Broad Agency Announcement
One Shot Phase 2 Enhanced (2E)
ADAPTIVE EXECUTION OFFICE (AEO)
DARPA-BAA-10-67
May 21, 2010
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Part One: Overview Information

- **Federal Agency Name** – Defense Advanced Research Projects Agency (DARPA), Adaptive Execution Office (AEO)
- **Funding Opportunity Title** – One Shot Phase 2E
- **Announcement Type** – Initial Broad Agency Announcement (BAA)
- **Funding Opportunity Number** – DARPA-BAA-10-67
- **Catalog of Federal Domestic Assistance Numbers (CFDA)** – N/A
- **Dates**
  - Posting Date – May 21, 2010
  - Proposal Due Date
    - Final Closing – 1200 noon (ET), July 8, 2010
- **Anticipated Individual Awards** – Up to two awards are anticipated.
- **Types of Instruments That May Be Awarded** – Procurement contract or other transaction.
- **Technical POC** – Dr. Deepak Varshneya, Program Manager, DARPA
  - EMAIL: DARPA-BAA-10-67@darpa.mil
  - FAX: (703) 741-3880
  - ATTN: DARPA-BAA-10-67
    3701 North Fairfax Drive
    Arlington, VA 22203-1714
- **Total amount of money to be awarded** $7,000,000 (Base).
  (See Paragraph 5.1(a))
Part Two: Full Text of Announcement

1. FUNDING OPPORTUNITY DESCRIPTION

DARPA often selects its research efforts through the BAA process. The BAA will appear on the FedBizOpps website at http://www.fbo.gov/. The following information is for those wishing to respond to the BAA.

1.1. PROGRAM OVERVIEW

The One Shot program will develop a field-testable prototype, observation, measurement, and ballistic calculation system, which enable Snipers to hit targets with the first round, under crosswind conditions, up to the maximum effective range of the weapon (RE). The system developed should provide day and night direct observation of the target, measure all relevant physical phenomena that influence a ballistic trajectory, and rapidly calculate and display both the aim point offset and expected crosswind variability (confidence metric) in the shooters riflescope. The system must exploit novel technologies to operate over a range of visibilities, atmospheric turbulence, scintillation, and environmental conditions. The performance of the system culminating from this investigation and development will be scored against Program Metrics provided in Program Metrics section summarized below. The current Phase is a follow on effort to the previous development of One Shot system under Phases 1 and 2 (option 1). The new Phase will be an enhancement to the technologies developed previously in the prototype system. The new effort will be conducted under Phase 2 Enhanced (Phase 2E) and will result in the delivery of 15 fully operational and field hardened systems in the Base Phase with purchase of up to 100 additional units in Spiral 1 with the potential of further improvements in technology in Spiral 2.

Previous work in Phases 1 and 2 developed a brassboard system that consisted of a down range crosswind measurement unit and a dedicated riflescope. The measurement unit required an external spotting scope to acquire and point the laser on the target. The brassboard system demonstrated the capability to measure the average down range crosswind profile, the range to the target, spotter scope position, target heading, air temperature, pressure and humidity. These measurements were used to calculate the ballistic solution for a 0.308 bullet. The ballistic solution with azimuth / elevation coordinates and range were used to calculate the aim point offset and displayed as a red cross (+) in the dedicated riflescope. The aim point offset was adjusted for the rifle scope crosshair zero and magnification settings. The displayed red cross, which was updated with varying crosswind conditions, was the new aim point to adjust the gun position and hit the target. The brass-board system was tested by trained snipers and designated marksmen under varying environmental conditions up to 1100 meters and 5-8 m/s average crosswinds. The brassboard system demonstrated a marked capability as compared to current sniper system. Under all test conditions, the brassboard system significantly improved the first round hit probability, required fewer rounds, and less time to get the first hit vs. users without the One Shot system. Although the system performance and capability were successfully demonstrated, its size, weight, and power (SWAP) were inadequate; the engagement range too short to meet the requirement of recently upgraded sniper weapons, and the system could not be used with any user selected standard riflescope. Additionally, the projected red cross was too...
dim and it lacked a complimentary indication of the crosswind variability confidence metric with an update rate suitable to minimize errors over the projectile fly-out period. Furthermore, because a commercial off the shelf (COTS) spotter scope was latched externally to the crosswind measurement unit, the boresighting had to be verified in field.

1.1.1. Phase 2E (Base)

The goal of Phase 2E (Base) is to develop and demonstrate novel technologies that result in the delivery of 15 field testable and hardened prototype systems, consisting of an **Integrated Spotter scope (ISS)**, **Spotter scope Display Assembly (SDA)** and **Riflescope Display Assembly (RDA)** within 12 months after award, that meet the size, weight, power, and performance objectives of the Program Metrics. The system developed should provide the capability to profile downrange crosswind and range to target in near real time, replacing the current spotter scope and complementing the riflescope used by sniper teams. The new capability will enable the sniper teams to engage targets at longer ranges, improving the probability of a first round hit, decreasing the rounds needed to get the first hit, and reducing the time needed to obtain the first hit than is currently possible. The system should provide, as a minimum, the following functions, many of which are the result of the lessons learned from previous phases of the program (i.e., feedback from users during field testing):

1. The integrated **spotter scope** (ISS) should exploit new technologies to measure all relevant physical phenomena that affect a ballistic trajectory of the bullet to include, as a minimum, crosswind profile/bullet deflection aim point from the shooter to the target, range to the maximum effective range of the selected weapon, temperature, atmospheric pressure, humidity, cant and pointing angles and GPS coordinates. The measurement time for the crosswind and range should be programmable and should be less than the fly out time of the bullet maximizing measurement accuracy and minimizing latencies.

2. The **ISS** should be assumed to be used from a supported position such as tripod or sand bag. It should allow direct day and night observation of targets with continuous updates of the aim point offset corrections. No alignment verification of the laser/crosswind optics to the spotting scope or calibration in-field should be required.

3. The **ISS** should calculate using the measured data: a) the aim point offset for the selected weapon and cartridge, b) the expected aim point offset variability over the time of flight of the bullet reflected as a display of the confidence metric (probability of target hit), and c) the far target grid coordinates.

4. The **ISS** should communicate the aim point offset and expected crosswind variability (confidence metric) to the riflescope using a wired or wireless data link. The aim point offset and expected variability over the bullet fly out duration should be displayed by the RDA in the rifle scope through sight allowing the shooter to make a timely decision as to when or when not to squeeze the trigger.

5. The **ISS** should have an **objective lens** and a **removable eyepiece** with a plug in cap to facilitate experimentation in alternate modes of operation. The eye piece should have an option to attach a digital CMOS visible camera.
6. A **spotter scope display assembly (SDA)** should be provided for viewing day images using the optional digital camera and night images using the I2 or SWIR sensors to collect situational awareness (SA). The SDA should be wired to the **ISS** to also display the aim point offset coordinates and range and to verify if the laser beam is aligned on the target by rapidly monitoring the return signal strength. The information displayed in the SDA could also be accomplished using a **display screen (DS)** internal to the integrated spotter scope (ISS) such as using an OLED panel. An option to connect an additional commercial off the shelf (COTS) heads-up display off the SDA to the external sighting optics should be provided to also project the information in the external sight.

7. In the shooter’s **rifle scope**, the aim point offset should be displayed by the **RDA** as a red cross (+) which is sufficiently bright against all backgrounds for the shooter to rapidly locate it over a stationary or moving target. The expected crosswind variability confidence metric should be visible against all backgrounds also.

8. The crosswind profiling ISS should operate during the night allowing detection, recognition and facial ID of the target. Sensors using technologies such as I2 and SWIR should be integrated and boresighted to the laser and crosswind measurement optics. Sensors using 3 to 5 micron and/or 8 to 13 micron thermal sight should be a clip-on type to the external sighting optics or attached on to a precision dovetail rail.

