



**BROAD AGENCY ANNOUNCEMENT (BAA)**

**Explosives Division (EXD) BAA 12-09**

**Advanced Bottled Liquid Scanner (BLS)**

**Amendment 0001**

**White Papers Due: See Anticipated Schedule of Events in paragraph 4.6**

**Full Proposals Due: See Anticipated Schedule of Events in paragraph 4.6**

## **1. GENERAL INFORMATION**

### **1.1. Introduction**

This solicitation is a 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. A formal Request for Proposal (RFP) will not be issued. The Department of Homeland Security (DHS) Science & Technology (S&T) Directorate is soliciting white papers which will be evaluated in accordance with this BAA. From the pool of submitted white papers worthy participants will be invited to submit full proposals under this BAA. 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 under this BAA are planned in Fiscal Year (FY) 2013. No contract awards will be made until appropriated funds are available from which payment for contract purposes can be made.

### **1.2. Agency Name**

Department of Homeland Security  
Science & Technology Directorate  
Explosives Division  
Washington, DC

### **1.3. Research Opportunity Title**

Advanced Bottled Liquid Scanner (BLS)

### **1.4. Program Name**

Checkpoint, Explosives Division, Science and Technology Directorate, Department of Homeland Security

### **1.5. Research Opportunity Number**

BAA 12-09

### **1.6. Solicitation and Response Approach**

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. White Papers, Full 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. Offerors are

to provide unclassified proposals. Documents containing sensitive information that are not suitable for uncontrolled public dissemination should be marked “For Official Use Only” (FOUO). When transmitted electronically, FOUO proposals should be sent with password protection.

Award type is anticipated to be in the form of a Cost Reimbursement type contract or other transaction agreement. 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.

A two-step proposal selection process will be used for this solicitation to minimize the cost and effort for prospective offerors. Step 1 will consist of the solicitation, receipt, and evaluation of white papers (using standardized DHS Explosives Division “Project Proposal Form” format from potential performers). Entries in the various sections of the Project Proposal Forms (White Papers) should be concise and conform to the specified formatting limitations. No formal transmittal letter is required for the Step 1 responses.

An evaluation process will be conducted by DHS S&T and those Step 1 white paper proposals selected will be encouraged to participate in Step 2, which will consist of the solicitation, receipt, and evaluation of a Full Proposal, limited to 30 pages, excluding the Formal Transmittal Letter, Cover Page, Table of Contents and resumes/biographical information for proposed performers.

## **1.7. Response Dates**

White Papers Due: See Anticipated Schedule of Events in paragraph 4.6.

Full Proposals Due: See Anticipated Schedule of Events in paragraph 4.6.

## **1.8. Research Opportunity Description**

### **1.8.1 DHS S&T - Advanced Bottled Liquid Scanner**

The Homeland Security Act of 2002 (Public Law 107-296) states that Department of Homeland Security (DHS) Science & Technology Directorate (S&T) will “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 DHS S&T’s Explosives Division (EXD) recognizes the need for state-of-the-art passenger screening at checkpoints that shall have the capability to screen passengers’ exempt liquids and gels for the presence of liquid explosives and flammable liquids (pure or mixed with fuel). The Advanced Bottled Liquid Scanner (BLS) effort is intended to satisfy this requirement.

This BAA sets forth the requirements to accomplish a variety of specific tasks related to the development of screening technologies for passenger carry-on bottled liquids and gels at the passenger checkpoint. The identified requirements presented here have a direct impact

on meeting the requirements outlined in the Aviation and Transportation Security Act of 2001, Public Law 107-71.

### 1.8.2 Scope of Work

The primary objective of this BAA is to develop an advanced screening device used to simultaneously analyze the liquid contents of multiple closed bottles of varying sizes and materials in order to automatically detect and distinguish explosive and flammable liquids (pure or mixed with fuel) from benign liquids (drinks, lotions, hygiene products, etc.). It is expected that at a minimum the Advanced BLS will be able to perform collective detection of threats concealed in liquid containers within zip-top plastic bags submitted for screening under the Transportation Security Administration’s (TSA) 3-1-1 Carry-On Guidelines. The Advanced BLS screening device must also be capable of screening liquids and gels in single bottle configurations of various sizes. Additionally, the Advanced BLS is to serve as a means to effectively screen liquids identified as suspect by the Advanced Technology-2 (AT-2) X-ray operator.

Advanced Bottled Liquid Scanner Performance Parameters:

		Threshold	Objective
<b>Performance Parameter</b>	Automatically identify and distinguish explosive and flammable liquids (pure or mixed with fuel) from benign liquids (drinks, lotions, hygiene products, etc.)	<ul style="list-style-type: none"> <li>Threat detection capability demonstrated in a distributed and representative fashion across the range of liquid threats and liquid threat precursors such as aliphatic alcohols (ethanol, isopropyl alcohol), ketones (e.g., acetone, methyl ethyl ketone) aliphatic nitrates (e.g. nitromethane, nitroethane), aromatic nitrates (e.g. nitrobenzene), peroxides (e.g. hydrogen peroxide, methyl ethyl ketone peroxide), ionic liquids (e.g. salt water), hydrocarbons (e.g. kerosene, diesel) and concentrated acids (e.g. nitric acid, sulfuric acid)</li> <li>Capability to clear benign liquids such as beverages (water, soda, wine, milk, energy drinks), personal</li> </ul>	<ul style="list-style-type: none"> <li>Threat detection capability demonstrated in a distributed and representative fashion across the range of liquid threats and liquid threat precursors such as aliphatic alcohols (ethanol, isopropyl alcohol), ketones (e.g., acetone, methyl ethyl ketone) aliphatic nitrates (e.g. nitromethane, nitroethane), aromatic nitrates (e.g. nitrobenzene), peroxides (e.g. hydrogen peroxide, methyl ethyl ketone peroxide), ionic liquids (e.g. salt water), hydrocarbons (e.g. kerosene, diesel) and concentrated acids (e.g. nitric acid, sulfuric acid)</li> <li>Capability to clear benign liquids such as beverages (water, soda, wine, milk, energy drinks), personal</li> </ul>

		<p>care products (lotion, liquid soap, hairspray, perfume), medicine, insect repellent, liquid flower fertilizer, etc.</p> <p><b>As part of their White Paper Offerors will be required to describe specific categories and examples of threats for which the system will generate alarms.</b></p> <p><b>As part of their Technical Proposal Offerors will be required to submit:</b></p> <ul style="list-style-type: none"> <li>• A proposed list of liquid threats for which the system will generate alarms.</li> <li>• A proposed list of benign substances and confusants for which the system will not generate alarms.</li> <li>• Proposed metrics for detection rate and false alarm rate.</li> </ul> <p><b>As stated in Section 7.1, all proposal content must remain unclassified.</b></p>	<p>care products (lotion, liquid soap, hairspray, perfume), medicine, insect repellent, liquid flower fertilizer, etc.</p> <ul style="list-style-type: none"> <li>• Satisfy the probabilities of 95% probability of detection and 5% probability of false alarms.</li> </ul>
	<p>Detect contents within sealed containers</p>	<ul style="list-style-type: none"> <li>• container material type to include: <ul style="list-style-type: none"> <li>a. glass-opaque</li> <li>b. glass-clear/translucent</li> <li>c. plastic-opaque</li> <li>d. plastic-clear/translucent</li> <li>e. non-ferromagnetic metal</li> </ul> </li> </ul> <p><i>Opaque: The interior contents cannot be viewed by the human eye.</i>  <i>Translucent: Some light is allowed to pass through the container and offers the human eye an obscured view of the interior contents.</i></p>	<ul style="list-style-type: none"> <li>• container material type to include: <ul style="list-style-type: none"> <li>a. glass-opaque</li> <li>b. glass-clear/translucent</li> <li>c. plastic-opaque</li> <li>d. plastic-clear/translucent</li> <li>e. metal</li> <li>f. paper/cardboard (e.g. "Tetra-Pak" style containers)</li> </ul> </li> </ul>

Maintain detection capability	<ul style="list-style-type: none"> <li>• Regardless of the shape of the bottle (e.g., round, square, oblong, or other irregular shapes).</li> <li>• On bottles filled at a minimum of 25% of their capacity.</li> <li>• On bottles containing a volume at least between 30 and 1500 ml (1.02 and 50.74 oz).</li> <li>• On bottles of up to a 12.7 centimeters (cm) (5 inches (in)) width and up to a 40.64 cm (16 in) height.</li> <li>• With a bottle or liquid temperature from 0 degrees Celsius (°C) to 40 °C (32°F to 104°F).</li> <li>• Without the need to open the bottle of liquid.</li> <li>• Without the need to remove the labeling of the bottle of liquid under screening analysis.</li> </ul>	
Maintain detection capability during collective analysis of liquids contained within a zip-top plastic bag	<ul style="list-style-type: none"> <li>• The zip-top plastic bag may be opened to facilitate scanning.</li> </ul>	<ul style="list-style-type: none"> <li>• Without opening the zip-top plastic bag to facilitate scanning.</li> </ul>
	<ul style="list-style-type: none"> <li>• Quart-sized plastic bag.</li> </ul>	<ul style="list-style-type: none"> <li>• Gallon-sized plastic bag.</li> </ul>
Sample processing time, to include threat determination and operator notification	<ul style="list-style-type: none"> <li>• For systems which only indicate threat / non-threat: Not to exceed 20 seconds, on average, per bottle or zip-top plastic bag.</li> <li>• For systems which specifically identify threat material composition: Not to exceed 60 seconds, on average, per bottle or zip-top plastic bag.</li> </ul>	<ul style="list-style-type: none"> <li>• Does not exceed 20 seconds, on average, per bottle or zip-top plastic bag.</li> </ul>
Alarm clear-down time	<ul style="list-style-type: none"> <li>• Does not, on average, exceed two (2) minutes.</li> </ul>	<ul style="list-style-type: none"> <li>• Does not, on average, exceed twenty (20) seconds.</li> </ul>
Notification capability	<ul style="list-style-type: none"> <li>• Automatically notify the operator if the liquid is benign or hazardous (explosive or flammable).</li> </ul>	<ul style="list-style-type: none"> <li>• Automatically notify the operator if the liquid is benign or hazardous (explosive or flammable).</li> <li>• Identify the hazardous liquid.</li> </ul>
System footprint (width × depth)	<ul style="list-style-type: none"> <li>• No greater than 76.2 cm × 81.28 cm (30 in × 32 in).</li> </ul>	<ul style="list-style-type: none"> <li>• No greater than 55.88 cm × 55.88 cm (22 in × 22 in), and not exceeding 53.34 cm (21 in) in height.</li> </ul>

Estimated cost for a production run of 1000 units	<ul style="list-style-type: none"> <li>• Less than \$50,000</li> </ul>	<ul style="list-style-type: none"> <li>• Less than \$35,000</li> </ul>
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The contractor will perform the following tasks for this SOW:

**1.8.2.1 TASK 1: Design and Development**

Task 1 shall include the design and development of an Advanced BLS that at least meets the threshold values for the performance parameters listed above. The Contractor will provide a Preliminary Design Review (PDR), demonstrate the feasibility of the technical approach by generating preliminary data in a laboratory environment, and provide results of these studies during a Critical Design Review (CDR). The contractor will provide technical reports, system design documentation, PDR documentation, CDR documentation, test plans, test results, and other documentation for Government review and evaluation. Upon review of the CDR, the Government will determine whether or not it is in the best interest of the Government to proceed with Optional Task 2.

It is anticipated that Task 1 will be 12 months in duration.

**1.8.2.2 OPTIONAL TASK 2: Fabrication, Test and Delivery**

Optional Task 2 efforts will include the fabrication, testing, and delivery of three prototype Advanced BLS Systems. Deliverables will include design, draft and final test plans, validation test results, draft final and final reports, and instruction manuals. The Contractor will also prepare a System Design Document which will include (but is not limited to) physical designs, hardware, parts list, software, models, algorithms, source code, software tools, interfaces, testing, and test results. Optional Task 2 will conclude with the delivery of three Advanced BLS system prototypes to the Government for Developmental Test and Evaluation (DT&E).

Delivery of three prototype Advanced BLS systems to DHS S&T will occur no later than 22 months after award date. The Contractor(s) will prepare and submit a Vendor Data Package to include supporting test data no later than 30 days before delivery. Delivery of the prototype Advanced BLS systems will be made to the test facility selected by the Government. The Contractor(s) will assist in installation and training of the prototype Advanced BLS systems at the selected test facility.

For purposes of proceeding to DT&E, the Vendor Data Package will also include a safety analysis that demonstrates, through testing or analysis, that the systems are likely to meet technology-appropriate safety regulations. Examples of such regulations are: Underwriters Laboratories (UL), Conformité Européene (CE) and Occupational Safety and Health Administration (OSHA) safety standards and Federal Communications Commission (FCC) Part 15 for all systems; FCC Part 90 for systems using RF energy; 21CFR1020.40 for cabinet X-Ray systems; 29 CFR 1926.54 for systems using lasers.

The prototype design should be capable of a straightforward upgrade into a mature system which meets electrical, environmental, and safety requirements specified in TSA's functional requirements documents, including but not limited to the examples listed below, most of which require independent evaluation. These examples are provided for reference; prototypes delivered at the end of this 24-month effort are not required to have these certifications completed in order to proceed to DT&E.

**Environmental:**

Compliance with IEC (International Electrotechnical Commission) 60068-2-64, *Environmental Testing. Part 2: Test Methods – Test Fh: Vibration, Broad-band Random (Digital Control) and Guidance*, or equivalent commercial practice or analysis. Environmental specifications should be tested in accordance with MIL-STD 810G, *Department of Defense Test Method Standard, Environmental Engineering Considerations and Laboratory Tests*.

**Electromagnetic:**

Compliance with the Class A (i.e., industrial) equipment emissions requirements of IEC 61326-1, IEC 61000-6-4, or equivalent.

Compliance with the industrial location immunity requirements of IEC 61326-1, IEC 61000-6-2, or equivalent.

**Safety:**

Compliance with 2010 American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLV®) and Biological Exposure Indices (BEI®), *Sub-Radiofrequency(30kHz and below) Static Electric and Magnetic Fields*.

**Electrical Safety:**

Compliance with OSHA, Title 29 CFR 1910.303(a) – *Electrical Equipment Approval* and OSHA, Title 29 CFR 1910.303(b) (1) (i) – *Electrical Equipment Examination*. These standards are applicable to electrical equipment used in the workplace and require approval or certification by a Nationally Recognized Testing Laboratory (NRTL) as defined by OSHA in 29 CFR 1910.7, *General – Definitions and Requirements for a Nationally Recognized Testing Laboratory*.

Underwriters Laboratories (UL) certification by a NRTL, in accordance with UL 61010-1, *Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1: General Requirements*.

Use of connectors for power that are approved or have certification by a NRTL listed in OSHA, Title 29 CFR 1910.7 – *National Recognized Test Laboratory (NRTL)*, January 1, 2007.

**Radiation:**

Compliance with OSHA, Title 29 CFR 1910.1096 – *Ionizing Radiation*, as applicable.

Compliance with OSHA, Title 29 CFR 1910.97(a) (2) (i) and (3) – *Nonionizing Radiation*, as applicable.

Ultraviolet, visible, or infrared radiation not emitted in excess of the *Ultraviolet Radiation* and *Light and Near-Infrared Radiation TLVs* identified in the 2010 ACGIH TLVs and BEIs.

Compliance with 10 CFR 1040. 10 *Performance Standard for Light-Emitting Products, Laser Products.*

It is anticipated that Optional Task 2 will be 12 months in duration.

*Program Management and Systems Engineering*

Personnel provided by the Contractor(s) shall have the skills and technical background necessary to successfully complete the tasks described in this SOW, including but not limited to the following:

- a.) The Contractor(s) shall host a Post-Award Conference (PAC) within one month after contract award. The Contractor(s) shall provide the Government with the meeting minutes for the PAC within 5 days after the meeting.
- b.) The Contractor(s) shall conduct a PDR within 3 months after award date and CDR within 9 months after award date to establish the development configuration. The Contractor(s) shall present and provide the Government access to the detailed design and drawings at the CDR. The PDR and CDR may be held at the contractor's facilities.
- c.) The Contractor(s) shall conduct and administratively support Technical Interchange Meetings (TIMs). The Contractor and the Contracting Officer's Representative (COR) will mutually agree to the date, location and agenda of each TIM. The Contractor(s) shall provide the Government the meeting minutes for each TIM within 5 days after the meeting.
- d.) The Contractor(s) shall submit Monthly Status Reports on the 15th of each month starting the first month after award date, or 30 days after award date, whichever comes second.
- e.) The Contractor(s) shall submit Meeting Minutes within 5 days after each meeting for every meeting held in support of this effort.
- f.) The Contractor(s) shall prepare and submit Briefing Charts no later than 1 day before any TIM and no later than 3 days before a design review.
- g.) The Contractor(s) shall host visits at their facility periodically so the Government can observe work being performed (and/or provide a telecom bridge as required). These discussions may coincide with the execution of milestones and activities listed in Section 1.8.2.3.

The 24-month Period of Performance (PoP) will include a Government evaluation of technical reports, PDR, CDR, test plans and other design documentation. This effort will conclude with the delivery, installation, and training of the Advanced BLS system provided by the Contractor(s) to the test facility selected by the Government.

The Government reserves the right to witness all Contractor-conducted test activities. The Contractor(s) shall provide the Government at least one week written notice prior to conducting the final factory test. Pursuant to FAR clause 52.245-1, the Government will

own the rights to the prototype Advanced BLS Systems (including source and executable code) after final delivery.

### 1.8.2.3 Deliverables

Program Element / Project	Major Sub-Tasks	Key Milestones and Deliverables
Task 1: Design and Development (month 1-12)	<ul style="list-style-type: none"> <li>• Post Award Kickoff (PAC)</li> <li>• Complete Preliminary Design</li> <li>• Generate data demonstrating feasibility of system design</li> <li>• Complete Critical Design</li> </ul>	<ul style="list-style-type: none"> <li>• Monthly reports, no later than 15 days from month's end</li> <li>• PAC (30 Days After Contract Award Date (DAC))</li> <li>• Program Plan, to include time-phased expenditure plan (30 DAC)</li> <li>• PDR (90 DAC)</li> <li>• Preliminary Test Results (270 DAC)</li> <li>• CDR (270 DAC)</li> <li>• Submit test plans for component and subsystem test (as required)</li> <li>• TIM (as required)</li> </ul>

Program Element / Project	Major Sub-Tasks	Key Milestones and Deliverables
Task 2: Fabrication, Test and Delivery (month 13-24)	<ul style="list-style-type: none"> <li>• Fabricate and deliver three prototype Advanced Bottled Liquid Scanner Systems</li> <li>• Conduct internal validation studies</li> <li>• Prepare operational instruction and manuals</li> <li>• Installation /instruction /support at test facility</li> </ul>	<ul style="list-style-type: none"> <li>• Monthly reports, no later than 15 days from month's end</li> <li>• Draft validation test plan (510 DAC)</li> <li>• Final validation test plan (540 DAC)</li> <li>• Vendor data package, including validation test results and instruction manuals (630 DAC)</li> <li>• