relevant to the national technology base. Specifically, DARPA's mission is to make pivotal early technology investments that create or prevent strategic surprise for U.S. National Security.

The proposer clearly demonstrates its plans and capabilities to contribute to U.S. national security and U.S. technological capabilities. The evaluation will consider the proposer's plans and capabilities to transition proposed technologies to U.S. national security applications and to U.S. industry. The evaluation may consider the proposer's history of transitioning or plans to transition technologies to foreign governments or to companies that are foreign owned, controlled, or influenced. The evaluation will also consider the proposer's plans and capabilities to assist its employees and agents to be eligible to participate in the U.S. national security environment.

In addition, the evaluation will take into consideration the proposed technology transition strategy and the extent to which the proposed intellectual property (IP) rights will potentially impact the Government's ability to transition the technology, as applicable.

3. 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).

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

B. Review and Selection Process

1. Review Process

It is the policy of DARPA to ensure impartial, equitable, comprehensive proposal evaluations based on the evaluation criteria listed in Section V.A, and to select the source (or sources) whose offer meets the Government's technical, policy, and programmatic goals.

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.

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

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

2. Handling of Source Selection Information

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

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.

3. Federal Awardee Performance and Integrity Information (FAPIIS)

Per 41 U.S.C. 2313, as implemented by FAR 9.103 and 2 CFR § 200.205, prior to making an award above the simplified acquisition threshold, DARPA is required to review and consider any information available through the designated integrity and performance system (currently FAPIIS). Awardees have the opportunity to comment on any information about themselves

entered in the database, and DARPA will consider any comments, along with other information in FAPIIS or other systems prior to making an award.

VI. Award Administration Information

A. Selection Notices

1. Abstracts

DARPA will respond to abstracts with a statement as to whether DARPA is interested in the idea. If DARPA does not recommend the proposer submit a full proposal, DARPA will provide feedback to the proposer regarding the rationale for this decision. Regardless of DARPA's response to an abstract, proposers may submit a full proposal. DARPA will review all conforming full proposals using the published evaluation criteria and without regard to any comments resulting from the review of an abstract.

2. Proposals

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

B. Administrative and National Policy Requirements

1. Meeting and Travel Requirements

All key participants are required to attend the program kickoff meeting. Performers should also anticipate regular program-wide PI Meetings and periodic site visits at the Program Manager's discretion.

2. 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.

3. 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.

4. Representations and Certifications

In accordance with FAR 4.1102 and 4.1201, proposers requesting a procurement contract must complete electronic annual representations and certifications at <https://www.sam.gov/>. In

addition, resultant procurement contracts will require supplementary DARPA-specific representations and certifications. See <http://www.darpa.mil/work-with-us/additional-baa> for further information.

5. Terms and Conditions

For terms and conditions specific to grants and/or cooperative agreements, see the DoD General Research Terms and Conditions (latest version) at <http://www.onr.navy.mil/Contracts-Grants/submit-proposal/grants-proposal/grants-terms-conditions> and the supplemental DARPA-specific terms and conditions at <http://www.darpa.mil/work-with-us/contract-management#GrantsCooperativeAgreements>.

C. Reporting

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

D. Electronic Systems

1. Wide Area Work Flow (WAWF)

Unless using another means of invoicing, performers will be required to submit invoices for payment directly via to <http://wawf.eb.mil/>. Registration in WAWF will be required prior to any award under this BAA.

2. i-Edison

The award document for each proposal selected for funding will contain a mandatory requirement for invention disclosures (and associated elections, confirmatory instruments, etc.) and patent reports to be submitted electronically through i-Edison (<https://public.era.nih.gov/iedison>).

VII. Agency Contacts

Administrative, technical or contractual questions should be sent via e-mail to the address identified below. All requests must include the name, email address, and phone number of a point of contact.

The technical POC for this effort is:

Dr. Mark Rosker
DARPA/MTO
ATTN: HR001120S0018
675 North Randolph Street
Arlington, VA 22203-2114

Email: HR001120S0018@darpa.mil

VIII. Other Information

A. Protesting

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