9. The performance of the night vision sensor used in the **ISS** (sensitivity, resolution and field of view) should be better than currently fielded spotter scopes with in-line night vision sights such as the PVS 14, 22, 26 and 27, etc.

10. If a laser is used in the **ISS** for crosswind or range measurements, its band should be invisible to the various night vision sights.

11. The user provided **riflescope** should be a standalone unit mounted on the shooter’s weapon using conventional techniques. It should operate during the day and night. It should have both zooming and azimuth/elevation turret adjustment capabilities. It should be used with in-line night sights such as PVS-22, 26, 27 and thermal sights such as FLIR HISS or others.

12. The **RDA** should be a standalone modular assembly providing the display of the red cross and confidence metric in the shooter’s riflescope. Any impact on the red cross position and the confidence metric due to user adjusting the azimuth / elevation turrets and zoom setting should be compensated automatically with respect to the riflescope reference crosshair position while the shooter is engaged with the target.

13. The **RDA** should be interchangeable with user selected riflescope and should not interfere with in-line PVS night vision sights and thermal sights.

14. All lasers used should be **Class 3B** or less per the ANSI standards and approved for training and combat theater operations.

15. The field of view (FOV) change for crosswind sensing to imaging should be accomplished by a step zoom.

16. The **ISS** should be provided with an external precision dovetail rail that is bore sighted to the laser and crosswind optics and is mounted rigidly. The rail should provide mounting a user chosen sighting optics.
1.1.2. Phase 2E (Spiral 1)

The Government may exercise this option to deliver additional ISS, SDA and Riflescope Display Assembly (RDA) systems with improved SWAP and performance to the Users. To exercise this option, the Government would require costs and delivery schedule to build these systems. The contractor should provide all costs (bill of materials/BOM, firm vendor quotes, touch labor and other details) associated with the delivery up to 100 additional systems. This should be priced out separately and identified as an option.

1.1.3. Phase 2E (Spiral 2)

Phase 2E (Spiral 2) may follow Phase 2E (Base) or Phase 2E (Spiral 1) and will continue development of the technologies as required to support operationally identified deficiencies in the Base or Spiral 1 design. In the Spiral 2 system, it is envisioned that the riflescope and the ISS could be combined into a single system mounted directly on the weapon. The night sight [Image Intensifier (I2)] may be eliminated and replaced with SWIR camera images providing equivalent or better performance under starlight and near full moonlight at ranges meeting or exceeding the base program. If illumination is used to extend the identification range, it must not generate noise speckles on the target and should be invisible to the Passive Vision System (PVS) family of sights.

This Phase of the program should be priced out separately from the baseline program and identified as an option.

1.2. PROGRAM METRICS

In order for DARPA to evaluate the effectiveness of a proposed solution in achieving the stated program objectives, proposers should note that DARPA hereby promulgates the following program metrics that may serve as the basis for determining whether satisfactory progress is being made to warrant continued funding of the program. Although the following program metrics are specified, proposers should note that DARPA has identified these goals with the intention of bounding the scope of effort, while affording the maximum flexibility, creativity, and innovation in proposing solutions to the stated problem.

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>
<thead>
<tr>
<th></th>
<th>Base Phase 2E: Program Metrics for Integrated Spotter Scope (ISS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Direct view optics (DVO)</td>
</tr>
<tr>
<td></td>
<td>• Zoomable from &lt;12 to &gt;40x (~FOV 3 to 1deg)</td>
</tr>
<tr>
<td></td>
<td>• Integrated with crosswind &amp; night sight</td>
</tr>
<tr>
<td></td>
<td>• Removable Eyepiece and Plug in Cap</td>
</tr>
<tr>
<td>2</td>
<td>Day and Night Operation</td>
</tr>
<tr>
<td></td>
<td>• Full sunlight to starlight</td>
</tr>
<tr>
<td>3</td>
<td>Classify target as hostile</td>
</tr>
<tr>
<td></td>
<td>• Day: &gt;1500 meter using the DVO</td>
</tr>
<tr>
<td></td>
<td>• Night (full moon): &gt;800m using I2 or SWIR</td>
</tr>
<tr>
<td>4</td>
<td>Target Imaging (Facial Identification)</td>
</tr>
<tr>
<td></td>
<td>• Day: &gt;600m with integrated DVO</td>
</tr>
<tr>
<td></td>
<td>• Night (starlight): &gt;250m using I2 or SWIR</td>
</tr>
</tbody>
</table>
| **Day and Night Crosswind Profiling Range** | **Day:** >1500 meters for 0.338 rnd  
**Night (full moon):** >800 meters  
**Eye Safety: ANSI 3B or less** |
| **Cross Wind** | **0 to 15 m/s** |

### Base Phase 2E: Program Metrics for ISS (continued)

| **Laser Range Finder** | **Invisible to I2 (direct or indirect spots)**  
**Used also for crosswind measurements**  
**Range:** < 100 meters to up to 2km +/-2meters  
**Eye Safety: ANSI 3B or less aided or unaided** |
| **Size** | **Crosswind Receive Aperture:** < 80mm  
**Range Finding Receive Aperture:** < 25mm  
**ISS Length:** < 35cm |
| **Weight** | **< 3.75 Kg without CR123 batteries** |
| **Power** | **CR123 Batteries:** 1 Hour continuous operation  
**Supports plug in for external batteries, e.g. BA 5590** |
| **1st Round Hit Probability**  
**# of Rounds to 1st hit**  
**Time to get the 1st hit** | **> 60% at 90% of maximum effective range**  
**< 2.5**  
**< 60 sec** |
| **Position**  
**Azimuth**  
**Elevation**  
**Range to target** | **GPS:** < ±1m (1 sigma)  
**From Grid North:** < ±0.5 deg (1 sigma)  
**< ±0.5 deg (1 sigma)**  
**Up to 2km** |
| **Recurring Cost** | **Quantity 15:** < $85k per unit  
**Quantity 100:** < $65k per unit  
**Quantity 1000:** < $35k per unit  
**Quantity 5000:** < $26k per unit |
| **Environmental** | **Temperature:** -40 to +70 C  
**Shock:** 5 foot drop all sides |
| **Boresight: Laser to DVO, crosswind axis & night sight** | **Factory set. Better than 100 micro radians between each optical axis and retained across temperature range.** |
| **Round Type** | **Menu Selectable:** 0.308, 0.338 or 300 winmag |
| **Precision Dovetail Rail for mounting external sighting optics** | **Better than 100 micro radians to laser & crosswind optics** |
### Base Phase 2E: Program Metrics for Riflescope Display Assembly (RDA)

<table>
<thead>
<tr>
<th></th>
<th>Weight</th>
<th>Size</th>
<th>Power</th>
<th>Red cross/Conf Metric Accuracy</th>
<th>Red cross/Conf Metric Update</th>
<th>Red cross/Conf Metric brightness</th>
<th>RDA Interchangeability</th>
<th>Environmental</th>
<th>Recurring Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Weight</td>
<td>&lt; 0.5 Kg</td>
<td>&lt; 0.5 Kg</td>
<td>&lt; 0.5 Kg</td>
<td>&lt; 0.5 Kg</td>
<td>&lt; 0.5 Kg</td>
<td>&lt; 0.5 Kg</td>
<td>&lt; 0.5 Kg</td>
<td>&lt; 0.5 Kg</td>
</tr>
<tr>
<td>2</td>
<td>Size</td>
<td>&lt;1 liter</td>
<td>&gt; 1 hour continuous operation with CR123s</td>
<td>&lt; 50 micro radians with riflescope crosshairs</td>
<td>Adjustable from 100 msec to 2sec</td>
<td>Visible across all backgrounds and lighting conditions and adjustable</td>
<td>Family of Riflescopes with 50 and 56mm optics</td>
<td>Shuttle Temperature: -40 to +70°C</td>
<td>Quantity 15: &lt; $15k per unit</td>
</tr>
<tr>
<td>3</td>
<td>Power</td>
<td>&gt; 1 hour continuous operation with CR123s</td>
<td>Red cross/Conf Metric Accuracy</td>
<td>Red cross/Conf Metric Update</td>
<td>Red cross/Conf Metric brightness</td>
<td>Recurring Cost</td>
<td>Environmental</td>
<td>Connectors</td>
<td>Recurring Costs</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Recurring Cost</td>
<td>Connectors</td>
</tr>
<tr>
<td>5</td>
<td>RDA Interchangeability</td>
<td>Family of Riflescopes with 50 and 56mm optics</td>
<td>Red cross/Conf Metric Accuracy</td>
<td>Red cross/Conf Metric Update</td>
<td>Red cross/Conf Metric brightness</td>
<td>Recurring Cost</td>
<td>Environmental</td>
<td>Connectors</td>
<td>Recurring Costs</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Environmental</td>
<td>Connectors</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Connectors</td>
<td>Recurring Costs</td>
</tr>
</tbody>
</table>

