Broad Agency Announcement
Ocean of Things Phase 2 Float Development
STRATEGIC TECHNOLOGY OFFICE
HR001120S0020
January 8, 2020
TABLE OF CONTENTS

PART I: OVERVIEW INFORMATION ........................................................................................................... 3
PART II: FULL TEXT OF ANNOUNCEMENT .................................................................................................... 4
  I. Funding Opportunity Description ........................................................................................................... 4
    A. Program Overview ........................................................................................................................... 4
    B. Program Metrics ............................................................................................................................ 10
  II. Award Information .................................................................................................................................. 11
    A. General Award Information ............................................................................................................. 11
    B. Fundamental Research ..................................................................................................................... 12
  III. Eligibility Information ........................................................................................................................... 13
    A. Eligible Applicants .......................................................................................................................... 13
    B. Organizational Conflicts of Interest .............................................................................................. 14
    C. Cost Sharing/Matching .................................................................................................................... 15
  IV. Application and Submission Information ............................................................................................... 15
    A. Address to Request Application Package ...................................................................................... 15
    B. Content and Form of Application Submission .............................................................................. 15
  V. Application Review Information ............................................................................................................ 24
    A. Evaluation Criteria .......................................................................................................................... 24
    B. Review of Proposals ....................................................................................................................... 25
  VI. Award Administration Information ...................................................................................................... 26
    A. Selection Notices and Notifications .............................................................................................. 26
    B. Administrative and National Policy Requirements ......................................................................... 26
    C. Reporting ......................................................................................................................................... 27
    D. Electronic Systems ......................................................................................................................... 27
  VII. Agency Contacts .................................................................................................................................. 27
  VIII. Other Information ............................................................................................................................... 28
  IX. APPENDIX 1: PROPOSAL SLIDE SUMMARY ................................................................................. 29
  X. APPENDIX 2: VOLUME 1 COVER SHEET TEMPLATE ................................................................... 32
  XI. APPENDIX 3: VOLUME 2 COVER SHEET, CHECKLIST AND SAMPLE TEMPLATES ....................... 33
PART I: OVERVIEW INFORMATION

- **Federal Agency Name** – Defense Advanced Research Projects Agency (DARPA), Strategic Technology Office (STO)
- **Funding Opportunity Title** – Ocean of Things Phase 2 Float Development
- **Announcement Type** – Initial Announcement
- **Funding Opportunity Number** – HR001120S0020
- **Catalog of Federal Domestic Assistance Numbers (CFDA)** – Not applicable
- **Dates**
  - Posting Date: January 8, 2020
  - Proposers’ Day: January 17, 2020 at the University of Southern Mississippi (USM), Long Beach, MS
  - Questions Due Date: January 28, 2020, 4:00 PM, ET
  - Subawardee List Due Date: February 18, 2020, 4:00 PM, ET
  - Proposal Due Date: February 25, 2020, 4:00 PM, ET

The Defense Advanced Research Projects Agency (DARPA) is soliciting innovative proposals for the second phase of a two-phase program to design, develop, and manufacture low-cost, persistent maritime floats that sense and report relevant data from the physical and operational environment. The program, Ocean of Things, is a vital part of the Mosaic Warfare end-state vision. Proposed solutions should develop innovative approaches that enable revolutionary advances in science, devices, or systems and innovative approaches to apply existing technology not previously applied to the maritime domain. Specifically excluded is research that primarily results in evolutionary improvements to the existing state of practice.

- Multiple awards are anticipated.
- Types of instruments that may be awarded -- Procurement Contract or Other Transaction.
- **Agency Contact**
  - Points of Contact:
    The BAA Coordinator for this effort can be reached at: HR001120S0020@darpa.mil
    DARPA/STO
    ATTN: HR001120S0020
    675 North Randolph Street
    Arlington, VA 22203-2114
PART II: FULL TEXT OF ANNOUNCEMENT

I. Funding Opportunity Description

This publication constitutes a Broad Agency Announcement (BAA) as contemplated in Federal Acquisition Regulation (FAR) 6.102(d)(2) and 35.016 and 2 CFR § 200.203. Any resultant award negotiations will follow all pertinent law and regulation, and any negotiations and/or awards for procurement contracts will use procedures under FAR 15.4, Contract Pricing, as specified in the BAA.

The Defense Advanced Research Projects Agency (DARPA) is soliciting innovative proposals for Phase 2 of a two-phase program to design, develop, and manufacture low-cost, persistent maritime floats that sense and report relevant data from the physical and operational environment. The program, Ocean of Things, is a vital part of the Mosaic Warfare end-state vision. Proposed solutions should develop innovative approaches that enable revolutionary advances in science, devices, or systems and innovative approaches to apply existing technology not previously applied to the maritime domain. Specifically excluded is research that primarily results in evolutionary improvements to the existing state of practice.

A. Program Overview

The complexity of the ocean environment and operations therein has previously encouraged the use of exquisite systems to understand maritime dynamics and activity. The Ocean of Things program is an opportunity to provide affordable ocean sensing at large scales and high resolution. Improved maritime analysis provides detailed understanding of the ocean environment, informs regulatory commitments to protect natural resources, and enables the military to operate more effectively on the high seas.

The Ocean of Things program provides environmental sensing and operational surveillance missions by composing a distribution of heterogeneous floats. Each float characterizes the physical environment through periodic sampling of local ocean properties, while also reporting significant maritime events. A primary technical objective of the program is to develop edge-processing methods to identify and report the essential information from these “interesting” events within a float’s communication and energy constraints. Ocean of Things will also investigate the selection of sensors and sampling rates to maximize system performance.

The stored reports should contain sufficient information for existing data analytics performers to apply advanced processing techniques (e.g., filtering, clustering, and machine learning). These float reports should provide man-machine readable data to support development of vessel tracks, characterization of vessel behaviors, and identification of new signatures and signal associations in the data provided. The Ocean of Things program will visualize float sensor coverage, predict float field performance, and control individual floats to deliver resultant capabilities as a field comprised of thousands of floats.

To achieve these research objectives, DARPA divides the program into two technical efforts. Technical Area 1 (TA-1) includes the design and production of floats; Technical Area 2 (TA-2) includes the development of advanced data analytics to generate mission products. At this time, DARPA seeks innovative proposals for TA-1 float design and production only.
1. System Description

Ocean of Things consists of a large number of persistent, low-cost floats; satellite communications linked to a cloud data storage system; and advanced data analytics. Float design and development performers, as solicited by this BAA, will develop the float hardware. Floats should sense both the physical and operational environment utilizing existing commercial hardware. Small, low-cost floats are necessary to deploy large numbers economically over wide areas at resolutions required to meet program goals, where 50,000 floats can cover approximately one million square kilometers.

Floats characterize the environment by employing a common set of sensors and a single mission sensor across various sensing modalities to detect physical characteristics and activity. A variety of float types – based on the selected mission sensor – comprise an Ocean of Things field with its composite sensor reports, resulting in a large heterogeneous dataset suitable for analysis and generation of relevant mission products.

The float design and development is a separate and distinct effort from the data analytics performers; however, the float design and development proposers must take a holistic system view and appreciate how decisions affect the data analytics performers. Float development performers should maximize the information collected from the environment through application of a sensor suite within cost and persistence constraints to provide existing data analytics performers large data sets for analysis.

At a minimum, system performance must satisfy both physical and operational environment characterization. Multiple missions within these categories or additional missions supplementary to these two categories are of interest to DARPA. Examples of physical environment characterization include, but are not limited to, sea surface/air temperature, acoustic ambient noise, wind speed, wave dynamics, and float motion. Examples of activity characterization include the generation of vessel tracks, multi-spectral vessel signatures, and vessel behavior.

Float design and performance must address environmental concerns to enable deployment. The use of plastics must be minimized, material selection should be environmentally friendly as much as practical, the information provided by floats must be useful and man-machine readable, and floats must scuttle to prevent entry into protected areas or beaching. These environmental considerations are a significant factor to program success and will impact schedule if not addressed.
2. Phase Execution (12 Months)

During Phase 1, performer teams each produced over 1,000 floats with standard hotel sensors and modular mission sensors tested at-sea in drift tests of varying scale. Phase 2, the design refinement phase, similarly consists of multiple milestones with design and proof of capability demonstrated in at-sea environments, but at a larger scale with improved float designs. Proposals must include spiral hardware development methodology and performer testing to prove capability prior to each float delivery to the Government.

Design and production performers will develop designs for float sensing capabilities (both float hardware and firmware), which support existing data analytic software approaches to complete battlespace-sensing missions. The effort will include quarterly Technical Integration Meetings (TIMs) as well as a single Critical Design Review (CDR) to occur two months after contract award.

Design and production performers should work closely with existing data analytics performers during the design and testing of floats. Performers are solely responsible for sensor selection, sensor signal processing, and message decoding. Successful performers will design sensor and signal processing techniques that allow for detailed environment sensing within the cost and SWAP design constraints of the floats.

The performer effort to develop, refine the design, and test the floats will be contracted on a Cost Plus Fixed Fee (CPFF) contract line item number (CLIN), which will constitute a 12-month Base period of performance. The Base period begins on month 1 and ends on month 12. During months 1 to 9, the performer will develop, refine the float design, and complete testing at the performer’s site prior to delivery to the Government. Performers will deliver the float hardware to the Government by month 9. During months 10 – 12, the Government will execute the at-sea testing of the performer floats. Performers may be on contract during months 10 – 12 of the Base period to provide firmware updates and post-test analysis.

Each performer will manufacture 5,000 floats on a Firm Fixed Price (FFP) Option CLIN during months 2 to 9 and deliver to the Government test team for at-sea demonstration. The Option CLIN may be exercised upon initial concept design review and approval of the design by the DARPA Program Manager. The Option CLIN will be performed concurrently with the Base CLIN during months 2 to 9 of the program for a total of 8 months. Proposals should indicate anticipated achievable manufacturing rates, which will conform to the Program Metrics (Table 3). For proposal purposes, include shipping costs to Naval Base Point Loma, San Diego, CA (test location is subject to change). Small-scale (30 floats, Test A) and mid-scale (70 floats, Test B) Government tests will be used to validate operational performance and scuttling capability prior to the large-scale (4,900 floats, final delivery) at-sea test. The performers will complete the final float hardware delivery to the Government in month 9 for the at-sea test, which will conclude the Option period. Performers may not make hardware updates or design changes after the final float hardware delivery is received by the Government in month 9. After month 12, performers will no longer be on contract, but the floats will continue at-sea testing administered by the Government team during months 13-17.
The figure 2 shown above, displays the program construct for the execution of the float development during Phase 2 of the Ocean of Things program. Proposers are to include the costs to complete the Base (CPFF) and Option (FFP) periods in their proposal. The Government team support will be funded directly by DARPA so these costs are not necessary to include in the proposal submission.

**a. Float Development:**

Performers will design and produce floats capable of characterizing the physical environment and activity over wide areas while constraining unit cost for large-scale employment. The value of a float is dependent upon providing relevant sensing modalities within cost and persistence requirements. Floats should periodically report environmental data (e.g., ocean temperature, sea state, location) and provide timely reports of any maritime activity. The aggregation of individual reports will support existing data analytics performers’ cloud-based data visualization and track generation algorithms. Floats will communicate to the cloud (and receive commands) via Iridium short burst data protocol. The Government will fund all Iridium connectivity costs and provide the Iridium modems as Government Furnished Equipment.

Ocean of Things performers will need to execute a standard Iridium Value Added Manufacturer (VAM) agreement with Iridium in order to receive technical information, provide design support, and carry out pre-deployment testing of the float's antenna at the Iridium test facility in Arizona. Additionally, performers will need to join with the Enhanced Mobile Satellite Services (EMSS) partner program. The EMSS Partner Program supports vendors within the community whose products provide value to EMSS customers, including the U.S. Government and foreign nations. The EMSS Partner Program allows approved vendor devices (primarily Iridium Short-Burst-Data) to interoperate with the EMSS gateway, and become an EMSS Value Added Manufacturer (VAM). Approved EMSS Partners have access to a conversion toolkit to change the access code within commercial Iridium devices from Iridium's commercial gateway to the EMSS gateway. This allows users to leverage the benefits of EMSS that are not available through Iridium's commercial gateway. DARPA will provide procedures to become an Iridium VAM and an EMSS VAM after notification of selection.

In order to monitor and validate performance of float-hosted signal processing and reporting functionality, performers must equip floats with local data storage and line-of-sight data exchange (e.g., 802.11, ZigBee, Bluetooth, etc.). Onboard storage must include a minimum of four (4) weeks of encrypted float sensor data available for transmission. The local data communications method must support software/ firmware updates without physical connections to the float.
Successful proposals should detail approaches that:

- Design an effective float (see attributes listed below),
- Test floats to prove survivability and functionality prior to Government usage,
- Collaborate with signal processing performers,
- Refine float software for over the air reprogramming,
- Manufacture 5,000 effective floats and deliver within nine months of contract award, and
- Deliver effective floats to the Government team for sea testing and support testing.

Attributes of an effective float include:

- **Sensors:**
  - Physical measurement: Every float contains a common suite of sensors (‘hotel’-sensors) that are primarily, but not exclusively, intended for physical environment measurement. Potential hotel sensors include, but are not limited to GPS position, gyro, accelerometer, temperature, wind speed, salinity, humidity, and solar intensity,
  - Activity measurement: Every float employs a single mission sensor to collect operational activity. Examples of potential mission sensors include acoustic, magnetic, electro-optical, and RF devices. Effective sensing and reporting support operational missions such as vessel detection, track generation, and signature discrimination. Heterogeneity is important, and DARPA expects to deploy a system of floats with different mission sensor types – e.g., 1000 mission sensor A, 1000 mission sensor B, etc.

- **Firmware:**
  - Signal processing: on-board signal processing that balances the energy constraints of the float with the need to maximize viability of data reported over low-bandwidth communications, while containing sufficient information for advanced TA-2 analysis (e.g., triggering, segmentation, compression, and/or data featurization schemes),
  - Over-the-air reprogrammable,
  - Error handling: effectively identifies, logs, and manages errors in processing and software applications while ensuring the float scuttles in the presence of errors,
  - Encryption: enable software encryption of stored sensor data (at rest); provide ability for software encryption of sensor data transmitted via Iridium (in transit).

- **Float Form and Hardware:**
  - Float components remain unclassified and non-ITAR restricted,
  - Form factor: must be able to ship a minimum of 62 floats on a pallet 42”w x 42”h x 42”l. Pallets must be able to be stacked two high to enable 1,240 floats to be shipped in a 20’ CONEX box,
  - One-man deployable float design with no assembly required,
  - Maritime environment hardening and power conservation strategies achieving float persistence of 12 months,
  - Unit costs < $625, maximizing use of commercially-available components,
  - Architecture flexibility to accommodate various float sensors and payloads with minimal redesign,
  - Bi-directional communications via Iridium SBD.

- **Environmental:**
  - Compliance with Executive Order 12114, Endangered Species Act, and Marine Mammal Protection Act. DARPA will conduct an Environmental Assessment (EA) for
all floats. Any proposed solution requiring an Environmental Impact Statement is discouraged without a mitigation plan. (i.e., marine mammal entanglement risk),

- Automated and directed scuttling outside of environmentally sensitive areas, marine protected areas and coastal areas (preventing floats from washing up on shore),
- Use of materials minimizing impact to the marine environment. Minimize use of plastic and hazardous or toxic materials and coatings. Use biodegradable packing materials/floats and negatively buoyant components to maximum extent possible.

Table 1. Milestones

<table>
<thead>
<tr>
<th>Program Milestones</th>
<th>Venue</th>
<th>Months After Contract Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kick Off &amp; PDR</td>
<td>MS</td>
<td>0.5</td>
</tr>
<tr>
<td>CDR</td>
<td>Performer Location</td>
<td>2</td>
</tr>
<tr>
<td>Commence EA (Gov’t)</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>TIM</td>
<td>VTC/TELECOM</td>
<td>3</td>
</tr>
<tr>
<td>Iridium Testing</td>
<td>Iridium Test Facility, Chandler, AZ</td>
<td>5</td>
</tr>
<tr>
<td>QPR</td>
<td>Performer Location</td>
<td>6</td>
</tr>
<tr>
<td>Float delivery – Test A (30 Floats)</td>
<td>Naval Base Point Loma*</td>
<td>6</td>
</tr>
<tr>
<td>TIM – Test A</td>
<td>VTC/TELECOM</td>
<td>7</td>
</tr>
<tr>
<td>Float delivery – Test B (70 Floats)</td>
<td>Naval Base Point Loma*</td>
<td>8</td>
</tr>
<tr>
<td>TIM – Test B</td>
<td>VTC/TELECOM</td>
<td>8</td>
</tr>
<tr>
<td>Final float delivery (4,900 Floats)</td>
<td>Naval Base Point Loma*</td>
<td>9</td>
</tr>
<tr>
<td>At-sea test (8 Month Duration)</td>
<td>NIWC, San Diego*</td>
<td>9-17</td>
</tr>
</tbody>
</table>

*Locations tentative

Table 2. Deliverables

<table>
<thead>
<tr>
<th>Deliverables</th>
<th>Format</th>
<th>Months After Contract Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Design</td>
<td>Slide presentation, annotated</td>
<td>0.5</td>
</tr>
<tr>
<td>Performer Test plan</td>
<td>Slide presentation, annotated</td>
<td>0.5</td>
</tr>
<tr>
<td>Critical/Final Design</td>
<td>Slide presentation, annotated</td>
<td>2</td>
</tr>
<tr>
<td>Float Housing Tested &amp; Satisfies IP68 Requirements</td>
<td>Float hardware (delivered at CDR)</td>
<td>2</td>
</tr>
<tr>
<td>Monthly Technical and Financial Status Report</td>
<td>Document</td>
<td>Monthly</td>
</tr>
<tr>
<td>Quarterly Progress Review</td>
<td>Slide Presentation, annotated</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Test Results</td>
<td>Slide presentation, annotated</td>
<td>5</td>
</tr>
<tr>
<td>30 Floats for Gov’t Test A</td>
<td>Hardware/Firmware</td>
<td>6</td>
</tr>
</tbody>
</table>
B. Program Metrics

In order for the Government to evaluate the achievement of program objectives, proposers should consider the following notional program metrics.

Proposals should cite the quantitative and qualitative success criteria that the proposed effort will achieve by the time of each Phase’s program metric measurement.

Table 3. Program Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Threshold</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior to crossing GPS boundary (geofence)</td>
<td>≥ 4</td>
<td>≥ 7</td>
</tr>
<tr>
<td>Prior to exhausting energy</td>
<td>≥ 7</td>
<td>≥ 10</td>
</tr>
<tr>
<td>Sustained loss of GPS</td>
<td>≥ 90%</td>
<td>≥ 95%</td>
</tr>
<tr>
<td>Sustained loss of communications</td>
<td>≥ 95%</td>
<td>≥ 99%</td>
</tr>
<tr>
<td>Water intrusion</td>
<td>≥ 95%</td>
<td>≥ 99%</td>
</tr>
<tr>
<td>Command issued</td>
<td>≥ 95%</td>
<td>≥ 99%</td>
</tr>
<tr>
<td>Scuttling capability: floats must scuttle and sink below the surface in &lt;1 minute with 95% reliability for these criteria</td>
<td>≥ 75% 2 weeks after launch</td>
<td>≥ 90% 2 weeks after launch</td>
</tr>
<tr>
<td>Mission sensor types</td>
<td>≥ 4</td>
<td>≥ 7</td>
</tr>
<tr>
<td>Waterproofing</td>
<td>≥ IP68 (*see Note 1)</td>
<td>≥ IP68 (*see Note 1)</td>
</tr>
<tr>
<td>Compress relevant target data</td>
<td>Compress relevant target data</td>
<td>Extract relevant features from target data</td>
</tr>
<tr>
<td>Collect sufficient data to classify behaviors</td>
<td>Collect sufficient data to classify behaviors</td>
<td>Optimize data collection to classify behaviors</td>
</tr>
<tr>
<td>Deployment Reliability</td>
<td>≥ 75% 2 weeks after launch</td>
<td>≥ 90% 2 weeks after launch</td>
</tr>
<tr>
<td>Sensor signal processing</td>
<td>≥ 90% 2 weeks after launch</td>
<td>≥ 99% 2 weeks after launch</td>
</tr>
<tr>
<td>Float C2</td>
<td>Over-the-air updates and command scuttling</td>
<td>Over-the-air updates and command scuttling</td>
</tr>
<tr>
<td>Form factor</td>
<td>Single float volume ≤ 672 in³</td>
<td>Single float volume ≤ 440 in³</td>
</tr>
<tr>
<td>≥ 62 floats per 42” x 42” x 42” pallet</td>
<td>≥ 100 floats per 42” x 42” x 42” pallet</td>
<td></td>
</tr>
<tr>
<td>Unit cost</td>
<td>&lt; $625</td>
<td>&lt; $500</td>
</tr>
<tr>
<td>Operating life</td>
<td>6 months</td>
<td>12 months</td>
</tr>
<tr>
<td>Survival</td>
<td>≥ 50% reach operating life</td>
<td>≥ 70% reach operating life</td>
</tr>
<tr>
<td>Manufacturing rate</td>
<td>≥ 100 floats / day</td>
<td>≥ 200 floats / day</td>
</tr>
<tr>
<td>Float modularity</td>
<td>Support variety of sensors and effectors</td>
<td>Support variety of sensors and effectors</td>
</tr>
<tr>
<td>Biofouling</td>
<td>Resistant to enable persistent operation</td>
<td>Resistant to enable persistent operation</td>
</tr>
<tr>
<td>Operational persistence</td>
<td>Enable a minimum of 24 reports per day for the life of the float</td>
<td>Enable a minimum of 24 reports per day for the life of the float</td>
</tr>
</tbody>
</table>

*Note 1: IP68: International Protection Marking, IEC standard 60529

Testing and Demonstrations: Multiple Government tests will be conducted to satisfy environmental requirements. Prior to float deliveries, performers should especially consider float performance relative to the following notional metrics from Table 3:
- Waterproofing (due at CDR)
- Scuttling (all methods – due prior to shipment for Test A)
- Float C2 (due prior to shipment for Test A)
- Form Factor (due at kickoff/PDR)

Proposers should provide their detailed test plan to test and achieve these metrics. The test plan should include schedule, testing approach, methods of validating success, and issue resolution methodology.

Government testing will include small-scale in-water testing (Test A: 30 floats) followed by a mid-scale drift test (Test B: 70 floats) to validate operational performance and scuttling capability prior to final delivery (Final Test: 4,900 floats). During all testing events, performers must support testing and ensure all messages transmitted from their floats decode properly to enable analysis by the Government and existing performer teams. Performers are encouraged to conduct post-mortem analysis on floats as available to improve performance and data value. In the event that floats do not satisfy testing requirements, additional testing will be required prior to final float delivery.

II. Award Information

A. General Award Information

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, as applicable.

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/or cost/price within a reasonable time, and the proposer fails to timely provide requested additional information. Proposals identified for negotiation may result in a procurement contract, 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
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.

**B. Fundamental Research**

It is DoD policy that the publication of products of fundamental research will remain unrestricted to the maximum extent possible. National Security Decision Directive (NSDD) 189 defines fundamental research as follows:

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

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

Proposers should indicate in their proposal whether they believe the scope of the research included in their proposal is fundamental or not. While proposers should clearly explain the intended results of their research, the Government shall have sole discretion to 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

A. Eligible Applicants

All responsible sources capable of satisfying the Government's needs may submit a proposal that shall be considered by DARPA. United States Enterprises to Include:

- Industrial/commercial concerns including small businesses
- Accredited degree granting colleges and universities
- Non-profit and not-for-profit organizations

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.

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.

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 www.darpa.mil, contact the administrative contact listed herein.

B. Content and Form of Application Submission

All submissions must be written in English with type not smaller than 12-point font. Smaller font may be used for figures, tables, and charts. Copies of all documents submitted must be clearly labeled with the DARPA BAA number, proposer organization, and proposal title/proposal short title.

1. Proposals Format

All proposals must be unclassified and submitted in the format shown below. Classified submissions will be deemed non-conforming and will not be evaluated.

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 shall consist of two volumes: 1) Volume I, Technical and Management Proposal (composed of three parts), and 2) Volume II, Cost Proposal. Bracketed numbers before each section denote recommended page limits. The total number of pages should not exceed 46.

NOTE: Non-conforming submissions that do not follow the instructions herein may be rejected without further review.

a) Volume I, Technical and Management Proposal
(1) Section I: Administrative
   (a) Cover Sheet to Include
   (1) BAA number (HR001120S0020)
   (2) Technical area;
   (3) Lead Organization submitting proposal;
   (4) Type of organization, selected among the following categories: “LARGE BUSINESS”, “SMALL DISADVANTAGED BUSINESS”, “OTHER SMALL BUSINESS”, “HBCU”, “MI”, “OTHER EDUCATIONAL”, OR “OTHER NONPROFIT”;
   (5) Proposer’s reference number (if any);
   (6) Other team members (if applicable) and type of organization for each;
   (7) Proposal title;
   (8) Technical point of contact to include: salutation, last name, first name, street address, city, state, zip code, telephone, electronic mail (if available);
   (9) Administrative point of contact to include: salutation, last name, first name, street address, city, state, zip code, telephone, fax (if available), electronic mail (if available);
   (10) Total funds requested from DARPA, and the amount of cost share (if any); AND
   (11) Date proposal was submitted.

(b) Official transmittal letter

(2) Section II: Summary of Proposal

A. {3} Technical rationale, technical approach, and constructive plan for accomplishment of technical goals in support of innovative claims and deliverable creation. (In the full proposal, this section should be supplemented by a more detailed plan in Section III of the Technical and Management Proposal.)

B. {2} Innovative claims for the proposed research. This section is the centerpiece of the proposal and should succinctly describe the uniqueness and benefits of the proposed approach relative to the current state-of-art alternate approaches.

C. {1} Deliverables associated with the proposed research and the plans and capability to accomplish technology transition and commercialization. Include in this section all proprietary claims to the results, prototypes, intellectual property, or systems supporting and/or necessary for the use of the research, results, and/or prototype. If there are no proprietary claims, this should be stated. For forms to be completed regarding intellectual property, see Section IV.B.2.h of this BAA. There will be no page limit for the listed forms.

D. {1} General discussion of other research in this area.

E. {1} 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.

F. {3} A three-slide summary of the proposal in MS PowerPoint™ that quickly and succinctly indicates the concept overview, key innovations, expected impact, and other unique aspects of the proposal. The format for the summary slides is included as APPENDIX 1 to this BAA and does not count against the page limit.

(3) Section III: Detailed Proposal Information
A. {4} Statement of Work (SOW) - Clearly define the technical tasks/subtasks to be performed, their durations, and dependencies among them. For each task/subtask, provide:
   - A general description of the objective (for each defined task/activity);
   - A detailed description of the approach to be taken to accomplish each defined task/activity;
   - Identification of the primary organization responsible for task execution (prime, sub, team member, by name, etc.);
   - The completion criteria for each task/activity - a product, event or milestone that defines its completion.
   - Define all deliverables (reporting, data, reports, software, etc.) to be provided to the Government in support of the proposed research tasks/activities; and
   - Clearly identify any tasks/subtasks (to be performed by either an awardee or subawardee) that will be accomplished on-campus at a university, if applicable.

Do not include any proprietary information in the SOW.

B. {3} Description of the results, products, transferable technology, and expected technology transfer path to supplement information included in the summary of the proposal. 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.2.h of this BAA, “Intellectual Property.”

C. {12} Detailed technical approach enhancing and completing the Summary of Proposal.

D. {2} Comparison with other ongoing research indicating advantages and disadvantages of the proposed effort.

E. {3} Discussion of proposer’s previous accomplishments and work in closely related research areas.

F. {2} Description of Security Management architecture and/or approach for the proposed effort. Detail unique additional security requirements regarding OPSEC, program protection planning, test planning, transportation plans, work being performed at different classification levels, and/or utilizing test equipment not approved at appropriate classification level.

G. {1} Description of the facilities that would be used for the proposed effort.

H. {2} Detail support enhancing that of Summary of Proposal, including formal teaming agreements which are required to execute this program.

I. {3} Provide description of milestone cost and accomplishments.

J. {3} Cost schedules and measurable milestones for the proposed research, including estimates of cost for each task in each year of the effort delineated by the proposed awardee and major subawardees, total cost, and any company cost share. Note: Measurable milestones should capture key development points in tasks and should be clearly articulated and defined in time relative to start of effort. These milestones should enable and support a decision for the next part of the effort. Additional interim non-critical management milestones are also highly encouraged at regular intervals. Where the effort consists of multiple portions which could reasonably be partitioned for purposes of funding, these should be identified as options with separate cost estimates for each. Additionally, proposals should clearly explain the technical approach(es) that will be employed to meet or exceed each program metric and provide ample
justification as to why the approach(es) is/are feasible. The milestones must not include proprietary information.

b) Volume II, Cost Proposal

All proposers, including FFRDCs, must submit the following:

(1) Cover sheet to include:
   (1) BAA number (DARPA-BAA- HR001120S0020);
   (2) Technical area;
   (3) Lead Organization submitting proposal;
   (4) Type of organization selected among the following categories:
       “LARGE BUSINESS”, “SMALL DISADVANTAGED BUSINESS”, “OTHER SMALL BUSINESS”, “HBCU”, “MI”,
       “OTHER EDUCATIONAL”, OR “OTHER NONPROFIT”;
   (5) Proposer’s reference number (if any);
   (6) Other team members (if applicable) and type of organization for each;
   (7) Proposal title;
   (8) Technical point of contact to include: salutation, last name, first name, street address, city, state, zip code, telephone, fax (if available), electronic mail (if available);
   (9) Administrative point of contact to include: salutation, last name, first name, street address, city, state, zip code, telephone, fax (if available), and electronic mail (if available);
   (10) Award instrument requested: cost-plus-fixed-fee (CPFF), cost-contract—no fee, cost sharing contract – no fee, or other type of procurement contract (specify) or Other Transaction;
   (11) Place(s) and period(s) of performance;
   (12) Total proposed cost separated by basic award and option(s) (if any);
   (13) Name, address, and telephone number of the proposer’s cognizant Defense Contract Management Agency (DCMA) administration office (if known);
   (14) Name, address, and telephone number of the proposer’s cognizant Defense Contract Audit Agency (DCAA) audit office (if known);
   (15) Date proposal was prepared;
   (16) DUNS number;
   (17) TIN number;
   (18) CAGE Code;
   (19) Subawardee Information; and
   (20) Proposal validity period.

(2) Additional Cost Proposal Information

   (a) Supporting Cost and Pricing Data
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.

(b) Cost Breakdown Information and Format

**Detailed cost breakdown to include:**
- Total program costs broken down by major cost items (direct labor, including labor categories; subcontracts; materials; other direct costs; overhead charges, etc.) and further broken down by task/subtask and phase.
- Major program tasks by fiscal year.
- An itemization of major subcontracts and equipment purchases.
- Documentation supporting the reasonableness of the proposed equipment costs (vendor quotes, past purchase orders/purchase history, detailed engineering estimates, etc.) shall be provided.
- An itemization of any information technology (IT) purchase, as defined by FAR 2.101 – Documentation supporting the reasonableness of the proposed equipment costs (vendor quotes, past purchase orders/purchase history, detailed engineering estimates, etc.) shall be provided, including a letter stating why the proposer cannot provide the requested resources from its own funding for prime and all subawardees.
- A summary of projected funding requirements by month.
- The source, nature, and amount of any industry cost sharing.
- Identification of pricing assumptions of which may require incorporation into the resulting award instrument (e.g., use of Government Furnished Property/Facilities/Information, access to Government Subject Matter experts, etc.).

**Tables included in the cost proposal must be in an editable (e.g. MS Excel™) format with calculation formulas intact.**

Per FAR 15.403-4, certified cost or pricing data shall be required if the proposer is seeking a procurement contract award per the referenced threshold, unless the proposer requests and is granted an exception from the requirement to submit cost or pricing data. Certified cost or pricing data are not required if the proposer proposes an award instrument other than a procurement contract (e.g., cooperative agreement or other transaction.)

(c) Subawardee Proposals

The awardee is responsible for compiling and providing all subawardee proposals for the Procuring Contracting Officer (PCO)/Agreement Officer (AO) as applicable. Subawardee proposals should include Interdivisional Work Transfer Agreements (ITWA) or similar arrangements. Where the effort consists of multiple portions which could reasonable be partitioned for purposes of funding, these should be identified as options with separate cost estimates for each.
All proprietary subawardee proposal documentation, prepared at the same level of detail as the prime, and which cannot be uploaded with the prime’s proposal, shall be provided to the Government either by the awardee or by the subawardee organization when the proposal is submitted. Subawardee proposals submitted to the Government by the proposed awardee should be submitted electronically using the DARPA BAA Tool and clearly labels the corresponding prime proposal number. See Section IV.B. of this BAA for proposal submission information.

(d) Other Transaction Requests

All proposers requesting an OT must include a detailed list of milestones. Each milestone must include the following:
- Milestone description,
- Completion criteria,
- Due date, and
- Payment/funding schedule (to include, if cost share is proposed, awardee and Government share amounts).

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.

2. Additional Proposal Information

a) Proprietary Markings

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.” NOTE: “Confidential” is a classification marking used to control the dissemination of U.S. Government National Security Information as dictated in Executive Order 13526 and should not be used to identify proprietary business information.

b) Security Information

(1) Program Security Information

(a) Program Security

Proposers should include with their proposal any proposed solution(s) to program security requirements unique to this program. Common program security requirements include but are not limited to: operational security (OPSEC) contracting/sub-contracting plans; foreign participation or materials utilization plans; program protection plans (which may entail the following) manufacturing and integration plans; range utilization and support plans (air, sea, land, space, and cyber); data dissemination plans; asset transportation plans; classified test activity plans; disaster recovery plans; classified material / asset disposition plans and public affairs / communications plans.
(b) Unclassified Submissions

All submitted proposals must be unclassified. Classified submissions will be deemed non-conforming and will not be evaluated.

c) Disclosure of Information and Compliance with Safeguarding Covered Defense Information Controls

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

DFARS 252.204-7000, “Disclosure of Information”
DFARS 252.204-7008, “Compliance with Safeguarding Covered Defense Information Controls”
DFARS 252.204-7012, “Safeguarding Covered Defense Information and Cyber Incident Reporting”

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

Compliance with the above requirements includes the mandate for proposers to implement the security requirements specified by National Institute of Standards and Technology (NIST) Special Publication (SP) 800-171, “Protecting Controlled Unclassified Information in Nonfederal Information Systems and Organizations” (see https://doi.org/10.6028/NIST.SP.800-171r1) that are in effect at the time the BAA is issued.

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.

d) 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.

e) Approved Cost Accounting System Documentation

Proposers that do not have a Cost Accounting Standards (CAS) complaint 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. 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.
f) **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 submits a contract proposal and includes subcontractors might be required to submit a subcontracting plan with their proposal. The plan format is outlined in FAR 19.704.


g) **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. § 749d)/FAR 39.2.


h) **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.

(1) For Procurement Contracts

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

<table>
<thead>
<tr>
<th>Technical Data</th>
<th>Summary of Intended Use in the Conduct of the Research</th>
<th>Basis for Assertion</th>
<th>Asserted Rights Category</th>
<th>Name of Person Asserting Restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Software To be Furnished With Restrictions</td>
<td>(LIST)</td>
<td>(LIST)</td>
<td>(LIST)</td>
<td>(LIST)</td>
</tr>
</tbody>
</table>

(2) For All Non-Procurement Contracts

Proposers responding to this BAA requesting a 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 to use a format similar to that described in Paragraph (1) above. If no restrictions are intended then the proposer should state “NONE.”


i) **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](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.

3. 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 HR001120S0020. **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 five (5) days after notification that a proposal was not selected.

Unclassified full proposals sent in response to this BAA should be submitted 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; proposers should start this process as early as possible.

All unclassified concepts submitted electronically through DARPA’s BAA Website **must be uploaded as zip files** (.zip or .zipx extension). The final zip file should be no greater than 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.

Proposers may submit hard copies of their proposal. Proposers opting to submit hard copies must submit one (1) hard copy of the proposals and two (2) electronic copies of the proposal [in PDF (preferred)] on two separate CD-ROMs. Each copy must be clearly labeled with HR001120S0020, proposer organization, proposal title (short title recommended), and Copy _ of 2. All hard copies must be on 8½ by 11 paper. The proposal must be received at DARPA/STO, 675 North Randolph Street, Arlington, VA 22203-2114 (Attn.: HR001120S0020) on or before the due date to be considered during the initial round of selections.

Proposals received after the initial deadline may be received and evaluated up to six months (180 days) from date of posting on beta.SAM.gov (formerly FedBizOpps). Proposals submitted after the due date specified in the BAA or due date otherwise specified by DARPA may be selected. Proposers are warned that the likelihood of available funding is greatly reduced for proposals submitted after the initial closing date deadline.
For proposal submission dates, see Part I., Overview Information. Submissions received after these dates and times may not be reviewed.

Refer to Section VI.A.1. for how DARPA will notify proposers as to whether or not their proposal has been selected for potential award.

4. Funding Restrictions

Not Applicable.

5. Other Submission Requirements

Not Applicable.

DARPA will post a consolidated Frequently Asked Questions (FAQ) document. To access the posting go to: http://www.darpa.mil/work-with-us/opportunities. Under the HR001120S0020 summary will be a link to the FAQs. Submit your question/s by email to HR001120S0020@darpa.mil. Questions must be received by the Questions due date listed in Part I, Overview Information.

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 product that achieves the goal can be expected as a result of award. The proposal clearly identifies major technical risks and clearly defines feasible planned mitigation strategies and efforts to address those risks. The proposal clearly explains the technical approach(es) that will be employed to meet or exceed each program goal and system metric listed in Section I.B. and provides ample justification as to why the approach(es) is feasible. The Government will also consider the structure, clarity, and responsiveness to the statement of work; the quality of proposed deliverables; and the linkage of the statement of work, technical approach(es), risk mitigation plans, costs, and deliverables of the prime awardee and all subawardees through a logical, well structured, and traceable technical plan.

The proposer's prior experience in similar efforts clearly demonstrates an ability to deliver products that meet the proposed technical performance. Similar efforts completed/ongoing by the proposer in this area are fully described including identification of other Government sponsors.
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.

3. Cost and Schedule 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.

The proposed schedule aggressively pursues performance metrics in an efficient time frame that accurately accounts for the anticipated workload. The proposed schedule identifies and mitigates any potential schedule risk.

B. Review of Proposals

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, consistent with instructions and evaluation criteria specified in the BAA herein, and availability of funding.
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 and Notifications

1. 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 award negotiations, in whole or in part, or (2) the proposal has not been selected. These official notifications will be sent via email from the BAA inbox to the Technical POC and/or Administrative POC identified on the proposal coversheet.

B. Administrative and National Policy Requirements

1. Meeting and Travel Requirements

There will be a program kickoff meeting and all key participants are required to attend. Performers should also anticipate regular program-wide PI Meetings and periodic site visits at the Program Manager’s discretion.

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 http://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 http://www.darpa.mil/work-with-us/additional-baa.

4. Representations and Certifications

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

D. Electronic Systems

1. Wide Area Work Flow (WAWF)
Performers will be required to submit invoices for payment directly to https://wawf.eb.mil, unless an exception applies. Performers must register in WAWF 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 patent reports and notifications 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 email to HR001120S0020@darpa.mil. All requests must include the name, email address, and phone number of a point of contact.

Points of Contact:
The BAA Coordinator for this effort may be reached at:
HR001120S0020@darpa.mil
DARPA/STO
ATTN: HR001120S0020
675 North Randolph Street
Arlington, VA 22203-2114

**VIII. Other Information**

A Proposers’ Day for this effort will be held on January 17, 2020 at the University of Southern Mississippi (USM) Fleming Auditorium, Long Beach, MS. One on one meetings with the DARPA Ocean of Things Program Manager will also be available as part of the Proposers’ Day. The Special Notice regarding this Proposers’ Day can be found at [https://beta.sam.gov/opp/2f2118795c744e46a9927c240e7f77e1/view#general](https://beta.sam.gov/opp/2f2118795c744e46a9927c240e7f77e1/view#general).

Collaborative efforts/teaming are encouraged.
IX. APPENDIX 1: PROPOSAL SLIDE SUMMARY

Ocean of Things Summary Slide
Proposal Title
Organization Name(s); Technical POC Name(s)

Provide a visually compelling description that effectively and succinctly conveys the key innovations and unique aspects of the proposed approach

This slide should stand alone in capturing the main objectives of your proposed approach:

- Include graphics and/or plots that highlight characteristics and performance of your approach
- Include conceptual diagrams or process flows
- Describe the advantage in terms of military utility (i.e. what DoD capability will be generated or enhanced)

Source Selection Information – see FAR 2.101 & 3.104

Ocean of Things Quad
Proposal Title
Organization Name(s); Technical POC Name(s)

<table>
<thead>
<tr>
<th>CONCEPT</th>
<th>APPROACH</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are you trying to do? Articulate your objectives using absolutely no jargon.</td>
<td>What’s new in your approach and why do you think it will be successful?</td>
</tr>
<tr>
<td>Add graphic</td>
<td>What are the risks and the payoffs? How will risk be measured?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IMPACT</th>
<th>CONTEXT</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the problem? Why is it hard?</td>
<td>How is it done today, and what are the limits of current practice?</td>
</tr>
<tr>
<td>Who cares? If you’re successful, what difference will it make? What impact will success have?</td>
<td>· Existing approaches</td>
</tr>
<tr>
<td></td>
<td>How much will it cost (Non-recurring development, and recurring build cost for 20 units)? How long will it take?</td>
</tr>
</tbody>
</table>

Source Selection Information – see FAR 2.101 & 3.104
## Ocean of Things Key Personnel Table

**Proposal Title**

<table>
<thead>
<tr>
<th>Name</th>
<th>Brief Experience</th>
<th>Role</th>
<th>% by Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(ex: Degree, years of experience, relevance to Proposed Blackjack approach)</td>
<td>(ex: Principal Investigator, Program Manager, etc)</td>
<td>(ex: Phase 1: 10%; Phase 2: 50%; etc)</td>
</tr>
</tbody>
</table>

Source: Selection Information – see FAR 2.101 & 3.104

## Organization Name Contract/Proposal Specifics

- Intellectual Property
- Data rights summary
- Deliverables
## Organization Name Contract/Proposal Specifics

<table>
<thead>
<tr>
<th>CLIN Description</th>
<th>Award Type</th>
<th>Period of Performance</th>
<th>Total Proposed Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BASE</strong> (Float Design &amp; Refinement)</td>
<td>CPFF</td>
<td># Months</td>
<td>$###M</td>
</tr>
<tr>
<td><strong>OPTION</strong> (Float Hardware Delivery)</td>
<td>FFP</td>
<td>## Months</td>
<td>$###M</td>
</tr>
<tr>
<td><strong>PROGRAM TOTAL:</strong></td>
<td></td>
<td>## Months</td>
<td>$###M</td>
</tr>
</tbody>
</table>

- **Proposed Award Instrument** [i.e. FAR-based Procurement Contract or Other Transaction Agreement.]
X. APPENDIX 2: VOLUME 1 COVER SHEET TEMPLATE

Volume I, Technical and Management Proposal
Cover Sheet

(1) BAA Number: HR001120S0020
(2) Technical Area: ___________________
(3) Lead Organization Submitting Proposal:____________________________________

(4) Type of Organization, selected among the following categories: “LARGE BUSINESS”, “SMALL DISADVANTAGED BUSINESS”, “OTHER SMALL BUSINESS, “HBCU”, “MI”, “OTHER EDUCATIONAL”, OR “OTHER NONPROFIT”

(5) Other team members (if applicable) and type of organization for each:
Company 1 (Other Small Business)
Company 2 (Large Business)
Company 3 (Large Business)
University (Other Educational)

(6) Proposer’s reference number (if any):________________________________________

(7) Proposal Title: ___________________________________________________________
Proposal directed to the attention of (if applicable):_____________________________

(8) Technical point of contact to include:
Salutation, last name first name
Street Address
Street Address 2
City, State, Zip Code
Telephone, Fax (if available)
Electronic mail (if available)

(9) Administrative point of contact to include:
Salutation, last name first name
Street Address
Street Address 2
City, State, Zip Code
Telephone, Fax (if available)
Electronic mail (if available)

(10) Date proposal submitted: ___________________

(11) Total funds requested from DARPA, and the amount of cost share (if any): __________
XI. APPENDIX 3: VOLUME 2 COVER SHEET, CHECKLIST AND SAMPLE TEMPLATES

Volume II, Cost Proposal
Cover Sheet

(1) BAA Number: HR001120S0020
(2) Technical Area: ___________________
(3) Lead Organization Submitting Proposal: ____________________________________

(4) Type of Organization, selected among the following categories: “LARGE BUSINESS”, “SMALL DISADVANTAGED BUSINESS”, “OTHER SMALL BUSINESS”, “HBCU”, “MI”, “OTHER EDUCATIONAL”, OR “OTHER NONPROFIT”

(5) Other team members (if applicable) and type of organization for each:
Company 1 (Other Small Business)
Company 2 (Large Business)
Company 3 (Large Business)
University (Other Educational)

(6) Proposer’s reference number (if any):________________________________________

(7) Proposal Title: ___________________________________________________________
Proposal directed to the attention of (if applicable):_____________________________

(8) Technical point of contact to include: Salutation, last name first name
Street Address
Street Address 2
City, State, Zip Code
Telephone, Fax (if available)
Electronic mail (if available)

(9) Administrative point of contact to include: Salutation, last name first name
Street Address
Street Address 2
City, State, Zip Code
Telephone, Fax (if available)
Electronic mail (if available)

(10) Award Instrument Requested: cost-plus-fixed-fee (CPFF), cost-contract – no fee, cost sharing contract – no fee, or other type of procurement contract (specify), or other transaction

(11) Place and period of performance: _________________________________________

(12) Total proposed cost separated by basic award and option(s) (if any): ___________________

(13) Proposer’s Cognizant Defense Contract Management Agency (DCMA), Defense Contract Audit Agency (DCAA) Information:
DCMA Administration Office (if known):
Salutation, last name first name
Street Address
Street Address 2
DCAA Audit Office (if known):
Salutation, last name first name
Street Address
Street Address 2
(14) Any Forward Pricing Rate Agreement, other such approved rate information, or such other documentation that may assist in expediting negotiations (if available).

(15) Date proposal submitted: ____________________

(16) DUNS number: __________________

(17) TIN (Tax Information Number):__________________

(18) CAGE Code: __________________

(19) Subawardee Information: ________________

(20) Proposal validity period: ___________________
Volume II, Cost Proposal
Checklist and Sample Templates

The following checklist and sample templates are provided to assist the proposer in developing a complete and responsive cost volume. Full instructions appear in Section IV.B.1.b. beginning on Page XX of HR001120S0020. This worksheet must be included with the coversheet of the Cost Proposal.

1. Are all items from Section IV.B.1.b. (Volume II, Cost Proposal) of DARPA-BAA-HR001120S0020 included on your Cost Proposal cover sheet?
   o YES       o NO       Appears on Page(s) [Type text]
   If reply is “No”, please explain:

2. Does your Cost Proposal include (1) a summary cost buildup by Phase, (2) a summary cost buildup by Year, and (3) a detailed cost buildup of for each Phase that breaks out each task and shows the cost per month?
   o YES       o NO       Appears on Page(s) [Type text]
   If reply is “No”, please explain:

3. Does your cost proposal (detailed cost buildup #3 above in item 2) show a breakdown of the major cost items listed below:
   Direct Labor (Labor Categories, Hours, Rates)
   o YES       o NO       Appears on Page(s) [Type text]
   Indirect Costs/Rates (i.e., overhead charges, fringe benefits, G&A)
   o YES       o NO       Appears on Page(s) [Type text]
   Materials and/or Equipment
   o YES       o NO       Appears on Page(s) [Type text]
   Subcontracts/Consultants
   o YES       o NO       Appears on Page(s) [Type text]
   Other Direct Costs
   o YES       o NO       Appears on Page(s) [Type text]
   Travel
   o YES       o NO       Appears on Page(s) [Type text]
   If reply is “No”, please explain:

4. Have you provided documentation for proposed costs related to travel, to include purpose of trips, departure and arrival destinations and sample airfare?
   o YES       o NO       Appears on Page(s) [Type text]
   If reply is “No”, please explain:


5. Does your cost proposal include a complete itemized list of all material and equipment items to be purchased (a priced bill-of-materials (BOM))?  
   ○ YES  ○ NO  Appears on Page(s) [Type text]  
   If reply is “No”, please explain:

6. Does your cost proposal include vendor quotes or written engineering estimates (basis of estimate) for all material and equipment with a unit price exceeding $5000?  
   ○ YES  ○ NO  Appears on Page(s) [Type text]  
   If reply is “No”, please explain:

7. Does your cost proposal include a clear justification for the cost of labor (written labor basis-of-estimate (BOE)) providing rationale for the labor categories and hours proposed for each task?  
   ○ YES  ○ NO  Appears on Page(s) [Type text]  
   If reply is “No”, please explain:

8. Do you have other team members? If YES, continue to question 9. If NO, skip to question 13.  
   ○ YES  ○ NO  Appears on Page(s) [Type text]

9. Does your cost proposal include copies of all team members technical (to include Statement of Work) and cost proposals?  
   ○ YES  ○ NO  Appears on Page(s) [Type text]  
   If reply is “No”, please explain:

10. Do all subawardee proposals include the required summary buildup, detailed cost buildup, and supporting documentation (SOW, Bill-of-Materials, Basis-of-Estimate, Vendor Quotes, etc.)?  
    ○ YES  ○ NO  Appears on Page(s) [Type text]  
    If reply is “No”, please explain:

11. Does your cost proposal include copies of consultant agreements, if available?  
    ○ YES  ○ NO  Appears on Page(s) [Type text]  
    If reply is “No”, please explain:

12. If requesting a FAR-based contract, does your cost proposal include a tech/cost analysis for all proposed subcontractors?  
    ○ YES  ○ NO  Appears on Page(s) [Type text]  
    If reply is “No”, please explain:
13. Have all team members (prime and subawardees) who are considered a Federally Funded Research & Development Center (FFRDC), included documentation that clearly demonstrates work is not otherwise available from the private sector AND provided a letter on letterhead from the sponsoring organization citing the specific authority establishing their eligibility to propose to government solicitations and compete with industry, and compliance with the associated FFRDC sponsor agreement and terms and conditions.

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

If reply is “No”, please explain:

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

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

If reply is “No”, please explain:

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

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

If reply is “No”, please explain:
### SAMPLE – SUMMARY PROPOSAL BUDGET

#### SAMPLE: COST ELEMENT SUMMARY

<table>
<thead>
<tr>
<th>COST ELEMENT</th>
<th>BASE</th>
<th>RATE</th>
<th>AMOUNT</th>
<th>BASE</th>
<th>RATE</th>
<th>AMOUNT</th>
<th>TOTAL PROPOSED AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BASE - Float Design &amp; Refinement (CPFF)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIRECT LABOR (List each direct labor category separately)</td>
<td>Hours</td>
<td>$</td>
<td>$</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL DIRECT LABOR</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>FRINGE BENEFITS</td>
<td>$</td>
<td>%</td>
<td>$</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>TOTAL LABOR OVERHEAD</td>
<td>$</td>
<td>%</td>
<td>$</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>SUBAWARDEE(S), CONSULTANT(S) (List Each Separately)</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>MATERIALS &amp; EQUIPMENT</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>MATERIAL OVERHEAD</td>
<td>$</td>
<td>%</td>
<td>$</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>TRAVEL</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>OTHER DIRECT COSTS (ODC)</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>General and Administrative (G&amp;A)</td>
<td>$</td>
<td>%</td>
<td>$</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>Independent Research and Development (IR&amp;D)/Bid and Proposal (B&amp;P)</td>
<td>$</td>
<td>%</td>
<td>$</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td><strong>SUBTOTAL COSTS</strong></td>
<td></td>
<td></td>
<td>$</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>COST OF MONEY (See DD Form 1861)</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>TOTAL COST</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>PROFIT/FEE</td>
<td>$</td>
<td>%</td>
<td>$</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL PRICE/COST</strong></td>
<td></td>
<td></td>
<td>$</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>GOVERNMENT SHARE</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td><strong>RECIPIENT SHARE (if applicable)</strong></td>
<td></td>
<td></td>
<td>$</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td><strong>Option - Float Hardware Delivery (FFP)</strong></td>
<td></td>
<td></td>
<td>$</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$</td>
<td></td>
<td></td>
<td>$</td>
<td></td>
</tr>
</tbody>
</table>
### SAMPLE: SUBAWARDEES & CONSULTANTS PRICE SUMMARY

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subawardee</td>
<td>SOW Tasks to be performed*</td>
<td>Type of Award</td>
<td>Subawardee of Consultant</td>
<td>Cost Proposed by Prime for the</td>
<td>Difference (Column D - Column E) IF</td>
</tr>
<tr>
<td>or Consultant Name</td>
<td></td>
<td></td>
<td>Consultant Quoted Price</td>
<td>Subawardee or Consultant</td>
<td>APPLICABLE</td>
</tr>
<tr>
<td>TOTALS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Identify Statement of Work, Milestone or Work Breakdown Structure paragraph or provide a narrative explanation as an addendum to this Table that describes the effort to be performed.