



Vulture Program

Broad Agency Announcement (BAA) Solicitation 07-51

DATE: July 31, 2007

**Defense Advanced Research Projects Agency
DARPA/TTO
3701 N. Fairfax Drive
Arlington, VA 22203-1714**

TABLE OF CONTENTS

Part One: Overview Information	4
Part Two: Full Text of Announcement	5
I. Funding Opportunity Description	5
A. Program Overview	5
B. Program Goals	5
C. Phase I Objectives	6
D. Phase II Objectives	8
E. Phase III Objectives	8
F. Phase I Schedule And Deliverables	9
G. Program Metrics.....	13
II. Award Information.....	14
III. Eligibility Information	14
A. Eligible Applicants.....	14
1. Procurement Integrity, Standards of Conduct, Ethical Considerations, and Organizational Conflicts of Interest.....	15
B. Cost Sharing/Matching	15
C. Proposing an Other Transaction.....	16
IV. Application and Submission Information	18
A. Address to Request Application Package	18
B. Content and Form of Application Submission.....	18
1. Proposal Summary Information.....	18
2. Proposal Information	18
C. Submission Dates and Times	27
1. Proposal Summary Date	27
2. Full Proposal Date.....	27
V. Application Review Information	28
A. Evaluation Criteria.....	28
1. Point of Departure Objective System Concept and Substantiation	28
2. Overall Scientific Approach	29
3. Concept of Operations and Military Utility	30
4. Management and Program Team.....	30
5. Cost	30
B. Review and Selection Process	31
VI. Award Administration Information	32
A. Award Notices	32
B. Administrative and National Policy Requirements.....	32
1. Security	32
2. Intellectual Property.....	34
3. Meeting and travel requirements	36
4. Human use	36
5. Animal Use	37
6. Publication approval	37
7. Export Control	38

8.	Subcontracting	38
C.	Reporting Requirements	38
1.	Central Contractor Registration	39
2.	Representations and Certifications	39
3.	Wide Area WorkFlow (WAWF)	39
VII.	Agency Contacts	39
VIII.	Other Information	39
A.	None	39

Part One: Overview Information

- **Federal Agency Name** – Defense Advanced Research Projects Agency (DARPA), Tactical Technology Office
- **Funding Opportunity Title** – Vulture
- **Announcement Type** – Initial Announcement
- **Funding Opportunity Number** – Broad Agency Announcement (BAA) 07-51
- **Catalog of Federal Domestic Assistance Numbers (CFDA)** (N/A)
- **Dates:**
 - Proposal Summary Information Due: **August 31, 2007**
 - Proposal Due: **September 14, 2007**
- **Description of the funding opportunity:** The Vulture air vehicle program is an exploratory development program to develop the capability to deliver and maintain a single airborne payload on station for an uninterrupted period of at least 5 years using a heavier-than-air platform system. It is envisioned that this program will, at a minimum, develop and demonstrate advanced reliability technologies for air vehicle systems. Other advanced technologies may also be developed and demonstrated depending upon the nature of the architectures proposed by offerors. The Government is not interested in approaches that use either radioactive energy sources or employ any form of buoyant flight for this application.

The Vulture program will research and develop technologies and systems which will enable the military to deliver and maintain a 1000 lb, 5 kW airborne payload for an uninterrupted period of at least 5 years with an on-station probability of 99% and with a high probability of mission success. The architectures selected and the specific approaches taken by the offerors will determine the range of technical areas that are developed, including, but not limited to, environmental energy collection, high specific energy storage, extremely efficient propulsion systems, precision robotic refueling, autonomous materiel transfer, extremely efficient vehicle structural design, and mitigation of environmentally-induced loads.

- **Total amount of money to be awarded:** The amount of resources made available to this BAA will depend on the quality of the proposals received.
- **Anticipated individual awards** – Multiple awards are anticipated.
- **Types of instruments that may be awarded** -- Procurement contract or other transaction.
- **No cost sharing is required for this BAA**
- **Agency technical contact:**
 - Dr. Wade Pulliam
 - DARPA/Tactical Technology Office
 - ATTN: BAA 07-51
 - 3701 North Fairfax Drive
 - Arlington, VA 22203-1714
 - Fax: (703) 696-8401 or 2204
 - Electronic mail: BAA07-51@darpa.mil

Part Two: Full Text of Announcement

I. 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/>, then the agency website of <http://www.darpa.mil/tto/solicitations.htm>. The following information is for those wishing to respond to the BAA.

A. Program Overview

The Defense Advanced Research Projects Agency (DARPA) is seeking innovative solutions that will expand the knowledge base and design capabilities for Vulture, an uninterrupted five (5) year airborne payload-on-station system. The use of a BAA solicitation allows a wide range of innovative ideas and concepts. The offeror(s) will have the flexibility to develop a tailored program plan that best advances the Vulture program goals.

B. Program Goals

The ability to maintain a continuously operating airborne payload on station for 5 years would provide a dramatic new capability to the US military. The Vulture program seeks to 1) develop a robust system design that maximizes military utility; 2) mature critical enabling technologies; and 3) validate through simulation, ground test and flight demonstration that a 5 year aircraft is achievable.

It is envisioned that this program will, at a minimum, develop and demonstrate advanced reliability technologies for air vehicle systems. Other advanced technologies may also be developed and demonstrated depending upon the nature of the architectures proposed by offerors. The Government is not interested in approaches that use either radioactive energy sources or employs any form of buoyant flight for this application.

As a point of departure, DARPA has developed the following top-level performance goals for the objective Vulture system:

- At least 5 years uninterrupted operation
- 1000 lb, 5kW payload
- 99% probability of station-keeping
- High probability of mission success

The following information should provide potential offerors with a clear understanding of the Government's intent for these four objectives,

- DARPA envisions a system which launches with a single payload at the start of the mission. This single payload will be kept in operation, in the air, continuously for the next five years, except as necessary for the payload to perform its required internal maintenance tasks (calibration, new software uploads, etc.) or for very

short periods that might be required based on the proposed system concept design (e.g. payload transfer). During this five-year period the operational payload will probably be re-tasked to a number of different areas-of-operation as military priorities change, but the payload will remain in operation continually.

- The specific payload for the Vulture system has not been determined. Potential payloads, and their requirements, will be developed as part of both the military utility study deliverable (section 1F) and the CONOPS study deliverable (section 1F). The notional payload is 1000 lbs, with an average power requirement of 5kW, 24 hours a day.
- Station-keeping is defined as the ability of the system, including its proposed payload, to continuously execute its mission over the area of interest. The ability to maintain this capability could be influenced by a number of factors, e.g. ambient winds. Ambient winds can vary considerably, depending upon altitude, latitude, and time of year. The station-keeping requirement of 99% is to ensure that design speed can cope with all but a very small portion of the expected ambient wind speeds. This calculation will be made on a yearly basis.
- Information regarding the definition and implementation of a process-based approach to mission success can be found at http://pbma.nasa.gov/framework_main_cid_513. Some examples of how to apply this approach to typical complex systems can be found at http://pmchallenge.gsfc.nasa.gov/docs/2007Presentations/Presentations/Snow_Le_e.pdf and http://www.mitre-corp.org/work/sepo/toolkits/risk/training/files/ESC_RiskMgmtConsolidated.pdf.

The Vulture program will be conducted in three phases:

- Phase I: Military Utility Analysis, Design Trade Studies and System Requirements Development
- Phase II: Subscale System Demonstration
- Phase III: Full Scale System Demonstration

Each phase will progressively mature the design and technologies required to validate the ability to achieve the Vulture system performance goals described above and move incrementally toward the objective system. The following sections describe the specific technical objectives of each phase.