### Base Phase 2E: Program Metrics for ISS Display Assembly (SDA)

<table>
<thead>
<tr>
<th></th>
<th>Weight</th>
<th>Size</th>
<th>Power</th>
<th>Display Screen</th>
<th>Environmental</th>
<th>Connectors</th>
<th>Recurring Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Weight</td>
<td>&lt; 0.5 Kg</td>
<td>&lt; 0.5 Kg</td>
<td>Display area: &gt;5 x5 cm</td>
<td>Temperature: -40 to +70°C</td>
<td>ISS and optional digital camera</td>
<td>Quantity 15: &lt; $1.5k per unit</td>
</tr>
<tr>
<td>2</td>
<td>Size</td>
<td>&lt;0.5 liter</td>
<td>&gt; From the ISS</td>
<td>Alphabet: ~18 font size visible in sunlight</td>
<td>Drop: 5 feet all sides</td>
<td>RDA</td>
<td>Quantity 10: &lt; $1.0k per unit</td>
</tr>
<tr>
<td>3</td>
<td>Power</td>
<td>&gt; From the ISS</td>
<td>Display Screen</td>
<td>Image: Color or Mono visible in sunlight</td>
<td>Connectors</td>
<td>COTS Heads-up Display</td>
<td>Quantity 1000: &lt; $0.5k per unit</td>
</tr>
<tr>
<td>4</td>
<td>Display Screen</td>
<td>Display area: &gt;5 x5 cm</td>
<td>Display Screen</td>
<td>Display Screen</td>
<td>Connectors</td>
<td>Recurring Costs</td>
<td>Quantity 1000: &lt; $0.5k per unit</td>
</tr>
<tr>
<td>5</td>
<td>Environmental</td>
<td>Temperature: -40 to +70°C</td>
<td>Display Screen</td>
<td>Environmental</td>
<td>Connectors</td>
<td>Recurring Costs</td>
<td>Quantity 5000: &lt; $0.4k per unit</td>
</tr>
<tr>
<td>6</td>
<td>Connectors</td>
<td>ISS and optional digital camera</td>
<td>Display Screen</td>
<td>Connectors</td>
<td>Recurring Costs</td>
<td>Recurring Costs</td>
<td>Quantity 5000: &lt; $0.4k per unit</td>
</tr>
<tr>
<td>7</td>
<td>Recurring Costs</td>
<td>ISS and optional digital camera</td>
<td>Display Screen</td>
<td>Connectors</td>
<td>Recurring Costs</td>
<td>Recurring Costs</td>
<td>Quantity 5000: &lt; $0.4k per unit</td>
</tr>
</tbody>
</table>
2. AWARD INFORMATION

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

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

Awards under this BAA will be made to proposers on the basis of the evaluation criteria listed below (see section labeled “Application Review Information”, Sec. 5.), and program balance to provide overall value to the Government. Proposals identified for negotiation may result in a procurement contract or other transaction depending upon the nature of the work proposed, the required degree of interaction between parties, and other factors. The Government reserves the right to request any additional, necessary documentation once it makes the award instrument determination. Such additional information may include but is not limited to Representations and Certifications. The Government reserves the right to remove proposers from award consideration should the parties fail to reach agreement on award terms, conditions and cost/price within a reasonable time or the proposer fails to timely provide requested additional information.

As of the date of publication of this BAA, DARPA expects that program goals for this BAA cannot be met by proposers intending to perform 'fundamental research.' Fundamental research is defined as 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. Notwithstanding this statement of expectation, DARPA is not prohibited from considering and selecting research proposals that, regardless of the category of research proposed, still meet the BAA criteria for submissions. In all cases, the contracting officer should have sole discretion to select award instrument type and to negotiate all instrument provisions with selectees.

3. ELIGIBILITY INFORMATION

3.1. ELIGIBLE APPLICANTS

All responsible sources capable of satisfying the Government's needs may submit a proposal that should be considered by DARPA. Historically Black Colleges and Universities (HBCUs), Small Businesses, Small Disadvantaged Businesses and Minority Institutions (MIs) are encouraged to submit proposals and join others in submitting proposals; however, no portion of this
announcements will be set aside for these organizations’ participation due to the impracticality of reserving discrete or severable areas of this research for exclusive competition among these entities.

Federally Funded Research and Development Centers (FFRDCs) and Government entities (Government/National laboratories, military educational institutions, etc.) are subject to applicable direct competition limitations and cannot propose to this BAA in any capacity unless they address the following conditions. FFRDCs must clearly demonstrate that the proposed work is not otherwise available from the private sector AND also must provide a letter on letterhead from their 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. This information is required for FFRDCs proposing to be prime or subcontractors. 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 (as well as, where relevant, contractual authority) establishing their ability to propose to Government solicitations. At the present time, DARPA does not consider 15 U.S.C. 3710a to be sufficient legal authority to show eligibility. While 10 U.S.C. 2539b may be the appropriate statutory starting point for some entities, specific supporting regulatory guidance, together with evidence of agency approval, will still be required to fully establish eligibility. DARPA will consider eligibility submissions on a case-by-case basis; however, the burden to prove eligibility for all team members rests solely with the Proposer.

3.1.1. Procurement Integrity, Standards of Conduct, Ethical Considerations, and Organizational Conflicts of Interest

Current federal employees are prohibited from participating in particular matters involving conflicting financial, employment, and representational interests (18 USC 203, 205, and 208.). The DARPA Program Manager for this BAA is Dr. Deepak Varshneya.

Once the proposals have been received, and prior to the start of proposal evaluations, the Government will assess potential conflicts of interest and will promptly notify the proposer if any appear to exist. (Please note the Government assessment does NOT affect, offset, or mitigate the proposer’s own duty to give full notice and planned mitigation for all potential organizational conflicts, as discussed below.)

All Proposers and proposed subcontractors must affirm whether they are providing scientific, engineering, and technical assistance (SETA) or similar support to any DARPA technical office(s) through an active contract or subcontract. All affirmations must state which office(s) the Proposer supports and identify the prime contract numbers. Affirmations shall be furnished at the time of proposal submission. All facts relevant to the existence or potential existence of organizational conflicts of interest (FAR 9.5) must be disclosed. The disclosure shall include a description of the action the Proposer has taken or proposes to take to avoid, neutralize, or mitigate such conflict. In accordance with FAR 9.503 and without prior approval or a waiver from the DARPA Director, a Contractor cannot simultaneously be a SETA and Performer. Proposals that fail to fully disclose potential conflicts of interests and/or do not have plans to
mitigate this conflict will be rejected without technical evaluation and withdrawn from further consideration for award.

If a prospective Proposer believes that any conflict of interest exists or may exist (whether organizational or otherwise), the Proposer should promptly raise the issue with DARPA by sending Proposer's contact information and a summary of the potential conflict by email to the mailbox address for this BAA at DARPA-BAA-10-67@darpa.mil, before time and effort are expended in preparing a proposal and mitigation plan. If, in the sole opinion of the Government after full consideration of the circumstances, any conflict situation cannot be effectively mitigated, the proposal may be rejected without technical evaluation and withdrawn from further consideration for award under this BAA.

3.2. COST SHARING/MATCHING

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

4. APPLICATION AND SUBMISSION INFORMATION

4.1. ADDRESS TO REQUEST APPLICATION PACKAGE

This solicitation contains all information required to submit a proposal. No additional forms, kits, or other materials are needed. This notice constitutes the total BAA. No additional information is available, nor will a formal Request for Proposal (RFP) or additional solicitation regarding this announcement be issued. Requests for same will be disregarded.

4.2. SECURITY AND PROPRIETARY ISSUES

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

The Government anticipates proposals submitted under this BAA will be unclassified. However, if a proposal is submitted as “Classified National Security Information” as defined by Executive Order 12958 as amended, then the information must be marked and protected as though classified at the appropriate classification level and then submitted to DARPA for a final classification determination.

Proposers choosing to submit a classified proposal from other classified sources must first receive permission from the respective Original Classification Authority in order to use their information in replying to this BAA. Applicable classification guide(s) should also be submitted to ensure the proposal is protected at the appropriate classification level.
Classified submissions should be appropriately and conspicuously marked with the proposed classification level and declassification date. Submissions requiring DARPA to make a final classification determination should be marked as follows:

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

Classified submissions should be in accordance with the following guidance:

**Confidential and Secret Collateral Information:** Use classification and marking guidance provided by previously issued security classification guides, the Information Security Regulation (DoD 5200.1-R), and the National Industrial Security Program Operating Manual (DoD 5220.22-M) when marking and transmitting information previously classified by another Original Classification Authority. Classified information at the Confidential and Secret level may be mailed via appropriate U.S. Postal Service methods (e.g., (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 should be sealed and plainly marked with the assigned classification and addresses of both sender and addressee. The inner envelope should be address to:

Defense Advanced Research Projects Agency  
ATTN: Adaptive Execution Office (AEO)  
Reference: DARPA-BAA-10-67  
3701 North Fairfax Drive  
Arlington, VA 22203-1714

The outer envelope should 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  
3701 North Fairfax Drive  
Arlington, VA 22203-1714

**All Top Secret materials:** Top Secret information should be hand carried by an appropriately cleared and authorized courier to the DARPA CDR. Prior to traveling, the courier should contact the DARPA CDR at (571) 218-4842 to coordinate arrival and delivery.

**Special Access Program (SAP) Information:** SAP information must be transmitted via approved methods. Prior to transmitting SAP information, contact the DARPA SAPCO at (703) 526-4052 for instructions.

**Sensitive Compartmented Information (SCI):** SCI must be transmitted via approved methods. Prior to transmitting SCI, contact the DARPA Special Security Office (SSO) at (703) 248-7213 for instructions.
Proprietary Data: All proposals containing proprietary data should have the cover page and each page containing proprietary data clearly marked as containing proprietary data. It is the Proposer’s responsibility to clearly define to the Government what is considered proprietary data.

Security classification guidance via a DD Form 254, “DoD Contract Security Classification Specification,” will not be provided at this time since DARPA is soliciting ideas only. After reviewing the incoming proposals, if a determination is made that the award instrument may result in access to classified information a DD Form 254 will be issued and attached as part of the award.

Proposers must have existing and in-place prior to execution of an award, approved capabilities (personnel and facilities) to perform research and development at the classification level they propose. It is the policy of DARPA to treat all proposals as competitive information, and to disclose their contents only for the purpose of evaluation. Proposals will not be returned. The original of each proposal received will be retained at DARPA and all other non-required copies destroyed. A certification of destruction may be requested, provided the formal request is received at this office within 5 days after unsuccessful notification.

4.3. CONTENT AND FORM OF APPLICATION SUBMISSION

4.3.1. Proposal Information

Proposers are required to submit full proposals by the time and date specified in the BAA in order to be considered during the single round of selections. Proposals received after the time and date specified in the BAA will be considered late and, as such, 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.

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

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

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

- EMAIL: DARPA-BAA-10-67@darpa.mil
- FAX: (703) 741-3880
- ATTN: DARPA-BAA-10-67
  3701 North Fairfax Drive
  Arlington, VA 22203-1714
DARPA will employ an electronic upload submission system (T-FIMS) for all unclassified responses to this BAA. Unclassified proposals sent in response to DARPA-BAA-10-67 must be submitted through T-FIMS. See https://www.tfims.darpa.mil/baa/ for more information on how to request an account, upload proposals, and use the T-FIMS tool. Because proposers using T-FIMS may encounter heavy traffic on the web server, and T-FIMS requires a registration and certificate installation for all proposers, proposers should not wait until the day the proposal is due to create an account in T-FIMS and submit the proposal. All proposers using T-FIMS must also encrypt the proposal, as per the instructions below.

All proposals submitted electronically through T-FIMS must be encrypted using Winzip or PKZip with 256-bit AES encryption. Only one zipped/encrypted file will be accepted per proposal and proposals not zipped/encrypted will be rejected by DARPA. An encryption password form must be completed and emailed to DARPA-BAA-10-67@darpa.mil following the proposal submission process, as proposers will be issued a document control number at that time. See https://www.tfims.darpa.mil/baa/ for the encryption password form.

Note the word “PASSWORD” must appear in the subject line of the above email and there are minimum security requirements for establishing the encryption password. Failure to provide the encryption password may result in the proposal not being evaluated. For further information and instructions on how to zip and encrypt proposal files, see https://www.tfims.darpa.mil/baa/.

4.3.2. Restrictive Markings on Proposals

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

(1) Mark the title page with the following legend:

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

(2) Mark each sheet of data it wishes to restrict with the following legend:

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

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

4.4.1. Proposal Format

All proposals must be in the format given below. Nonconforming proposals may be rejected without review. Proposals should consist of two volumes. All pages should be organized on 8-1/2 by 11 inch pages with type not smaller than 12 point. Smaller font may be used for figures, tables and charts. The page limitation for proposals includes all figures, tables, and charts. Volume I, Technical and Management Proposal, may include an attached bibliography of relevant technical papers or research notes (published and unpublished) which document the technical ideas and approach upon which the proposal is based. Copies of not more than three (3) relevant papers can be included with the submission. The bibliography and attached papers are not included in the page counts given below. The submission of other supporting materials along with the proposals is strongly discouraged and will not be considered for review. Sections II and III of Volume I, Technical & Management Proposals, shall not exceed fifty {X} pages combined. Maximum page lengths for each section are shown in braces { } below. All proposals must be written in English with costs/prices expressed in dollars ($’s).

4.4.1.1. Volume I - Technical and Management Proposal

Proposal Section I - Administrative

A. Cover Sheet

The cover sheet should contain the following information:

- BAA number;
- Proposal title;
- Technical area;
- Lead organization submitting the proposal;
- Technical point of contact, including: name, telephone number, electronic mail address, fax (if available), and mailing address;
- Administrative point of contact, including: name, telephone number, electronic mail address, fax (if available), and mailing address;
- Total funds requested from DARPA. Summary of the costs of the proposed research, including total base cost, estimates of base cost in each year of the effort, estimates of itemized options in each year of the effort, and cost sharing if relevant;
- Contractor’s reference number (if any); and
- Contractor's type of business, selected from among the following categories:
  - WOMEN-OWNED LARGE BUSINESS,
  - OTHER LARGE BUSINESS,
  - SMALL DISADVANTAGED BUSINESS [Identify ethnic group from among the following: Asian-Indian American, Asian-Pacific American, Black American, Hispanic American, Native American, or Other],
  - WOMEN-OWNED SMALL BUSINESS,
• Other team members (if applicable) and type of business for each.

Date proposal was submitted.

B. Official Transmittal Letter

C. Table of Contents {No page limit}

D. Cost Proposal Summary Checklist (Appendix 2)

Proposal Section II – Summary of Proposal {No more than 11 pages}

A. {2} Summary of Innovative claims for the proposed research and comparison to current technology and related on-going research.

B. {2} Summary of Technical and Management/Teaming approach.

C. {2} Deliverables associated with the proposed research and the plans and capability to accomplish technology transition and commercialization. Include in this section all proprietary claims to the results, prototypes, intellectual property, or systems supporting and/or necessary for the use of the research, results, and/or prototype. If there are not proprietary claims, this should be stated.

D. {1} Summary of Cost, schedule and measurable milestones for the proposed research, including estimates of cost for each task in each year of the effort delineated by the prime and major subcontractors, total cost and company cost share, if applicable. \textbf{Note:} Measurable milestones should capture key development points in tasks and should be clearly articulated and defined in time relative to start of effort.

E. A four slide summary of the proposal in PowerPoint that quickly and succinctly indicates the concept overview, key innovations, expected impact, and other unique aspects of the proposal. The format for the summary slides is included as APPENDIX 1 to this BAA and does not count against the page limit of the “Proposal Section II – Summary of Proposal”.

Proposal Section III – Detailed Proposal Information {No more than 32 pages}

A. {7} 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 \textbf{must not} include proprietary information. The SOW \textbf{must} be developed so that each phase of the program (if multiple phases are proposed) is separately defined. It is recommended that the SOW should be developed so that each major task consistent with progress toward the intermediate milestones of the proposed program is separately defined. The SOW \textbf{must} include, for each phase (if
multiple phases are proposed), a table defining the program metrics to be achieved. 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; and
- Define all deliverables (reporting, data, reports, software, etc.) to be provided to the Government in support of the proposed research tasks/activities.

B. Innovative Claims, Technical Rationale and Approach. 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. A concise section, enhancing that of Section II, outlining the scientific and technical challenges, unique approaches, and potential anticipated technical solutions to the challenges that will be addressed. This section should demonstrate that the proposer has a clear understanding of the state-of-the-art; and should provide sufficient technical details so as to permit complete evaluation of the feasibility of the idea. All program metrics must be associated with demonstrable, quantifiable measures of performance and should be summarized in a single table. 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. Additionally, comparison with other ongoing research shall be provided indicating advantages and disadvantages of the proposed effort.

C. Program Plan & Risk Assessment. Detailed program plan and risk assessment enhancing that of Section II. A narrative explaining the explicit timelines, milestone achievements, and quantitative program metrics (to include proposer defined metrics, if applicable) by which progress toward the goals can be evaluated. The proposed period of performance of the overall program, and each program phase, should be clearly stated. The narrative plan should include a specific test plan detailing how all program metrics will be accurately measured. All program metrics must be associated with demonstrable, quantifiable measures of performance, and should be summarized in a single table. 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. This section should also identify major technical risk elements specific to the proposed approach, estimate the risk magnitude for each such element, and describe specific plans to mitigate risk. For each technical area being responded to by the proposal, all program milestones should be described/discussed in detail so reviewers can assess risks associated with meeting them.

D. Teaming and 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; (5) the key personnel along with the amount of effort to be expended by each person during each year; and (6) an assertion that the team
exists as it has been proposed. Please include formal teaming agreements which are required to execute this program.

E. {2} Description of the results, products, transferable technology, and expected technology transfer path enhancing that of Section II.B. See also Section VIII. “Intellectual Property.”

F. {3} Capabilities. Describe proposer’s previous accomplishments, relevant prior work, the background qualifications and relevant experience of team member organizations (prime and sub(s)) and key individuals to be assigned to the program, and the facilities and equipment to be utilized.

G. {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 primes and major subcontractors, total cost, and any company cost share. 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 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.

Proposal Section IV – Additional Information {No more than 5 pages}

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

4.4.1.2. Volume II - Cost Proposal {No page limit}

Please refer to Appendix 2 for the associated Cost Proposal Summary Checklist.

A. The cover sheet should contain the following information:
   - BAA number;
   - Technical area;
   - Lead Organization Submitting proposal;
   - Type of business, selected among the following categories: “LARGE BUSINESS”, “SMALL DISADVANTAGED BUSINESS”, “OTHER SMALL BUSINESS”, “HBCU”, “MI”, “OTHER EDUCATIONAL”, OR “OTHER NONPROFIT”;
   - Contractor’s reference number (if any);
   - Other team members (if applicable) and type of business for each;
   - Proposal title;
   - 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);
   - 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);
• Award instrument requested: cost-plus-fixed-free (CPFF), cost-contract—no fee, cost sharing contract – no fee, or other type of procurement contract (specify), or other transaction;
• Place(s) and period(s) of performance;
• Total proposed cost separated by basic award and option(s) (if any);
• Name, address, and telephone number of the proposer’s cognizant Defense Contract Management Agency (DCMA) administration office (if known);
• Name, address, and telephone number of the proposer’s cognizant Defense Contract Audit Agency (DCAA) audit office (if known);
• Date proposal was prepared;
• DUNS number;
• TIN number;
• Cage code;
• Subcontractor information;
• Proposal validity period (minimum 180 days); and
• Any Forward Pricing Rate Agreements, other such approved rate information, or such other documentation used in developing the cost proposal that may assist in expediting negotiations (if available).

The proposers, to include eligible FFRDCs, cost volume shall provide cost and pricing information (See Note 1) in sufficient detail to substantiate the program price proposed (e.g., realism and reasonableness). In doing so, the proposer shall provide a summary cost breakdown and detailed cost breakdowns by program phase increment (Base, Spiral 1 and Spiral 2), task and month. The breakdown/s shall include, at a minimum, the following major cost item along with associated backup documentation:

B. Total program cost broken down by major cost items:
   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 (See Note 2) – Including 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 – Itemized with costs; Back-up documentation is to be submitted to support proposed costs;
   e. Material/Equipment – 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.
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.

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);

Subcontracts – Itemization of all subcontracts. Additionally, the prime contractor is responsible for compiling and providing, as part of its proposal submission to the Government, subcontract 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 which cannot be uploaded to TFIMS 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 TFIMS submission, subcontract proposals that do not include proprietary pricing information (rates, factors, etc.); and

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

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.).

By Task – The potential prime contractors should provide all non recurring engineering (NRE) costs based on the proposed tasks (systems analysis, system trades, bread-boarding, prototyping, interfacing, testing, field evaluation, and maintenance and repair along with other logistics support to include training), schedule and work breakdown structure (WBS).

DARPA requests and recommends that tables included in the cost proposal also be provided in MS Excel™ format with calculations formulae intact to allow traceability of the cost proposal numbers across the prime and subcontractors. If the PDF submission differs from the Excel submission, the PDF will take precedence. Each copy must be clearly labeled with the DARPA BAA number, proposer organization, and proposal title (short title recommended).

DARPA also requests and recommends that the Cost Proposal include MS Excel file(s) that provide traceability between the Bases of Estimate (BOEs) and the proposed costs across all elements and phases/increments. 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). DARPA prefers receiving cost data as Excel files; however, this is not a requirement.

For information on 845 Other Transaction Authority for Prototypes (OTA) agreements, refer to http://www.darpa.mil/cmo/other_trans.html. All proposers requesting an 845 Other Transaction Authority for Prototypes (OTA) agreement must include a detailed list of milestones. Each such milestone must include the following: milestone description, completion criteria, due date, payment/funding schedule (to include, if cost share is proposed, contractor and Government share amounts). It is noted that, at a minimum, such milestones should relate directly to accomplishment of program technical metrics as defined in the BAA and/or the proposer’s proposal. Agreement type, fixed price or expenditure based, will be subject to negotiation by the Agreements Officer; however, it is noted that the Government prefers use of fixed price milestones with a payment/funding schedule to the maximum extent possible. Do not include proprietary data. If the proposer requests award of an 845 OTA agreement as a nontraditional defense contractor, as so defined in the OSD guide entitled “Other Transactions (OT) Guide For Prototype Projects” dated January 2001 (as amended) (http://www.acq.osd.mil/dpap/Docs/otguide.doc), information must be included in the cost proposal to support the claim. Additionally, if the proposer plans requests award of an 845 OTA agreement, without the required one-third (1/3) cost share, information must be included in the cost proposal supporting that there is at least one non-traditional defense contractor participating to a significant extent in the proposed prototype project.

Note 1: “cost or pricing data” as defined in FAR Subpart 15.4 shall be required if the proposer is seeking a procurement contract award of $650,000 or greater unless the proposer requests an exception from the requirement to submit cost or pricing data. “Cost or pricing data” are not required if the proposer proposes an award instrument other than a procurement contract (e.g., an other transaction). See also FAR Part 15, Table 15-2 for guidance regarding cost proposal content.

Note 2: PROPOSERS ARE CAUTIONED THAT EVALUATION RATINGS MAY BE LOWERED AND/OR PROPOSALS REJECTED IF PROPOSAL PREPARATION AND SUBMITTAL INSTRUCTIONS ARE NOT FOLLOWED.

4.5. SUBMISSION DATES AND TIMES

4.5.1. Proposal Submission Deadline

Proposals must be submitted per the instructions in Section 4.3. Content and Form of Application Submission above by 1200 noon (ET) on July 8, 2010 (final closing) in order to be considered for funding. Proposers are warned that submissions will not be accepted after the final closing date of the BAA.

DARPA will acknowledge receipt of complete submissions via email and assign control numbers that should be used in all further correspondence regarding proposals.
4.6. INTERGOVERNMENTAL REVIEW
Not Applicable.

4.7. FUNDING RESTRICTIONS
Not Applicable.

4.8. OTHER SUBMISSION REQUIREMENTS
Not Applicable.

5. APPLICATION REVIEW INFORMATION

5.1. EVALUATION CRITERIA

The total amount for the Base effort (non-recurring engineering and 15 prototype units) shall not exceed $7,000,000. This monetary threshold is established as a formal minimum requirement of the BAA. A proposal that includes a total amount for the base effort in excess of $7,000,000 will be considered non-responsive and, therefore, will not be evaluated or selected. All responsive proposals will be evaluated as stipulated below.

Evaluation of proposals will be accomplished through a scientific/technical review of each proposal using the following criteria, in order of descending importance: (5.1.1.) Overall Scientific and Technical Merit; (5.1.2.) Potential Contribution and Relevance to the DARPA Mission; (5.1.3.) Proposer’s Capabilities and/or Related Experience; (5.1.4.) Cost and Schedule Realism; and (5.1.5.) Plans and Capability to Accomplish Technology Transition.

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.

The following are descriptions of the evaluation criteria:

5.1.1. Overall Scientific and Technical Merit
The proposed technical approach is feasible, achievable, complete and supported by a proposed technical team that has the expertise and experience to lead and 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 1.2. and provides ample justification as to why the approach(es) is/are feasible. Other factors to be considered will include the structure, clarity, and responsiveness of the statement of work; the quality of
proposed deliverables; and the linkage of the statement of work, technical approach(es), risk mitigation plans, costs, and deliverables of the prime contractor and all subcontractors through a logical, well structured, and traceable technical plan.

5.1.2. Potential Contribution and Relevance to the DARPA Mission

The potential unique contributions of the proposed effort to the national technology base will be evaluated. Specifically, relevance to DARPA’s mission to maintain the technological superiority of the U.S. military and prevent technological surprise from harming our national security by sponsoring revolutionary, high-payoff research that bridges the gap between fundamental discoveries and their application. As such, proposers must address mitigation of life-cycle and sustainment risks associated with transitioning intellectual property for U.S. military applications.

5.1.3. Proposer’s Capabilities and Related Experience

The proposer's prior experience in similar efforts must clearly demonstrate an ability to deliver products that meet the proposed technical performance within the proposed budget and schedule. The proposed team has the expertise to manage the cost and schedule. Similar efforts completed/ongoing by the proposer and by key members of the proposed team in this area are fully described including identification of other Government sponsors. Further, on any cited similar efforts, the proposer should provide the Government an assessment of performance, including the team’s ability to control technical, cost, and schedule against what was originally proposed. Each team member’s responsibilities and work share should be delineated by task.

5.1.4. Cost and Schedule Realism

The objective of this criterion is to establish that the proposed costs and schedule are realistic for the technical and management approach offered, as well as to determine the proposer’s practical understanding of the effort. The proposal will be reviewed to determine if the costs and schedule proposed are based on realistic assumptions, reflect a sufficient understanding of the technical goals and objectives of the BAA, and are consistent with the proposer’s technical approach (to include the proposed Statement of Work). As a minimum, this will involve reviews, at the prime and subcontract level, of the type and number of labor-hours proposed per task as well as the types and kinds of materials (e.g., Bill of Materials), and equipment and fabrication costs proposed.

The costs for all major parts should be supported by firm vendor quotes with delivery schedules. Use of US made parts is encouraged. It is expected that the effort will leverage all available relevant prior research in order to obtain the maximum benefit from the available funding. Company commitment to the success of the proposed program, including management involvement, commitment of key personnel and other non-monetary company resources, risk sharing and for efforts with a likelihood of commercial application, appropriate direct cost sharing may be a positive factor in the evaluation. This evaluation criterion recognizes that undue emphasis on cost may motivate proposers to offer low-risk ideas with minimum uncertainty and to staff the effort with junior personnel in order to be in a more competitive posture. DARPA discourages such cost strategies. The proposer’s abilities to aggressively pursue performance metrics in the shortest timeframe and to accurately substantiate that
timeframe will be evaluated, as well as proposer’s ability to understand, identify, and mitigate any potential risk in cost or schedule.

All production costs provided by potential prime contractors will be evaluated on a manufacturing plan to build, test and deliver 15, 100, 1000 and 5000 systems. A detailed breakdown of the bill of materials (BOM), their costs, suppliers, delivery dates and associated risks should be provided. An exploded view of the system design with all sub-assemblies and parts identified should be submitted with the technical proposal. The cost of the system should be projected based on Prime contractor’s current structure within their existing engineering, manufacturing, and quality processes to arrive at a production recurring cost shown in metric table 1.2 of this BAA. The potential prime contractors will also be evaluated on providing, in their proposals, team members’ and subcontractors’ firm quotes in quantities of 15, 100, 1000, and 5000 for all devices, components and assemblies that make up the system. All assembly and test processes for the manufacturing of the system must be clearly identified along with the proposed touch labor hours. The government dissuades prime contractors who intend to build the product off-shore and/or require substantial capital purchases to deliver production systems to the government.

Additionally, non recurring engineering costs will be evaluated based on teaming members’ and subcontractors’ firm quotes along with experience and ability in the design and fabrication of similar systems. The government recommends potential prime contractors firm up their team members and subcontractors before submitting their technical and cost proposals. Prime contractors who are in negotiations with potential team members or subcontractors at the time of submission will be considered non-responsive to this BAA. Potential prime contractors must have a DCAA audit or auditable accounting system. The government reserves the right to fund all, none or selected proposed tasks.

5.1.5. Plans and Capability to Accomplish Technology Transition

The objective of this criterion is to establish that the capability and plans to transition or to expedite the transition of the technologies and products resulting from this program to the program(s) of record or to the operational military community is reasonable and achievable for the technology(ies) being developed. In addition, the evaluation will take into consideration the extent to which the proposed intellectual property (IP) rights will potentially impact the Government’s ability to transition the technology.

5.2. REVIEW AND RECOMMENDATION PROCESS

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. DARPA’s intent is to review proposals as soon as possible after they arrive; however, proposals may be reviewed periodically for administrative reasons.

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

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. For evaluation purposes, a proposal is the document described in “Proposal Format”, Section 4.4.1. Other supporting or background materials submitted with the proposal will be considered for the reviewer's convenience only and not considered as part of the proposal.

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

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

It is the policy of DARPA to treat all proposals as competitive information and to disclose their contents only for the purpose of evaluation. No proposals will be returned. Upon completion of the scientific review process, the original electronic uploaded file of each proposal received will be retained at DARPA for an indefinite period of time.

6. AWARD ADMINISTRATION INFORMATION

6.1. AWARD NOTICES

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

6.2. MEETING AND TRAVEL REQUIREMENTS

There will be a program kickoff meeting at the performer’s facility 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 at the performer’s facility.

6.3. HUMAN USE

All research involving human subjects, to include use of human biological specimens and human data, selected for funding must comply with the federal regulations for human subject protection. Further, research involving human subjects that is conducted or supported by the DoD must comply with 32 CFR 219, Protection of Human Subjects.
Institutions awarded funding for research involving human subjects must provide documentation of a current Assurance of Compliance with Federal regulations for human subject protection, for example a Department of Health and Human Services, Office of Human Research Protection Federal Wide Assurance [link]. All institutions engaged in human subject research, to include subcontractors, must also have a valid Assurance. In addition, personnel involved in human subjects research must provide documentation of completing appropriate training for the protection of human subjects.

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

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

The amount of time required to complete the IRB review/approval process may vary depending on the complexity of the research and/or the level of risk to study participants. Ample time should be allotted to complete the approval process. The IRB approval process can last between one to three months, followed by a DoD review that could last between three to six months. No DoD/DARPA funding can be used towards human subjects research until ALL approvals are granted.

6.4. ANIMAL USE

Any Recipient performing research, experimentation, or testing involving the use of animals should comply with the rules on animal acquisition, transport, care, handling, and use in: (i) 9 CFR parts 1-4, Department of Agriculture rules that implement the Laboratory Animal Welfare Act of 1966, as amended, (7 U.S.C. 2131-2159); and (ii) the guidelines described in National Institutes of Health Publication No. 86-23, “Guide for the Care and Use of Laboratory Animals.”

For submissions containing animal use, proposals should briefly describe plans for Institutional Animal Care and Use Committee (IACUC) review and approval. Animal studies in the program
All Recipients must receive approval by a DoD certified veterinarian, in addition to an IACUC approval. No animal studies may be conducted using DoD/DARPA funding until the USAMRMC Animal Care and Use Review Office (ACURO) or other appropriate DoD veterinary office(s) grant approval. As a part of this secondary review process, the Recipient will be required to complete and submit an ACURO Animal Use Appendix, which may be found at https://mrmc-www.army.mil/index.cfm?pageid=Research_Protections.acuro&rn=1.

6.5. PUBLIC RELEASE OR DISSEMINATION OF INFORMATION

It is the policy of the Department of Defense that the publication of products of fundamental research will remain unrestricted to the maximum extent possible. The definition of Contracted Fundamental Research is:

“Contracted Fundamental Research includes [research performed under] grants and contracts that are (a) funded by budget category 6.1 (Basic Research), whether performed by universities or industry or (b) funded by budget category 6.2 (Applied Research) and performed on-campus at a university. The research should not be considered fundamental in those rare and exceptional circumstances where the applied research effort presents a high likelihood of disclosing performance characteristics of military systems or manufacturing technologies that are unique and critical to defense, and where agreement on restrictions have been recorded in the contract or grant.” Such research is referred to by DARPA as “Restricted Research.”

Pursuant to DoD policy, research performed under grants and contracts that are (a) funded by budget category 6.2 (Applied Research) and NOT performed on-campus at a university or (b) funded by budget category 6.3 (Advanced Research) does not meet the definition of fundamental research. Publication restrictions will be placed on all such research.

Research to be performed as a result of this BAA is expected to be Non-fundamental. DARPA permission must be received before publishing any information or results relative to the program. Other restrictions may also apply.

Proposers are advised if they propose grants or cooperative agreements, DARPA may elect to award other award instruments due to the need to apply publication or other restrictions. DARPA will make this election if it determines that the research resulting from the proposed program 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 and will be considered Restricted Research.

For certain research projects, it may be possible that although the research being performed by the Prime Contractor is Restricted Research, a subcontractor may be conducting Contracted Fundamental Research. In those cases, it is the Prime Contractor’s responsibility to explain in their proposal why its subcontractor’s effort is Contracted Fundamental Research.
The following same or similar provision will be incorporated into any resultant Restricted Research procurement contract or other transaction:

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

When submitting material for written approval for open publication as described in subparagraph (a) above, the Contractor must submit a request for public release request to the DARPA PRC and include the following information: 1) Document Information: document title, document author, short plain-language description of technology discussed in the material (approx 30 words), number of pages (or minutes of video) and document type (briefing, report, abstract, article, or paper); 2) Event Information: event type (conference, principle investigator meeting, article or paper), event date, desired date for DARPA's approval; 3) DARPA Sponsor: DARPA Program Manager, DARPA office, and contract number; and 4) Contractor's Information: POC name, e-mail and phone. Allow four weeks for processing; due dates under four weeks require a justification. Unusual electronic file formats may require additional processing time. Requests can be sent either via e-mail to prc@darpa.mil or via 3701 North Fairfax Drive, Arlington VA 22203-1714, telephone (571) 218-4235. Refer to www.darpa.mil/prc for information about DARPA's public release process.

6.6. EXPORT CONTROL

The following clause will be included in all procurement contracts, and may be included in Other Transactions as deemed appropriate:

(a) Definition. “Export-controlled items,” as used in this clause, means items subject to the Export Administration Regulations (EAR) (15 CFR Parts 730-774) or the International Traffic in Arms Regulations (ITAR) (22 CFR Parts 120-130). The term includes:

1) “Defense items,” defined in the Arms Export Control Act, 22 U.S.C. 2778(j)(4)(A), as defense articles, defense services, and related technical data, and further defined in the ITAR, 22 CFR Part 120.

2) “Items,” defined in the EAR as “commodities”, “software”, and “technology,” terms that are also defined in the EAR, 15 CFR 772.1.
(b) The Contractor shall comply with all applicable laws and regulations regarding export-controlled items, including, but not limited to, the requirement for contractors to register with the Department of State in accordance with the ITAR. The Contractor shall consult with the Department of State regarding any questions relating to compliance with the ITAR and shall consult with the Department of Commerce regarding any questions relating to compliance with the EAR.

(c) The Contractor's responsibility to comply with all applicable laws and regulations regarding export-controlled items exists independent of, and is not established or limited by, the information provided by this clause.

(d) Nothing in the terms of this contract adds, changes, supersedes, or waives any of the requirements of applicable Federal laws, Executive orders, and regulations, including but not limited to—

(1) The Export Administration Act of 1979, as amended (50 U.S.C. App. 2401, et seq.);

(2) The Arms Export Control Act (22 U.S.C. 2751, et seq.);


(4) The Export Administration Regulations (15 CFR Parts 730-774);

(5) The International Traffic in Arms Regulations (22 CFR Parts 120-130);

and

(6) Executive Order 13222, as extended;

(e) The Contractor shall include the substance of this clause, including this paragraph (e), in all subcontracts.

6.7. SUBCONTRACTING

Pursuant to Section 8(d) of the Small Business Act (15 U.S.C. 637(d)), it is the policy of the Government to enable small business and small disadvantaged business concerns to be considered fairly as subcontractors to contractors performing work or rendering services as prime contractors or subcontractors under Government contracts, and to assure that prime contractors and subcontractors carry out this policy. Each proposer who submits a contract proposal and includes subcontractors is required to submit a subcontracting plan in accordance with FAR 19.702(a) (1) and (2) should do so with their proposal. The plan format is outlined in FAR 19.704.
6.8. ELECTRONIC AND INFORMATION TECHNOLOGY

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

6.9. EMPLOYMENT ELIGIBILITY VERIFICATION

As per FAR 22.1802, recipients of FAR-based procurement contracts must enroll as Federal Contractors in E-verify and use E-Verify to verify employment eligibility of all employees assigned to the award. All resultant contracts from this solicitation will include FAR 52.222-54, “Employment Eligibility Verification.” This clause will not be included in grants, cooperative agreements, or Other Transactions.

6.10. REPORTING

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

6.10.1. Central Contractor Registration (CCR)

Selected proposers not already registered in the Central Contractor Registry (CCR) will be required to register in CCR prior to any award under this BAA. Information on CCR registration is available at http://www.ccr.gov.

6.10.2. Representations and Certifications

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

6.10.3. Wide Area Work Flow (WAWF)

Unless using another approved electronic invoicing system, performers will be required to submit invoices for payment directly via the Internet/WAWF at http://wawf.eb.mil. Registration to WAWF will be required prior to any award under this BAA.
6.10.4. T-FIMS
The award document for each proposal selected and funded will contain a mandatory requirement for four DARPA Quarterly Status Reports each year, one of which will be an annual project summary. These reports will be electronically submitted by each awardee under this BAA via the DARPA Technical – Financial Information Management System (T-FIMS). The T-FIMS URL and instructions will be furnished by the contracting agent upon award.

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

6.12. AGENCY CONTACTS
Administrative, technical or contractual questions should be sent via e-mail to DARPA-BAA-10-67@darpa.mil; the preferred method of communication. If e-mail is not available, fax questions to (703) 741-3880, Attention: DARPA-BAA-10-67. All requests must include the name, email address, and phone number of a point of contact.

- **Technical POC** – Dr. Deepak Varshneya, Program Manager, DARPA
  - EMAIL: DARPA-BAA-10-67@darpa.mil
  - FAX: (703) 741-3880
  - ATTN: DARPA-BAA-10-67
    3701 North Fairfax Drive
    Arlington, VA 22203-1714

7. OTHER INFORMATION

7.1. INTELLECTUAL PROPERTY

a. **Procurement Contract Proposers**

   i. **Noncommercial Items (Technical Data and Computer Software)**

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

<table>
<thead>
<tr>
<th>NONCOMMERCIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Data</td>
</tr>
<tr>
<td>Computer Software</td>
</tr>
<tr>
<td>(LIST)</td>
</tr>
</tbody>
</table>

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

ii. Commercial Items (Technical Data and Computer Software)

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

A sample list for complying with this request is as follows:
Proposers responding to this BAA requesting a Procurement Contract or Other Transaction 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 those award instruments in question. This includes both Noncommercial Items and Commercial Items. Although not required, proposers may use a format similar to that described above. The Government may use the list during the scientific review process to evaluate the impact of any identified restrictions, and may request additional information from the proposer, as may be necessary, to evaluate the proposer's assertions. If no restrictions are intended, then the proposer should state “NONE.” Failure to provide full information may result in a determination that the proposal is not compliant with the BAA – resulting in nonselectability of the proposal.

c. **All Proposers – Patents**

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

d. **All Proposers – Intellectual Property Representations**

Provide a good faith representation that you either own or possess appropriate licensing rights to all other intellectual property that will be utilized under your proposal for the DARPA program. Additionally, proposers shall provide a short summary for each item asserted with less than unlimited rights that describes the nature of the restriction and the intended use of the intellectual property in the conduct of the proposed research.

```
| COMMERCIAL |
|-------------|-------------|-------------|-------------|-------------|
| Technical Data | Summary of Intended Use in the Conduct of the Research | Basis for Assertion | Asserted Rights Category | Name of Person Asserting Restrictions |
| Computer Software | To be Furnished With Restrictions | (LIST) | (LIST) | (LIST) |
| (LIST) | (NARRATIVE) | (LIST) | (LIST) | (LIST) |
```

8. APPENDIX I - PROPOSAL SLIDE SUMMARY

<table>
<thead>
<tr>
<th>Organization Name</th>
<th>Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Describe How It Works / Innovative Claims</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Organization Name</th>
<th>Contract/Proposal Specifics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Intellectual Property</td>
</tr>
<tr>
<td></td>
<td>• Data rights summary</td>
</tr>
<tr>
<td></td>
<td>• Deliverables</td>
</tr>
</tbody>
</table>
## Schedule/Cost

<table>
<thead>
<tr>
<th>Organization Name</th>
<th>Schedule/Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Phase I</td>
</tr>
<tr>
<td></td>
<td># Months</td>
</tr>
<tr>
<td></td>
<td>$##M</td>
</tr>
</tbody>
</table>

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

## Topic/Project/Effort Description

### Status Quo
- What is the state of the art and what are its limitations?
  - Replace this box of text and insert diagrams as necessary.

- Primary answer here. Add more text as necessary:
  - First bullet point
  - Additional as necessary

### New Insights
- What are the key new insights?
  - Replace this box and insert diagrams as necessary.

- First key insight. Add more text as necessary.
- Second key insight. Add more text as necessary.
- Additional as necessary

### Main Achievement
- Placeholder explanatory text. Replace with text and diagrams as necessary.

### How It Works
- Placeholder explanatory text paragraph. Replace with text and diagrams as necessary.

### Assumptions and Limitations
- Limitation or assumption
- Another limitation or assumption

### Characterize the Quantitative Impact
- Placeholder explanatory text. Replace with text and diagrams as necessary.

### What are the end-of-phase goals?
- Replace with diagram/threshold criteria.

### End-of-Phase Goal
- Primary answer here. Add more text as necessary:
  - First key point
  - Additional as necessary

### A sentence why it is important/useful
9. APPENDIX 2 - COST VOLUME CHECKLIST

The following checklist and sample templates are provided to assist the proposer in developing a complete and responsive cost volume. Full instructions appear in 4.4.2.2 “Volume II, Cost Proposal” beginning on Page 21 of DARPA-BAA-10-67. This worksheet must be included with the coversheet of the Cost Proposal.

1. Are all items from Section IV.B.6 (Volume II, Cost Proposal) of DARPA BAA 10-67 included on your Cost Proposal cover sheet?
   ○ YES  ○ NO
   If reply is “No”, please explain:

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

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

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

5. Does your cost proposal include a complete itemized list of all material and equipment items to be purchased (a priced bill-of-materials (BOM))?  
   ○ YES  ○ NO  Appears on Page(s) [Type text]

If reply is “No”, please explain:

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

If reply is “No”, please explain:

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

If reply is “No”, please explain:

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

9. Does your cost proposal include copies of all subcontractor/consultant technical (to include Statement of Work) and cost proposals?  
   ○ YES  ○ NO  Appears on Page(s) [Type text]

If reply is “No”, please explain:

10. Do all subcontract proposals include the required summary buildup, detailed cost buildup, and supporting documentation (SOW, Bill-of-Materials, Basis-of-Estimate, Vendor Quotes, etc.)?  
    ○ YES  ○ NO  Appears on Page(s) [Type text]

If reply is “No”, please explain:

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

12. If requesting a FAR-based contract, does your cost proposal include a tech/cost analysis for all proposed subcontractors?  
    ○ YES  ○ NO  Appears on Page(s) [Type text]

If reply is “No”, please explain:
13. Have all team members (prime and subcontractors) who are considered a Federally Funded Research & Development Center (FFRDC), included documentation that clearly demonstrates work is not otherwise available from the private sector AND provided a letter on letterhead from the sponsoring organization citing the specific authority establishing their eligibility to propose to government solicitations and compete with industry, and compliance with the associated FFRDC sponsor agreement and terms and conditions?

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

If reply is “No”, please explain:

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

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

If reply is “No”, please explain:

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

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

If reply is “No”, please explain: