



Broad Agency Announcement (BAA)

Comprehensive Interior Reconnaissance (CIR)

STRATEGIC TECHNOLOGY OFFICE

DARPA-BAA-09-38

31 March 2009

TABLE OF CONTENTS

Part One: Overview Information4

Part Two: Full Text of Announcement5

1. FUNDING OPPORTUNITY DESCRIPTION.....5

 1.1 PROGRAM OVERVIEW 5

 1.1.1 Problem Definition..... 5

 1.1.2 DARPA's Vision and Goals for Building Interior Intelligence, Surveillance, and Reconnaissance 5

 1.1.3 Scope of Acceptable CIR Proposals 7

 1.1.4 Program Phasing 7

 1.1.4.1 Program Phasing Summary..... 7

 1.1.4.2 Phase 1 (Concept Development and Validation) 8

 1.1.4.3 Phase 2 (Non-Real Time Functional Demonstration System)..... 9

 1.2 PROGRAM METRICS 10

2. AWARD INFORMATION12

3. ELIGIBILITY INFORMATION13

 3.1 ELIGIBLE APPLICANTS 13

 3.1.1 Procurement Integrity, Standards of Conduct, Ethical Considerations, and Organizational Conflicts of Interest..... 14

 3.2 COST SHARING/MATCHING 15

 3.3 COLLABORATIVE EFFORTS 15

4. APPLICATION AND SUBMISSION INFORMATION15

 4.1 ADDRESS TO REQUEST APPLICATION PACKAGE..... 15

 4.2 SECURITY AND PROPRIETARY ISSUES..... 15

 4.3 CONTENT AND FORM OF APPLICATION SUBMISSION 17

 4.3.1 Proposal Information 17

 4.3.2 Restrictive Markings on Proposals 18

 4.4 PROPOSAL FORMAT 18

 4.5 SUBMISSION DATES AND TIMES..... 23

 4.6 INTERGOVERNMENTAL REVIEW 24

 4.7 FUNDING RESTRICTIONS 24

 4.8 OTHER SUBMISSION REQUIREMENTS 24

5. APPLICATION REVIEW INFORMATION.....24

 5.1 EVALUATION CRITERIA 24

 5.1.1 Ability to Meet Program Go/No-Go Metrics..... 24

 5.1.2 Overall Scientific and Technical Merit..... 24

 5.1.3 Potential Contribution and Relevance to the DARPA Mission 25

 5.1.4 Realism of Proposed Schedule..... 25

 5.1.5 Proposer's Capabilities and/or Related Experience 25

 5.1.6 Plans and Capability to Accomplish Technology Transition 25

 5.1.7 Cost Realism 25

5.2 REVIEW AND RECOMMENDATION PROCESS 26

6. AWARD ADMINISTRATION INFORMATION.....27

6.1 AWARD NOTICES..... 27

6.2 ADMINISTRATIVE AND NATIONAL POLICY REQUIREMENTS..... 27

6.2.1 Meeting and Travel Requirements..... 27

6.3 HUMAN USE..... 27

6.4 ANIMAL USE..... 28

6.5 PUBLICATION APPROVAL..... 28

6.6 EXPORT CONTROL..... 29

6.7 SUBCONTRACTING 30

6.8 ELECTRONIC AND INFORMATION TECHNOLOGY..... 30

6.9 REPORTING 30

6.9.1 Central Contractor Registration (CCR) 30

6.9.2 Representations and Certifications 31

6.9.3 Wide Area Work Flow (WAWF) 31

6.10 i-Edison..... 31

6.11 AGENCY CONTACTS..... 31

7. OTHER INFORMATION31

7.1 INTELLECTUAL PROPERTY 31

7.1.1 Procurement Contract Proposers..... 31

7.1.2 NonProcurement Contract Proposers..... 33

7.2 PROPOSER'S DAY 33

Attachment A: Comprehensive Interior Reconnaissance (CIR) DARPA-BAA-09-38 Packet
Request Form34

Part One: Overview Information

- **Federal Agency Name:** Defense Advanced Research Projects Agency (DARPA), Strategic Technology Office
- **Funding Opportunity Title:** Comprehensive Interior Reconnaissance (CIR)
- **Announcement Type:** Initial Announcement
- **Funding Opportunity Number:** Broad Agency Announcement (BAA) DARPA-BAA-09-38
- **Catalog of Federal Domestic Assistance Numbers (CFDA):** Not applicable
- **Dates:**
 - Proposer's Day 30 April 2009
 - Initial Selection Proposal Due Date 29 May 2009
 - BAA Closing Date 30 March 2010

- **Concise Description of the Funding Opportunity:** DARPA is pursuing diverse technology solutions to address a pressing need in overseas urban operations – interior awareness. The objective of this BAA (DARPA-BAA-09-38, Comprehensive Interior Reconnaissance (CIR)) is to investigate the opportunistic use of building infrastructure as signature transducers to provide comprehensive below- and above-ground building interior awareness from exterior observations.
- **Anticipated Individual Awards:** Multiple awards are anticipated.
- **Types of Instruments that may be Awarded;** Procurement contract or other transaction.
- **Any Cost Sharing Requirements:** None.
- **Agency Contact:** The BAA Coordinator for this effort can be reached at:
 - Electronic mail: DARPA-BAA-09-38@darpa.mil
 - Fax: 703-516-8762
 - Phone: 703-812-1987
 - DARPA
 - ATTN: STO / DARPA-BAA-09-38
 - 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. The BAA will appear first on the FedBizOpps website, <http://www.fedbizopps.gov/>. The following information is for those wishing to respond to the BAA.

DARPA is soliciting innovative research proposals in the area of opportunistic sensing for overseas urban building interior awareness using exterior observations. Proposed research should investigate innovative approaches that enable revolutionary advances in science, devices, or systems. Specifically excluded is research that primarily results in evolutionary improvements to the existing state of practice.

1.1 PROGRAM OVERVIEW

1.1.1 Problem Definition

As overseas military and peace-keeping operations have expanded in urban environments, our adversaries have adopted asymmetric strategies such as hiding in and operating out of civilian buildings. To reduce the tactical risk to U.S. Forces, it is imperative that we develop technologies to allow U.S. Forces to confidently maneuver within urban interiors whether above or below ground. DARPA's objective is to develop broad and diverse technologies that will reverse the adversaries' advantage of urban familiarity and sanctuary and provide U.S. Forces with complete above- and below-ground awareness.

Such interior intelligence, surveillance and reconnaissance (ISR) capabilities will provide a significant contribution throughout the operational timeline from planning through execution. Consider a cordon and search procedure conducted in a small town believed to be an insurgent stronghold. Once specific buildings have been identified as deserving closer scrutiny, our forces concentrate specific resources on these buildings to support tactical planning. Deployed sensors can spend more time providing detailed situational awareness of a single building, determining its floor plan, underground extent, and underground ingress and egress. Sensor usage might require hours to days of useful lifetime, with system latencies dictated by the tactical urgency for the information.

The final step in the operational timeline will be real-time support for a mission involving a building. At this point in the timeline, detailed building information must already be available. Additional sensors can now be carried by blue forces as they enter the structure to verify or refine the interior situational awareness and improve our forces maneuverability.

1.1.2 DARPA's Vision and Goals for Building Interior Intelligence, Surveillance, and Reconnaissance

DARPA is developing broad and diverse technologies necessary for external sensing deep inside buildings with the objective of developing a suite of sensing technologies for complete situational awareness both above- and below-ground suitable across a broad range of building

environments. The component technologies must support all external ISR concepts of operations ranging from pre-mission planning through detailed assessment of targeted structures, and collectively address all program metrics that address the user information needs.

The intent of this solicitation, DARPA-BAA-09-38, Comprehensive Interior Reconnaissance, is to investigate technological approaches that leverage building infrastructure to opportunistically collect information for interior awareness. DARPA believes that opportunistic sensing may be exploited to infer urban interior building awareness using exterior observations. Specifically, DARPA asserts that:

- The geometry and stimulus response of building infrastructure contains tactically useful information on the interior structure. Infrastructure includes, but is not limited to, the structural, electrical, plumbing, and ventilation systems.
- Such information may be acquired through access to the exterior of buildings that may include direct contact with an exterior umbilical, but does not require contact or deployments within the building.
- Approaches to acquiring such information may require active as well as passive sensing.
- Multiple sensing technologies and approaches may be required to provide complete building interior awareness.
- A mission is expected to depend upon an optimal mix of approaches determined by the specific environment.

DARPA is soliciting proposals to investigate and validate multiple Sensing Technology approaches that collectively meet all Program Metrics (Table 1 and Classified Appendix) for below- and above-ground awareness. For purposes of this BAA, a Sensing Technology refers to an end-to-end process consisting of a signature of interest (related to a CIR Program Metric), the transducer technology (i.e., the coupling into the building infrastructure), the transmission path to the building exterior, the capture and interpretation of the signature, and the interface that displays the information to the user.

The proposed Sensing Technologies collectively need to address Program Metrics 1-4 (Table 1 and Classified Appendix) and optionally address Program Metrics 5-7.

The unclassified Program Metric objectives are:

1. Basements (including underground buildings)
2. Underground connectivity
3. Building Layout

A classified appendix contains Program Metric Objectives 4 to 7. See Paragraph 4 for instructions on how to obtain the additional information.

A key goal of CIR is that the proposed Sensing Technologies must have a path to operationally viable and environmental robustness. This will limit the eventual operational size, weight, power, and logistical tails of sensing architectures. The proposal should address the expected type and deployment of sensors needed to provide adequate resolution and resolve ambiguities. Specifically, the proposal must clearly address the following operational questions:

- 1) Scalability of the approach to buildings/basements of any size (defined as both horizontal extent and number of floors).
- 2) Any assumptions regarding specific attributes of the infrastructure required for method to be applicable
- 3) External stand-off distances at which objectives could be achieved.
- 4) Number and geometry of sensors projected to achieve objectives.

DARPA expects that multiple Sensing Technologies will compliment and supplement each other and collectively provide total building interior awareness. At the completion of this effort, DARPA will assess the potential added capabilities of the collective Sensor Technologies for the purpose of developing system requirements for a potential follow-on phase for an evaluation system meeting function and Size, Weight, and Power (SWaP) requirements.

1.1.3 Scope of Acceptable CIR Proposals

DARPA seeks innovative proposals to investigate, validate, develop, and merge one or more Sensing Technologies that collectively meet Program Metric Objectives 1-4 and, optionally, Program Metric Objectives 5-7 (Table 1 and Classified Appendix) and span the range of CONOPS. Proposed solutions must be supported by both a technical justification of the Sensing Technology approaches and quantification of the potential fidelity of the ISR information. In particular, the proposal must clearly describe the relationship between the measured signatures and the Objectives and the specific process by which it will be exploited. All proposals must provide end-to-end capabilities against Objectives 1 through 4 and describe the CONOPS supported by their proposed solution. This program will not fund component technologies independent of the application that utilizes that technology. Potential proposers who wish to focus on individual technology components or have approaches that do not address all objectives are highly encouraged to team with potential partners to provide complete above- and below-ground awareness capabilities.

External, through-the-wall radar solutions are under development in the VisiBuilding program. Consequently, external radar solutions are discouraged.

1.1.4 Program Phasing

1.1.4.1 Program Phasing Summary

This program is organized as a multi-phase effort:

- Phase 1 will validate the potential of the proposed sensing concept (comprised of one or more Sensing Technologies) that collectively meet objectives 1-4 and, optionally,

objectives 5-7, and project quantitative performance using modeling, simulation, and focused data collections.

- Phase 2 will develop and demonstrate the sensing concept using a functional (non-SWAP, post-processing) prototype against a government provided multi-story building.

The Technical and Management Proposal and the Cost Proposal must address both Phase 1 and Phase 2 for Program Metric Objectives 1-4. Objectives 5 - 7 should be addressed separately in the Technical and Management Proposal and costed for each separate objective beyond 4 as options in the Cost Proposal.

1.1.4.2 Phase 1 (Concept Development and Validation)

Phase 1 will validate the feasibility and practicality of the proposed CIR concept, predicting performance of the collective Sensing Technologies against the CIR Program Metrics based on analytical studies, simulation, and/or focused experiments. To support this phase, the performer will:

- Provide a test plan to support concept development and validation, which may include analysis of numerical simulations and relevant site data collections.
- Characterize concept performance over expected urban environments and deployments.
- Generate system design necessary to achieve the stated performance.

The proposer will deliver the following deliverables. Additional deliverables may be proposed by the proposer.

- Concept System Design with initial Concept of Operations.
- Performer defined test / validation plan to be reviewed and approved by DARPA.
- Monthly performance and financial reports.
- Quarterly reviews including kick-off review and a final review.
- Final Report providing a technical description of the Sensing technology and a detailed account of the technical results of the effort including projected performance against each CIR program metric.
- Updated Phase 2 technical and cost proposal.

The proposer will define the process used to achieve the above goals, including the experimentation and test environment which is compatible with the Government projected buildings to be used in Phase 2 and which the Government will approve prior to use. This process is expected to be sufficiently robust to support a DARPA decision to progress to the next phase of technology development. The process of generating the projected quantitative performance metrics is expected to validate the existence of the proposed signature and demonstrate its dependence on the CIR Program Metrics.

DARPA expects promising CIR concepts as defined by projected performance, environmental robustness, and operational flexibility in Phase 1 to be eligible for transition into Phase 2.

1.1.4.3 Phase 2 (Non-Real Time Functional Demonstration System)

Phase 2 will develop a prototype and demonstrate the CIR concept functionality. The demonstration system will consist of non-SWaP hardware and non-real time algorithms to validate capability against the CIR Program Metrics in a system context. This phase will demonstrate actual end-to-end function of a representative technology on a building specified by the Government. The important goals for this phase are to show sensor data collection through exploitation to verify the system concept(s) advanced in Phase 1.

All efforts should be focused on phenomenology, sensor arrangements, and data exploitation and reasoning. System design and development activities outside of those required to quantify performance should be deferred. The proposer should not be constrained by SWaP, sensor miniaturization, or wireless communications. Sensors may be hard-wired and precisely geo-located relative to the building. Moving sensors may be approximated with discrete measurements, if desired. Data can be collected and all processing completed post-collect.

In this Phase the proposer will validate system performance in a realistic environment based on integration of instrument-grade components. To support this phase objective, the performer will:

- Design and build demonstration hardware and software. Hard-wired sensor interconnects, full system calibration, and off-line processing are permitted.
- Perform phenomenology experimentation to support the sensor concept.
- Define algorithm and computational requirements.
- Develop the full sensor data collection system.
- Demonstrate exploitation of collected sensor data.
- Develop a display interface for building layout information.
- Conduct a data collection experiment around a specific building with full knowledge of the interior to help refine algorithms and provide experimental data. The performer must provide satisfactory analysis on this experiment before proceeding to the blind experiment.
- Conduct a blind experiment on an unknown building.

The proposer will deliver the following deliverables. Additional deliverables may be proposed by the proposer.

- System Architecture Document.
- Field Test Demonstration Plan Document.
- Validated functional prototype.
- Monthly performance and financial reports.
- Quarterly reviews and reports including kick-off review and a final review.
- Final Report providing a detailed account of the technical results of the effort, including quantitative performance metrics and system requirements for an objective system.

The demonstration will be conducted at DARPA selected facilities. These facilities will be selected to reflect the current operational environment in overseas locations. For planning

purposes, assume two demonstration locations: one at the National Training Center at Fort Irwin, California and the second at Fort Bragg, North Carolina.

1.2 PROGRAM METRICS

In order 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.

The Notional System Metrics are based upon DARPA's vision of an operationally useful future system capability. Proposer achievement of Phase I and II metrics will show progress towards meeting the Notional System Metrics.

A classified appendix contains additional CIR Program Metrics. See paragraph 4.1 for information on requesting the classified appendix.

The proposer must address Program Metric Objectives 1-4 (Table 1 and Classified Appendix) and optionally address Program Metric Objectives 5-7.

Table 1: CIR Program Metrics

Objective	Phase I Concept Viability	Phase II Performance Demonstration	Notional System
Information Needs			
Basements (including underground buildings)	Detected Pd > 75% Pfa < 20% Anomalous vertical/lateral extent	Same as Notional System Metric	Detected Pd > 90% Pfa < 10% Number of floors Lateral volume >20% different than footprint
Underground connectivity (cross section > 1m ²)	Egress identified Pd > 75% Pfa < 20% Connected building identified	Same as Notional System Metric	Egress identified Pd > 90% Pfa < 10% Connected building identified
Building Layout (above- and below-ground)	Same as Notional System Metric	Same as Notional System Metric	Wall Location error < 1 m Stairwell Location within Quadrant
Additional Program Metrics are in the classified appendix.			
System Attributes			
Building Environment	Same as Notional System Metric	Same as Notional System Metric	Building: Up to 10 story furnished w/ 2 level basement in high-density urban block, with 8 in walls of concrete, rebar, brick, or adobe. <ul style="list-style-type: none"> •Interior walls may be in-fill concrete or dry wall w/studs. •Periodically occupied, with movement to all floors/rooms
Blue Force Exposure	n/a	Same as Notional System Metric	No personnel < 10 m of exterior No personnel < 20 m for > 5 min
Time to Achieve Metrics	n/a	n/a	Within 3 days of sensor deployment

Objective	Phase I Concept Viability	Phase II Performance Demonstration	Notional System
Stationary Sensors (as applicable)	n/a	n/a	Carried and deployed by one person with a backpack, compatible with clandestine operations
Vehicle-Borne Sensors (as applicable)	n/a	n/a	1 square meter, within vehicle length; Required power contained within vehicle Processing units, required power contained within vehicle SWAP
	n/a	n/a	Consistent with SWAP of proposed platform
Airborne Sensors (as applicable)	n/a	n/a	Consistent with SWAP of proposed platform
Additional Program Metrics are in the classified appendix.			

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 the Source Selection Authority later determines them 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. If the proposed effort is inherently divisible and nothing is gained from the aggregation, proposers should consider submitting it as multiple independent efforts. 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,' 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 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 section 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 all 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.

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. Joseph Durek. As of the date of first publication of the BAA, the Government has not identified any potential conflicts of interest involving this program manager. 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.) The Program Manager is required to review and evaluate all proposals received under this BAA and to manage all selected efforts. Proposers should carefully consider the composition of their performer team before submitting a proposal to this BAA.

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 a 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-09-38@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 for 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.

3.3 COLLABORATIVE EFFORTS

Collaborative efforts/teaming are encouraged. Specific content, communications, networking, and team formation are the sole responsibility of the participants.

4. APPLICATION AND SUBMISSION INFORMATION

4.1 ADDRESS TO REQUEST APPLICATION PACKAGE

A formal request for the CIR DARPA-BAA-09-38 packet may be submitted by filling out the DARPA-BAA-09-38 Classified Packet Request Form (found on page 34 of this BAA) and emailing the Request Form to DARPA-BAA-09-38@darpa.mil with Subject line titled "Request DARPA-BAA-09-38 Classified Packet" or fax to 703-516-8762. Proposers are encouraged to submit this request as soon as possible to allow for adequate time for BAA Packet preparation and delivery. The DARPA-BAA-09-38 Classified Packet Request Form is the only method of request that will be accepted. All requestors will receive a confirmation email with a delivery tracking number. Prior to receipt of any classified information, proof of facility clearance level (FCL) must be validated by the Program Security POC before any classified documentation on the BAA is sent to the performer.

The full CIR DARPA-BAA-09-38 Packet consists of a FOUO CD (which includes this DARPA-BAA-09-38, BAA DD254 (DoD Contract Security Classification Specification), and DARPA-CG-545 (Security Classification Guide) and a paper copy of a 2 page BAA classified appendix. Please specify on Attachment A if you need the entire packet in paper form only, all other packets will be sent as a FOUO CD with a 2 page paper appendix.

Proposers must demonstrate ability to receive and access DoD Collateral Secret material. All appropriate security safeguards must exist prior to receiving the classified addendum. No extension of the proposal due date will be granted based on inability to acquire security accreditations in a reasonable timeframe.

4.2 SECURITY AND PROPRIETARY ISSUES

The Government anticipates proposals submitted under this BAA will be classified at the SECRET level. 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.

The cost volume of the proposals must be unclassified.

It is expected that some of the work for CIR will be at the unclassified level with documentation marked For Official Use Only (FOUO). FOUO is not a security classification; however pursuant to the DoD 5400.7-R, this information may be withheld from the public for one or more reasons. Information that warrants FOUO markings will be handled and protected in accordance with the above cited regulation.

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 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: STO / DARPA-BAA-09-38
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 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 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.

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.

Security questions should be addressed to the BAA Coordinator for this effort.

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. DARPA may evaluate proposals received after this date for a period up to one year from date of posting on FedBizOpps. Selection remains contingent on availability of funds.

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.

Points of Contact: The BAA Coordinator for this effort can be reached at:

Electronic Mail: DARPA-BAA-09-38@darpa.mil
Unclassified fax: 703-516-8762
DARPA
ATTN: STO / DARPA-BAA-09-38
3701 North Fairfax Drive
Arlington, VA 22203-1714

DARPA intends to use electronic mail and fax for administrative correspondence regarding DARPA-BAA-09-38. Proposals may not be submitted by fax or e-mail; any so sent will be disregarded.

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 4.0, for additional information.

4.4 PROPOSAL FORMAT

All full 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. Except for the attached bibliography and Section I, Volume I shall not exceed 40 pages. An additional 3 pages may be added to the 40 pages for each objective beyond 4 proposed as an option. All proposals must be written in English.

The Technical and Management Proposal and the Cost Proposal must address both Phase 1 and Phase 2 for Program Metric Objectives 1-4. Objectives 5 - 7 will be addressed separately in the Technical and Management Proposal and costed for each separate objective beyond 4 as options in the Cost Proposal.

4.4.1 VOLUME I, TECHNICAL AND MANAGEMENT PROPOSAL

Section I. Administrative

- 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.

Section II. Summary of Proposal

- 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. For forms to be completed regarding intellectual property, see section VIII. There will be no page limit for the listed forms.

- C. Cost, schedule and 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 critical milestones should occur every 6 months after start of effort.** These milestones should enable and support a go/no go decision for the next Phase 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 member; (2) the unique capabilities of team members; (3) the task of responsibilities of team members; (4) the teaming strategy among the team members; and (5) the key personnel along with the amount of effort to be expended by each person during each year.
- G. A separate three slide summary of the proposal in PowerPoint that quickly and succinctly indicates the main objective, key innovations, expected impact, and other unique aspects of the proposal. The format is available from the BAA Coordinator (paragraph 7) upon request.

Section III. Detailed Proposal Information

- A. 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. For each task/subtask, provide:
 - A general description of the objective;
 - A detailed description of the approach to be taken to accomplish each defined task);
 - Identification of the primary organization responsible for task execution (prime, sub, team member, by name, etc.); and
 - The exit criteria for each task - a product, event or milestone that defines its completion.
 - Define all deliverables (reporting, data, reports, software, etc.) to be provided to the Government in support of the proposed research tasks/activities.

Note: It is recommended that the SOW be developed so that each Phase of the program is separately defined. Do not include any proprietary information in the SOW.

- B. Description of the results, products, transferable technology, and expected technology transfer path enhancing that of Section II. B. See also Section VIII. "Intellectual Property."
- 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 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 critical milestones should occur every 6 months after start of effort.** These milestones should enable and support a go/no go 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

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. These relevant papers are for the reviewer's convenience only and are not considered as part of the proposal.

4.4.2 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-fee (CPFF), cost-contract—no fee, cost sharing contract – no fee, or other type of procurement contract (*specify*), or other transaction;
- (11) Place(s) and period(s) of performance;
- (12) Total proposed cost separated by basic award and option(s) (if any);
- (13) Name, address, and telephone number of the proposer’s cognizant Defense Contract Management Agency (DCMA) administration office (*if known*);
- (14) Name, address, and telephone number of the proposer’s cognizant Defense Contract Audit Agency (DCAA) audit office (*if known*);
- (15) Date proposal was prepared;

- (16) DUNS number;
- (17) TIN number;
- (18) Cage Code;
- (19) Subcontractor Information;
- (20) Proposal validity period; and
- (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:
 - i. Direct labor, including individual labor categories or persons, with associated labor hours and numbered direct labor rates.
 - ii. If consultants are used, proposer must provide consultant agreement or other document which verifies the proposed loaded daily/hourly rate.
 - iii. Indirect costs including Fringe Benefits, Overhead, General and Administrative Expense, Cost of Money, etc. (Must show base amount and rate)
 - iv. Travel – Number of trips, number of days per trip, departure and arrival destinations, number of people, etc.
 - v. 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.

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., 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.

All proposers requesting an 845 Other Transaction Agreement for Prototypes (OTA) must include a detailed list of payment milestones. Each such payment milestone must include the following: milestone description, exit criteria, due date, milestone payment amount (to include, if cost share is proposed, contractor and government share amounts). It is noted that, at a minimum, such payable milestones should relate directly to accomplishment of program technical go/no-go criteria 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 payable milestones to the maximum extent possible. If the proposer requests award of an 845 OTA 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.dau.mil/pubs/Online_Pubs.asp), information must be included in the cost proposal to support the claim. Additionally, if the proposer plans requests award of an 845 OTA, 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.

Proposers must submit an OCI Mitigation Plan (if applicable) to detail what steps the contractor is performing to mitigate an actual or perceived conflict of interest.

4.5 SUBMISSION DATES AND TIMES

The proposal (original hardcopy and two (2) electronic copies of the proposal (in PDF (preferred)) on a CD-ROM shall be submitted to:

DARPA
ATTN: STO / DARPA-BAA-09-38
3701 North Fairfax Drive, Arlington
VA 22203-1714

on or before 4:00 p.m., local time at Arlington, VA, 29 May 2009, in order to be considered during the initial round of selections; however, proposals received after this deadline may be received and evaluated up to one year from date of posting on FedBizOpps. Proposals submitted after the due date specified in the BAA may be selected contingent upon the availability of funds.

See paragraph 4.2 for information on submitting classified proposals.

DARPA will post a consolidated Question and Answer response after Proposer's Day, before final full proposals are due. In order to receive a response to your question, submit your question by 5 May 2009 to the DARPA-BAA-09-38 email address.

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

None

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 criteria, in order of descending importance: (5.1.1) Ability to Meet Program Go/No Metrics, (5.1.2) Overall Scientific and Technical Merit; (5.1.3) Potential Contribution and Relevance to the DARPA Mission; (5.1.4) Realism of Proposed Schedule; (5.1.5) Proposer's Capabilities and/or Related Experience; (5.1.6) Plans and Capability to Accomplish Technology Transition; and (5.1.7) Cost Realism. 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 above listed criteria:

5.1.1 Ability to Meet Program Go/No-Go Metrics

The proposal clearly explains the technical approach(es) that will be employed to meet or exceed the applicable program metrics listed in Table 1, page 11 and the classified appendix. The feasibility and likelihood of the proposed approach for satisfying the program go/no-go metrics are explicitly described and clearly substantiated. The proposal reflects a mature and quantitative understanding of the performance go/no-go metrics, the statistical confidence with which they may be measured, and their relationship to the concept of operations that will result from successful performance in the program.

5.1.2 Overall Scientific and Technical Merit

The proposed approach is feasible, achievable, and complete. 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 planned mitigation efforts and provides ample justification as to why the approach(es) is / are feasible.

Ensure the technical description includes:

- A description of the underlying physics of the signature, whether measured passively or actively
- A description of the technical rationale for measuring and exploiting the signature
- A quantification of the expected collection requirements including sensing geometry and dwell time
- An identification of any assumptions involving building design and construction which, if inaccurate, will affect the achievable performance

5.1.3 Potential Contribution and Relevance to the DARPA Mission

The potential contributions of the proposed effort with relevance to the national technology base will be evaluated. Specifically, DARPA's mission is 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 military use.

5.1.4 Realism of Proposed Schedule

The proposer's abilities to aggressively pursue performance metrics in the shortest timeframe and to accurately account for that timeframe will be evaluated, as well as proposer's ability to understand, identify, and mitigate any potential risk in schedule.

5.1.5 Proposer's Capabilities and/or Related Experience

The proposer's assembled technical team that has the expertise and experience to accomplish the proposed tasks as referenced in Section 4.4.1, Section III, Detailed Proposal Information, on page 20. The proposer's prior experience in similar efforts clearly demonstrates an ability to deliver products that meet the proposed technical performance within the proposed budget and schedule. The proposed team's expertise to manage the cost and schedule will be evaluated. Similar efforts completed/ongoing by the proposer in this area are fully described including identification of other Government sponsors.

5.1.6 Plans and Capability to Accomplish Technology Transition

The capability to transition the technology to the research, industrial, and operational military communities in such a way as to enhance U.S. defense, and the extent to which intellectual property rights limitations creates a barrier to technology transition.

5.1.7 Cost Realism

The objective of this criterion is to establish that the proposed costs are realistic for the technical and management approach offered, as well as to determine the proposer's practical understanding of the effort. This will be principally measured by cost per labor-hour and number of labor-hours proposed. The evaluation criterion recognize 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. Cost reduction approaches that will be received favorably include innovative management concepts that maximize direct funding for technology and limit diversion of funds into overhead.

After selection and before award the contracting officer will negotiate cost/price reasonableness.

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.

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

5.2 REVIEW AND RECOMMENDATION PROCESS

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 Information", Section 4.2.1. 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 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 mail to the Technical POC identified on the proposal coversheet.

6.2 ADMINISTRATIVE AND NATIONAL POLICY REQUIREMENTS

6.2.1 Meeting and Travel Requirements

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

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/html2/d32162x.htm>).

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 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 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."

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>.

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>.

6.5 PUBLICATION APPROVAL

It is the policy of the Department of Defense for products of fundamental research to remain unrestricted to the maximum extent possible. Contracted fundamental research:

Includes research performed under grants and contracts that are (a) Basic Research"), whether performed by universities or industry or (b) applies research and performed on-campus at a university. The research shall not be considered fundamental in those rare and exception 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.

It is anticipated that the performance of research resulting from the BAA is not expected to be fundamental research.

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.

The following provision will be incorporated into any resultant 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. Papers resulting from unclassified contracted 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/tio for information about DARPA's public release process.

6.6 EXPORT CONTROL

Should this project 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

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 REPORTING

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

6.9.1 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>.

6.9.2 Representations and Certifications

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

6.9.3 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 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>).

6.11 AGENCY CONTACTS

Administrative, technical or contractual questions should be sent via e-mail to DARPA-BAA-09-38@darpa.mil. If e-mail is not available, fax questions to 703-516-8762, Attention: DARPA-BAA-09-38. All requests must include the name, email address, and phone number of a point of contact.

Proposers should address requests for a classified POC to the administrative POC above.

The technical POC for this effort is:

Dr. Joseph Durek
DARPA
ATTN: STO / DARPA-BAA-09-38
3701 North Fairfax Drive
Arlington, VA 22203-1714
FAX: 703-516-8762
PHONE: 703-812-1974
EMAIL: Joseph.Durek@darpa.mil

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:

NONCOMMERCIAL			
Technical Data Computer Software To be Furnished With Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
(LIST)	(LIST)	(LIST)	(LIST)

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:

COMMERCIAL			
Technical Data Computer Software To	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions

be Furnished With Restrictions			
(LIST)	(LIST)	(LIST)	(LIST)

7.1.2 NonProcurement 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 in Paragraphs 1.a and 1.b 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.

7.2 PROPOSER'S DAY

A Proposer's Day will be held on 30 April 2009 at 8:30 AM at Analytic Services Inc., Conference Center, 2900 S. Quincy St. Suite 800, Arlington, VA 22206, phone (703)416-3222, fax (703)416-8408. The proposer's day will be held at the SECRET level. Proposers requesting to attend should submit their name and organization via email to the BAA administrative POC by 4:00 PM local time in Arlington, VA, on 17 April 2009. In addition, Visitor Requests should be sent to ANSER by 17 April 2009. Visitor clearance information may be passed by Visit Notification through JPAS (the SMO code for Analytic Services Inc. is 4A4584) or may be faxed to 703-416-8408. To verify receipt of the visit clearance information, call 703-416-4459. Please indicate on the visitor request that the meeting to be attended is the CIR Proposers Day.

Attachment A: Comprehensive Interior Reconnaissance (CIR) DARPA-BAA-09-38 Packet Request Form

Date: _____

Company Name: _____

Company Address (Unclassified): _____

Company Address (Classified): _____

Unclassified Fax: _____

Point of Contact Name: _____

POC Phone Number: _____

POC Fax Number: _____

POC E-mail: _____

Company CAGE code: _____

Security or FSO Phone Number: _____

Security or FSO Fax Number: _____

Security or FSO e-mail: _____

Company Secure Fax number: _____