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30 December 2009

Adaptive Adversary Modeling for Terrorism Risk Analysis

Solicitation Number: BAA_10_09 Agency: Department of Homeland Security Office: Office of the Chief Procurement Officer Location: Office of Procurement Operations

Original Solicitation Combined Synopsis/Solicitation Dec 15, 2009 7:11 am

Changed Dec 30, 2009 10:18 am

Source:

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Synopsis:

Added: Dec 15, 2009 7:11 am

The DHS S&T mission is to "support basic and applied homeland security research to promote revolutionary changes in technologies; advance the development, testing and evaluation, and deployment of critical homeland security technologies; and accelerate the prototyping and deployment of technologies that would address homeland security vulnerabilities." Pursuant to this mission the Chemical and Biological Division (CBD) seeks technologies to prevent and defend against a chemical and biological attack. In addition, the division is charged with pursuing research to improve response and restoration, conduct threat-informed risk assessments and invest in bioforensics research and development. The focus of this BAA is in the area of risk assessments.

The goal of this research project is to build new or apply existing risk analysis applications to terrorism risk that are appropriate for modeling the actions of an intelligent, reactive, adaptive adversary in the conduct of an attack against the U.S. employing WMD.

See the attached document for more information.

All questions must be submitted in writing to the primary point of contact shown above by the deadline shown in the BAA document. No phone calls please.

Added: Dec 30, 2009 10:18 am Please find the attached FAQ document.

> Please consult the list of document viewers if you cannot open a file.

BAA_10_09

Type: Other (Draft RFPs/RFIs, Responses to Questions, etc..) Posted Date: December 15, 2009

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Description: BAA document

FAQ

Type: Other (Draft RFPs/RFIs, Responses to Questions, etc..)

A -- Research & Development **NAICS Code:** 541 -- Professional, Scientific, and Technical Services/541712 -- Research and Development in the Physical, Engineering, and Life Sciences (except

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Posted Date: December 30, 2009

FAQ for BAA 10-09 v1.doc (24.00 Kb)

Description: FAQ

Contracting Office Address:

Office of the Chief Procurement Officer Washington, District of Columbia 20528 United States

Primary Point of Contact.:

Janet Herman,

Contract Specialist

janet.herman@dhs.gov

Phone: 202-254-6918

Secondary Point of Contact:

Jina Yu,

Contract Specialist

jina.yu@dhs.gov

Phone: 202.254.2274

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Adaptive Adversary Modeling for Terrorism Risk Analysis

Broad Agency Announcement 10-09

(BAA 10-09)

Department of Homeland Security

Science & Technology (S&T) Directorate

White Papers Due: January 20, 2010

Proposals Due: March 1, 2010

For Questions Regarding This Solicitation:

BAA10-09@dhs.gov





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INTRODUCTION:

This solicitation is a Broad Agency Announcement (BAA) as contemplated in Federal Acquisition Regulation (FAR) 6.102(d)(2) and 35.016. A formal Request for Proposals (RFP) will not be issued.

The Department of Homeland Security (DHS) Science & Technology (S&T) Directorate will not issue paper copies of this announcement. DHS S&T reserves the right to select for award and fund all, some, or none of the Full Proposals received in response to this solicitation. No funding for direct reimbursement of proposal development costs will be allowed. Technical and cost proposals (or any other material) submitted in response to this BAA will not be returned. However, depending on the markings on the proposal, DHS S&T will adhere to FAR policy on handling source selection information and proprietary proposals. It is the policy of DHS S&T to treat all proposals as sensitive competitive information and to disclose their contents only for the purposes of evaluation.

Awards may take the form of contracts or other transactions (OTs) agreements. In the event an Offeror or subcontractor is an FFRDC, Department of Energy National Laboratory, or other Federally funded entity, DHS S&T will work with the appropriate sponsoring agency to issue an interagency agreement pursuant to the Economy Act (31 U.S.C. 1531) or other appropriate authority. Depending on the nature of the Full Proposals received, DHS S&T will also consider awarding a grant or cooperative agreement. Therefore, the applicable laws and regulations governing the legal vehicle used for award will depend on the legal vehicle chosen by DHS S&T. In this regard, Offerors should propose a preferred vehicle type for DHS S&T to consider for award.



I. GENERAL INFORMATION

1. Agency Name

Department of Homeland Security Science & Technology Directorate *Chemical and Biological* Division Washington, DC 20528

2. Research Opportunity Title

Adaptive Adversary Modeling for Terrorism Risk Analysis

3. Program Name

Integrated Chemical, Biological, Radiological, and Nuclear Terrorism Risk Assessment Program, Threat Characterization and Attribution

4. Research Opportunity Number

BAA 10-09

5. Response Date

White Papers Due: January 20, 2010

Full Proposals Due: March 1, 2010 BAA 10-09



6. Research Opportunity Description

The DHS S&T mission is to "support basic and applied homeland security research to promote revolutionary changes in technologies; advance the development, testing and evaluation, and deployment of critical homeland security technologies; and accelerate the prototyping and deployment of technologies that would address homeland security vulnerabilities."

Pursuant to this mission the *Chemical and Biological* Division (CBD) seeks technologies to prevent and defend against a chemical and biological attack. In addition, the division is charged with pursuing research to improve response and restoration, conduct threat-informed risk assessments and invest in bioforensics research and development. The focus of this BAA is in the area of risk assessments.

The U.S. Department of Homeland Security (DHS) is responsible for preventing, protecting from, responding to, and recovering from a wide array of potential threats to the nation. Without question, some of the highest-consequence threats to the nation, should they occur, are the release or detonation of Weapons of Mass Destruction (WMD) in the homeland.

In 2004, Homeland Security Presidential Directive (HSPD) 10, *Biodefense for the 21st Century*, the White House identified that coordinated Government efforts across agencies are required to effectively manage the problem. A key requirement within HSPD-10 articulated that "...the United States requires a continuous, formal process for conducting...assessments to guide prioritization of...investments in biodefense-related research, development, planning, and preparedness". This requirement specifically charged DHS with executing the first national, continuous, and formal assessment of bioterrorism risk, the Bioterrorism Risk Assessment, or BTRA. DHS terrorism risk analysis was extended to chemical terrorism and to cross threat analysis with an integrated chemical, biological, radiological, and nuclear (CBRN) terrorism risk assessment (ITRA) in 2008 (HSPD-18). All assessments are updated at least every 2 years to incorporate new information, modeling improvements, and new methodological approaches and improvements.

7. Program Objectives

The goal of this research project is to build new or apply existing risk analysis applications to terrorism risk that are appropriate for modeling the actions of an intelligent, reactive, adaptive adversary in the conduct of an attack against the U.S. employing WMD.

Composed of both the likelihood of an event as well as its consequences should it in fact occur, risk is a key measure for decision makers to factor into their planning. Given the CBD mission space, sound risk analysis and risk characterization is crucial to better protecting and securing the



homeland. The first BTRA, delivered to the White House in January of 2006, used an implementation of a modified Probabilistic Risk Assessment (PRA) approach (Figure 1).

		Threat Analysis		Consequence Modeling	Integrated Risk
Agent	Target	Production PP1	Likelihood P1 = PA1 X PT1 X PP1	Consequence C1	$\frac{\text{Risk}}{\text{R1} = \text{P1} \times \text{C1}}$
PA1	PT1	PP2	P2 = PA1 X PT1 X PP2	C2	R2 = P2 × C2
PA2	PT2	PP4			
					Total Risk R = R1+R2+

Figure 1. Modified PRA for Bioterrorism. PRA as implemented in the BTRA, uses an event tree (here, in blue) to a) enumerate the bioterrorism scenarios to be considered in the analysis, and b) provide a mechanism for assessing the probabilities, or likelihoods of those scenarios as combinations of individual branch probabilities along a branch in the event tree. Many of these probabilities are elicited from the intelligence community as probability distributions. Following estimation of scenario likelihood, consequence modeling is used to estimate the consequences from each scenario path in the event tree. Finally, the two components of risk, likelihood and consequences, are integrated to determine the risk for each scenario.

While this approach was a significant leap forward in bioterrorism risk analysis, there are a number of areas that could be improved and warrant further investigation. Specifically, of the two components of risk – likelihood and consequence – likelihood is by far the more difficult to estimate for terrorist actions. For PRA as applied to engineered systems, aerospace and the chemical industry, there often exists sufficient historical data to apply classical statistics in the determination of event likelihoods or frequencies. For terrorism, however, such data do not exist and there is currently debate in the risk analysis and security communities regarding whether or not probabilities elicited from the intelligence community and employed in a PRA structure are appropriate models for the terrorist choices.

Specifically, the argument often used is that static likelihoods, or probabilities, elicited in the context of PRA do not effectively represent the dynamic nature of an "intelligent adversary" that is in reality not static at all, but rather, reacts and adapts to the defensive adjustments of the U.S. While many argue that for a strategic, non-tactical assessment, elicited static probabilities from the intelligence community may in fact capture the level of sophistication, or "intelligence" of the adversary, recent academic reviews on this subject warrant investigation of possible enhancements to existing DHS approaches, as well as the evaluation of potential new methods for better estimating likelihoods of particular actions of a reactive, adaptive adversary.



To achieve the program goals, this BAA calls for rapid development of the technology listed above: new or existing risk applications appropriate for modeling the actions of an intelligent, reactive adversary in the conduct of an attack against the U.S. employing WMD. Offerors shall prepare white papers to address this topic. Upon review of the submitted white papers, the government may invite an offeror to submit a full proposal. Only invited proposals will be accepted and considered for review. Proposals received without a government request will be returned without review.

8. Requirements

The overall requirement of this BAA is to support and/or create a framework allowing for the best estimation of risk for an adaptive / reactive terrorist adversary.

The program will be separated into two phases.

The Phase I is a comprehensive paper study focusing on one of the following three areas:

- 1) Methodological improvements and/or enhancements to the significant, existing, PRA capabilities such that the choices made by the "intelligent adversary" are better represented
- 2) Applications of existing methodologies drawn, for example, from decision analysis or game theory, to serve as a better model for the "intelligent adversary,"
- 3) Development of new methodologies to address the decision making of the "intelligent adversary" and the estimation of attack likelihoods and modes.

At a minimum, the report will include a description of the foundation of the expected methodology to address an "intelligent adversary", its requirements (computing, data sources, etc.) for implementation into DHS S&T risk assessments, and, importantly, its advantages and disadvantages over other methodologies. Report will also contain a glossary of common terms and a full bibliography.

Phase II is a modeling / implementation phase. The goals of Phase Two will be determined after completion of Phase 1 DRAFT reports.

9. Schedule and Phases

The program will be separated into two phases -

Phase I will be a research effort of not more than 9 months duration.

Phase II will be a research effort of not more than 12 months. Successful Phase I awardees may be invited to submit proposals for Phase II.



10. Government Representatives

Technical:

Sara Klucking, PhD

Program Manager Department of Homeland Security Science and Technology Directorate Washington, DC 20528

Contractual:

Kristian Jovanovic

Contracting Officer Department of Homeland Security Science & Technology Acquisitions Washington, DC 20528

II. AWARD INFORMATION

Anticipated Awards Information is as follows:

- Approximate Total Amount of Funding Available for Phase I efforts: *\$690,000* subject to availability
- Approximate Total Amount of Funding Available for Phase II efforts: *\$690,000* subject to availability
- Anticipated Number of Awards: DHS S&T expects to make three awards.
- Anticipated Award Types: Anticipated to be in the form of either a Fixed Price or Cost type contract. However the Government reserves the right to award grants, Cooperative Agreements (CAs), Other Transactions (OTs) Agreements, or interagency agreements to appropriate parties should the situation warrant.
- Previous Year(s) Average Individual Award Amounts: N/A
- Anticipated Period of Performance for Award: *9* months. Proposals that build on current or previous work are encouraged. If Offerors are extending work performed under other projects, it must clearly identify the point of departure and what existing work will be brought forward and what new effort will be performed under this BAA.

III. ELIGIBILITY INFORMATION

This BAA is open to **ALL** responsible sources.



Offerors may include single entities or teams from academia, private sector organizations, Government laboratories, and Federally Funded Research and Development Centers (FFRDCs), including Department of Energy National Laboratories and Centers.

Federally Funded Research & Development Centers (FFRDCs), including Department of Energy National Laboratories and Centers, are eligible to respond to this BAA, individually or as a team member of an eligible principal Offeror, so long as they are permitted under a sponsoring agreement between the Government and the specific FFRDC.

Historically Black Colleges and Universities (HBCU), Minority Institutions (MI), are encouraged to submit proposals and to joining others as team members in submitting proposals is strongly encouraged. However, no portion of this BAA will be set-aside pursuant to FAR Part 19.502-2.

Organizational Conflict of Interest issues will be evaluated on a case-by-case basis; as outlined below. Offerors who have existing contract(s) to provide scientific, engineering, technical and/or administrative support directly to DHS S&T will receive particular scrutiny.

Organizational Conflict of Interest

(a) Determination. The Government has determined that this effort may result in an actual or potential conflict of interest, or may provide one or more Offerors with the potential to attain an unfair competitive advantage.

(b) If any such conflict of interest is found to exist, the Contracting Officer may (1) disqualify the Offeror, or (2) determine that it is otherwise in the best interest of the United States to contract with the Offeror and include the appropriate provisions to mitigate or avoid such conflict in the contract awarded. After discussion with the Offeror, the Contracting Officer may determine that the actual conflict cannot be avoided, neutralized, mitigated, or otherwise resolved to the satisfaction of the Government, and the Offeror may be found ineligible for award.

(c) Disclosure: The Offeror must represent, as part of its proposal and to the best of its knowledge that: (1) It is not aware of any facts which create any actual or potential organizational conflicts of interest relating to the award of this contract; or (2) It has included information in its proposal, providing all current information bearing on the existence of any actual or potential organizational conflicts of interest, and has included the mitigation plan in accordance with paragraph (d) of this provision.

(d) Mitigation/Waiver. If an Offeror with a potential or actual conflict of interest or unfair competitive advantage believes it can be mitigated, neutralized, or avoided, the Offeror shall submit a mitigation plan to the Contracting Officer for review. Award of a contract where an



actual or potential conflict of interest exists shall not occur before Government approval of the mitigation plan.

(e) Other Relevant Information: In addition to the mitigation plan, the Contracting Officer may require further relevant information from the Offeror. The Contracting Officer will use all information submitted by the Offeror, and any other relevant information known to DHS, to determine whether an award to the Offeror may take place, and whether the mitigation plan adequately neutralizes or mitigates the conflict.

(f) Corporation Change. The successful Offeror shall inform the Contracting Officer within thirty (30) calendar days of the effective date of any corporate mergers, acquisitions, and/or divestures that may affect this provision.

(g) Flow-down. The contractor shall insert the substance of this clause in each first tier subcontract that exceeds the simplified acquisition threshold.

IV. APPLICATION AND SUBMISSION INFORMATION

1. Application and Submission Process

Submitting a Response to this BAA:

Submissions will not be accepted from organizations that have not registered. Any organization that wishes to participate in this solicitation must register at: https://baa.st.dhs.gov.

To begin the process, go to https://baa.st.dhs.gov, and select **10-09** from the list on the left side of the screen, and then select the appropriate topic area. Upon proper selection, buttons for registration and submission will appear. Select the appropriate registration button and fill in the requisite fields. Then submit your registration for white paper submission.

Once the registration process is complete, registrants should receive a control identification number via e-mail. This control number is needed to begin the white paper submission process. To submit your white paper, select the appropriate submission button, fill out the requisite fields, upload your files, and then submit. Users will receive confirmation of their submission via e-mail. You may revise your white paper submission until the deadline. Failure to submit a white paper will disqualify an offeror from consideration for submitting a full proposal.

In teaming situations, the lead organization must remain the same on both the white paper and, if selected, the full proposal. Any full proposal submitted by organizations that were not the lead organization for the white paper submission will be considered non-responsive.



Full proposals will be delivered via upload in accordance with instructions provided during registration.

No Classified White Papers or Full Proposals (or portions of proposals) will be accepted. The proposal submissions will be protected from unauthorized disclosure in accordance with FAR 15.207, applicable law, and DHS regulations. Offerors are expected to appropriately mark each page of their submission that contains proprietary information.

2. White Paper Preparation and Submission Guidelines

White papers are required prior to submitting a full proposal.

The due date for white papers is no later than 4:30 P.M. (Local Eastern Time) on *January 20*, *2010.* A two-stage source selection process will be used. It is <u>required</u> that a white paper be submitted prior to the due date to determine the acceptability of the proposed concept to the BAA. Only those white papers deemed as having "Particular Value" to S&T will be invited to submit a full proposal. The evaluation of the white papers will be issued via e-mail notification on or about February 8, 2010. Awards will be made based only on the full proposals.

White papers should be concise and limited to 10 pages. All pages shall be printed single-spaced on 8-1/2 by 11 inch paper with type not smaller than 12 point font. The page limitation for white papers includes all figures, tables, and charts. No formal transmittal letter is required. The white paper should contain the following sections:

- Cover Sheet (must be clearly marked "White Paper"): must include the Technical Point of Contact's information (name, address, phone, fax, email, lead organization and business type), the title of the proposed work, the estimated cost, and the duration (in months) of the proposed work. (Note: cover sheet does not count towards page limit.)
- Executive Summary: Briefly define the problem that this white paper will address and the effort's technical goals. Succinctly describe the uniqueness and benefits of the proposed approach.
- Proposed Technical Approach and Research Plan: This section is the centerpiece of the white paper. It should describe the research areas relevant to achieving program goals, detailed technical rationale, technical approach, and constructive plan for accomplishment of technical goals in support of program objectives, milestones and deliverables.
- Team Expertise and Management Plan: A summary of expertise of the key personnel on the project relevant to the program goals. If the team is multi-organizational, a proposed management structure should also be included.
- Cost Estimates for Phase I: A cost estimate for resources over the proposed timeline. This cost estimate should include both labor and materials costs.



3. Full Proposal Preparation and Submission Guidelines

The due date for receipt of full proposals is 4:30 P.M. (Local Eastern Time) on *March 1, 2010*. **Full Proposals WILL NOT BE ACCEPTED after the published due date.** It is anticipated that award announcements will be made on or around *March 30, 2010*. As soon as the final proposal evaluation process is complete, the offeror will be notified via e-mail of its selection or non-selection for an award. Proposals exceeding the page limit will not be evaluated.

ONLY OFFERORS WHO SUBMIT A WHITE PAPER THAT IS DEEMED AS HAVING "PARTICULAR VALUE" TO DHS S&T WILL BE CONSIDERED FOR FULL PROPOSALS. THE GOVERNMENT WILL ADVISE IN WRITING THOSE OFFERORS SELECTED FOR FULL PROPOSALS. *FULL PROPOSALS WILL NOT BE ACCEPTED FROM ANY OFFERORS OTHER THAN THOSE INVITED TO SUBMIT FULL PROPOSALS*.

Full proposals will consist of two volumes: a Technical volume and a Cost Proposal volume.

- Paper Size 8.5-by-11-inch paper
- Margins 1 inch
- Spacing Single- or double-spaced
- Font Times New Roman, 12 point. Text embedded within graphics or tables in the body of the white paper or the quad chart may not be smaller than 10 point.
- Number of Pages
 - Volume 1: No more than 20 single-sided pages. Full proposals exceeding the page limit will not be evaluated. The cover page, table of contents, resumes, and "Other DHS Support" appendix are excluded from the page limitations.

o Volume 2: No page limitations.

• Copies – A proposal shall consist of one electronic file for technical volume and one electronic volume for cost proposal volume. Electronic files will be in portable document format (PDF), readable by IBM-compatible PCs. Each file size must be no more than 10 MB.

Full Proposal Content

Volume 1: Technical Proposal

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Volume I of the full proposal shall be in the form of a technical volume, not to exceed **20** pages, and a cost proposal overview. Responsiveness to the order and content of sections listed in Volume I is important to assure thorough and fair evaluation of proposals. The submission of other supporting materials with the proposal will not be reviewed. Nonconforming proposals will be rejected without review.

The technical proposal shall cover all elements of the white paper. In particular, the technical proposal must cover the following points in more detail:

- <u>Cover Page:</u> This should include the words "Technical Proposal" and the following:
 - 1) BAA number;
 - 2) Title of Proposal;
 - 3) Identity of prime Offeror and complete list of subcontractors, if applicable;
 - 4) Technical contact (name, address, phone/fax, electronic mail address);
 - 5) Administrative/business contact (name, address, phone/fax, electronic mail address); and,
 - 6) Duration of effort (separately identify the basic effort and any options)
- <u>Table of Contents</u>
- <u>Official Transmittal Letter</u> This is an official transmittal letter with authorizing official signature. For an electronic submission, the letter can be scanned into the electronic proposal. The letter of transmittal shall state whether this proposal has been submitted to another government agency, other than DHS S&T, and if so, which one and when?
- <u>Executive Summary</u>: Summarize the Proposal and the expected benefits of the solution.
- <u>Proposal:</u> This describes the proposed work and the associated technical and management issues.
- <u>Performance Goals</u>: Describes the overall methodology and how it will meet the objectives specified in the technical description.
- <u>Detailed Technical Approach</u>: Describes the proposed technical issues and methodology to address the stated program objectives.
- <u>Statement of Work (SOW), Schedule, and Milestones</u>: Provides an integrated display for the proposed research, showing each task with major milestones. Include a section clearly marked as the SOW you propose to undertake. It is anticipated that the proposed SOW will be incorporated as an attachment to the resultant award instrument. To this end, such proposals must include a severable self-standing SOW without any proprietary restrictions, which can be attached to the contract or agreement award.



- <u>Deliverables</u>: Provide a brief summary of all deliverables proposed under this effort, including data, and reports consistent with the objectives of the work; along with suggested due dates (calendar days after the effective date of award). This section shall be severable, i.e., it will begin on a new page and the following section shall begin on a new page. It is anticipated that the proposed detailed list and description of all deliverables will be incorporated as an attachment to the resultant award instrument. To this end, such proposals must include a severable self-standing detailed list and description of all deliverables without any proprietary restrictions, which can be attached to the contract or agreement award.
- <u>Management Plan</u>: Provide a brief summary of the management plan, including an explicit description of what role each participant or team member will play in the project, and their past experience in technical areas related to this proposal.
- <u>Facilities</u>: List the location(s) where the work will be performed, and the facilities to be used. Describe any specialized or unique facilities which directly affect the effort.
- <u>Government-Furnished Resources</u>: Provide a brief summary of required information and data which must be provided by the Government to support the proposed work, if any.
- <u>Cost Summary</u>: Summarize the projected total costs for each task in each year of the effort, including a summary of subcontracts, man hours, and consumables.
- <u>Resumes for Key Personnel</u>: In Appendix A, provide resumes and *curriculum vitae* (CVs) for each of the key personnel. (This section will not count toward the 20 -page limit).
- <u>Other DHS Support</u>: As an appendix, provide a list of any current or pending awards or proposals with DHS. (This section will not count toward the *20* -page limit).

Volume 2: Cost Proposal

The Cost Proposal shall consist of a cover page and two parts, Part 1 and Part 2. Part 1 will provide a detailed cost breakdown of all costs by cost category by calendar/fiscal year and Part 2 will provide a detailed cost breakdown by task/sub-task using the same task numbers in the Statement of Work. Options must be separately priced.

Note: Per FAR 15.403-4, Certified Cost and Pricing Data may be required by offerors before award of a FAR-based contract.



<u>**Cover Page:**</u> The use of the SF 1411 is optional. The words "Cost Proposal" should appear on the cover page in addition to the following information:

- BAA number;
- Title of Proposal;
- Identity of prime Offeror and complete list of subcontractors, if applicable;
- Technical contact (name, address, phone/fax, electronic mail address)
- Administrative/business contact (name, address, phone/fax, electronic mail address) and;
- Duration of effort (separately price out the basic effort and any options)

Part 1: Detailed breakdown of all costs by cost category by calendar/fiscal year. The offeror should provide a total estimated price for major demonstrations and other activities associated with the program, including cost sharing, if any. The offeror should state whether any Independent Research and Development (IR&D) program is or will be dedicated to this effort, or if IR&D is being pursued to benefit related programs as well.

Any cost sharing estimates should include the type of cost share, i.e. cash or in-kind. If inkind is proposed, the offeror should provide a discussion of how the cost share was valued.

- Direct Labor Individual labor category or person, with associated labor hours and *unburdened* direct labor rates;
- Indirect Costs Fringe Benefits, Overhead, G&A, COM, etc. (*Must show base amount and rate*)
- Travel Number of trips, destinations, durations, etc.
- Subcontract A cost proposal *as detailed as the Offeror's cost proposal* will be required to be submitted by the subcontractor. The subcontractor's cost proposal can be provided in a sealed envelope with the Offeror's cost proposal or will be requested from the subcontractor at a later date;
- Consultant Provide consultant agreement or other document which verifies the proposed loaded daily/hourly rate;
- Materials should be specifically itemized with costs or estimated costs. Where possible, indicate purchasing method, (Competition, engineering estimate, market survey, etc.)
- Other Directs Costs, particularly any proposed items of equipment or facilities. Equipment and facilities generally must be furnished by the contractor/recipient. Justifications must be provided when Government funding for such items is sought
- Fee/Profit including fee percentage.

Part 2: Cost breakdown by task/sub-task using the same task numbers in the Statement of Work.

The Cost Proposal should be consistent with your proposed SOW. Activities such as demonstrations required to reduce the various technical risks should be identified in the

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SOW and reflected in the Cost Proposal. The offeror should provide a total estimated price for the major Research, Development, Test, and Evaluation (RDT&E) activities associated with the program.

4. Significant Dates and Times

DHS S&T will review all white papers in accordance with the below table, Anticipated Schedule of Events, using the evaluation criteria described later in this document. After the white paper review, DHS S&T will notify offerors, electronically or in writing, either allowing or not allowing submission of a full proposal based upon that review. DHS S&T plans to review full proposals in accordance with the below anticipated schedule of events. A review panel will evaluate the full proposals using the criteria specified under the evaluation criteria discussed later in this document. Following that review, offerors will be notified whether or not their proposal has been selected for negotiation.

The Government reserves the right to fund none, some, or all of the proposals received. It is the intention upon completion of proposal evaluation to notify offerors of an initiation of negotiation for awards or rejection of their proposal. Awards will be made based on the evaluation, funds availability, and other programmatic considerations. If requested, there will be a verbal debriefing via teleconference for those proposals that are not selected.

Event	Date (MM/DD/YEAR)	Time (Local Eastern Time)
White Paper Website Registration deadline	1/13/2010	4:30 PM
Deadline for Questions for White Paper Phase	1/13/2010	4:30 PM
White Paper Due Date	1/20/2010	4:30 PM
Invitations to submit Full Proposals Sent	On or About 2/8/2010	N/A
Proposal Website Registration deadline	2/22/2010	4:30 PM
Deadline for Questions for Proposal Phase	2/22/2010	4:30 PM
Full Proposal Due Date	3/1/2010	4:30 PM
Notification of Selection for Award Negotiations	3/30/2010	N/A
Contract Award	4/15/2010	N/A
Kickoff Meeting	TBD	TBD

Anticipated Schedule of Events*

* These dates are estimates as of the date of this announcement.



5. BAA Information

Copies of this BAA may be downloaded from the FedBizOpps web site <u>http://www.FBO.gov</u> or from https://baa.st.dhs.gov.

6. Proprietary Protection

All data uploaded to DHS S&T BAA Web Site is protected from public view or download. All submissions will be considered proprietary/source selection sensitive and protected accordingly. Documents may only be reviewed by the registrant, authorized Government representatives, and assigned evaluators.

7. Submission of Late White Papers and Full Proposals

White papers and full proposals WILL NOT BE ACCEPTED after the published due dates.

8. Further Assistance Needed for this BAA

The applicable electronic address for all correspondence for this BAA is: BAA10-19@dhs.gov

V. EVALUATION CRITERIA AND SELECTION PROCESS

This section discusses the evaluation criteria for white papers and proposals and the review and selection process.

1. White Papers

White papers will be evaluated through an independent scientific review of each using the following criteria, which are listed in descending order of relative importance:

- Potential of the concept for meeting the desired system attributes and performance parameters given above
- Sound technical and managerial approach to the proposed work, including a demonstrated understanding of the critical technology challenges required to address the desired system performance parameters and a strategy to address those issues, including a risk mitigation strategy
- Capability to perform proposed work and history of performance of the bidder and/or team members in developing related technologies and systems.
- Cost Realism: Accurate, well-founded estimate of all costs related to performance of the proposed effort.



2. Proposals

Volume I is the primary proposal for the evaluation; Volume II is used as supplementary material at the discretion of the reviewer. Proposals will be evaluated through an independent technical review of each using the following criteria, which are listed in descending order of relative importance:

- Potential of the concept for meeting the desired system attributes and performance parameters given above
- Sound technical and managerial approach to the proposed work, including a demonstrated understanding of the critical technology challenges required to address the desired system performance parameters and a strategy to address those issues, including a risk mitigation strategy
- Capability to perform proposed work and history of performance of the team and team members in developing related technologies and systems
- Cost realism. Accurate, well-founded estimate of all costs related to performance of the proposed effort.

3. Review and Selection Process

S&T's policy is to ensure an impartial, equitable, and comprehensive evaluation of all proposals and to select the source (or combination of sources) whose offer is most advantageous to the government. To provide the desired technical evaluation, evaluators will review and rate each submission. In some specific cases where an area of technical expertise is unavailable within the government, contractors may be engaged to provide technical assistance with respect to specific areas of a proposal. Further, contractor personnel will be used to handle the submissions administratively. These personnel will have signed, and will be subject to, the terms and conditions of nondisclosure agreements. They will not be permitted to release any sourceselection information to third parties, including others in their organization. By submitting a White Paper and/or Full Proposal for evaluation under this BAA, the offeror consents to the aforementioned use of support contractors and outside personnel.

4. Correction of Errors

Those Offerors determined to be substantially responsive will be checked for any material errors in computation such as:

• Discrepancy between cost price in figure and words. In this case, the amount in words will govern.



• The amount stated will be adjusted by the Contracting Officer in accordance with the above procedure for the corrections of errors.

5. Clarification of Proposals

To assist in the examination process, minor points of clarification may be requested with regard to submitted proposals, e.g. details of the proposed solution. These requests will be coordinated between the Offeror and the Contracting Officer.

6. Amendments to the Broad Agency Announcement

Any amendment(s) to this BAA will be posted on the solicitation website.

7. Amended Proposals

The Offeror may submit an amended proposal before the due date. Such amended proposals must be complete replacements for a previously submitted proposal and must be clearly identified as such.

The Government will not merge, collate or assemble any proposal materials.

8. Offeror's Rights to Withdraw Proposal

The Offeror can withdraw its proposals at any time priori to the deadline for receipt of the proposal. The Offeror must submit a Written Withdrawal Request signed by its authorized representative(s) addressed to the Government's Contracting Officer.

VI. OTHER INFORMATION

1. Export Control Considerations

International Traffic in Arms Regulations (ITAR) may apply to one or more of the topics in this BAA. Foreign nationals must meet the requirements for participation set by those regulations, if required.

2. Information for White Paper and Full Proposal Respondents

This BAA is for planning purposes only. It will not be construed as an obligation on the part of the Government to acquire any products or services. No entitlement to payment of direct or indirect costs or charges by the Government will arise as a result of submission of responses to this BAA and the Government's use of such information. Respondents to this BAA may be



requested to provide additional information based on their submittals. Unnecessarily elaborate responses containing extensive marketing materials are not desired.

3. Appendix A – List of Acronyms

BAA	Broad Agency Announcement
BTRA	Bioterrorism Risk Assessment
CTRA	Chemical Terrorism Risk Assessment
DHS	U.S. Department of Homeland Security
DoD	U.S. Department of Defense
DOE	U.S. Department of Energy
FAR	Federal Acquisition Regulations
FedBizOpps	Federal Business Opportunities (<u>www.FBO.gov</u>)
FFRDC	Federally Funded Research and Development Center
G&A	general and administrative costs
iCBRNra	Integrated Chemical, Biological, Radiological, and Nuclear Terrorism
	Risk Assessment
IR&D	independent research and development
OTA	Other Transaction Authority
POC	point of contact
S&T	Science and Technology (Directorate)
SOW	statement of work
TTA	technical topic area

Questions and Answers for BAA 10-09

Q-1. Should it be inferred that whitepapers must address one and only one of the topics in the BAA, or is it acceptable to overlap two – or even all three – areas?

A. Proposals may address one or more of the suggested approaches (improve PRA, apply existing methodologies, develop and apply new methodologies).

Q-2. Similarly, of the three anticipated awards, is one going to be in each of these three areas?

A. Proposals will be evaluated in accordance with the criteria listed in the BAA and awards will not necessarily address each suggested approach.