Broad Agency Announcement (BAA)

MOIRE

Membrane Optic Imager Real-Time Exploitation

Defense Advanced Research Projects Agency
DARPA/Tactical Technology Office (TTO)
3701 N. Fairfax Drive
Arlington, VA 22203-1714

DARPA BAA 10-51

DATE: 26 Mar 2010
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Part One: Overview Information

- **Federal Agency Name** – Defense Advanced Research Projects Agency (DARPA), Tactical Technology Office
- **Funding Opportunity Title** – MOIRE, Membrane Optic Imager Real-Time Exploitation
- **Announcement Type** – Initial Broad Agency Announcement (BAA)
- **Funding Opportunity Number** – DARPA-BAA-10-51
- **Catalog of Federal Domestic Assistance Numbers (CFDA) - Not applicable**
- **Dates**
  - Posting Date – 26 Mar 2010
  - Proposers’ Day – 08 Apr 2010
  - Questions Due Date – 15 Apr 2010
  - Proposal Due Date – 1600 local Arlington, VA time on 11 May 2010
  - BAA Closing Date – 11 May 2010

- **Current estimated total amount of money to be awarded** – Phase 1, $8-10M; Phase 2, $30-40M anticipated
- **One to two $4-5M awards are anticipated for Phase 1.**
- **Types of instruments that may be awarded** – Procurement contract
- **Agency technical contact** – Dr. Derek Tournear, Program Manager, DARPA/TTO
  - EMAIL: BAA10-51@darpa.mil.
  - DARPA/TTO
    - ATTN: DARPA-BAA-10-51
    - 3701 North Fairfax Drive
    - Arlington, VA 22203-1714
Part Two: Full Text of Announcement

1. FUNDING OPPORTUNITY DESCRIPTION
The Defense Advanced Research Projects Agency often selects its research efforts through the Broad Agency Announcement (BAA) process. This BAA is being issued, and any resultant selection will be made, using procedures under FAR Part 35.016. Proposals received as a result of this BAA shall be evaluated in accordance with evaluation criteria specified herein through a scientific review process. The BAA will appear first on the FedBizOpps website, http://www.fbo.gov/. The following information is for those wishing to respond to the BAA.

DARPA is soliciting innovative system-oriented research proposals in the area of large, low cost, lightweight, deployable, visible and/or infrared electro-optical systems for persistent, tactical, real-time video over denied territory for missile launch detection and tracking from geosynchronous orbit. Proposed research should investigate innovative approaches that enable revolutionary advances in such systems. Specifically excluded is research that primarily results in evolutionary improvements to the existing state of practice.

1.1. PROGRAM OVERVIEW
The MOIRE program will provide persistent, real-time, tactical video and missile launch detection and tracking to the war fighter. Development of diffractive membrane optics may facilitate low-cost geosynchronous imaging. All designs must be traceable to an operational 20 m system providing 24/7 visible NIIRS 3.5+ coverage over denied areas with at least a 1 Hz update rate, FOV > 100 km², field of regard > 10⁸ km² with a designed cost not to exceed $500M a copy after initial NRE. This set of criteria is hereafter referred to as the objective Design Reference Mission (DRM).

DARPA seeks complete balanced innovative system-oriented proposals for MOIRE which address all the following important technical factors:

[1] Large low cost, lightweight, deployable, diffractive membrane optics for geosynchronous orbit imaging systems.

[2] Near real time image stabilization and tactical geolocation knowledge, exploiting exquisitely accurate attitude determination and control systems and ground truth controls

[3] A telescope design that increases spectral bandwidth

[4] Stability and dynamics of the large MOIRE structure in geosynchronous orbit

[5] Target motion detection capability at > 0.1 Hz

[6] Probability of detection for a SCUD-class launch of 0.99, with less than one false alarm per month.
1.1.1. Phase 1 (Base)
Phase 1 (Payload Proof of Concept) will prove optical component performance necessary to meet an objective system optical design. This phase will validate the required optical prescription, design and structure of the optical system. Major optical risks will be retired. Phase 1 will incorporate testing of a 1 m diameter primary optic and coupon level validation of material selection for space flight. Phase 1 will end with a System Concept Design Review and a Payload Preliminary Design Review.