C. Phase I Objectives

The objectives of Phase I are:

- Conduct military utility analyses and develop a notional CONOPS and system architecture for the objective Vulture system.
- Conduct design trade studies to develop an objective system conceptual design
- Develop an affordable full scale demonstration system conceptual design that closes around the BAA requirements and is derived from the objective system design
- Develop a detailed technology maturation roadmap that defines a credible development program to meet the Vulture Phase II and III objectives

- Develop a subscale demonstrator conceptual design that will demonstrate key enabling technologies and system attributes of the full scale demonstration and objective systems
- Perform formal reliability and mission success analyses of the objective system and both demonstrator designs at the major subsystem/operational task level to establish the required reliability/mission success goals for the major subsystem/operational task level system elements
- Conduct a System Requirements Review (SRR) for the subscale demonstrator system

The military utility analysis and CONOPS development tasks will help to further define the system requirements for the objective system. Design trade studies will support the development of a robust objective system conceptual design. The Government may elect to establish a common set of ground rules and assumptions to ensure that all offerors are conducting consistent analyses. A full scale demonstration system design will be derived from the objective system design. The goal of the full scale demonstration is to conduct an affordable flight test demonstration of the key technologies that will validate the potential for 5-year functionality but without all of the features required for an operational vehicle.

The full scale demonstration system conceptual design will be used as the basis for developing a detailed technology maturation plan (TMP) that 1) identifies and includes a risk assessment of critical technologies, processes and system attributes (TPSAs) that constitute the major technical and system integration risks on the program; 2) identifies major Phase II risk reduction tests and demonstrations, including subscale demonstrator flight tests in Phase II, required to validate the ability to achieve the overall Vulture program goals with a full scale demonstration system test in Phase III; 3) defines credible intermediate performance objectives (go/no go criteria) associated with critical tests and demonstrations, including in the area of reliability/mission success; and 4) defines an integrated program for systematically reducing risk that meets the Phase II and Phase III objectives. This TMP is a major Phase I deliverable and will be the foundation of the performer's Phase II and Phase III program plans.

The objective system conceptual design, the TMP and the full scale demonstration system conceptual design will form the basis for developing the subscale demonstrator system conceptual design and system requirements. It is expected that the performer will implement a rigorous system engineering process and system engineering tools in Phase I for defining and allocating the system requirements. These systems engineering processes will extend across all Phases of the program and provide a robust framework for linking and managing all aspects of both the subscale demonstrator and full scale demonstration system designs. By the end of Phase I, the subscale demonstrator design shall have sufficient maturity to hold a tailored System Requirements Review, as described in Section II-F.

Because reliability is such a major metric and performance driver on this program, it is critical that system and subsystem reliability metrics, as well as a robust plan for

analyzing and validating reliability and mission success, be developed early in Phase I. The results of this activity will be a major component of the TMP.

Specific Phase I deliverables are defined in detail for each 3-month program review in Section II-F., Phase I Schedule and Deliverables.

D. Phase II Objectives

The decision to continue the program into Phase II will be based upon the Government's determination that one or more performers have successfully completed the Phase I exit criteria as well as the availability of Phase II funds.

In Phase II, the performer will execute their Phase II TMP. To ensure that the subscale demonstrator will demonstrate sufficient flight duration and have some residual capability, the Government has defined the following preliminary minimum objectives for Phase II:

- Laboratory/field demonstrations of all major subsystems that demonstrate the ability to achieve reliability/mission success objectives of the Phase II subscale demonstrator
- Subscale flight demonstration that maintains a payload on station for a minimum of 90 days. The Government currently envisions a single 200lb, 1000W minimum payload.
- Demonstration of all major operational sustainment tasks sufficiently to provide confidence in the ability to achieve the predicted Phase III reliability/mission success criteria
- Analysis/laboratory and/or field demonstrations of all major subsystems that provide sufficient confidence of the ability to achieve reliability/mission success objectives of the Phase III full scale system
- Update military utility analysis, CONOPS and objective system conceptual design based on Phase II results
- Refine full scale demonstration system design based on results of Phase II activities, culminating in SRR of the full scale demonstration system.

These objectives may be refined and/or additional objectives added based on results of design trade studies, military utility analyses, and technology maturation assessments early in Phase I. The Government intends to provide updated Phase II guidance prior to Phase II proposal development.

E. Phase III Objectives

The decision to continue the program into Phase III will be based upon the Government's determination that one or more performers have successfully completed the Phase II exit criteria as well as the availability of Phase III funds.

In Phase III the performer will complete execution of their TMP. The primary Phase III objective is to conduct a full scale Vulture system flight test demonstration that validates the system's capability of meeting the program reliability and mission success criteria.

The Government envisions at least a one year continuous demonstration. More detailed Phase III objectives will be developed based on Phase II results and the performer's TMP.

F. Phase I Schedule And Deliverables

The Government envisions holding periodic program reviews throughout Phase I. As required, the Government team will also support interim technical interchange meetings and/or telecons. Reviews 1, 2, 3 and 5 shall be conducted at the offeror's facility. Review 4 shall be conducted in the Washington, DC metro area at a Government specified site or the offeror's local facility. Review 4 is envisioned to be a shorter review where the performer will only present their final TMP and Phase II proposal. The following sections describe the deliverables desired at each review. The offeror is free to propose an alternate schedule of deliverables as appropriate for their concept for Reviews 1 and 2, however Review 3, 4, and 5 deliverables should be proposed as described below to ensure the Government is provided with sufficient information to evaluate Phase I exit criteria and make a decision regarding program continuation into Phase II.

REVIEW 1 – Three (3) Months After Award

- **Results of Military Utility Analysis:** The performer shall describe in detail the military utility analyses conducted to develop their notional system CONOPS and develop their objective system conceptual design. The military utility analysis should include assessments of alternative CONOPS, payloads, acceptable minimum probability of mission success, etc. The performer shall present the results of modeling and simulation and other quantitative analyses, as well as the major assumptions. The Government is interested in the process and substantiation for the trades, which are just as important as the results of the trades.
- **CONOPS Review:** The offeror shall provide a detailed description of their proposed system CONOPS. This CONOPS discussion should help to further describe their system architecture, including the functionalities and sequencing for a typical system operation. This discussion shall cover all aspects of the system, including deployment, C2, mission execution, etc.
- **Conceptual Design of Objective System:** The performer shall conduct a review of their objective system conceptual design. This review should present the quantitative results of design trade studies that led to the performer's preferred design. This review shall include a detailed description of the overall system architecture – not just the air vehicle portion of the system. The Government is interested in the process and substantiation for the trades, which are just as important as the results of the trades.
- **Initial Technology Maturation Plan Review:** Throughout Phase I, the performer shall develop a Technology Maturation Plan (TMP) to provide the Government with the fiscal and technical information necessary to support a long-term acquisition strategy. The final TMP will define the performer's overall approach to mitigating risk and maturing their full scale system design. The TMP should define the major demonstration building blocks that incorporate all risk reduction, technology and process development and maturation, and operational evaluation

activities that must be conducted throughout Phases II and III of the program. By the end of Phase I the plan will also include detailed cost and schedule for these activities, as well as identify any external Government R&D activities that are critical to maturing the system. The initial TMP will explicitly address the following:

- Risk management process
- Risk assessment results
 - Critical technologies, processes and system attributes (TPSAs) identified
- Initial Review Of Reliability And Mission Success Analysis. The performer shall provide a detailed discussion of their reliability and mission success analysis approach and present initial results for the objective system. These should include initial reliability goals required for each subsystem/sustainment tasks, and an assessment of the reliability of current state-of-the-art technology as a comparison benchmark. The performer shall include a detailed description of the major assumptions used in their modeling and analysis.

REVIEW 2 – Six (6) Months After Award

- Final Results of Military Utility Analysis: The performer shall provide their final military utility analysis results based on Government feedback at Review 1 as well as lessons learned from subsequent objective system design activities.
- CONOPS Review: The offeror shall present their updated CONOPS based on refinements to the objective system design.
- Updated Conceptual Design of Objective System: The performer shall describe their final conceptual design for the objective system. It is expected that a significant portion of the system functional requirements will be established. This review shall provide the outer mold line of the system (with a detailed breakdown of estimated weights), include the arrangements of all major subsystems, and include initial aero-performance analysis that demonstrates that the proposed system meets system level requirements.
- Conceptual Design of Full Scale Demonstration System: The performer shall describe their conceptual design for the full scale system. It is expected that a significant portion of the system functional requirements will be established. This review shall provide the outer mold line of the system (with a detailed breakdown of estimated weights), include the arrangements of all major subsystems, and include initial aero-performance analysis that demonstrates that the proposed system meets system level requirements. This design should have direct legacy to the objective system and validate that the full scale performance objectives can be met. However the demonstrator should be focused on affordability and is not expected to include all of the features that might be present in an operational system (e.g., survivability)
- TMP Review: The performer shall present their updated TMP. By this review, the TMP shall be updated to include a list of major risk reduction building blocks (e.g. simulations, demonstrations, software builds) required to mature each of the TPSAs in support of the Phase II and Phase III flight demonstrations.

- Reliability and Mission Success Analysis for the Full Scale Demonstration System: The performer shall provide a detailed discussion of their reliability and mission success analysis results for their full scale system design. The reliability and mission success analysis should update initial reliability goals required for each subsystem and update the assessment of the reliability of the current state-of-the-art technology presented previously. Based on these assessments, the performer should present an assessment of the steps required to improve these reliabilities to meet their system concept requirements. These results should be incorporated into the TMP and address proposed validation approaches in Phase II and III.
- Initial Conceptual Design Review of Subscale Demonstrator System: The performer shall conduct a review of their initial sub scale demonstrator system design. This review should present the quantitative results of design trade studies and risk mitigation assessments that led to the performer's preferred design. This review shall include a detailed description of the overall Phase II demonstration system architecture – not just the air vehicle portion of the system. The performer should substantiate how the subscale system design provides direct risk reduction and has legacy to the full scale system design.
- Initial Reliability and Mission Success Analysis for Subscale Demonstrator System: The performer shall provide a detailed discussion of their reliability and mission success analysis results for their subscale system design. The reliability and mission success analysis should provide initial reliability goals required for each subsystem and provide the assessment of the reliability of the current state-of-the-art technology. Based on these assessments, the performer should present an assessment of the steps required to improve these reliabilities to meet their system concept requirements.

REVIEW 3 – Eight (8) Months After Award

- Final Conceptual Design of Subscale Demonstrator System: The performer shall describe their final conceptual design for the subscale demonstrator system. It is expected that a draft of all of the system and segment functional requirements will be established and quantified. The performer shall also have completed draft functional flow block diagrams (FFBDs) for the entire system. The design review shall provide the outer mold line of the system (with a detailed breakdown of estimated weights), include the arrangements of all major subsystems, and include initial aero-performance analysis that demonstrates that the proposed system meets system level requirements. The performer shall describe the planned functionality and flight test objectives for the subscale demonstrator system.
- TMP Review: The performer shall present their updated TMP. By this review, the TMP shall include a complete set of risk reduction waterfalls for each critical TPSA. The TMP shall also include a list of all proposed Phase II and III risk reduction events, along with the objectives for each activity.
- Final Reliability and Mission Success Analysis for Subscale Demonstrator System: The performer shall update the analysis presented at Review 2 based on feedback from the Government and increased fidelity in their subscale demonstrator design.

REVIEW 4 – Nine (9) Months After Award

- Final TMP Review: The performer shall present their final TMP. By this review, the TMP shall be finalized to include Phase II and III schedules to at least Work Breakdown Structure (WBS) Level 4, Phase II cost to at least WBS Level 4 and Phase III ROM cost to at least WBS Level 3.
- Phase II Technical and Cost Proposal

REVIEW 5 – Twelve (12) Months After Award

- System Requirements Review (SRR) of the Subscale Demonstrator System: The SRR shall define all aspects of the demonstrator system. The requirements should have direct legacy to the objective system and full scale demonstration system's capabilities and the functions required to conduct the demonstrations defined in the TMP. The review encompasses the total system requirements, e.g., air vehicle, mission control, computer software, operations/maintenance/testing, facilities, personnel, and preliminary logistic support considerations. This review should also describe the Systems Engineering Process that produced the system requirements products. Specific review items are as follows:
 - Functional Flow Analysis
 - Subscale demonstrator capabilities, states & modes
 - Final system requirements mapped to performance capabilities
 - Requirements & Requirements Allocation
 - Final System Requirements with traceability to source and methods proposed to verify/validate requirements.
 - Draft segment requirements
 - Draft interfaces defined and quantified at segment level
 - Trade Study Results
 - Integrated Test/Lab Demonstration Planning
 - Test objectives defined
 - Preliminary test planning
 - Program Risk Analysis
 - Risk management and mitigation planning
 - Risk assessment (e.g. 5x5 risk cube)
 - Technology maturation planning
 - System/segment risk waterfalls
 - Technical Performance Metrics
 - Demonstrator Design Concept
 - Block diagram
 - Schematics
 - 3D CAD physical layout to the component level
 - Weight estimate/budgets
 - Software architecture
 - System specification
 - System integration approach
 - Software & hardware quality assurance planning
 - Mission and Requirements Analysis

- Design Reference Missions
 - Military Utility Analysis
 - CONOPS results
 - Reliability/Mission Success Analysis
- Phase II and III Systems Engineering
 - Process
 - Organization
 - Configuration management
- Phase I Final Report: The performer shall submit an annotated briefing detailing all of their Phase I activities.

G. Program Metrics

In order for the Government to evaluate the effectiveness of proposed solutions in achieving the stated program objectives, the following exit criteria have been established for each program phase. These exit criteria will serve as the basis for determining whether satisfactory progress is being made to warrant continued funding of the program. The Government has identified these metrics with the intention of bounding the scope of the effort, while affording the maximum flexibility, creativity, and innovation in developing proposed solutions. The Government has defined the following exit criteria for each phase:

Phase I Exit Criteria

- Objective system conceptual design has sufficient military utility to warrant further development
- Phase III full scale demonstration system conceptual design is feasible and meets the full scale demonstration system objectives
- Phase II subscale demonstrator design is feasible, is defined to SRR level of maturity, has legacy to the full scale demonstration system, and can credibly meet Phase II flight test demonstration objectives
- Credible technology maturation plan incorporates all risk reduction activities required to meet Phase II and III objectives with reasonable scope, risk, cost and schedule metrics
- TMP includes clearly defined, quantifiable go/no criteria at Phase II PDR, Phase II CDR and at the end of Phase II
- Quantification of reliability/mission success subsystem and sustainment task goals required to meet Phase II and III objectives and a credible plan for validating these capabilities

Phase II Exit Criteria

- Successful 90-day demonstration of subscale demonstrator that meets reliability/mission success criteria for the subscale demonstrator
- Demonstration of all major operational sustainment tasks enough times to generate sufficient statistical data to provide confidence in the ability to achieve the predicted Phase III reliability/mission success criteria
- Component/subsystem testing, analyses and other technology maturation/validation activities provide confidence that the Phase III full scale

demonstration system will meet the reliability/mission success criteria for the Vulture system

- Credible full scale demonstration system design defined to SRR level of maturity
- Credible Phase III program plan that meets Vulture program goals with reasonable scope, risk, cost and schedule.
- Phase II technical go/no go criteria met

II. Award Information

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

The Government reserves the right to select for negotiation all, some, one, or none of the proposals received in response to this solicitation, and to make awards without discussions with offerors. 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 will be opened with that offeror. 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.

The Government intends to use this BAA award to cover the entirety of the Vulture program and does not plan to conduct a new competition for Phases II or III. During Phase I, the Government will release an updated Phase II statement of objectives. This update will provide additional detail on the objectives, planned schedule/deliverables and proposal guidance for Phase II. The Government intends to provide this information approximately 7 months after Phase I award.

Awards under this BAA will be made to offerors on the basis of the evaluation criteria listed below (see section labeled “Application Review Information”, Sec. V.), and program balance to provide overall best 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. Offerors should note that the required degree of interaction between parties, regardless of award instrument, will be high and continuous.

III. Eligibility Information

A. Eligible Applicants

All responsible sources capable of satisfying the Government's needs may submit a proposal that shall be considered by DARPA. 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. Independent proposals from Government/National laboratories may be subject to applicable direct competition limitations, though certain Federally Funded Research and Development Centers are excepted per P.L. 103-337§ 217 and P.L 105-261 § 3136.

Participation is limited to U.S. firms as prime integrator, but offeror may include foreign partners or personnel as subcontractors as part of their proposed resources as long as these entities comply with any necessary Non-Disclosure Agreements, Security Regulations, Export Control Laws, and other governing statutes applicable under the circumstances.

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

Certain post-employment restrictions on former federal officers and employees may exist, including special Government employees (including but not limited to Sections 207 and 208 of Title 18, United States Code, the Procurement Integrity Act, 41 U.S.C. 423, and FAR 3.104).

Accordingly, it has been confirmed that the DARPA Program Manager is a Government employee and, as such, is unlikely to have a potential conflict of interest with any potential offerors. However, prior to the start of proposal evaluations, the Government will assess whether any potential conflict of interest exists in regards to the DARPA Program Manager as well as those individuals chosen to evaluate proposals received under this BAA.

Certain post-employment restrictions on former federal officers and employees may exist, including special Government employees (18 U.S.C. 207). If a prospective offeror believes that a conflict of interest exists, the situation should be raised to the DARPA Technical Point of Contact specified in Sec. VIII before time and efforts are expended in preparing a proposal.

All offerors 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 offeror 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 organization conflicts of interest (FAR 9.5) must be disclosed. The disclosure shall include a description of the action the offeror has taken or proposed to take to avoid, neutralize, or mitigate such conflict.

B. 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.

C. Proposing an Other Transaction

The Government contemplates the award of a Cost type Procurement Contract in accordance with the FAR; however, this BAA affords Offerors the option of submitting proposals for an Other Transaction for Prototype Agreement (OT), as well. **Offerors must submit a proposal for a Procurement Contract before any considerations will be given to proposals for an OT.** In addition, all proposals for OTs must be in accordance with applicable authority for such an award. The Government reserves the right to negotiate the type of award instrument determined appropriate under the circumstances.

The flexibility of OT authority allows the offeror to be creative in designing the system and in the selection of the management framework that best suits the proposed technical and management approach. Should the offeror propose the use of an OT, the Government will allow the offeror to use either commercial or Department of Defense (DoD) streamlined processes, reporting and management practices. The use of an OT requires compliance with applicable laws, but allows the latitude to depart from acquisition-specific laws, Federal Acquisition Regulations (FARs), and DoD practices where such a departure makes sense. If the offeror can meet the requirements for an OT, the offeror may take full advantage of this latitude to propose innovative/revolutionary approaches to team building. The resulting OT proposal must clearly demonstrate a robust method to assure and control costs, quality, reliability, system engineering, program schedule, system design, and test planning and execution. Commercial, industrial, and corporate specifications and standards may be used in lieu of military specifications and standards where appropriate. Military specifications and standards, if needed, should be used as guidance, with any modifications, tailoring, or partial application described.

Offerors are also advised that an OT will only be awarded if there is:

1. At least one nontraditional defense contractor participating to a significant extent in the prototype project, or
2. No nontraditional defense contractor is participating to a significant extent in the prototype project, but at least one of the following circumstances exists:
 - a. At least one-third of the total cost of the prototype project is to be paid out of funds provided by the parties to the transaction other than the Federal Government. The cost share should generally consist of labor, materials, equipment, and facilities costs (including allocable indirect costs).
 - b. Exceptional circumstances justify the use of a transaction that provides for innovative business arrangements or structures that would not be feasible or appropriate under a procurement contract.

Although use of one of these options is required to use an OT as the procurement vehicle, no single option is encouraged or desired over the others. However, DARPA has not used the exceptional circumstances justification for the BAA process and is unlikely to use this justification for this program.

For purposes of determining whether or not a participant may be classified as a nontraditional defense contractor and whether or not such participation is determined to be participating to a significant extent in the prototype project, the following definitions are applicable:

“Nontraditional defense contractor” means a business unit that has not, for a period of at least one year prior to the date of the OT agreement, entered into or performed on:

1. any contract that is subject to full coverage under the cost accounting standards prescribed pursuant to Section 26 of the Office of Federal Procurement Policy Act (41 U.S.C. 422) and the regulations implementing such section; or
2. any other contract in excess of \$500,000 to carry out prototype projects or to perform basic, applied, or advanced research projects for a Federal agency that is subject to the Federal Acquisition Regulation.

“Participating to a significant extent in the prototype project” means that the nontraditional defense contractor is supplying a new key technology or product, is accomplishing a significant amount of the effort wherein the role played is more than a nominal or token role in the research effort, or in some other way plays a significant part in causing a material reduction in the cost or schedule of the effort or an increase in performance of the prototype in question. The Government has discretion in determining the level of “significant extent.” Some factors may include the criticality of the technology being contributed, the role of the non-traditional defense contractor(s) in the development process, the cost of the effort being proposed by the nontraditional defense contractor and/or the cost or schedule savings associated with the use of the nontraditional defense contractor.

If an offeror elects to submit an OT proposal they should submit a third proposal volume entitled, “Volume III, OT Based Delta Proposal”. Volume III should discuss how an OT would offer a better value to the Government in the Vulture Program. This volume must outline the extent to which the other transaction will contribute to a broadening of the technology and industrial base available for meeting Department of Defense needs and the extent to which the other transaction will foster new relationships and practices within the technology and industrial base that support the national security of the United States. Volume III should clearly identify changes to the Volume I and II no-cost-share technical and cost proposals that result from use of an OT. If there are no differences, the offeror should state this in Volume III of their proposal. After award selection, OT proposals from the successful offeror(s), if any, will be opened and evaluated. Any cost-share an offeror proposes in Volume III shall be constructed to include distinct, significant, value-added activities covering the entire Vulture program and should leverage the flexibilities offered by OT provisions instead of providing only a general increase in level of effort.

At a minimum, the following outline shall be used for Volume III:

OT Technical Response: The offeror shall clearly delineate all additional work that can be performed within the OT agreement. The offeror shall provide a top level summary as well as a “red-lined” SOW and IMS that highlight any additional tasks being performed as compared to the Volume 1 proposal. The offeror shall ensure that any additional activities build upon the baseline Phase I program to provide compelling additional value to the program (e.g., additional risk reduction tasks and demonstrations, earlier achievement of key milestones, etc.). Offerors must also include a top-level discussion of differences in Phase II and Phase III demonstration plans if executed under an OT.

OT Cost Response: The offeror shall provide cost information in the format described in Appendix A. Offerors must also include a ROM estimate of the potential cost of Phase II and Phase III efforts under an OT agreement, consistent with the Phase II and Phase III plans.

Company Investments: The offeror shall provide a total estimated price for the major cost-share activities associated with the program. The offeror shall clearly state whether these investments are to be included within the agreement and will breakout each item (i.e. Cash, IRAD, capital, G&A, cost of money, etc).

IV. Application and Submission Information

A. Address to Request Application Package

This announcement 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.

B. Content and Form of Application Submission

1. Proposal Summary Information

Offerors are strongly encouraged to submit a no more than three page summary of their proposed point of departure objective system concept and system architecture, including cover page. This summary should highlight key system capabilities, attributes, and enabling technologies. The summary may be provided in the offeror’s format but font size shall not be smaller than 12 point. The time and date for submission of this Proposal Summary Information is specified in Section IV-C below. The Government does not intend to respond to the submitted summaries.

2. Proposal Information

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 BAA07-

51@DARPA.MIL or send facsimiles with DARPA/TTO, BAA 07-51 to (703) 696-8401. Questions and answers and other BAA related documents may be found on the BAA website: <http://www.darpa.mil/tto/solicitations.htm>. DARPA intends to use electronic mail and fax for correspondence regarding BAA 07-51. Proposals may not be submitted by fax or e-mail; any so sent may be disregarded. DARPA encourages use of the Internet for retrieving the BAA and any other related information that may subsequently be provided. See Section IV-C below for submittal instructions.

a) Full Proposal Format

All proposals must be in the following format. Nonconforming proposals may be rejected without further review. Proposals must be on single-sided pages, written in English, with 1-inch margins (left, right, top, and bottom) in each page. A page is defined as being no larger than 8.5" by 11.0". (Accordion-style foldouts will be counted as multiple pages equivalent to the expanded size.) The body text of the Technical Proposal shall contain no smaller than 12 point font type. Information presented in tables/graphs and accordion-style fold-outs may use a type font smaller than 12 point as necessary to display such information, however respondents are cautioned that excessive use of smaller fonts may adversely affect the Government's ability to evaluate such information in a timely fashion. Graphic material shall be embedded in the Word document using GIF format. The Cost Proposal shall contain no smaller than 8 point font type and provide requested information in the format described in Appendix A. Larger font type for the Cost Proposal, up to 12 point font type, is desired, where possible. Paper copies of proposals should be stapled or submitted in loose-leaf binder, not bound. Electronic copies shall be submitted on IBM PC-formatted CD-ROM in a format readable with Microsoft Office 2003 or earlier.

A complete proposal shall consist of two volumes—a Technical Proposal (Volume I) and a Cost Proposal (Volume II). Offerors shall submit a total of nine (9) copies of Volume I and nine (9) copies of Volume II in hardcopy as well as two (2) copies of each proposal in electronic format to DARPA. All graphics and tables, as well as the offeror's IMS in MS Project format, shall be included in separate electronic files on the CDs.

Respondents need only submit one (1) original signed proposal along with the copies. Each submittal shall reference BAA 07-51. The technical volume 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 (in Section VII of Volume I) are not included in the page counts given below. The submission of other supporting materials along with the proposal is strongly discouraged and will not be considered for review. *Sections I-IV* of Volume I shall not exceed fifty (50) pages total, excluding the offeror's statement of work and integrated master schedule. The page limitation for proposals includes all figures, tables (except the table of contents and front matter), and charts. All pages that exceed the maximum page limit specified will be removed and not be reviewed or considered in the evaluation. The Cost Proposal Volume does not have a page limit.

b) Work Breakdown Structure (WBS)

The Government has devised a WBS to provide a common numbering system that ties all program elements together. This numbering system will integrate the SOW, IMS and cost proposal. Offerors shall use this common WBS and numbering system throughout all proposal and program documentation.

This section describes the level 3 WBS as viewed by the Government. This is an initial framework and is not intended to be all-inclusive. The offeror’s WBS shall be consistent with the Government’s WBS to level 2. However the offeror shall tailor and augment this WBS at level 3 and below as appropriate for their proposed system. The offeror’s WBS, SOW, IMS and cost proposal must be consistent at all levels. Proposals must define Phase I work through at least level 4. Phase II and III work may be defined at level 2 in the Phase I proposal.

Outline Code	Level			
	1	2	3	4
	0.0	Vulture Program		
	1.0	Systems Engineering		
		1.1	Military Utility Modeling and Simulation	
		1.2	Requirements Development	
		1.3	Reliability and Mission Success Analysis	
		1.4	Configuration Management	
		1.5	Risk Management	
		1.6	Security	
		1.7	Software	
		1.8	System Demonstration Planning	
	2.0	Mission Management and Control		
		2.1	Subsystem engineering	
		2.2	Physical Infrastructure	
			2.2.1	Control Station
		2.3	Software	
			2.3.1	Processing Architecture
			2.3.2	Software Architecture
		2.4	Mission Planning	
			2.4.1	Launch & Recovery
			2.4.2	Flight Planning
			2.4.3	Systems Management
		2.5	Air Vehicle Management	
			2.5.1	Autonomous Flight
			2.5.2	Flight Termination
		2.6	Contingency Management	
		2.7	Human-Machine Interface	

- 2.7.1 Mission Control Interface
 - 2.7.2 Situation Awareness
 - 2.8 Communications
 - 2.8.1 Vehicle
 - 2.8.2 Internal
 - 2.8.3 External
 - 2.9 Mission Control Segment Integration & Test
- 3.0 Air Vehicle
 - 3.1 Airframe
 - 3.1.1 Performance and Flight Characteristics
 - 3.1.2 Takeoff and Landing
 - 3.1.3 Operating Environment
 - 3.1.4 Air Worthiness
 - 3.1.5 Structures, Materials and Processes
 - 3.1.6 Control Effectors (if applicable)
 - 3.1.7 Nacelles, Inlets, Exhaust Ducts (if applicable)
 - 3.1.8 Apertures
 - 3.2 Propulsion
 - 3.2.1 Engine
 - 3.3 Vehicle Management System
 - 3.3.1 Flight Controls
 - 3.3.2 Navigation
 - 3.3.3 System Health
 - 3.3.4 Contingency Management
 - 3.4 Mission Management System Hardware
 - 3.5 Communications
 - 3.5.1 Narrowband
 - 3.5.2 Wideband
 - 3.5.3 Relay
 - 3.5.4 Air Traffic Services
 - 3.5.5 Antennae
 - 3.5.6 LPI/LPD/COMSEC Architecture (if applicable)
 - 3.6 Subsystems
 - 3.6.1 Air Data System
 - 3.6.2 Environment Control
 - 3.6.3 Fuel (if applicable)
 - 3.6.4 Power Distribution
 - 3.7 Payload
 - 3.7.1 Sensors
 - 3.8 Air Vehicle Segment Integration and Test
- 4.0 Supportability
 - 4.1 Reliability and Maintainability
 - 4.2 Maintenance Planning
 - 4.3 Deployability

- 4.4 Support Equipment
- 4.5 Manpower, Personnel & Training
- 4.6 Supply Support
- 4.7 Computers
- 4.8 Safety & Health Hazards
- 4.9 Segment Integration and Test

- 5.0 System Integration and Test
 - 5.1 Test Planning
 - 5.2 Quality Assurance
 - 5.3 Flight Test Support
 - 5.4 Demonstrations
 - 5.5 System Software

- 6.0 Program Management

c) Volume I, Technical Proposal

The Volume I Technical Proposal shall be organized into six sections as described below.

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.
- C. {Not included in page count} Table of Contents. The Table of Contents should be keyed to the page numbers of the proposal sections.
- D. {Not included in page count} Additional front matter such as List of Figures, List of Acronyms, etc. if desired.

Section II. Executive Summary

The Executive Summary should provide a short overview of the offeror's proposed Vulture program, including a summary of the Point of Departure (POD) objective system concept, military utility and CONOPS; technical approach; and top-level description of tasks, schedule and cost for each phase.

Section III. Point of Departure Objective System Concept

The offeror should describe their top-level vision of the Vulture system architecture and the notional system concept that will serve as the starting point for their conceptual design in Phase I. The top level vision should be substantiated with first order analysis consistent with this level of design maturity. This is meant to be an initial look that demonstrates the offeror's understanding of the program objectives, performance goals and operational issues. The offeror will describe their top level system vision, major subsystems, and critical technologies integral to achieving their predicted system performance. The Government does not expect the POD to be defined to high fidelity but rather will use this information to gauge the offeror's initial thoughts on how to best meet the program vision and objectives.

Section IV. Overall Scientific Approach

This section provides the detailed discussion of the specific technical aspects of the offeror's proposal.

Section IV shall be organized into the following sections:

- Technical Approach
- Technology Maturation
- Phase I Statement of Work (SOW)
- Phase I Integrated Master Schedule (IMS)
- Phase II and III Program Plans

The Technical Approach section should provide an overview of the offeror's systems engineering processes to be used on the program. It should describe the offeror's approach to progressively refining their POD design into a final objective system and full scale system conceptual design(s). Those refinements will be based on a series of concurrent system requirements refinements, military utility analyses, reliability analyses and design trades. This section should describe the overall analysis plan, methodology, system engineering tools, and modeling and simulation tools to be used in the execution of the program. In particular, the offeror shall address their approach for conducting the reliability and mission success analysis and validation throughout the program, and provide a preliminary analysis of the POD, identifying the proposed goals for their concept.

In the Technology Maturation section, the offeror should provide an initial list of critical technology risk areas and risk reduction approaches. The offeror shall also describe their formal process for identifying and tracking the risk elements that translate into critical and unique technologies, processes and system attributes associated with their Vulture

objective system concept that will form the basis for their TMP. The process should describe a building block approach to incrementally reduce risk through analyses, simulation, ground and flight test demonstrations, etc. to achieve Phase II and Phase III program objectives. The offeror should also describe the process for identifying and evaluating applicable technologies available from other Government and industry R&D programs.

The Phase I SOW will describe all of the tasks the offeror will perform in order to achieve the Phase I exit criteria. The SOW should structure tasks consistent with the WBS defined in b. above detailed to Level 4. The offeror may choose to define work at lower levels to better explain their approach. This SOW section is not part of the technical page count limit.

The Phase I IMS should provide a detailed, integrated schedule of all Phase I activities. As with the SOW, Phase I IMS shall be provided at WBS Level 4. All tasks in the IMS shall be linked and the ability to display the critical path shall be implemented. An electronic copy of the IMS in MS Project shall be included on the CD proposal submittals. The IMS is not part of the page count.

This offeror's Phases II and III Vulture Program Plan shall include top-level Phase II and Phase III schedules based on the offeror's initial proposed risk reduction strategy. It is expected that the Phase II plan will include a PDR and CDR of the subscale demonstrator. The offeror should include other key events and demonstrations as appropriate for their concept. The Phase II and III Program Plan shall include ROM cost estimates for both phases to assist the Government in assessing resource requirements for future phases.

Section V. Concept of Operations and Military Utility

The POD concept should be coupled to a CONOPS that provides military utility. Maintaining a payload on-station for years at a time could provide numerous advantages. This section provides the offeror with the opportunity to explain and substantiate the significant novel and unique features of their POD concept, and how it may radically enhance military capability. These features might include improved capabilities of existing payloads, expanded capabilities of modified payloads, or totally novel payloads. If any of these novel features should apply, the offeror should discuss in detail these additional military capabilities and their significance. Additionally, offerors should focus on the advantages that a "launch once, retrieve once" operation might have on a payload and its utility, including both pre-launch and launch logistics involved for an aircraft and airfield, as well as sustainment options for operation. Other key items might include flight timeline to area of interest, the range of operational altitudes and geographic availability, the frequency of any repetitive high risk tasks to sustain mission goals, any significant dependency on other existing or new systems, mission availability, cost of operations, and payload concepts of employment that enable military utility. Finally, the POD concept may employ technologies and approaches that may impact survivability and system capability, both positively and negatively and should be addressed. Any

other factors that may need to be discussed with respect to military utility should be addressed in this section

Section VI. Management

This section will describe the offeror's proposed management process and demonstrate the team's qualifications to conduct all phases of the Vulture program. In particular, the offeror should describe their management construct and corporate capabilities; program team and key personnel; past relevant experience; and approach to intellectual property. The offeror should describe their program management process, including a description of how the team will function and share technical and financial information among the team members and with the Government. The offeror should address corporate capabilities and facilities available across the team. The offeror should describe the proposed program team and demonstrate the team's capability to perform all phases of the Vulture program. Short resumes shall be provided for the Program Manager, Chief Engineer, Military Utility Analysis Lead, Mission Reliability Analysis Lead and Risk Management Lead in key disciplines. The offeror shall also identify the number of hours committed for each of these key personnel in Phase I. This section should also include a discussion of the offeror's previous accomplishments and work in this or closely related research areas. Finally this section should describe the offeror's proposed approach to intellectual property rights, together with supporting rationale of why this approach offers the best value to the Government. This section should list technical data, computer software, or computer software documentation associated with this research effort in which the Government will acquire less than unlimited rights.

Section VII. 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 papers are not included in the fifty page limit.

d) Volume II, Phase I Cost Proposal – {No Page Limit}

1. Cover sheet to include:
 - a) BAA number;
 - b) Lead Organization Submitting proposal;
 - c) Type of business, selected among the following categories: "LARGE BUSINESS", "SMALL DISADVANTAGED BUSINESS", "OTHER SMALL BUSINESS", "HBCU", "MI", "OTHER EDUCATIONAL", OR "OTHER NONPROFIT";
 - d) Funds requested from DARPA for the Base Effort, each option and the total proposed cost; and the amount of cost share (if any);
 - e) Contractor's reference number (if any);
 - f) Other team members (if applicable) and type of business for each;
 - g) Proposal title;

- h) 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);
 - i) 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);
 - j) Award instrument requested: cost-plus-fixed-fee (CPFF), cost-award—no fee, cost sharing contract – no fee, or other type of procurement contract (*specify*), or other transaction;
 - k) Place(s) and period(s) of performance;
 - l) Total proposed cost separated by basic award and option(s) (if any);
 - m) Name, address, and telephone number of the offeror’s cognizant Defense Contract Management Agency (DCMA) administration office (*if known*);
 - n) Name, address, and telephone number of the offeror’s cognizant Defense Contract Audit Agency (DCAA) audit office (*if known*);
 - o) Any Forward Pricing Rate Agreement, other such Approved Rate Information, or such other documentation that may assist in expediting negotiations (if available);
 - p) All subcontractor proposal backup documentation to include items a. through l. above, as is applicable and available).
 - q) Date proposal was prepared;
 - r) DUNS number;
 - s) TIN number; and
 - t) Cage Code;
 - u) Subcontractor Information; and
 - v) Proposal validity period.
- 2 Detailed cost breakdown in accordance with guidance provided in Appendix A at <http://www.darpa.mil/tto/solicitations.htm>. Appendix A contains specific table formats and instructions for providing summary cost information. Use of this format is required to facilitate timely Government evaluation of the proposal.
 - 3 Supporting cost and pricing information shall be provided in the offeror’s format. This supporting information must have sufficient detail to substantiate the summary cost tables. Offerors shall include a description of the method used to estimate costs and supporting documentation and provide the basis of estimate for all proposed labor rates, indirect costs, overhead costs, other direct costs and materials, as applicable. Note: “cost or pricing data” as defined in FAR Subpart 15.4 shall be required if the offeror is seeking a procurement contract award of \$650,000 or greater unless the offeror requests an exception from the requirement to submit cost of pricing data. “Cost or pricing data” are not required if the offeror proposes an award instrument other than a procurement contract (e.g., a Section 845 Other Transaction.)
 - 4 The source, nature, and amount of any industry cost sharing, if applicable. Where the effort consists of multiple phases that could reasonably be partitioned for purposes of funding, these should be identified as options with separate cost estimates for each.

- 5 The cost proposal shall also identify the type of support, if any, the offeror might request from the Government, such as facilities, equipment, or materials, or any such resources that they require in order to execute their SOW. If the Government can make these resources available, the cost of doing so will be added to their proposed direct costs as part of the cost evaluation process.
- 6 The cost proposal shall also provide the names of other federal, state, or local agencies or other parties where the proposal is being submitted, and/or the proposed effort has received funding. If none, so state.

C. Submission Dates and Times

1. Proposal Summary Date

Offerors are asked to submit two (2) copies of their Proposal Summary Information no later than 3:00 pm EDST on August 31, 2007. Proposal summaries must be submitted to the DARPA/TTO mailing address identified in this BAA. Each copy must be clearly labeled with BAA 07-51, offeror organization, proposal title (short title recommended), and Copy x of 2. Facsimile or electronic submissions may not be accepted.

Restrictive notices notwithstanding, proposals may be handled for administrative purposes by support contractors. These support contractors are prohibited from competition under this and/or related DARPA programs and are bound by appropriate non-disclosure requirements.

2. Full Proposal Date

In order to be considered, a full proposal must be submitted to DARPA/TTO no later than 3:00 pm EDST on September 14, 2007. Proposals must be submitted to the DARPA/TTO mailing address identified in this BAA. Proposals must be submitted in hard copy, with one signed original and eight copies, plus two electronic copies on CD-ROMs. Each copy must be clearly labeled with BAA 07-51, offeror organization, proposal title (short title recommended), and Copy x of N. Facsimile or electronic submissions will not be accepted.

Unclassified proposals submitted under this BAA may either be mailed or hand-delivered. Mailing address:

DARPA/TTO
ATTN: BAA 07-51
3701 North Fairfax Drive
Arlington, VA 22203-1714
Attn: Dr. Wade Pulliam

For hand deliveries, the courier shall 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 "Program BAA 07-51".

Offerors are responsible for submitting proposals so as to reach DARPA by 3:00 pm, Arlington, VA, on September 14, 2007. Any proposal received at DARPA after the exact time specified for receipt of offers will be treated as "late" and will not be considered, unless there is acceptable evidence to establish that it was received at DARPA and was under the Government's control prior to the time set for receipt of offers. Acceptable evidence to establish the time of receipt at DARPA includes the time/date stamp of that installation on the proposal wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at DARPA by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation, the time specified for receipt of proposals will be deemed to be extended to 3:00 PM EDST Arlington, VA, on the first work day on which normal Government processes resume.

Proposals may be withdrawn by written notice received at any time before award. Withdrawals are effective upon receipt of notice by the Contracting Officer.

Classified responses shall be submitted in accordance with directions in Section VI.

Proprietary Data: All responses containing proprietary data should be appropriately marked. It is the respondent's responsibility to clearly define to the Government what they consider to be proprietary data. Responses to this BAA will not be returned.

V. Application Review Information

A. Evaluation Criteria

The criteria to be used to evaluate and select proposals for this project are described in the following paragraphs. Proposals submitted in response to this BAA will be evaluated against the following criteria, in descending order of importance: 1) Point of Departure (POD) Concept and Substantiation; 2) Overall Scientific Approach, 3) CONOPS and Military Utility; 4) Management and Program Team; and 5) Cost. Each proposal will be evaluated on the merit and relevance of the specific proposal as it relates to the program rather than against other proposals for research in the same general area as no common statement of work exists. Selections for award will be made based on best value to the Government.

The bulleted lists under individual factors and subfactors are specific areas of evaluation to be assessed in conjunction with these criteria.

1. Point of Departure Objective System Concept and Substantiation

- Extent to which the offeror's POD concept reflects an understanding of the Vulture program goals, system requirements and performance goals.

- Extent to which the POD concept is innovative, feasible, and achievable within the offeror's proposed program schedule and ROM costs.
- Extent to which POD concept performance attributes are substantiated via analysis or previous experimental work.

2. Overall Scientific Approach

a) Technical Approach

- Extent to which the proposed military utility analyses and CONOPS development approach will identify major attributes of the objective Vulture system and support generation of system requirements
- Extent to which the proposed design trade studies will fully explore the available design trade space
- Extent to which the proposed design tools and trade study process will yield a robust system design.
- Extent to which the offeror has identified a robust process for deriving an affordable full scale demonstrator design from the objective system design.
- Extent to which the offeror's reliability and mission success analysis approach and tools will provide sufficient confidence in ability to meet Phase II and III demonstration goals and the credibility of the preliminary reliability/mission success analysis provided for the POD concept.
- Extent to which the offeror has a robust system engineering process for achieving SRR of the subscale demonstrator in Phase I

b) Technology Maturation Approach

- Extent to which the proposal identifies the major technical risks in the development of the Vulture system and the planned mitigation efforts.
- Extent to which the offeror's proposed process for identifying and evaluating critical enabling technologies, processes and system attributes (TPSAs), assessing competing technologies and developing a formal Technology Maturation Plan will result in a comprehensive, detailed plan at the end of Phase I that provides confidence in their ability to mature the subscale demonstrator and full scale demonstration system designs and provides sufficient data for a Government decision regarding Phase II.

c) Phase I Statement of Work (SOW) and Integrated Master Schedule (IMS)

- Extent to which the task descriptions and associated technical elements provided are complete and in a logical sequence with all proposed deliverables clearly defined.
- Extent to which the SOW conforms to the Government defined WBS, details activities to WBS Level 4, and is traceable to the IMS tasks and the Cost Proposal detailed estimates.

- Extent to which SOW shows a credible technical approach to achieving the Phase I Exit Criteria
- Extent to which the proposed schedule is complete and achievable.
- Extent to which Phase I IMS conforms to the Government defined WBS and is detailed to Level 4.
- Extent to which the IMS captures all the SOW tasks, shows the dependencies among the tasks, and correctly displays the critical path.

d) Phase II and III Program Plans

- Extent to which the proposed Phase II and III program plans meet the Phase II and III top level objectives with reasonable scope, schedule, technical risk and cost.

3. Concept of Operations and Military Utility

- Extent to which the offeror's POD concept has general military utility.

4. Management and Program Team

- Professional capabilities and relevant experience of key personnel, including Program Manager, Chief Engineer, Military Utility Analysis Lead, Mission Reliability Analysis Lead and Risk Management Lead
- Extent to which hours proposed for key personnel are consistent with described program roles
- Extent to which proposed team has previous experience on flight demonstration programs with a similar level of complexity to Vulture
- Extent to which the proposed team has the ability to accomplish all phases of the Vulture program
- Extent to which proposed management construct provides adequate opportunities for addressing technical, schedule and cost issues with the Government team
- Extent to which proposed management organization and lines of authority provide adequate communication across the program team and with the Government team.
- Extent to which offeror's proposed intellectual property and data rights are consistent with the Government's need to be able to communicate program information across Government organizations and to support transition of the program to the users.

5. Cost

- Extent to which proposed cost information is complete, substantiated and realistic for the technical and management approach offered
- Extent to which Phase I costs are consistent with the Government defined WBS and detailed to Level 4
- Extent to which proposed costs are reasonable and consistent with the level of effort described in the offeror's SOW and IMS and the effort required to achieve the Phase I exit criteria.

After selection and before award the contracting officer will negotiate and validate cost/price reasonableness. The Government may make awards without discussions. Award(s) will be made to offerors 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 offeror(s) whose proposal(s) is determined selectable, regardless of its overall rating.

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

B. Review and Selection 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 statement of work. 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 IV.B. 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.

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.

All proposals should clearly indicate limitations on the disclosure of their contents. They may be marked with an appropriate legend includes the term "Proprietary" or words to that effect. Markings like "Company Confidential" or other phrases that may be confused with national security classifications shall be avoided. For procurement contracts issued under the FAR/DFARS, the Government typically uses the legend: "SOURCE SELECTION INFORMATION – SEE FAR 3.104". For non FAR/DFARS contemplated

award actions, the Government typically uses the legend: “SOURCE SELECTION INFORMATION – COMPETITION SENSITIVE - GOVERNMENT ONLY.”

VI. Award Administration Information

A. Award Notices

As soon as the evaluation of a proposal is complete, the offeror 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 to the Technical POC identified on the proposal cover sheet.

B. Administrative and National Policy Requirements

1. Security

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 that proposals submitted under this BAA will be unclassified. In the event that an offeror chooses to submit a classified proposal or submit any documentation that may be classified, the following information is applicable.

Security classification guidance on 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. Offerors choosing to submit a classified proposal must first receive permission from the Original Classification Authority to use their information in replying to this BAA. Applicable classification guide(s) should be submitted to ensure that the proposal is protected appropriately.

Classified submissions shall be in accordance with the following guidance:

Collateral Classified 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 only be mailed via U.S. Postal Service (USPS) Registered Mail or U.S. Postal Service 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: (Name of the Technical Office)

Reference: (BAA Number)
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 should be hand carried via an authorized, two-person courier team to the DARPA CDR.

Special Access Program (SAP) Information: Contact the DARPA Special Access Program Central Office (SAPCO) 703-526-6614 for further guidance and instructions prior to transmitting SAP information to DARPA. Top Secret SAP, must be transmitted via approved methods for such material. Consult the DoD Overprint to the National Industrial Security Program Operating Manual for further guidance. *Prior to transmitting SAP material*, it is strongly recommended that you coordinate your submission with the DARPA SAPCO.

Sensitive Compartmented Information (SCI) Data: Contact the DARPA Special Security Office (SSO) at 703-812-1994/1984 or 703-248-7318 for the correct SCI courier address and instructions. All SCI should be transmitted through your servicing Special Security Officer (SSO). SCI data must be transmitted through SCI channels only (i.e., approved SCI Facility to SCI facility via secure fax).

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 offeror's responsibility to clearly define to the Government what is considered proprietary data.

Offerors 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 that the formal request is received at this office within 5 days after unsuccessful notification.

2. Intellectual Property

a) Procurement Contract Offerors

(1) Noncommercial Items (Technical Data and Computer Software)

Offerors 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. Offerors shall follow the format under DFARS 252.227-7017 for this stated purpose. In the event that offerors 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 offerors 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. Offerors 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 offeror, as may be necessary, to evaluate the offeror’s assertions. If no restrictions are intended, then the offeror should state “NONE.”

Definitions

1. “Government Purpose Rights”, as used in this article, means rights to use, duplicate, or disclose Data, in whole or in part and in any manner, for Government purposes only, and to have or permit others to do so for Government purposes only.
2. “Unlimited Rights”, as used in this article, means rights to use, duplicate, release, or disclose, Data in whole or in part, in any manner and for any purposes whatsoever, and to have or permit others to do so.
3. “Data”, as used in this article, means recorded information, regardless of form or method of recording, which includes but is not limited to, technical data, software, trade secrets, and mask works. The term does not include financial, administrative, cost, pricing or management information and does not include subject inventions included under Article VIII.

4. “Limited rights” as used in this article means the rights to use, modify, reproduce, release, perform, display, or disclose technical data, in whole or in part, within the Government. The Government may not, without the written permission of the party asserting limited rights, release or disclose the data outside the Government, use the technical data for manufacture, or authorize the technical data to be used by another party.

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)

(2) Commercial Items (Technical Data and Computer Software)

Offerors 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 offerors 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 offeror, as may be necessary, to evaluate the offeror’s assertions. If no restrictions are intended, then the offeror should state “NONE.”

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

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

b) NonProcurement Contract Offerors - Noncommercial and Commercial Items (Technical Data and Computer Software)

Offerors responding to this BAA requesting an Other Transaction for Prototype shall follow the applicable rules and regulations governing these various award instruments, but in all cases should appropriately identify any potential restrictions on the

Government's use of any Intellectual Property contemplated under those award instruments in question. This includes both Noncommercial Items and Commercial Items. Although not required, offerors 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 offeror, as may be necessary, to evaluate the offeror's assertions. If no restrictions are intended, then the offeror should state "NONE."

c) All Offerors – Patents

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

d) All Offerors-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, offerors 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.

3. Meeting and travel requirements

Awardees under this BAA will be required to present an overview of their proposed work at a Program Kick-off Meeting at their facility to address any updates from the proposal. Thereafter, quarterly progress review and technical interchange meetings will be held. Additional information regarding reviews and meetings is provided in the Phase I Schedule and Deliverables section above.

4. Human use

Proposals selected for contract award are required to comply with provisions of the Common Rule (32 CFR 219) on the protection of human subjects in research (<http://www.dtic.mil/biosys/downloads/32cfr219.pdf>) and the Department of Defense Directive 3216.2 (<http://www.dtic.mil/whs/directives/corres/html2/d32162x.htm>). All proposals that involve the use of human subjects are required to include documentation of their ability to follow Federal guidelines for the protection of human subjects. This includes, but is not limited to, protocol approval mechanisms, approved Institutional

Review Boards, and Federal Wide Assurances. These requirements are based on expected human use issues sometime during the entire length of the proposed effort.

For proposals involving “greater than minimal risk” to human subjects within the first year of the project, offerors must provide evidence of protocol submission to a federally approved IRB at the time of final proposal submission to DARPA. For proposals that are forecasted to involve “greater than minimal risk” after the first year, a discussion on how and when the offeror will comply with submission to a federally approved IRB needs to be provided in the submission. More information on applicable federal regulations can be found at the Department of Health and Human Services – Office of Human Research Protections website (<http://www.dhhs.gov/ohrp/>).

Any aspects of a proposal involving human use should be specifically called out as a separate element of the statement of work and cost proposal to allow for independent review and approval of those elements.

5. 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.”

6. Publication approval

Offerors 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 resulting award 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:

When submitting material for written approval for open publication as described in subparagraph (a) above, the Contractor/Awardee must submit a request for public release 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/Awardee'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.

7. 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 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.

8. 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 offeror 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.

C. Reporting Requirements

The number and types of reports will be specified by the contractor in their proposal, 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. These reports

should be aligned with the Review schedule and corresponding deliverables specified above. 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.

1. Central Contractor Registration

Selected offerors 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>.

2. Representations and Certifications

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

3. Wide Area WorkFlow (WAWF)

Unless using another approved electronic invoicing system, offerors 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.

VII. Agency Contacts

Administrative, technical or contractual questions should be sent via e-mail to BAA07-51@darpa.mil. If e-mail is not available, fax questions to 703-696-8401, Attention: BAA 07-51. All requests must include the name, email address, and phone number of a point of contact.

Points of Contact

The technical POC for this effort is Dr. Wade Pulliam,

Electronic mail: BAA07-51@darpa.mil

DARPA/TTO

ATTN: BAA 07-51

3701 North Fairfax Drive

Arlington, VA 22203-1714

FAX: 703-696-8401

VIII. Other Information

A. None