

COMBATING TERRORISM TECHNICAL SUPPORT OFFICE

**BROAD AGENCY ANNOUNCEMENT (BAA)
09-Q-4590**

This BAA was amended on May 14, 2009 to revise Requirement R2534. The remainder of the BAA is unchanged.

**Due Date for Receipt of Phase 1 White Papers with supporting Quad
Charts
No Later Than June 11, 2009**

Human, Social, Cultural, and Behavior Modeling (HSCB) Program

**All submissions are due by 1600; 4:00 p.m.
Eastern Time (ET) on the above date**

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1. INTRODUCTION.

This is a Combating Terrorism Technical Support Office (CTTSO) Broad Agency Announcement (BAA) issued under the provisions of paragraph 6.102(d)(2) of the Federal Acquisition Regulation (FAR) to provide for the competitive selection of research proposals. Contracts based on responses to this BAA are considered to be the result of full and open competition and in full compliance with the provisions of Public Law (PL) 98-369, "The Competition in Contracting Act of 1984". **Awards for submissions under this BAA are planned in Fiscal Year (FY) 2010; however, some awards could be made in late FY 2009. Funds may not be available for all requirements under this BAA. No contract awards will be made until appropriated funds are available from which payment for contract purposes can be made.**

1.1. Synopsis:

In Fiscal Year 2008 the Department of Defense (DoD) initiated a research and development (R&D) program to develop a science base and associated technologies for human, social, and cultural behavior modeling. The overarching goal of the Human, Social, Cultural, and Behavior Modeling (HSCB) Program is to provide DoD and the U.S. Government with the ability to understand and effectively operate in human/social/cultural terrains inherent to non-conventional warfare missions. The military capability needs addressed in this BAA center on enabling modeling for Irregular Warfare (IW) and Security, Stability, Transition, and Reconstruction (SSTR) operations and on using computational models to support intelligence analysis, operations planning and analysis, training, and joint experimentation. The Program is managed through the Director, Defense Research and Engineering (DDRE). CTTSO is acting as an execution agent to the Office of the Secretary of Defense (OSD) for the HSCB Program.

HSCB funded projects are, or will be, focused on:

- Developing an applied science base and general-use, cross-domain capabilities/tools to support all HSCB applications. These shall include collection and databasing for access by other applications of social, cultural computational/analytic datasets, development of data models, theory development, and application methodologies and tools using social science knowledge;
- Maturing, hardening, and validating HSCB related software for integration into existing programs of record architectures, or maturing software into Defense Information Infrastructure (DII) **Common Operating Environment** (COE) compliant open architectures to allow broad systems integration; and
- Development of computational modeling capabilities, visualization software toolsets, and training/mission rehearsal systems that provides forecasting capabilities for socio-cultural (human terrain) responses at the joint and combined strategic, operational and tactical levels.

There are many DoD-supported efforts already underway (or about to start) to collect human, social, and cultural data as well as to develop and leverage computational models for use in planning, operations, and training. Investment is now needed in techniques and tools that will build the DoD's internal capacity to leverage the available data and models across user communities, in operational settings, and for multiple HSCB contexts. This requires development of generic capabilities, including:

- Making existing data useable by multiple communities;
- Equipping operational-level personnel with the ability to assess, compare, and contrast models or model-based tools; and
- Converting model outputs to forms that will have greatest impact in the human decision-space.

This BAA is primarily concerned with advanced development projects for technologies and infrastructure that will support development, validation, integration, and transition of computational models and model-based tools that will enhance current capabilities of the U.S. Government and military to operate more effectively in the social, cultural, and behavioral domains. Multiple awards are anticipated for projects funded under this BAA. The designation for this BAA is **HSC** in the CTTSO [BAA Information Delivery System \(BIDS\)](#) used for electronic submissions. Details on the use of this system are provided in section 4 of this document.

2. TECHNOLOGY DEVELOPMENT OBJECTIVES AND REQUIREMENTS

2.1. Overview of Technical Objectives

The overall goal of the HSCB Program is to research, develop, and demonstrate general use capabilities to support applications in operational planning, joint experimentation, tactical intelligence analysis, and training. The program is rooted in social science and centered on the development of both computational and training methods/tools. The tools being developed are expected to be applicable to the full spectrum of conflict, including supporting the doctrine for Major Combat Operations (MCO), IW, and Security, Stability, Transition, and Reconstruction operations (SSTR).

The HSCB program is directly derived from the 2006 Quadrennial Defense Review (QDR)¹ and their common call for a focus on IW. It is linked directly to the QDR stated goals and operational mandates (OPLAN 7500) to improve our understanding of cultural factors, how they influence the spread of insurgencies and extremism, and how they affect the desired outcomes from military kinetic and non-kinetic actions. It is configured to support policy (e.g., DoDD 3000.05²) and field doctrine (e.g., Army FM 3-24³) by providing enabling capabilities for modeling and simulation for the full spectrum of Joint Operations. This guidance describes the need to build models in support of MCO, IW, and SSTR. This doctrine evolved to include a model or framework that needs to incorporate many aspects of the human terrain. The Diplomatic, Information, Military, and Economic (DIME)/Political, Military, Economic, Support, Information, and Infrastructure (PMESII)⁴ or PMESII models attempt to structure doctrine in terms of how countries, cultures, and groups of people may be influenced, and proposes variables to be considered in assessing alternative courses of action for achieving the desired influence. Models that encompass the necessary variables to yield measures of merit such as stability, peacefulness, freedom, corruption and economic security are the focus of much of the HSCB program efforts.

Functional emphasis shall be on determining how to apply information from human social, cultural, and behavior factors in the development of both kinetic and non-kinetic operations for a select operational region of interest. There is a particular focus toward the transition of computational models to acquisition programs of record; however, there is recognition that this is a rapidly developing field and new models/tools need to be incorporated into the HSCB toolset in the future. Tools developed will:

- Assess the impact of potential actions and beliefs of hostile, friendly, and neutral actors in the areas of interest in the face of prospective operations;
- Enable commanders and command staff to readily collect, process, validate, monitor, compare, model, visualize, and disseminate pertinent historic and current data to determine current baselines and trends, as well as employ alternative models when they become available;
- Address both the operational planning process as addressed in current doctrine (specifically the objectives and goals) and the resultant effects (progress and results);
- Provide the ability to rank order the Courses Of Action (COAs) as a series of proposed Diplomatic, Information, Military, and Economic (DIME) actions assess their ability to forecast second and third order effects. The HSCB toolset will incorporate the ability to extract and monitor metrics such that the effects of given actions can be understood by the command staff.

The technical efforts funded under this BAA shall build upon on-going modeling efforts funded by DoD and other government agencies, and some successful research efforts will culminate with the delivery of transition-able capabilities that address the requirements identified in this BAA. Of necessity, capabilities will be rapidly developed. The capabilities shall be based on demonstrated scientific foundations and

¹ <http://www.defenselink.mil/pubs/pdfs/QDR20060203.pdf>

² <http://www.dtic.mil/whs/directives/corres/pdf/300005p.pdf>

³ <http://www.fas.org/irp/doddir/army/fm3-24.pdf>

⁴ Current doctrine identifies four general approaches that one nation may employ in influencing another nation or group: Diplomatic, Information, Military, and Economic (DIME). The state variables that need to be considered in assessing alternative courses of actions in order to execute an action are divided into six categories: Political, Military, Economic, Support, Information, and Infrastructure (PMESII).

provide assessment, and documented systems engineering with sufficient rigor to comply with the Defense Information Infrastructure (DII) **Common Operating Environment** (COE) standards for future accreditation in DoD computer networks and operational environments. Individual tools and transitioned capabilities must be usable by a diverse group of decision makers and analysts; therefore, usability and utility will be key metrics for assessment across all phases of the program.

The Government shall own all data gathered under contracts awarded under this solicitation and may under the contract designate a repository to receive, store and disseminate this information. In addition, in order to provide an independent validation of results, researchers may be required to provide the data sets used in developing their models and/or tools, including demographic data, to the HSCB research Assessment Team. The HSCB research Assessment Team will be an independent third-party team composed of individuals from the HSCB management team. All such data sets will be retained by the Assessment Team for no longer than 12 months after the conclusion of the Period of Performance for the contract. CTTSO personnel will not accept any gathered data from researchers.

Research and development using log data must include appropriate anonymization techniques for Personally Identifiable Information (PII). Offerors must clearly and conclusively show that their proposed data procurement technique(s) will preserve anonymity of individuals who may be included in a data set. White Papers that do not adequately address this will be rejected. Offerors should also address how they intend to safeguard data sets from accidental release or malicious intrusions.

2.2. Requirements for White Papers

Four requirements/independent research and development topics are described below. If a bidder wishes to respond to more than one topic, separate White Papers should be submitted for each topic. **Offerors must be willing and shall acknowledge in their submission that they will cooperate and exchange software, data and other information in an integrated program with other contractors, selected by CTTSO and other federal government organizations receiving funding from OSD.**

CTTSO anticipates that a broad interdisciplinary team will be required for all requirements and specifically for R2531. The formation of teams composed of a system integrator with partners from the computer, social, and human/behavioral sciences is strongly encouraged, and will be a consideration in the assessment of White Papers. Successful bidders shall demonstrate significant social science, human factors and cognitive science, as well as systems engineering expertise. White Papers will be assessed based on the relative breadth of the expertise offered, and the appropriate allocation of resources to different areas of expertise as a function of program phase.

All current or prior Government-funded contracts cited in the offeror's submission shall include the name, phone number and e-mail address of the program manager for the contract.

R2531 HSCB Scaleable Modeling System Prototype

Develop a scaleable and reconfigurable end-to-end capability that incorporates HSCB considerations into Command-level Intelligence Analysis, Planning, and Operations decision processes, and scaleable architecture such that specific implementations could be derived to support individual unit modeling requirements.

This effort will include research, development, and demonstration of a common operational framework that will serve as the functional architecture for a model-based decision support system to assist decision-makers in more efficiently and effectively understanding and operating within the social, cultural and behavioral domains. This framework shall allow a wide array of models being developed across the HSCB program to be readily interoperable with a variety of data sources and supporting applications. A successful effort shall culminate with the demonstration of a prototype system that assists the commander's ability to incorporate human socio-cultural behavior factors into decision-making processes within highly dynamic situations for the campaign analysis and planning process. The effort shall utilize a variety of modeling tools currently being developed across the HSCB program by providing specifications and protocols for incorporating tools into this common framework. In

addition, there shall be a common Human-Computer Interface (HCI) that ensures designated command staff is readily able to manipulate alternative models and tools consistently. The resulting system must be based on current industry systems engineering best practices. The system shall ultimately be web-enabled and built around a Service Oriented Architecture (SOA) to the degree possible to enable transition to a variety of information technology systems and networks in multiple security enclaves, and in support of a variety of counterterrorism missions across the DoD, law enforcement agencies, other government agencies and with coalition partners. This task is not intended to entail significant model development per se, but will create an infrastructure where command staff may utilize various models to construct a hybrid model to support alternative solutions for emergent operational requirements. Deployment of the system developed will include accreditation under the DII COE.

The requirement is intended to address in part the end-to-end desired capability described in the Commander's Appreciation and Campaign Design (CACD) framework, as outlined in U.S. Army Training and Doctrine Center Pamphlet 525-5-500⁵. From the Foreword:

The U.S. Army Commander's Appreciation and Campaign Design (CACD) is a cognitive process intended for use by commanders charged with designing, planning, and executing military campaigns.... It incorporates recent operational experience, elements of Systemic Operational Design and recently published joint doctrine. CACD proposes a method for commanders to develop a shared understanding of complex operational problems within their commands (commander's appreciation) and design a broad approach for problem resolution that links tactical actions to strategic aims (campaign design). It responds to the need for greater strategic thinking at all echelons when facing complex operational problems.

Other organizing frameworks targeted toward influence operations and other military domains will follow in the future, and it is expected that the products of this solicitation will accommodate them.

Key functions to be integrated into the end-to-end system include:

- Ingestion of Data – Support identification, collection, automated extraction, tagging, and ingestion of data into hybrid models. Encode situational events and PMESII actor/actions from massive ingest of unstructured source material (on the order of tens of millions news feeds, reports, tactical reports etc.). Enable the collection of spatially and temporally registered features and attributes to support computational modeling and geo-visualization. White Papers should address planned data sources to include data extraction strategies, data conditioning requirements for modeling utilities with assessment of life cycle costs. The offeror should be specific with resource requirements and assumptions of leveraging assets, and describe the processes and planning for implementation.
- Visualization of Model Output. Demonstrate that resulting hybrid; multi-level model outputs can be translated into alternative visualizations that can in turn be tailored to support effective decision-making by commanders and their staff. The model output, when appropriate, should be linked to a geospatial visualization process that is part of workstation interfaces used to manage model building, execution, and results analysis tools in other strategic, operational and tactical systems.

⁵ www.tradoc.army.mil/tpubs/pams/p525-5-500.pdf

- Evaluation and Sensitivity Analysis. The prototype will incorporate the capability for users to evaluate models and perform basic sensitivity analysis. User interactions with the system will be supported providing seamless aggregated forecasting and deep model transparency. System architecture will support user exploration and experimentation, explanation, and identification of forecast sensitivities to variable inputs. Individual model strengths and weaknesses should be dynamically assessed and factored into an aggregate resulting forecast that would exceed the forecast accuracy, recall, precision, scope and granularity of any of its individual components. Dynamic model re-estimation would be expected over time as real world (or exploratory) events evolve and are recognized and recorded.

The delivered system must demonstrate the feasibility of integrating human, social, cultural, and behavior models and software into strategic level conflict resolution and regional stability planning tools; and demonstrate the integration and training technologies required for socio-cultural understanding and skills needed for individuals and small units in current and future military operations.

Phase One - Develop a systems concept and define functional requirements.

This will include two distinct activities: Concept Development and Requirements Definition. The products will document and recommend specifications for the proposed system.

Concept Development:

- Identify potential system users and develop for each, with the government's approval, use cases and the anticipated concept of operations.
- Identify core capabilities needed to realize the concepts of operations identified to be developed into a functional prototype by phase, as well as recommended capabilities for future development.
- Identify key data needs and anticipated sources.
- Create an approach for developing and maintaining the models needed for each user type.
- Define entry criteria for modeling tools to be candidates for incorporation onto the modeling tool suite to be built around this architecture.
- Identify model development and maintenance tools.
- Document key findings in a System Concept and ConOps Definition Document.
 - Deliver a recommended system software architecture diagram with supporting explanatory text.
 - Deliver a proposed Program Objectives and Milestones (POAM) document.

Requirements Definition:

- Conduct a preliminary survey of user HCI functional requirements and identify target design criteria for human interfaces. Summarize findings and develop notional user concept of operations (User CONOP) that identifies types of prospective users, and critical roles for users in the HSCB system.
- Analyze the needed capabilities (5.1.1.1) and define formal system requirements (i.e., requirements that can be included in a contract and verified via a formal test process). Include, as a minimum, requirements relating to: product and input quantity, quality, timeliness; capability scalability; inter-and intra-system interoperability; user skill and experience level; and security.
- Identify and recommend modeling tools to be included in the initial prototype deliverable.
- Identify risks and requirements for individual modeling tools, and recommended development strategy based on concurrence of HSCB model development teams.
- Cite applicable industry and DoD standards and anticipated/recommended modifications to those standards.
- Document key findings in a System Requirements Definition Document.

- The system scope should encompass the following areas:
 - Intelligence Analysis and Assessment
 - Military Planning cycle (Mission Analysis; Course of Action Development, Analysis, Comparison, Selection; Wargaming; Scheduling; and formal Plan/Order Creation)
 - Operations Execution, including in particular, Objectives / Effects Accomplishment Assessment
 - Training
 - Experimentation and Exercises
- Anticipated initial deliverable of a Systems Requirement Document / Systems Design Document is to be made six months from contract award, with a total Phase One period of performance not to exceed eight months.

Phase Two - Develop a system design and a master plan for developing a system prototype. This phase will include two distinct activities: System Design and Master Plan Development.

System design:

- Develop a hardware/software architecture
- Develop interface specifications
- Develop operations concepts for the various target users (i.e., Intel Analysis, Planning, Operations, Experimentation/Exercises, and Training)
- Develop a comprehensive approach for identifying appropriate models and for integrating them into the system architecture
- Develop an approach for automated or semi-automated means of maintaining/updating models – i.e., for assessing their validity as situations evolve and for refining them/exchanging them when they are seen to be invalid
- Develop a functional interface capability for incorporating HSCB developed models
- Initial capability demonstration to include not less than five HSCB- sponsored models to be supplied as GFE/GFI.
- Develop a user-centric Human-Computer Interface description document
- Develop a workflow and knowledge management plan including a detailed User CONOP that describes major tasks that would be performed by the key users of the system
- Develop a preliminary user interface functional description
- Document key findings in a System Design Definition Document

Master Plan development:

- Conduct a Gap Analysis and system development strategy that depicts the current state-of-the-art and gaps and strategy to achieve the objective capabilities specified in the Systems Requirements Document
- Document key findings in a Program Master Plan Document. This document will include, as a minimum: a management plan, which describes key roles, responsibilities, and methods; a schedule; milestones, decision points with recommended performance/success criteria; descriptions of key deliverables; risks and mitigation approaches; references to technical reports
- Anticipated initial deliverable to be made 11 months from contract award, with a total Phase Two period of performance not to exceed eight months

Phase Three - Develop a system prototype and support a system capabilities demonstration and assessment by the government.

The prototype should be developed from the architecture defined in Phase One, which will allow employment of HSCB models and tools to be brought together for a baseline capability demonstration. Baseline capability shall include:

- A functional interface capability for incorporating a subset of HSCB developed models. Initial capability demonstration to include not less than three HSCB sponsored models
- Demonstration of HSCB model integration to incorporate:
 - Model Data Management
- Preliminary user interface functional description
 - Method for User Model Selection
 - User Model Assessment and Optimization
 - Model results presentation in user specified format, for example expressing results in forms consistent with the CACD doctrinal guidance
 - User Model Validation, (e.g., such that the underlying processes are available for user examination)
 - A user derived HCI description document
 - Workflow and knowledge management plan including a detailed User CONOP that describes major tasks to be performed by the key users of the system
 - Initial training document package for users of system
- Support government in conducting system integration assessment testing and Operational Feasibility Demonstration of up to 5 working days in the DoD HSCB Testbed
 - Develop a utility assessment plan for each user specified by the Sponsor. This assessment may employ canned data, and may be executed in pieces (vis a vis end to end)
 - Execute plans, as directed, and support data collection, assessment, and the development of findings, recommendations and After Action Reports
- Anticipated deliverable of initial functional system NLT 30 months from contract award, with a total Phase Three period of performance not to exceed 18 months

Phase Four - Develop Capability and Support Operational Utility Assessments.

- Develop a system to a maturity level capable of being used with live data and operational users. Integration of a Government specified number (e.g., 10) of HSCB modeling tools supplied as GFE/GFI covering a range of capabilities. Develop a full training package, user guides and system embedded training for various users of the system
- Assessment to include:
 - User selecting external data sets to be brought into modeling environment
 - User use of models to complete specified tasks within a pre-defined period of time
 - User produces reports and products to be shared with other command-level decision makers
 - Anticipated deliverable of initial functional system no later than 42 months from contract award, with a total Phase Four period of performance not to exceed 12 months

Phase Five - Conduct in-field User and Operational assessments and prepare for formal acquisitions for transition.

- Refine and update the system prototype, as appropriate, based on the findings from Phase Four assessments
- Support the definition of high level field test objectives and develop approaches
- Coordinate with field users, as designated by the government, to develop detailed test plan
- Identify and if required, recruit test subjects, and identify exercises/events that subjects will engage in
- Prepare for assessment events. For each:
 - Define specific objectives and approaches
 - Develop hardware / software integration plan
 - Define interfaces with other event participants
 - Develop vignettes
 - Develop scripts

- Acquire data
- Develop training plans and conduct training
- Develop assessment approach, including data gathering method, criteria, and evaluation techniques
- Support evaluation event execution
- Support after action activities and reporting
- Prepare Transition Plan for formal acquisition and transition to DoD Program of Records (POR(s))
 - System documented and accredited for use on DoD operational computer networks. All applicable documents required for accreditation delivered
 - Training system revised and adapted to reflect operation environment
 - Formal operational impact assessment
- Anticipated deliverable of functional system and formal assessment event no later than 54 months from initial contract award

For the purpose of scoping this work, offerors should address their White Papers with five phases with the expectation for incremental funding by phase. The period of performance for topic R2531 is not to exceed 60 months (five years).

R2532 HSCB Dataset Repository & Management System

Computational models of human socio-cultural behavior use data that takes many forms and may be found in a variety of repositories. Successful deployment of tools based on such models is likely to require automated and semi-automated data management. Therefore, work performed under this topic will research and develop a system for integrated storage, management, and access of the full range of data needed by models now being developed through the HSCB Modeling Program. The U.S. Government anticipates a solution involving a confederation of data repositories that are managed through the use of meta-knowledge about the data in the various repositories. The management system should broker data based on user requirements and the requirements of candidate models the user proposes to use. Data in the repositories would be actively managed through the dataset management tools.

- The system developed under this topic shall assemble and annotate open source common data sets that shall include, but not be limited to: geospatial data, socio-economic data, insurgencies, political activities, attacks, terrorism incidents, corruption and criminal activity and foreign population demographics, attitudes, motivators and beliefs.
- Selected source data will reside in an on-line structured repository of human, social cultural, and behavior data sets that can be easily accessed by remote software tools and by individuals, as designated by the U.S. Government, for development, training, and evaluation purposes.
- The use of both unstructured and structured data will be required.
- The final unstructured datasets should be in English; however, it is highly desired that source data, to the extent possible, will also be accessible in the native language of the country/region of interest for potential retranslation and interpretation under evolving circumstances.
- Structured data must be available in a variety of formats including spreadsheets, relational databases, and geospatially derived databases.
- Data must be accessible to persons for selective and bulk download and to allow software programs, spiders, or other automated schemes for accessing and collecting select or bulk data.
- Applicable metadata standards must be incorporated to enable user query.
- End users must be able to perform geographic and attribute queries of the repository and see the results of such queries on a geospatial visualization interface.

It is essential that the selected developer coordinates closely with the U.S. Government to rapidly determine the data model, scenario (which drives data collection requirements), models (which drive data collection requirements), and taxonomies/ontologies needed for this task before database population and repository design and implementation can take place. Use of an existing government relational data schema is desirable but not mandatory. The U.S. Government does not expect or encourage the development of any new standards as part of this topic.

Phase One - Identify Datasets for inclusion in Repositories

Identify and characterize general types of data and recommend data stores required by the HSCB program. Identify and define baseline data sets to support Phase Two development. Models from micro to macro scales will be developed under the HSCB Modeling Program; the management schemes and data repositories called for in this topic must be scaleable to support both large and small dynamic data sets. As such, the data sets must be as comprehensive as possible and support various data types and with different levels of granularity and spatial resolution. The criteria for inclusion of future datasets into the repository shall be defined.

Phase Two - Design Data Store Repository Architecture.

Develop and validate a proposed Data Repository system architecture. Propose a general knowledge management approach and recommended data management services to support that scheme. Define tools and technologies to be used or developed to support data repository management. Identify key performance metrics for the HSCB Dataset repository and real-time repository management.

Phase Three - Develop Initial Repository Architecture and Demonstrate with Baseline Data Sets.

Develop an initial prototype system that operates on baseline data sets identified in Phase One. Demonstrate key functionality and baseline performance metrics. Define critical tasks to be completed in Phase Four as well as proposed performance evaluation metrics for system to be delivered in Phase Four.

Phase Four - Capability Demonstration working with overall HSCB System Architecture developed under Task 1.

Integrate dynamic data sets representative of scale and HSCB program requirements. Demonstrate functionality with HSCB model developers and prospective operational users. Demonstrate system performance has met goals established in Phase Three.

The HSCB Program requires this data repository to support other efforts. White Papers that deliver prototype capabilities sooner are desired. The proposed delivery dates under the timeline for creation of the repository will be a significant selection factor. For the purpose of scoping this work, offerors should address their White Papers with four phases with the expectation for incremental funding by phase. The period of performance for R2532 desired is 30 months (2.5 years) and not to exceed 42 months (3.5 years).

R2533 HSCB Data Translation and Brokering System

HSCB data takes many forms, will be managed for different purposes, and will be maintained in different data stores with a variety of intended uses with different models. The integration and maintenance of these diverse and potentially dynamic data sets is expected to present a significant challenge for the management of HSCB data stores. This topic requests White Papers to research and develop automated data management, translation and extraction tools to service HSCB models in supporting emergent user requirements, and enable a user / modeler in matching appropriate data to appropriate models to address a specific information requirement. It is desired that existing tools for extraction, transformation and loading of structured data, and for integrating structured data sets with differing schemas will be

leveraged for this effort (for example: Semantic Web technologies, Knowledge Ontologies such as the Interoperability of Knowledge Representation and Reasoning System (IKRIS); knowledge mark-up languages IKRIS Knowledge Language and data mash-up systems such as Kapow⁶). The intent of this topic is to facilitate the integration of new data sets into appropriate data stores; and then enable users to discover, extract, and exploit data in forms appropriate for the models they need to use in support of HSCB problem domains and applications. The systems sought will allow data to be integrated and/or extracted with minimal or no human intervention. Data would include demographics, ethno-linguistic, ethnographic, and other HSCB related data; may be unstructured, qualitative and quantitative, not share common indices. Approaches may include both man-in-the-loop and fully automated technique; however, approaches that describe how to minimize the requirements for human intervention are preferred. Specific tasks include:

- Developing techniques that estimate certainty of extracted information based on the evidence found in the source data, and attribute extracted data to appropriate entities (people, groups);
- Statistical and other methods to attribute the strength and valence of opinions and beliefs to the people or groups that hold them and to identify conflicting opinions and beliefs;
- Methods for aggregating data to match the granularity of specific HSCB models (e.g., individual, group, society);
- Techniques for extracting geospatial features from source data to include locations as well as addressing techniques for managing geospatial and temporal uncertainty for data, and,
- Techniques that extract not just opinions and beliefs, but other qualitative and quantitative data necessary to populate HSCB models, (e.g., level of support of one group to another, affiliations of persons to groups).

Offerors should consider and discuss how such tools could accommodate the various categories of models, and the requirements for, and applicability of meta-knowledge and knowledge translation services.

Successful approaches will be capable of extracting and storing the data necessary to populate a variety of HSCB model types (e.g., system dynamics, economic, social network analysis, spatial analysis) with data extracted from available open source data including (but not limited to) web pages, blogs, news wire, and broadcast news sources to provide a wide range of data coverage that generally deal with insurgencies, political activities, attacks, terrorism incidents, foreign population attitudes and beliefs and other similar data. White Papers should address strategies for resolving ambiguities in the data and mechanisms for the efficient evolution of data stores.

While this task will be conducted using English sources, the contractor must demonstrate the capability for other language source data to be ingested, extracted, stored, interfaced with automated translation applications and populated in the models in the same manner as English data. Similarly, strategies for preserving and linking to sources as derivative data is generated from original source data is highly desired.

Successful approaches will minimize the amount of data administration work required by the human to perform the task of populating HSCB models, and will require only skills appropriate to modeling and analysis. Model population tools will be tested by analysts in an instrumented environment that records time spent on each task. Technical support will be made available to test users, and records kept on the amount of help and topics/skills involved. The resulting model population tools will be tested against a variety of HSCB models within any of several frameworks, e.g., used in the Conflict Modeling, Planning

⁶ KAPOW is a software mash-up product. <http://www.kapowtech.com/products/products.aspx>

and Outcome Experimentation Program⁷. While automated model population is suitable and desirable for many HSCB modeling workflows, the U.S. Government recognizes that some statistically-based social science methodologies require significant data pre-processing phases to down-select, operationalize, and validate the data. Automation approaches which reduce the time delay in performing those functions are encouraged.

For the purpose of scoping this work, offerors should address their White Papers with four phases with the expectation for incremental funding by phase. The period of performance for R2533 is not to exceed 48 months (four years). Offerors should structure the proposed work into phases. Efforts should not exceed 48 months. Proposers must identify and scope proposed follow-on phases, proposed performance metrics, and deliverables as part of their White Paper.

Success in this effort shall be defined as the ability to integrate new data sets into the data repositories from both semi-structured and unstructured data sources; as well as appropriately extract data from the data repositories appropriate for use by a range of future HSCB models.

R2534 HSCB Modeling Visualization Framework

Computational models of dynamics relating to human socio-cultural behavior will yield insights and outputs that enhance human terrain understanding and forecasting across four application pillars: intelligence analysis; operations analysis/planning; training; and joint experimentation. However, to be most effective, model outputs must be usable and shareable across a variety of DoD, other U.S. Government agencies, coalition, and law enforcement communities with a wide range of information requirements and user skill sets. The capability to visualize model outputs is critical to their wide-ranging use and sharing. Strategists, planners, field operators, and others would benefit from being able to see and manipulate socio-cultural COAs and impacts, especially in the form of or relative to geospatial features. Models and resulting visualizations must support widely varying levels of aggregation, enabling high fidelity drill-down for details and roll-up for high level situational awareness. Model results must relate clearly and consistently to the physical terrain in which most conflict and SSTR operations inevitably must take place, and therefore must incorporate appropriate referencing for geo-spatial location of visualizations on mapping systems. Beyond geo-visualization techniques, military end users will also benefit from HSCB modeling techniques which explicitly account for location and related geographic concepts such as diffusion, proximity, and topology.

Presently, work is underway through the HSCB Program to develop prototype software applications for visually and digitally representing political, religious, cultural, and other factors from tools in use with existing DoD Programs of Record. To support these visualization applications, R2534 of this BAA seeks research and development of an innovative, non-proprietary visualization framework that permits the appropriate interaction, exploration, and visualization of key elements of the HSCB modeling information based on both user and task requirements. This framework should permit development and integration of third-party visualization components and support models working at multiple operational (and data) levels (e.g., strategic, tactical, sub-tactical). Innovative solutions in visualizing the results of HSCB models and how HSCB models are performing are encouraged. Note that models may not inherently include geo-spatial references, so a geo-spatial interpretation service may be required in order to employ visualizations appropriately. Further, it is anticipated that users of HSCB models and technologies will need to adapt their interface to accommodate changing mission requirements, present results from multiple modeling tools in a consistent manner, as well as incorporate alternative models as they become available.

⁷ Conflict Modeling, Planning and Outcome Experimentation Program (COMPOEX) is a large political, military, economic, social, information, and infrastructure (PMESII) simulation under development by DARPA.

The proposed framework should maximize the use of standardized, open specifications. However these should be identified along with a supporting rationale in the White Paper. Use of industry and federal standards for data interoperability, especially those defined by the Open GIS Consortium, is required. Standards such as Apache Shindig⁸ or Google's OpenSocial API specifications⁹ would be appropriate. The desired visualization framework will permit analytical tailoring by tools developers and operational users through an interface that includes layout managers and dashboard technologies. Use of standard plug-in technologies, such as Flash, Java, and Silverlight, are permitted, although pure Javascript-based approaches are encouraged. The desired framework solution must be thoroughly documented for certification and accreditation with a variety of U.S. Government and coalition computer networks. The framework should include a standard set of visualization components (widgets) to specifically include visualization tools such as:

- social network graphs
- geospatial displays
- charts and line graphs for economic/social trend analysis
- temporal displays

Offerors should structure the proposed work into appropriate work phases with proposed funding increments. Efforts should not exceed 36 months. Proposers must identify and scope proposed follow-on phases, proposed performance metrics, and deliverables as part of their White Paper.

⁸ <http://incubator.apache.org/shindig/>

⁹ <http://code.google.com/apis/opensocial/>

3. GENERAL INFORMATION.

3.1. Solicitation Approach.

A two-phase selection process will be used for this solicitation to minimize cost and effort for prospective offerors. Phase 1 will consist of the solicitation, receipt, and evaluation of a one-page Quad Chart and White Paper (not to exceed 12 pages). Phase 2 will consist of the solicitation, receipt, and evaluation of a Full Proposal (not to exceed 50 pages) and applies to only those submissions that have been accepted in Phase 1. Clarifications to Full Proposals can be requested where a full submission or resubmission is not required.

3.2. HBCU/MI and Small Business Set Aside.

The Government encourages nonprofit organizations, educational institutions, small businesses, small disadvantaged business concerns, Historically Black Colleges and Universities (HBCU), Minority Institutions (MI) (HBCU/MIs), women-owned businesses, and Historically Underutilized Business zone enterprises as well as large businesses and Government laboratories to submit research proposals for consideration and/or to join others in submitting proposals; however, no portion of the BAA will be set-aside for these special entities because of the impracticality of reserving discrete or severable areas of research and development (R&D) in any specific requirement area. A goal of 2.5 percent of total dollars awarded will be considered for HBCU/MI and a goal of 2.5 percent of total dollars awarded will be considered for small businesses for a total goal of 5 percent. The final determination will be made based on the individual technical merits of the proposal and budget constraints within the mission priorities. To ensure full consideration in these programs, registration in the [BAA Information Delivery System \(BIDS\)](#), described later in this document, requires the appropriate business type selection as well as accurate up-to-date information.

3.3. Limitation of Funds.

The Government intends to incrementally fund contracts awarded from this BAA as provided by FAR 52.232-22, "Limitation of Funds." Most contracts awarded are anticipated to be incrementally funded. To facilitate incremental funding, submissions shall include the cost and schedule by a 12 month, task-phased structure with clear exit criteria for each phase, and shall be inclusive of all work to complete the effort including any options. It is anticipated that the entire effort will be negotiated with the initial contract award.

3.4. Technical Evaluation Support.

It is the intent of this office to use contractor support personnel in the review, evaluation, and administration of all submissions for this BAA. All individuals in this category that will have access to any proprietary data shall certify that they will not disclose any information pertaining to this solicitation including any submission, the identity of any submitters, or any other information relative to this BAA; and shall certify that they have no financial interest in any submissions evaluated. Submissions and information received in response to this BAA constitutes permission to disclose that information to certified evaluators under these conditions.

3.5. BAA Package Download.

This BAA Package can be downloaded electronically in its entirety from www.bids.tswg.gov under [Download BAAs](#). Registration is not required to download the BAA package; however, a BIDS registration is required to upload a response to the BAA.

3.6. BAA Contractual and Technical Questions.

All contractual and technical questions regarding this BAA including the published requirements and instructions must be directed to the Contracting Officer at 09-Q-4590@tswg.gov. The program and technical staff will not acknowledge, forward, or respond to any inquiries received in any other manner concerning the BAA. Contractual questions and answers will be posted periodically under [Frequently Asked Questions \(FAQs\)](#) on the [BIDS website](#).

3.7. BIDS Website Help Requests.

For technical help using BIDS, submit questions to the BIDS administrators at bidshelp@tswg.gov or by using the [Help Request](#) link located on the BIDS Homepage. Include a valid e-mail address, your BIDS

User Name, and a detailed description of the question or concern in the comments block. The BIDS website provides other valuable resources under [Online Help](#), including topics on [Doing Business with the Government](#). Reference documents including the [BIDS Submitter Quickcard](#) and [Quad Chart Sample](#) are available for download. Information regarding compliance requirements for using humans and animals in testing is also available from BIDS.

3.8. BIDS Frequently Asked Questions (FAQs).

FAQs are a list of questions and associated responses for general and specific topics including those forwarded to the Contracting Officer for a BAA. Offerors are encouraged to periodically review [FAQs](#) located at www.bids.tswg.gov.

NOTE: Persons submitting proposals are advised that *only the Contracting Officer can obligate the Government to any agreement involving expenditure of Government funds.* This section includes information applicable to all awards under this BAA.

3.9. Eligibility.

To be eligible for contract award, a responsible offeror must meet certain minimum standards pertaining to financial solvency and resources, ability to comply with the performance schedule, prior record of satisfactory performance, integrity, organization, experience, operational controls, technical skills, facilities, and equipment. See FAR 9.104. Additionally, all offerors must be registered in the Central Contractor Registration database, website www.ccr.gov, as indicated in FAR 4.1100. Contractors must complete Online Representation and Certifications at <https://orca.bpn.gov>. These and other helpful links are also provided on the [BIDS Homepage](#).

3.10. Procurement Integrity, Standards of Conduct, Ethical Considerations.

Certain post-employment restrictions on former federal officers and employees exist including special Government employees (Section 207 of Title 18, United States Code (U.S.C.)). If a prospective offeror believes that a conflict of interest exists, the offeror should make this known to the issuing office's Contracting Officer for resolution before time and effort are expended in preparing a proposal.

3.11. Definitions.

3.11.1. Small Business Concern (FAR 19.001).

A concern that is independently owned and operated; is not dominant in the field of operation in which it is bidding on Government contracts; and meets the size standards in FAR 19.102.

3.11.2. North American Industry Classification System.

Establishments that specialize in performing Professional, Scientific and Technical Activities for others are coded 541712 for R&D Physical Engineering and Life Sciences under the North American Industry Classification System. The small business size standard for this classification is 500 employees.

3.12. Restrictive Markings on Proposals.

All proposals should clearly indicate content disclosure limitations. Submissions can be marked as "Proprietary" or words to that effect; however, markings such as "Company Confidential" or other phrases that could be confused with national security classifications shall not be used. All paragraphs that contain proprietary information must be clearly marked.

3.13. Submission Handling/Rights in Technical Data and Computer Software/Patent Rights.

3.13.1. Procurement Integrity.

The Government intends to comply with FAR 3.104 in its treatment of information submitted in response to this BAA solicitation and marked with the individual or company's legend.

3.13.2. Submission Information and FOIA.

Records or data bearing a restrictive legend can be included in the proposal. However, the offeror is cautioned that portions of the proposal are subject to release under the terms of the Freedom of Information Act (FOIA), 5 U.S.C. 552, as amended. In accordance with FOIA regulations, the

offeror will be afforded the opportunity to comment on, or object to, the release of proposal information.

3.13.3. Rights in Technical Data and Computer Software.

Rights in technical data, and computer software and software documentation provided in the proposal are treated in accordance with the Defense Federal Acquisition Regulation Supplement (DFARS) 252.227-7016, "Rights in Bid and Proposal Information." Rights in technical data and computer software and computer software documentation in the resultant contract shall be in accordance with DFARS 252.227-7013 (regarding technical data) and DFARS 252.227-7014 (regarding computer software and software documentation). Both clauses (DFARS 252.227-7013 and 252.227-7014) will be included in any noncommercial contract exceeding the simplified acquisition threshold. Table 1 contains these and related clauses to be included in the contract.

DFARS	Title
252.227-7013	Rights in Technical Data – Non-commercial Items (FILL-IN)
252.227-7014	Rights in Non-commercial Computer Software and Non-commercial Computer Software Documentation (FILL-IN)
252.227-7016	Rights in Bid and Proposal Information
252.227-7017	Identification and Assertion of Use, Release, or Disclosure Restrictions (FILL-IN)
252.227-7019	Validation of Asserted Restrictions - Computer Software
252.227-7025	Limitations on the Use or Disclosure of Government Furnished Information Marked with Restrictive Legends
252.227-7027	Deferred Ordering of Technical Data or Computer Software
252.227-7028	Technical Data or Computer Software Previously Delivered to the Government
252.227-7030	Technical Data - Withholding of Payment
252.227-7037	Validation of Restrictive Markings on Technical Data

3.13.4. Patents.

Patents in existence and patent applications pending at the time of the proposal, that relate to the proposed effort, shall be identified in the White Paper and Full Proposal in accordance with the clauses above.

3.14. Product and Deliverable Requirements.

All proposal phases shall include the costs for products and data deliverable requirements. Minimum report requirements include Monthly Status Reports (MSRs) and a Final Technical Report even if the research is to be continued under a follow-on contract or contract option. MSRs document program, technical, and financial status. The Final Technical Report summarizes the project and associated tasks at the conclusion of each contract. Include MSRs, the Final Technical Report, and any products and deliverables specific to the performance of the proposed effort. Additional products and deliverables could include prototype hardware, software, or systems; test plans; test and technical reports; technical data; specifications; requirements documents; computer programs or software; user manuals; drawings; or other products and data. The number, types, and preparation instructions for products and deliverables will be specified in the contract.

The U.S. Government retains Unlimited Rights to all technical data, training materials, software, hardware and distributed learning materials developed under this program, (DFARS 252.227-7014(a)(15)). Unlimited rights means right to use, modify, perform, display, release, or disclose computer software or computer software documentation, in whole or in part, in any manner and for any purpose whatsoever, and to have or authorize others to do so.

The Government intends to accept nothing less than Government Purpose Rights; however, all Intellectual Property Rights will be handled in accordance with applicable DFARS clauses.

All information relating to the items to be delivered or services to be performed under this contract may not be disclosed by any means without prior approval by the U.S. Government.

3.15. Distribution/Release Limitations.

The offeror should be aware that all resulting contracts or other awards will contain release limitations for all data resulting from the effort in accordance with DFARS 252.204-7000. This includes products, data, information, and services to be performed. The contractor shall protect all data and information from disclosure, and shall not release any data or information by any method of dissemination without prior Government approval.

3.16. 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.

3.17. Animal or Human Testing Compliance.

The contractor shall comply with all laws and regulations governing the use of animals or human subjects in research projects.

3.17.1. Animal Testing.

Any contract resulting from this BAA that potentially involves the testing of animals shall include the following language:

Any contractor performing research on warm blooded vertebrate animals shall comply with the Laboratory Animal Welfare Act of 1966, as amended, 7 U.S.C. §§ 2131 - 2156, and the regulations promulgated thereunder by the Secretary of Agriculture in 9 C.F.R. Parts 1 through 4, pertaining to the care, handling, and treatment of vertebrate animals held or used for research, teaching, or other activities supported by Federal contract awards. In addition, the contractor shall comply with the provisions of DoDD 3216.1, as implemented by Secretary of the Navy Instruction 3900.38B, and DFARS 252.235-7002, "Animal Welfare," which is incorporated into this contract.

3.17.2. Human Subjects Testing.

Any contract resulting from this BAA that potentially involves the use of Human Subjects in the research or study shall include the following language:

The contractor shall comply with all regulations promulgated by the Office of the Secretary of Defense in 32 C.F.R. Part 219, pertaining to the protection of human subjects. In addition, the contractor shall comply with the provisions of DoDD 3216.2. If human subjects are to be used at any time during the project, the contractor shall have a Federal assurance that is acceptable to the CTTSO before involving human subjects. Additionally, the protocol shall be approved by a Federally-assured Institutional Review Board (IRB) office named in the institution's assurance. The contractor shall prepare these documents and shall ensure that they are on file with CTTSO prior to the start of research involving human subjects. Collaborators with the contractor, to include IRBs, shall also comply with regulations to protect human subjects for both classified and unclassified research. The contractor shall report all changes in the protocol or consent form to the CTTSO Contracting Officer's Representative as they occur. Release of initial and follow-up funding will be contingent upon initial and continuing reviews, and to other IRB and component requirements.

3.17.3. Civil Liberties and Privacy Protection Measures.

CTTSO, and research funded by CTTSO, must comply with all federal laws governing basic and applied research. Researchers must specify how they will address the following:

- Researchers must comply with federal policy for protection of human subjects in research.
- Depending upon the study methodology, researchers must review their experimental design with their Institutional Review Board and receive approval.
- Depending upon the study methodology, informed consent must be obtained from individuals who are subjects of active experimentation.
- Depending upon the study methodology, anonymization techniques must be employed to protect privacy and confidentiality.
- When using information derived from internet web sites, researchers must comply with the End User License Agreement (EULA), Terms of Service (ToS), and Code of Conduct (CoC) specified by the vendor of the web sites and/or data sources being studied. Proposers are required to sign a statement that they have read and will comply with the EULA, ToS, and CoC for all web sites they propose to use.
- If the research method being proposed by the researcher violates some section of the EULA, ToS, or CoC, the researcher must provide written evidence that they have received a waiver from the web site or data source vendor.
- The CTTSO HSCB Program Manager, in consultation with the CTTSO Legal Office, will review research plans and progress on a minimum of an annual basis, with particular attention to the adequacy of the researchers' ongoing civil liberties and privacy protection measures.

4. PROPOSAL PREPARATION.

This section provides information and instructions for the preparation and submission of all proposals under this BAA. All submissions must meet these requirements including format, content, and structure, and must include all specified information to avoid disqualification, submission rejection, or delays in evaluation.

4.1. BAA Information Delivery System (BIDS).

BIDS at www.bids.tswg.gov is used to provide public access to the BAA package, to collect all unclassified submissions, and to collect placeholder records for all classified submissions. BIDS also provides submission progress tracking, evaluation comment collection, and results notification back to the submitter.

4.1.1. Submitter Registration.

A BIDS submitter registration is required to respond to this BAA. Existing BIDS accounts are acceptable for a new BAA *if the company contact information is the same* or is corrected. Registrations should reflect the offeror's contracting or business authority. The User Name, created by the offeror, must be unique and is used for BIDS login and submission tracking. Registration acceptance for submitters is automatic, but takes several seconds to be recognized by BIDS. A success e-mail will be sent to indicate that the User Name and account are accepted. BIDS is e-mail dependent and uses the Registration e-mail as the single point of contact (POC) for all notifications associated with the BAA. This e-mail address should be monitored frequently during the BAA process for the notices. E-mail addresses included in the submissions or any other data field in BIDS will not be used for contact and notification purposes.

4.1.2. User Accounts and Password Resets.

Registration account information such as the POC, e-mail, and password can be updated after login. The [Forgot My Password](#) link on the BIDS Homepage allows registered users with a valid e-mail address to automatically reset a password. The system will verify the account User Name and e-mail to send a new password to that e-mail.

4.1.3. Registration and Account Help.

BIDS Help requests can be e-mailed to BIDS administrators at bidshelp@tswg.gov or submitted via the [Help Request](#) link located on the [BIDS Homepage](#).

4.1.4. Document Identifier.

The offeror shall include the document identifier in the header of each submission. Document identifiers must match the BIDS submission record and should be constructed *before* upload to BIDS.

4.1.4.1. Constructing Document Identifiers.

Document identifiers, auto-generated in part by BIDS, are based on Subgroup or Mission Area, the requirement number, the user name, and a Submitter Internal Tracking (SIT) number. The underlined portion of the sample shown in Table 2 depicts the segment automatically formed by BIDS.

Table 2. Sample Document Identifier and Components Definition

<u>HSC-1112-ABCCORP-10703JT-WP</u>	
From Sample	Document Identifier Component
<u>HSC</u>	subgroup or mission area designation - from BAA
<u>1112</u>	requirement number - from BAA
<u>ABCCORP</u>	user name - from BIDS registration

10703JT-WP	SIT number - any alphanumeric combination (with no special characters or spaces) created by the submitter for (<i>submitter</i>) tracking purposes along with the document type suffix
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4.1.4.2. Creating Submitter Internal Tracking (SIT) Numbers.

SIT numbers are unique identifiers created by submitters and entered in the submission record during the upload process. SIT numbers can be any alphanumeric combination (no special characters or spaces) chosen by the submitter plus a suffix indicating the document type. BIDS enforces unique SIT numbers and will not allow the submission record to be saved if the SIT number has already been used. Table 3 provides sample SIT numbering formats for each document type.

Table 3. Sample SIT Numbers for an Accepted Submission

Document Type	Auto-generated by BIDS	SIT#
Quad Charts & White Papers	HSC-1112-ABCORP	10703JT-WP
Full Proposals	HSC-1112-ABCORP	10703JT-FP

Offerors uploading more than one submission to the same requirement shall create unique identifiers by adding a numbered sequence to the document type suffix. Table 4 offers sample SIT number formats for multiple submissions to the same requirement.

Table 4. Sample SIT Numbers for Multiple Submissions to the Same Requirement

Submission #	Auto-generated by BIDS	SIT# Sample 1	SIT# Sample 2*
Submission 1	HSC-1112-ABCORP	10703JT-WP1	WP1
Submission 2	HSC-1112-ABCORP	10703JT-WP2	WP2
Submission 3	HSC-1112-ABCORP	10703JT-WP3	WP3
* NOTE: If the submitter does not require an internal tracking number, use the document type designation.			

4.2. BIDS Security and Access Control.

All data uploaded to BIDS is secure from public view and download. All submissions will be considered proprietary/source selection sensitive and protected accordingly. The documents can only be reviewed by the registrant, and authorized Government and contractor representatives with no conflict of interest.

4.3. Submission Changes.

Changes to uploaded responses will be permitted up to the closing date and time. If a modification is required, update the original file in the source application and save. Convert to an acceptable format if applicable. In BIDS, open the submission record, click **Edit Submission**, and update the record information. Use **Browse** to select the revised document. Select the checkbox to remove the old attachment. Click **Submit for Processing** to save the changes. Documents cannot be edited online through the BIDS web interface. File names must contain no spaces or special characters. Ensure the file size does not exceed the 500 Kb limit. To completely remove a submission from consideration, select **Delete Submission**. Changes after the requirement due date and time are not permitted.

4.4. Special Handling Procedures for Classified Information.

If a submission contains classified information, the offeror must first create a placeholder record in BIDS with an unclassified cover page attachment. Identify in the comments section of the submission record that the submission cannot be uploaded due to classification. The BIDS Document Identifier must be clearly identified on the mailed document(s). Classified responses (up to SECRET) must be appropriately and clearly marked (including all paragraphs and pages containing the subject data), packaged, and shipped in accordance with classified material handling procedures and security regulations pertaining to the level of classification for that document.

To obtain mailing instructions for classified submissions, e-mail: TSWGsecurity@tswg.gov. Classified submissions must be received by the applicable due date and time. Classification in no way eliminates the offeror's requirement to comply with all BAA instructions.

4.5. Phase 1 White Paper with supporting Quad Chart Submissions.

4.5.1. Quad Chart

Offerors shall prepare and upload a one-page (8 ½ by 11 inches) Quad Chart in response to Phase 1 of this BAA. Use font sizes of 10 point or greater. If more than one page is submitted, only the first page will be evaluated. Quad Charts do not require a Cover Page.

4.5.1.1. Electronic File Format.

The Quad Chart shall be submitted in Microsoft Office 2003 (Word or PowerPoint), or Adobe Acrobat (PDF – portable document format). ZIP files and other application formats are not acceptable. The document must be print-capable, without password, and no larger than 500 Kb. Filenames must contain the appropriate filename extension (.doc, .ppt, or .pdf). Filenames cannot contain spaces or special characters. Apple/Macintosh users must ensure the entire filename and path are free of spaces and special characters. Submissions that cannot be opened, viewed, or printed will not be considered.

4.5.1.2. Quad Chart Content.

A Quad chart conveys the essence of the proposed solution for a single requirement. When preparing a submission, the offeror shall ensure that the specific criteria of the requirement are addressed, the solution is clear, and can be accomplished with the proposed technology, cost, and schedule. The Quad Chart includes a document header and four quadrants. The Quad Chart format and sample are provided at the BIDS website under [Downloads, Reference Materials, Document Format](#).

4.5.1.2.1. Header Information.

Header information shall include the BAA Announcement number, the Document Identifier, and the Proposal Title. The date and company name should be included along with the appropriate document markings.

4.5.1.2.2. Top Left Quadrant, Graphical Depiction.

The top left quadrant is a graphical depiction, photograph, or artist's concept of the proposed solution or prototype. Include labels or brief descriptive text as needed for clarification. Ideally, this will convey the prototype concept, use, capability, and any relevant size or weight relationships based on the published requirement.

4.5.1.2.3. Top Right Quadrant, Operational and Performance Capabilities.

The top right quadrant contains the operational and performance capabilities summary. Describe any basic, new, or enhanced capabilities the system will provide to meet the published requirement. In bullet form, list key aspects of performance, capability, operational use, relevant software or hardware specifications, and planned interface and/or compatibility.

4.5.1.2.4. Bottom Left Quadrant, Technical Approach.

The bottom left quadrant contains the proposed technical approach. Specifically, describe the technology involved, how it will be used to solve the problem, actions done to date, and any related on-going efforts. Briefly describe the tasks to be performed for each phase. A bullet list is acceptable.

4.5.1.2.5. Bottom Right Quadrant, Cost and Schedule.

The bottom right quadrant contains the Rough Order of Magnitude (ROM) and Schedule, Products and Deliverables, and Corporate Contact Information. ROM and Schedule shall be proposed by phase and include the cost, period of performance (POP), and exit

criteria for each phase. A total cost and POP that combines all phases shall also be included. Products and Deliverables shall include, by phase, a list of all prototype hardware and software along with the required data as described in "Product and Deliverable Requirements" in section 3 of this document. Corporate Contact Information shall include the submitter's company name, POC, phone number, and e-mail address. Include any significant teaming partner (contact information) relevant to the evaluation. (Note that the contact information in the BIDS registration is used for all notices and contact purposes.)

4.5.2. White Paper:

In addition to the Quad Chart, offerors shall prepare and upload a White Paper with no more than twelve (12) pages plus a cover page in response to Phase 1 of this BAA. All submission pages shall be 8 ½ by 11 inches, double-spaced with fonts no smaller than 10 point; all margins shall be one inch. Each page of the submission shall contain the document identifier in the document header. If the White Paper contains more than 12 pages including tables, charts, and figures only the first 12 pages will be evaluated. All White Paper submissions must include a cover page. The cover page template is provided at the BIDS website under [Downloads, Reference Documents, Document Format](#). Cover pages are excluded from the White Paper page count.

4.5.2.1. Electronic File Format.

The White Paper shall be submitted in Microsoft Office 2003 (Word or PowerPoint), or Adobe Acrobat (PDF – portable document format) format. ZIP files and other application formats are not acceptable. The document must be print-capable, without password, and no larger than 500 Kb. Filenames must contain the appropriate filename extension (.doc, .ppt, or .pdf). Filenames cannot contain spaces or special characters. Apple/Macintosh users must ensure the entire filename and path are free of spaces and special characters. Submissions that cannot be opened, viewed, or printed will not be considered.

4.5.2.2. White Paper Content.

White Papers shall provide a description of the technical approach, the specific tasks and deliverables by phase, schedule and cost estimate by phase, intellectual property and government rights, transition planning for production, and a capability statement. The offeror shall incorporate all clarification data requests from the acceptance e-mail into the submission. Indicate clarification entries by footnote and reference the requested item(s) in the footer area. The following White Paper sections and details are required.

4.5.2.2.1. Cover Page.

A cover page template is provided at the BIDS website under [Downloads, Reference Documents, Document Format](#). The cover page includes necessary contractual information including the offeror's contracting POC (name, telephone number, e-mail address, facsimile number, mailing address) and business information (Data Universal Numbering System (DUNS) number, business type). Include the proposed contract type, total cost, and the duration of all phases/tasks. Cover pages are excluded from the page count.

4.5.2.2.2. Technical Approach.

Describe the proposed solution relative to the requirement. Focus content on operational capabilities required to address the problem, the underlying theory that supports the operational capability, and suggested concept of operations. Identify end users that could be interested in the proposed solution and describe how the solution will be a benefit. Include drawings, diagrams, charts, and tables needed to explain the effort. Describe if, and where, the proposed technology/solution has been, or is being used. Identify sponsoring agency and funding resources; or if none, so state.

4.5.2.2.3. Tasks and Deliverables.

Identify the proposed tasks by phase in the order of occurrence. A phase must have clear exit criteria to serve as a "go" or "no-go" decision point to proceed to the next phase. Identify work that will be performed by other organizations or agencies. Identify anticipated technical risks along with planned mitigation efforts. Indicate any Government furnished material (GFM), equipment, or information that will be required with the task and need date; or if none, so state. For each phase include the exit criteria and all products and deliverables as defined in "Product and Deliverable Requirements" in section 3 of this document. If a phase is proposed as an option, so state.

4.5.2.2.4. Schedule.

Develop a master project schedule preferably in Gantt chart format. The schedule shall indicate the planned start and stop point for each phase with top level subordinate tasks, estimated delivery dates, and completion dates. Indicate the total project POP in months using January 2nd as a notional start date through the completion date.

4.5.2.2.5. Cost.

Provide the proposed, task-phased budgetary estimate inclusive of any proposed options. At a minimum, this estimate shall detail estimated labor hours and costs, anticipated material costs, product and deliverable costs (see section 3 General Information, "Product and Deliverable Requirements" in this document) and other costs (e.g., subcontracts, indirect rates, fee rate) for each phase/task. Costs allocated to other organizations (e.g., Government testing) shall be clearly shown; or if none, so state. Changes in cost greater than 10 percent from those proposed in the prior submission shall be explained.

4.5.2.2.6. Intellectual Property, Technical Data, and Software.

Disclose/discuss all intellectual property, technical data, and/or software rights that are intended to be used in connection with this contract effort. See section 3 General Information, "Submission Handling/Rights in Technical Data and Computer Software/Patent Rights" in this document.

NOTE: This disclosure requirement is to ensure that any Intellectual Property in existence prior to the contract is recognized and understood by both parties. Ownership of Intellectual Property almost always belongs to the originating organization unless there is an overwhelming reason for the Government to take possession.

If Government funding is involved in the development of the Intellectual Property, then the government obtains a nonexclusive, royalty-free license to use the Intellectual property. The type of rights provided to the government in technical data and software depends on the amount of government funding involved in the development. See DFARS 252.227-7013 and DFARS 252.227-7014 for specifics. The government may or may not exercise its rights to use the data and/or software depending on the nature of the project.

In many cases it is not necessary to exercise these rights and actually order data and software as deliverables, because the Government will most likely encourage the developer to transition and commercialize the results of the project. This can be either via the developer's own venture efforts or through licensing or partnering with a third party. For additional information on this topic, see the DoD Intellectual Property Guide, available for download on the Technology Transition web page at www.cttso.gov.

4.5.2.2.6.1. Patents and Patent Applications.

Identify any existing, applied for, or pending patents that will be used in the conduct of this effort. Provide patent number with date of issue and title or patent application number with filing date and title. Any patent or patent application that resulted from prior government funding should be identified. If no patents or patent applications are

relevant, so state. See section 3 General Information, "Submission Handling/Rights in Technical Data and Computer Software/Patent Rights" in this document.

4.5.2.2.6.2. Rights in Technical Data and Software.

Identify any technical data and/or computer software that will be delivered with less than unlimited rights as prescribed in DFARS 252.227-7013 and DFARS 252.227-7014. If unlimited rights in technical data are proposed, so state. See section 3 General Information, "Submission Handling/Rights in Technical Data and Computer Software/Patent Rights" in this document.

4.5.2.3. Transition from Prototype to Production.

Describe the overall strategy to transition the results of this development effort to production once the funded effort is concluded. Briefly describe the overall strategy for transition, potential partners, transition issues to include any obvious regulatory, liability, interoperability, or financing issues. Discuss the interaction with representative users and the concept for test and evaluation by those users and follow on support of a product resulting from this effort.

4.5.2.4. Organizational Capability Statement.

Describe the offeror's capability and/or experience in doing this type of work. Identify technical team members or principal investigators and associated expertise. If applicable, include a description of co-participants' capabilities and/or experience. State whether an agreement has been reached (or not) with the co-participants.

4.5.2.5. Quad Chart and White Paper Document Upload.

BIDS login is required for document(s) upload. After a successful log in, go to "Submitters Tools," select "Respond to BAA." Under "Show BAA#," select the BAA of interest. Click the requirement number. Review the checklist, and click "OK" to continue. Complete the required fields marked with asterisks. Click "Browse" to locate the file. To upload the required White Paper, attach it to the same submission that contains your Quad Chart by clicking the "Attach More Documents" button on the form. Click "Submit for Processing."

4.5.2.6. Quad Chart and White Paper Due Date and Time.

All unclassified Quad Charts and White Papers *must be received electronically through BIDS no later than 1600 (4:00 p.m.) Eastern Time (ET) on the date specified on the cover of this document*. Likewise, classified submissions must be received by the same due date and time. Refer to the "Special Handling Procedures for Classified Information" in this document for instructions on classified submissions. BIDS does not allow proposals to be uploaded or classified placeholders to be created after the closing date and time. Any proposal, regardless of classification, submitted by any other means, or that is late will not be considered by the Government. Avoid the last minute rush; submit early.

4.5.3. Phase 1 Notification to Offeror.

The Government will notify the offeror when a submission has been accepted or rejected. Notification of acceptance with a request to submit the next phase document will be e-mailed to the offeror's contracting authority as entered in the BIDS registration and will indicate the next submission type, clarification requests, and due date and time. Likewise, rejection notifications will be e-mailed to the address provided in the BIDS registration. Debriefings for Quad Charts and White Papers will not be conducted due to the nature of BAAs. In general, submissions are not considered for further review when they do not meet the basic requirement, are too costly, or do not fit the mission.

4.5.4. Phase 1 Status and Inquiries.

Phase 1 is complete when all submissions have been accepted or rejected in accordance with this BAA. Inquiries by phone concerning the status of Quad Charts and White Papers will not be accepted. After login to the BIDS website, submitters are able to check the status of their submission(s) under **My Submissions**.

4.6. Phase 2 Full Proposal Submissions.

Offerors shall prepare and upload a Full Proposal with a separate detailed cost proposal in response to Phase 2 of this BAA. All pages shall be 8 ½ by 11 inches, double-spaced with fonts no smaller than 10 point; all margins shall be one inch. Each page of the submission shall contain the document identifier in the document header. The technical portion must be no more than 50 pages including tables, charts, and figures. If the document contains more than 50 pages, only the first 50 pages will be evaluated. All paragraphs containing proprietary information must be clearly marked. The cover page and the detailed cost proposal are excluded from the Full Proposal page count.

Disclaimer - To minimize the cost and effort for submitters, Phase 2, Full Proposals, will only be requested for qualifying solutions that have a high probability of award; however, the Government reserves the right to cancel any request for proposal for this solicitation prior to award.

4.6.1. Electronic File Format.

The Full Proposal shall be submitted in Microsoft Office 2003 (Word or PowerPoint), or Adobe Acrobat (PDF – portable document format). The cost proposal may be submitted in Microsoft Office 2003 (Excel) format. ZIP files and other application formats are not acceptable. The document must be print-capable, without password, and no larger than 500 Kb. Filenames must contain the appropriate filename extension (.doc, .ppt, .xls, or .pdf). Filenames cannot contain spaces or special characters. Apple/Macintosh users must ensure the entire filename and path are free of spaces and special characters. Submissions that cannot be opened, viewed, or printed will not be considered.

4.6.2. Full Proposal Components.

Full Proposals shall consist of two major sections described in this document, and can be uploaded to BIDS in two separate files each limited to 500 Kb each. The first section is the Technical Proposal and shall include all information related to the proposal as specified in this BAA including figures, charts, and tables plus the cover page. Second is the Cost Proposal to include all cost data as well as an explanation of changes in cost greater than 10 percent from those proposed in the prior submission.

4.6.3. Technical Proposal Content.

The Technical Proposal shall provide a technically detailed solution of the problem addressed in the requirement and fully expand the technology proposed in the prior submission. The following sections and associated data are required. The offeror shall incorporate all clarification data requests in the acceptance e-mail. Indicate clarification entries by footnote and reference the requested item(s) in the footer area.

4.6.3.1. Cover Page.

A cover page template is provided at the BIDS website under [Downloads, Reference Documents, Document Format](#). The cover page includes necessary contractual information including the offeror's contracting POC (name, telephone number, e-mail address, facsimile number, mailing address) and business information (DUNS number, business type). Include the proposed contract type, total cost, and the duration of all phases/tasks. Cover pages are excluded from the page count.

4.6.3.2. Abstract.

The abstract is a one page (or less) synopsis of the proposal that includes the title and the basic approach to satisfy the requirement. Describe the overall scope of work to be performed for the entire POP inclusive of options. The abstract shall stand-alone and be suitable for release under the Freedom of Information Act, 5 U.S.C. 552, as amended.

4.6.3.3. Executive Summary.

An executive summary is a concise description of the technology and solution being proposed. Include key information that demonstrates how the proposed solution meets the

published requirement. The executive summary should not introduce any new information not covered in the subsequent content.

4.6.3.4. Technical Approach.

Describe the technical approach for the proposed solution to meet the requirement. Include technical details of the solution and fully expand the technology proposed in the prior phase submission. Include the methodology, underlying theory, system components, and operational scenario for the intended users. Include drawings, diagrams, charts, and tables needed to explain the effort. Describe relevant prior application of the proposed technology and/or solution, how it is being used, and by whom. Identify sponsoring agency and funding resources; or if none, so state.

4.6.3.5. Project Plan.

The project plan shall be organized by phase and describe the work to be performed along with all associated requirements to successfully complete the proposed effort. Include a summary of the individual phases to follow.

4.6.3.5.1. Phases.

Phases shall be defined by the subset of tasks to be performed, phase objectives to be accomplished, and the required POP to completion. Phases shall be listed in order of occurrence. Identify phases that are optional. Each phase must contain clear exit criteria that is measurable evidence of completion and serves as a “go” or “no-go” decision point. Each phase shall include a total cost.

4.6.3.5.2. Tasks within a Phase.

For each task, provide a detailed description of the work to be performed. Identify any work that will be performed by other organizations or agencies; or if none, so state. Indicate if an agreement is in place for the resources.

4.6.3.5.3. Products and Deliverables.

Identify all deliverables - products as well as documentation and reports - for each Task/Phase. Refer to section 3 of this document “Product and Deliverable Requirements” for the minimum report requirements, and additional products and deliverables in performance of the effort proposed.

4.6.3.6. Master Schedule.

Develop a master project schedule that includes phase start and stop dates as well as major milestones, critical tasks, and report and product delivery dates. Assume a start date of 1 OCT 09. Indicate any optional phases.

4.6.3.7. Government Furnished Equipment.

Identify all Government furnished equipment, materials, facilities, or information with the need date and suggested source. If Government equipment, materials, facilities, or information are not required, so state.

4.6.3.8. Project Risks and Mitigation.

Identify anticipated technical and management risks along with planned mitigation efforts. Indicate the risk assessment as high, medium, or low.

4.6.3.9. Organizational Capability Statement.

Include a brief description of the offeror’s organization. Describe the offeror’s capability and/or experience in doing the type of work being proposed. If applicable, include a description of co-participants’ capabilities and/or experience. State whether an agreement has been reached with the co-participants. Provide at least three references, to include points of contact, for like or similar work.

4.6.3.10. Organizational Resources.

Identify key technical personnel and principal investigator(s) including alternates and co-participants, if applicable. Include a brief biography, relevant expertise, and a list of recent publications for each. Identify any team members with potential conflicts of interest. Possible conflicts of interest include personnel formerly employed by the federal Government within the past two years from the date of proposal submission. Provide name, duties, employing agency, and dates of employment; or if none, so state.

4.6.3.11. Intellectual Property, Technical Data and Software.

All anticipated intellectual property, technical data or software rights shall be disclosed. See section 3 General Information, "Submission Handling/Rights in Technical Data and Computer Software/Patent Rights" in this document.

4.6.3.11.1. Patents and Patent Applications.

Identify any existing, applied for, or pending patents that will be used in the conduct of this effort. Provide Patent number or application number and title. Any patent that resulted from prior government funding should be identified. State if no patents or patent applications are relevant.

4.6.3.11.2. Rights in Technical Data.

Identify any technical data and/or computer software that will be delivered with less than unlimited rights as prescribed in DFARS 252.227-7013 and DFARS 252.227-7014. State if unlimited rights in technical data are proposed.

4.6.3.12. Transition from Prototype to Production.

Describe the approach and issues related to transition or commercialization of the results of this effort to an operationally suitable and affordable product for the intended users to include the following. A Transition Plan should be included in the proposed costs.

4.6.3.12.1. Transition Strategy.

Provide the overall strategy for transition to production (licensing, partnering, or venturing) along with the associated timelines for actions associated with the transition. Describe the roles of current development partners, subcontractors, or other organizations that will be leveraged. If the offeror is not a commercial entity, indicate if a commercial partner has been identified. Discuss barriers to commercialization, such as anticipated regulatory issues (such as environmental, safety, health, and transportation), liability issues, interoperability, and financing, and planned steps to address these barriers.

4.6.3.12.2. Transition Approach.

Describe the type and level of effort envisioned to take the technology from its state at the end of the development effort to a production ready, affordable, operationally suitable product (such as size and/or weight reduction, packaging, environmental hardening, integration, additional test and certification). Provide an estimate of any costs to transition the prototype to low rate initial production. Provide the estimated production unit price for the end users.

4.6.3.12.3. Test and Evaluation.

Describe the plan to involve representative users during the design and development process and the general plan for test and evaluation by representative end users.

4.6.3.12.4. Operational Support.

Describe the estimated level of training needed to prepare users to utilize the product in an operational environment. Discuss the anticipated support concept such as level(s) of repair, spare parts, warranties, operation and maintenance technical manuals, simulators, and other logistics considerations.

4.6.3.13. Human Subjects and Animal Testing.

The proposal shall provide a statement regarding the anticipated use of human subjects or animals in testing; or if none, so state. If yes, procedures for complying with all laws and regulations governing the use of animals or human subjects in research projects shall be included in the technical proposal. See section 3 General Information, "Animal or Human Testing Compliance" in this document for details.

4.6.3.14. Environmental Impact.

The proposal shall provide a statement regarding the impact of the work proposed on the environment. State if no impact exists.

4.6.3.15. Classification and Security.

If the offeror is proposing to perform research in a classified area, indicate the level of classification of the research and the level of clearance of the potential principal investigator and all proposed personnel. The contractor shall include facility clearance information. Also, the contractor shall indicate the Government agency that issued the clearances. State if the proposed effort is unclassified.

4.6.3.16. Subcontracting Plan.

If the total amount of the proposal exceeds \$550,000 and the offeror is not a small business, the offeror shall submit a subcontracting plan for small business and small socially and economically disadvantaged business concerns. A mutually agreeable plan will be included in and made a part of the resultant contract. The contract cannot be executed unless the contracting officer determines that the plan provides the maximum practicable opportunity for small business and small disadvantaged business concerns to participate in the performance of the contract. The Subcontracting Plan/information is excluded from page count. The DoD goal for awarding subcontracts to Small Disadvantage Businesses is 5 percent.

4.6.4. Cost Proposal.

The offeror shall prepare and submit cost or pricing data, and supporting attachments in accordance with Table 15-2 of FAR 15.408. Submission of the Cost Proposal in Microsoft Office 2003 (Excel) format expedites processing by the reviewers. As soon as practicable after agreement on price, but before contract award, the offeror shall submit a Certificate of Current Cost or Pricing Data as prescribed by FAR 15.406-2 for cost type contracts exceeding \$650,000.

4.6.4.1. Cost Summary.

Provide a summary of the total cost for each phase and the total for the entire effort proposed. Indicate optional phases. Explain changes in cost greater than 10 percent from those proposed in the previous submission.

4.6.4.1.1. Other Funding Sources.

The proposal shall provide the names of other federal, state, or local agencies, or other parties receiving the proposal and/or funding or potentially funding the proposed effort. State if no other funding sources or parties are involved.

4.6.4.2. Detailed Cost Estimate.

Provide, in table format, a detailed cost breakdown by phase, of all items identified in the technical portion of the proposal for the following cost elements. Include all options.

4.6.4.2.1. Direct Labor.

Provide a list of the applicable labor categories or positions showing the breakdown of labor hours, rates, cost for each category, and furnish the basis for the estimates. Clearly indicate fiscal year rate changes and associated labor rate escalation calculations as applicable.

4.6.4.2.2. Indirect Costs.

Indicate how the offeror has computed and applied offeror's indirect costs. Indicate the rates used and provide an appropriate explanation.

4.6.4.2.3. Other Costs.

List all other costs not included in other sections (e.g., special tooling, travel, computer and consultant services, preservation, packaging and packing, spoilage and rework) and provide the basis for pricing.

4.6.4.2.4. Materials.

Provide a consolidated price summary of individual material quantities included in the various tasks and the basis for pricing (such as vendor quotes and invoices). Include new materials, parts, components, assemblies, and services to be produced or performed by others. For all items proposed identify the source, quantity, and price. Upon request, the offeror shall provide all backup and source data used for the basis for pricing.

4.6.4.2.5. Government Furnished Equipment.

List the property or materials required to perform the task. Separate items to be acquired with contract funds and those to be furnished by the Government. When possible, the description or title and estimated or known unit and total costs of each item should be shown (i.e., manufacturer, catalog price, or previous purchase price). When such information on individual items is not available, the items should be grouped by class and estimated values indicated. In addition, the offeror shall include a statement as to why it is necessary to acquire the property with contract funds, and if applicable, express in writing his unwillingness or financial inability to acquire the items with his own resources. NOTE: The FAR generally prohibits providing an industrial contractor with facilities (including plant equipment and real property) with a unit acquisition cost of less than \$10,000.

4.6.4.2.6. Fee.

Include the fee proposed for this effort. State if no fee is proposed.

4.6.4.2.7. Competitive Methods.

For those acquisitions (e.g., subcontract, purchase orders, material orders) over \$100,000 priced on a competitive basis, also provide data showing degree of competition and the basis for establishing the source and reasonableness of price. For inter-organizational transfers priced at other than cost of the comparable competitive commercial work of the division, subsidiary, or affiliate of the contractor, explain the pricing method (See FAR 31.205-26(e)).

4.6.4.2.8. Established Catalog or Market Prices/Prices Set By Law or Regulation.

When an exemption from the requirement to submit cost or pricing data is claimed, whether the item was produced by others or by the offeror, provide justification for the exemption.

4.6.4.2.9. Royalties.

If more than \$250 provide the following information on a separate page for each separate royalty or license fee:

- Name and Address of Licensor
- Date of the License Agreement (*See Note 1 below.*)
- Patent numbers, Patent Application Serial Numbers, or other basis on which the royalty is payable
- Brief description (including any part or model numbers of each contract item or component on which the royalty is payable)
- Percentage or dollar rate of royalty per unit

- Unit price of contract item
- Number of units
- Total dollar amount of royalties

Note 1: A copy of the current license agreement and identification of applicable claims of specific patents shall be provided upon request by the contracting officer. See FAR 27.204 and FAR 31.205.37.

4.6.4.2.10. Facilities Capital Cost of Money.

When the offeror elects to claim facilities capital cost of money as an allowable cost, the offeror must submit Form CASB-CMF and show the calculation of the proposed amount. See FAR 31.205-10.

4.6.4.2.11. Full Proposal Document Upload.

To upload a next phase document, locate and open the accepted record in BIDS and select **Create Next Submission**.

4.6.4.2.12. Full Proposal Due Date and Time.

All unclassified Full Proposals must be received electronically through BIDS, no later than the due date and time specified in the acceptance e-mail. Likewise, classified submissions must be received by the due date and time. Refer to the “Special Handling Procedures for Classified Information” in this document for instructions on classified submissions. BIDS does not allow proposals to be uploaded or classified placeholders to be created after the due date and time. Any proposal, regardless of classification, submitted by any other means, or that is late will not be considered by the Government.

4.6.5. Phase 2 Notifications to Offerors.

Notification of acceptance or rejection of a Phase 2 submission will be sent via e-mail to the offeror’s principal contact as entered in the BIDS registration. If the Government does not accept the Phase 2 proposal, the offeror may request a formal debriefing in accordance with FAR 15.5.

4.6.6. Phase 2 Status and Inquiries.

Phase 2 is complete when the Government concludes technical evaluations of all submissions and awards any contracts considered under this BAA. Inquiries by phone concerning the status of Full Proposals will not be accepted. After login to the BIDS website, submitters are able to check the status of any submission under **My Submissions**.

4.7. Clarification Requests.

The offeror can be asked to submit a clarification to a Phase 1 White Paper or a Phase 2 Full Proposal that does not require a complete submission or re-submission. The BIDS e-mail from the Contracting Officer will contain instructions on the specific request and associated requirements. BIDS will use CL (Clarification) instead of WP (White Paper), or FP (Full Proposal) as the Document Identifier designation (e.g., **CL** HSC-1112-ABCORP-xxxx-CL; where xxxx-CL is the SIT entered by the submitter). The request will contain the due date and time and can be less than the standard 30-day response time depending on the nature of the request.

4.8. Instructions for Offeror “No-bid” and Submission Withdrawal.

From time to time an offeror decides not to submit a subsequent Phase 2 submission. If this is the case, the offeror shall indicate in BIDS that they are not providing the subsequent submission. The offeror shall follow the steps identified in BIDS to upload a submission and attach a document to indicate the withdrawal of the previous submission(s) and the intent to not participate in further submissions. If possible, the Document Identifier should reflect the submission status (e.g., HSC-1112-ABCORP-xxxx-WD or xxxx-NoBid). To withdraw a submission after the due date and time, notify the contracting officer at the BAA e-mail address.

5. PROPOSAL EVALUATION.

This section describes the criteria that will be used to evaluate each submission. The phase of the submission will determine the extent that each criterion applies based on the information requirements described in Section 3. Criteria are not weighted or scored, and submissions are not ranked.

5.1. Evaluation Criteria.

The criteria used to evaluate and select proposals for projects are described as follows. Each proposal will be evaluated on its own merit and relevance to the program requirements rather than against other proposals in the same general research area.

5.1.1. Basic Requirement.

The proposed solution must meet the letter and intent of the stated requirement; all elements within the proposal must exhibit a comprehensive understanding of the problem and the requirements of intended end users. The proposed solution must meet multiple user (U.S. Government or commercial) needs and be fully compliant with all elements of the solicitation including format, content, and structure as well as all BAA instructions.

5.1.2. Technical Performance.

The proposed technical approach must be feasible, achievable, complete, and supported by the proposed technical team that has the broad multi-disciplinary expertise and experience to efficiently and effectively accomplish the proposed tasks. Task descriptions and associated technical elements are to be complete and in a logical sequence. All proposed deliverables must clearly define a final product that meets the requirement and can be expected as a result in the award. The proposal must identify and clearly define technical risks and planned risk mitigation efforts. Those risks and the associated mitigations must be defined, feasible and reasonable. The roles of the prime and other participants required must be clearly distinguished and pre-coordination with all participants (including Government facilities) fully documented. The requirement for and the anticipated use or integration of GFM including all equipment, facilities, and information, must be fully described including dates when such GFM will be required. Intellectual property ownership and the planned transition to production must be adequately addressed, including a support concept for the product described. Similar efforts completed by the offeror in this area must be fully described including identification of other Government sponsors.

5.1.3. Cost.

The proposed costs must be both reasonable for the work proposed and achievable. The proposal must document all anticipated costs including those of associate, participating organizations. The proposal must demonstrate that the offeror has fully analyzed budget requirements and addressed resulting cost risks. The proposal must indicate all cost-sharing and leveraging opportunities explored and identified and the intellectual property expectations associated with that cost-sharing. Other sponsors who have funded or are funding this offeror for the same or similar efforts must be identified by agency, program manager name, phone number and e-mail address.

5.1.4. Schedule.

The proposed schedule must be reasonable, achievable, efficient and complete. The proposal must indicate that the offeror has fully analyzed the project's critical path and has addressed the resulting schedule risks. Proposals that deliver prototype capabilities sooner are desired for all requirements and in particular under R2532.

5.1.5. Contractor Past Performance.

The offeror's past performance in similar efforts must clearly demonstrate an ability to deliver products that meet the proposed technical performance requirements within the proposed budget and schedule. The proposed project team must have demonstrated expertise to manage the cost, schedule and technical aspects of the project.

ATTACHMENT A – ACRONYMS AND ABBREVIATIONS.

API Advanced Programming Interface	FAR Federal Acquisition Regulation
BAA Broad Agency Announcement	FOIA Freedom of Information Act
BIDS BAA Information Delivery System	FP Full Proposal
CACD Commander's Appreciation and Design Framework	FY Fiscal Year
CbT Combating Terrorism	GFM Government Furnished Material
COAs Courses Of Action	HBCU/MIs Historically Black Colleges and Universities/Minority Institutes
CoC Code of Conduct	HCI Human-Computer Interface
CONOP Concept of Operation	HSCB Human Social Cultural and Behavior Modeling Program
CTTSO Combating Terrorism Technical Support Office	IKRIS Interoperability of Knowledge Representation and Reasoning System
DFARS Defense Federal Acquisition Regulation Supplement	IRB Institutional Review Board
DIME Diplomatic, Information, Military, and Economic	IW Irregular Warfare
DoD Department of Defense	MCO Major Combat Operations
DoDD DoD Directive	MI Minority Institutions
DUNS Data Universal Numbering System	MSR Monthly Status Report
ET Eastern Time Zone	NLT No Later Than
EULA End User License Agreement	ONR Office of Naval Research
FAQ Frequently Asked Question	OSD Office of the Secretary of Defense

PDF

Portable Document Format

PMESII

Political, Military, Economic, Support,
Information and Infrastructure

POAM

Program Objectives And Milestones

POC

Point of Contact

POP

Period of Performance

QDR

Quadrennial Defense Review

R&D

Research and Development

ROM

Rough Order of Magnitude

SIT

Submitter Internal Tracking (Number)

SSTR

Security, Stability, Transition and Reconstruction
Operations

ToS

Terms of Service

TSWG

Technical Support Working Group

U.S.

United States

U.S.C.

United States Code