1.1.2. Phase 2 (Priced Option)
Phase 2 (System Design) will develop and validate the optical system design that is traceable to the system concept. Phase 2 will incorporate fabrication and testing of a 5 m brassboard telescope showing a path to flight. Membrane fabrication must be traceable to flight in this phase. Phase 2 will also incorporate either sub-scale or fractional demonstration of the payload deployment concept. Phase 2 will end with a System Preliminary Design Review.

1.1.3. Phase 3 (ROM cost & schedule)
A possible Phase 3 (System Demonstration—not part of this BAA) would design, build, launch and demonstrate at geosynchronous orbit a deployable 10 meter space telescope using a diffractive optics membrane. This on-orbit demo would validate modeling, simulation and ground testing done in Phases 1 and 2 and show traceability to an operational 20 m system meeting the requirements of the DRM. The demonstration must be capable of being launched as a secondary payload on an EELV-M with a 5 m fairing, with a launch mass < 1000 kg. A Critical Design Review (CDR) will be conducted early in this phase.

1.2 PROGRAM METRICS
For the Government to evaluate the effectiveness of a proposed solution in achieving the stated program objectives, proposers should note that the Government 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 the government has identified these goals with the intention of bounding the scope of effort, while affording the maximum flexibility, creativity, and innovation in proposing solutions to the stated problem.

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>Phase</th>
<th>Months After Contract Award</th>
<th>Program Metrics</th>
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| 1 (Base) | To Be Specified by Performer | - Fabricate And Test: 1 meter Primary Optic  
- Measure Spatial: PSF & Efficiency  
- Measure Spectral: Over a minimum of 50 nm Band Pass  
- Maturity: Breadboard primary optic demonstration  
- Space Environmental Testing: Coupon Level  
- Modeling And Simulation: Packaging And Deployments Sims and/or demos At Concept Design Review (CoDR) Level  
- Present At Payload Preliminary Design Review (PDR) using: |
2. AWARD INFORMATION
Multiple Phase 1 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, grant, cooperative agreement, 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,' i.e., 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 shall 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 full needs may submit a proposal that shall 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 announcement 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 meet the following conditions.

- FFRDCs must clearly demonstrate that the work is not otherwise available from the private sector AND they also 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.

Foreign participants and/or individuals may participate to the extent that such participants comply with any necessary Non-Disclosure Agreements, Security Regulations, Export Control Laws, and other governing statutes applicable under the circumstances.

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

It is anticipated that Phase 3 and possibly Phase 2 will require access to classified information. Therefore, all prime applicants need to hold current Top Secret Facility Clearances or an ability to obtain clearance in Phase 1.

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. Derek Tournear. 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 BAA10-51@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
Not applicable.

3.3 OTHER ELIGIBILITY REQUIREMENTS

3.3.1 Collaborative Efforts
Collaborative efforts/teaming are encouraged.

4. APPLICATION AND SUBMISSION INFORMATION

4.1 ADDRESS TO REQUEST APPLICATION PACKAGE
This solicitation contains all information required to submit a proposal. No additional forms, kits, or other materials are needed. This notice 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 shall be appropriately and conspicuously marked with the proposed classification level and declassification date. Submissions requiring DARPA to make a final classification determination shall be marked as follows:

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

Classified submissions shall 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 (USPS) 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 shall be sealed and plainly marked with the assigned classification and addresses of both sender and addressee. The inner envelope shall be address to:

Defense Advanced Research Projects Agency  
ATTN: Tactical Technology Office  
Reference: DARPA-BAA-10-51  
3701 North Fairfax Drive  
Arlington, VA 22203-1714

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

Defense Advanced Research Projects Agency  
Security & Intelligence Directorate, Attn: CDR  
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 Classified Document Registry (CDR). Prior to traveling, the courier shall 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 SAP Control Office (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 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 initial round of selections. Selection remains contingent on availability of funds.

Proposals shall fully cost Phases I and Phase 2 (Option). A Rough Order of Magnitude (ROM) costing shall be provided for a possible Phase 3. Should DARPA elect to proceed with a third phase, a separate solicitation will be issued. The Phase 3 ROM costing requested in this BAA is intended for DARPA program planning only. Any Phase 3 award will be based on the separate Phase 3 solicitation.

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.

Classified proposals shall be submitted as specified in paragraph 4.2 above.
DARPA will accept unclassified proposals submitted under this BAA by mail or hand-delivery. Proposals must be submitted to:

DARPA/TTO
ATTN: DARPA-BAA-10-51
3701 North Fairfax Drive
Arlington, VA 22203-1714
Attn: Dr. Derek Tournear

Proposals must be submitted in hard copy, with six (6) signed original technical volume, six (6) cost volumes, plus two electronic copies on PC formatted CD-ROMs. Each copy must be clearly labeled with DARPA-BAA-10-51, Proposer organization and proposal title (short title recommended). Facsimile or electronic submissions will not be accepted.

For hand deliveries, the courier should deliver the package to the DARPA Visitor Control Center at the address specified above. The outer package, as well as the cover page of the proposal, must be marked “DARPA-BAA-10-51”.

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 the administrative address listed in section 6.12. DARPA intends to use electronic mail for correspondence regarding DARPA BAA 10-51. Proposals may not be submitted by fax or e-mail; any so sent will be disregarded. DARPA encourages use of the Internet for retrieving the BAA and any other related information that may subsequently be provided.

4.3.2 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, shall-

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

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

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

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

4.4 FORMATTING CHARACTERISTICS

4.4.2 Proposal Format
All proposals must be in the format given below. Nonconforming proposals may be rejected without review. Proposals shall consist of two volumes. All pages shall be printed on 8-1/2 by 11 inch paper with type not smaller than 12 point. Smaller font may be used for figures, tables and charts. The page limitation for proposals includes all figures, tables, and charts. Volume I, Technical and Management Proposal, may include an attached bibliography of relevant technical papers or research notes (published and unpublished) which document the technical ideas and approach upon which the proposal is based. Copies of not more than three (3) relevant papers 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. Maximum page lengths for each section are shown in braces { } below. All proposals must be written in English.

4.4.2.1 Volume I, Technical and Management Proposal

Section I. Administrative {No page limit}
A. Cover sheet to include:
   (1) BAA number
   (2) Technical area
   (3) Lead Organization submitting proposal
   (4) Type of business, selected among the following categories: “LARGE BUSINESS”, “SMALL DISADVANTAGED BUSINESS”, “OTHER SMALL BUSINESS”, “HBCU”, “MI”, “OTHER EDUCATIONAL”, OR “OTHER NONPROFIT”
   (5) Contractor’s reference number (if any)
   (6) Other team members (if applicable) and type of business for each
   (7) Proposal title
   (8) Technical point of contact to include: salutation, last name, first name, street address, city, state, zip code, telephone, fax (if available), electronic mail (if available)
   (9) Administrative point of contact to include: salutation, last name, first name, street address, city, state, zip code, telephone, fax (if available), electronic mail (if available), total funds requested from DARPA, and the amount of cost share (if any) and
   (10) Date proposal was submitted.
B. Official transmittal letter.
C. Table of Contents.
D. Evaluation factor Compliance Matrix – A table listing all the technical evaluation factors/criteria described in Section 5.1 of the BAA, and providing cross references to the
sections of the proposer’s proposal where specific evaluation factor/criteria compliance is discussed.

E. Single briefing chart summary.

Section II. Summary of Proposal {No more than 15 pages}

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

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

C. 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. **Note: Measurable milestones should capture key development points and program metrics (see Para 1.2) in tasks and should be clearly articulated and defined in time relative to start of effort.** These milestones should enable and support a decision for the next part of the effort. Additional interim non-critical management milestones are also highly encouraged at a regular interval.

D. Technical rationale, technical approach, and constructive plan for accomplishment of technical goals in support of innovative claims and deliverable production. (In the proposal, this section should be supplemented by a more detailed plan in Section III.)

E. General discussion of other research in this area.

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

G. 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 2 to this BAA and does not count against the page limit.

Section III. Detailed Proposal Information {No more than 50 pages}

A. Statement of Work (SOW) - In plain English, clearly define the technical tasks/subtasks to be performed, their durations, and dependencies among them. It is recommended that the SOW be developed so that each Phase of the program is separately defined. The page length for the SOW will be dependent on the amount of the effort. Do not include any proprietary information in the SOW. 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—products, events or milestones that define its completion.
• Define all deliverables (reporting, data, reports, software, etc.) to be provided to the Government in support of the proposed research tasks/activities.

B. Description of the results, products, transferable technology, and expected technology transfer path enhancing that of Section II. B.

C. Detailed technical rationale enhancing that of Section II.

D. Detailed technical approach enhancing and completing that of Section II.

E. Comparison with other ongoing research indicating advantages and disadvantages of the proposed effort.

F. Discussion of proposer’s previous accomplishments and work in closely related research areas.

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

H. Detail support enhancing that of Section II, including formal teaming agreements which are required to execute this program.

I. Cost schedules and measurable milestones for the proposed research, including estimates of cost for each task in each year of the effort delineated by the primes and major subcontractors, total cost, and any company cost share. **Note: Measurable milestones should capture key development points in tasks and should be clearly articulated and defined in time relative to start of effort.** These milestones should enable and support a decision for the next part of the effort. **Additional interim non-critical management milestones are also highly encouraged at regular intervals.** Where the effort consists of multiple portions which could reasonably be partitioned for purposes of funding, these should be identified as options with separate cost estimates for each. Additionally, proposals should clearly explain the technical approach(es) that will be employed to meet or exceed each program metric and provide ample justification as to why the approach(es) is/are feasible.

**Section IV. Additional Information** {No more than 15 pages}

Acronym list and 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.

4.4.2.2 Volume II, Cost Proposal – {No Page Limit}

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

Detailed cost breakdown to include:
(1) total program cost broken down by major cost items to include:
   a) direct labor, including individual labor categories or persons, with associated labor hours and numbered direct labor rates
   b) If consultants are to used, proposer must provide consultant agreement or other document which verifies the proposed loaded daily/hourly rate
   c) Indirect costs including Fringe Benefits, Overhead, General and Administrative Expense, Cost of Money, etc. (Must show base amount and rate)
   d) Travel – Number of trips, number of days per trip, departure and arrival destinations, number of people, etc.
   e) Other Direct Costs – Should be itemized with costs or estimated costs. Backup documentation should be submitted to support proposed costs.
(2) major program tasks by fiscal year;
(3) an itemization of major subcontracts and equipment purchases, to include: a cost proposal as detailed as the Proposer’s cost proposal; the subcontractor’s cost proposal can be provided in a sealed envelope with the Proposer’s cost proposal. Materials should be specifically itemized with costs or estimated costs. An explanation of any estimating factors, including their derivation and application, shall be provided. Please include a brief description of the Proposers’ procurement method to be used;
(4) an itemization of any information technology (IT) purchase including subcontractor cost
   (NOTE: For IT equipment purchases, include a letter stating why the proposer cannot provide the requested resources from its own funding);
(5) a summary of projected funding requirements by month; and
(6) the source, nature, and amount of any industry cost-sharing. Where the effort consists of multiple portions which could reasonably be partitioned for purposes of funding, these
should be identified as options with separate cost estimates for each; and identification of pricing assumptions of which may require incorporation into the resulting award instrument (e.g., use of Government Furnished / Facilities / Information, access to Government Subject Matter Expert/s, etc.

The prime contractor is responsible for compiling and providing all subcontractor proposals for the Procuring Contracting Officer (PCO). Subcontractor proposals should include Interdivisional Work Transfer Agreements (ITWA) or similar arrangements.

Any negotiations and/or awards will use procedures under FAR 15.4, Contract Pricing, as specified in the BAA. Supporting cost and pricing information in sufficient detail to substantiate the summary cost estimates in Section II C. above. Include a description of the method used to estimate costs and supporting documentation. Note: “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 proposers request an exception from the requirement to submit cost of pricing data. “Cost or pricing data” are not required if the proposer proposes an award instrument other than a procurement contract (e.g., a grant, cooperative agreement, or other transaction). All proprietary subcontractor proposal documentation, prepared at the same level of detail as that required of the prime shall be provided to the Government either by the prime contractor or by the subcontractor organization when the proposal is submitted. Subcontractor proposals submitted to the Government by the prime contractor should be submitted in a sealed envelope that the prime contractor will not be allowed to view. The subcontractor must provide the same number of hard copies and/or electronic proposals as is required of the prime contractor.

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

4.5 SUBMISSION DATES AND TIMES

4.5.1 Proposal Submission Deadline
The proposal must be submitted to DARPA/TTO, Attn: Dr. Derek Tournear, 3701 N. Fairfax Drive, Arlington VA 22203-1714 on or before 4:00 p.m., local Arlington, VA time, 11 May 2009. Submissions received after this time and date may not be reviewed.

DARPA will post a consolidated Question and Answer response after BAA release, before proposals are due. In order to receive a response to your question, submit your question to BAA10-51@darpa.mil.

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

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

Evaluation of proposals will be accomplished through a scientific/technical review of each proposal using the following in descending order of importance: (a) Technical Approach, Including Scientific and Technical Merit; (b) Potential Contribution and Relevance to the DARPA Mission; (c) Proposers Capabilities and Related Experience; (d) Cost and Schedule Realism, and Management Approach; and, (e) 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. The following are descriptions of the evaluation criteria:

5.1.1 Technical Approach, Including 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 must address the factors and detail criteria list in the following Table:
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.

5.1.3 Proposers Capabilities and Related Experience

The objective of this criterion is to establish that the proposer possesses capabilities and experience to ensure a high likelihood of success in assembling a team and executing the tasks required under awards under this BAA.
### Evaluation Factors

<table>
<thead>
<tr>
<th>Capabilities and Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>The proposer must demonstrate their ability to plan, organize staff, manage tasks, subcontracts and costs, and successfully execute the proposed work.</td>
</tr>
</tbody>
</table>

### Evaluation Criteria

1. The proposer’s past and present capabilities and experience relative to the planned work. The prime contractor should have recent experience (within the last 36 months) with successful space systems integration and demonstrated understanding of the complete design process from inception through delivery of space hardware.

2. Selection of key personnel with the range of skills and expertise required to accomplish the tasking and their availability for the duration of the program.

3. Proposer’s resources, facilities, and experience for testing large optics.

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### 5.1.4 Cost and Schedule Realism and Management Approach

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). At a minimum, this will involve review, 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, equipment, and fabrication costs proposed. 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 may be positive factors in the evaluation. Any limitations in rights to deliverables may be considered 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. The capability of the entire team (including subcontractors, if any) to work together to successfully execute all aspects of the program will be evaluated.
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 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.

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. Award(s) may be made to any proposer(s) whose proposal(s) is determined selectable regardless of its overall rating.

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 4.4.2. Other supporting or background materials submitted with the proposal will be considered for the reviewer's convenience only and not considered as part of the proposal.

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

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

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

6. AWARD ADMINISTRATION INFORMATION

6.1 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 letter to the Technical POC identified on the proposal coversheet.

6.2 MEETING AND TRAVEL REQUIREMENTS
The Government will require a Phase 1 contract kickoff meeting at the proposer’s facility and will make periodic visits for other meetings to assess progress. As noted in APPENDIX 1 “Deliverables”, such meetings will include, as a minimum, periodic status reviews, quarterly reviews, Technical Interchange Meeting (TIMs), a Conceptual Design Review (CoDR), a System Requirements Review (SRR), and a Preliminary Design Review (PDR). As required, other meetings and test events at Government facilities will also occur. Proposers should provide a plan and basis of estimate (BOE) for such meetings and travel in their proposal.

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 (http://www.dtic.mil/biosys/downloads/32cfr219.pdf), and DoD Directive 3216.02, Protection of Human Subjects and Adherence to Ethical Standards in DoD-Supported Research (http://www.dtic.mil/whs/directives/corres/pdf/321602p.pdf).

Institutions awarded funding for research involving human subjects must provide documentation of a current Assurance of Compliance with Federal regulations for human subject protection, for example a Department of Health and Human Services, Office of Human Research Protection Federal Wide Assurance (http://www.hhs.gov/ohrp). All institutions engaged in human subject research, to include subcontractors, must also have a valid Assurance. In addition, personnel involved in human subject 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 subject 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 subject research until ALL approvals are granted.

6.4 ANIMAL USE
Any Recipient performing research, experimentation, or testing involving the use of animals shall 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”; (iii) DoD Directive 3216.01, “Use of Laboratory Animals in DoD Program.”

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 will be expected to comply with the PHS Policy on Humane Care and Use of Laboratory Animals, available at [http://grants.nih.gov/grants/olaw/olaw.htm](http://grants.nih.gov/grants/olaw/olaw.htm).

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.amedd.army.mil/AnimalAppendix.asp](https://mrmc.amedd.army.mil/AnimalAppendix.asp).

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 shall 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)
fundied by budget category 6.3 (Advanced Research) does not meet the definition of fundamental research. Publication restrictions will be placed on all such research.

It is anticipated that the performance of research resulting from this BAA is non-fundamental.

Proposers are advised if they propose grants or cooperative agreements, DARPA may elect to award other award instruments. 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 or Non-Fundamental Research procurement contract or other transaction:

(a) There shall 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 Technical Information Officer (DARPA/TIO). 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.

(b) 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 TIO 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 tio@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
All aspects of this project which develop beyond fundamental research (basic and applied research ordinarily published and shared broadly within the scientific community) with military or dual-use applications the following apply:

(1) The Contractor shall comply with all U. S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120 through 130, and the Export Administration Regulations (EAR), 15 CFR Parts 730 through 799, in the performance of this contract. In the absence of available license exemptions/exceptions, the Contractor shall be responsible for obtaining the appropriate licenses or other approvals, for obtaining the appropriate licenses or other approvals, if required, for exports of (including deemed exports) hardware, technical data, and software, or for the provision of technical assistance.

(2) The Contractor shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of this contract, including instances where the work is to be performed on-site at any Government installation (whether in or outside the United States), where the foreign person will have access to export-controlled technologies, including technical data or software.

(3) The Contractor shall be responsible for all regulatory record keeping requirements associated with the use of licenses and license exemptions/exceptions.

(4) The Contractor shall be responsible for ensuring that the provisions of this clause apply to its subcontractors.

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
Not Applicable. There will be no electronic or information technology (EIT) procured under this announcement.

6.9 EMPLOYMENT ELIGIBILITY VERIFICATION
(For FAR-Based Awards Only)
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 those listed and specified in the BAA APPENDIX 1 “Deliverables”. The reports shall be prepared and submitted in accordance with the procedures contained in the award document and mutually agreed on before award. At least one copy of each report will be delivered to DARPA and not merely placed on a web/share point site. 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 shall 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.

6.11 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 BAA10-51@darpa.mil. All requests must include the name, email address, and phone number of a point of contact.

• Agency technical contact – Dr. Derek Tournear, Program Manager, DARPA/TTO
  o EMAIL: BAA10-51@darpa.mil.
  o DARPA/TTO
    ATTN: DARPA-BAA-10-51
    3701 North Fairfax Drive
    Arlington, VA 22203-1714

7. OTHER INFORMATION

7.1 INTELLECTUAL PROPERTY

7.1.1 Procurement Contract Proposers
7.1.1.1 Noncommercial Items (Technical Data and Computer Software)
Proposers responding to this BAA requesting a procurement contract to be issued under the FAR/DFARS, shall identify all noncommercial technical data, and noncommercial computer software that it plans to generate, develop, and/or deliver under any proposed award instrument in which the Government will acquire less than unlimited rights, and to assert specific restrictions on those deliverables. Proposers shall follow the format under DFARS 252.227-7017 for this stated purpose. In the event that proposers do not submit the list, the Government will assume that it automatically has “unlimited rights” to all noncommercial technical data and noncommercial computer software generated, developed, and/or delivered under any award instrument, 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 will use the list during the source selection evaluation process to evaluate the impact of any identified restrictions, and may request additional information from the proposer, as may be necessary, to evaluate the proposer’s assertions. If no restrictions are intended, then the proposer should state “NONE.”

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

<table>
<thead>
<tr>
<th>NONCOMMERCIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Data Computer Software To be Furnished With Restrictions</td>
</tr>
<tr>
<td>(LIST)</td>
</tr>
</tbody>
</table>

7.1.1.2 Commercial Items (Technical Data and Computer Software)
Proposers responding to this BAA requesting a procurement contract to be issued under the FAR/DFARS, shall identify all commercial technical data, and commercial computer software that may be embedded in any noncommercial deliverables contemplated under the research effort, along with any applicable restrictions on the Government’s use of such commercial technical data and/or commercial computer software. In the event that proposers do not submit the list, the Government will assume that there are no restrictions on the Government’s use of such commercial items. The Government may use the list during the source selection evaluation process to evaluate the impact of any identified restrictions, and may request additional information from the proposer, as may be necessary, to evaluate the proposer’s assertions. If no restrictions are intended, then the proposer should state “NONE.”
A sample list for complying with this request is as follows:

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

7.1.2 Non-Procurement Contract Proposers

7.1.2.1 Noncommercial and Commercial Items (Technical Data and Computer Software) Proposers responding to this BAA requesting an Other Transaction for Prototype shall follow the applicable rules and regulations governing that instrument, but in all cases should appropriately identify any potential restrictions on the Government’s use of any Intellectual Property contemplated under that award instrument. This includes both Noncommercial Items and Commercial Items. Although not required, proposers may use a format similar to that described above. The Government may use the list during the source selection evaluation process to evaluate the impact of any identified restrictions, and may request additional information from the proposer, as may be necessary, to evaluate the proposer’s assertions. If no restrictions are intended, then the proposer should state “NONE.”

7.1.2.2 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.

7.1.2.3 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.

8. APPENDIX 1: DELIVERABLES

Contract Data Requirements List (CDRL) Deliverables (after contract award) shall consist, at a minimum, of the following list of Contract Data Requirements:
<table>
<thead>
<tr>
<th>CDRL Item</th>
<th>Title</th>
<th>Due/Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>A001</td>
<td>R&amp;D Status Report*</td>
<td>Monthly</td>
</tr>
<tr>
<td>A002</td>
<td>Cost and Schedule Status Report (CSSR)</td>
<td>Monthly</td>
</tr>
<tr>
<td>A003</td>
<td>[1] Meeting Presentation Material</td>
<td>[1] Presentation material will be provided to the Government prior to the meeting, including PowerPoint slides and relevant notes as required for understanding.</td>
</tr>
<tr>
<td>A004</td>
<td>Meetings at Contractor Facility</td>
<td>- Within 2 weeks after award&lt;br&gt;- Bi-weekly teleconference&lt;br&gt;- Quarterly&lt;br&gt;- Every six weeks&lt;br&gt;- As Scheduled&lt;br&gt;- As Scheduled&lt;br&gt;- As Scheduled</td>
</tr>
<tr>
<td>A005</td>
<td>Program Plan</td>
<td>2 months after award; updated at CoDR, SRR, PDR, and as required.</td>
</tr>
<tr>
<td>A006</td>
<td>Final test plans</td>
<td>Minimum 2 weeks prior to final test demonstrations</td>
</tr>
<tr>
<td>A007</td>
<td>Test reports</td>
<td>Quick-look summary within 48 hours, and Final within 14 working days post test.</td>
</tr>
<tr>
<td>A008</td>
<td>Day in the life operations scenario (CONOPS)</td>
<td>At CoDR, updated for SRR, and PDR</td>
</tr>
<tr>
<td>A009</td>
<td>Final report (each phase)*</td>
<td>30 days after completion of phase</td>
</tr>
<tr>
<td>A010</td>
<td>Materials &amp; equipment inventory</td>
<td>30 days after completion of phase</td>
</tr>
</tbody>
</table>

*Must be submitted in soft and hard copy.
9. APPENDIX 2: PROPOSAL SLIDE SUMMARY

This appendix provides a template for the proposal slide summary that the proposer must submit as Section II G of the Technical and Management Proposal, as specified in Section 4.4.2.1 of this BAA. As stated there, these slides do not count against the page limit.
Describe How It Works / Innovative Claims

Organization Name Concept

Organization Name Contract/Proposal Specifics

- Intellectual Property
- Data rights summary
- Deliverables
**Organization Name Schedule/Cost**

<table>
<thead>
<tr>
<th>Phase</th>
<th># Months</th>
<th>$##M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase II (Option)</td>
<td>## Months</td>
<td>$##M</td>
</tr>
<tr>
<td>Phase III (ROM)</td>
<td>## Months</td>
<td>$##M</td>
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</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**

- **What is the state of the art and what are its limitations?**
  - Primary answer here. Add more text as necessary.
  - First bullet point
  - Additional as necessary

- **What are the key new insights?**
  - First key insight. Add more text as necessary.
  - Second key insight. Add more text as necessary.
  - Add other points 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

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

- **Characterize the Quantitative Impact:**
  - First item planned. Add more text as necessary.
  - Second item planned. Add more text as necessary.
  - Add other points as necessary

- **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**
<table>
<thead>
<tr>
<th>Proposal Idea / Vision</th>
<th>Performers</th>
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<table>
<thead>
<tr>
<th>Phase 1 Tasks</th>
<th>Schedule/Cost</th>
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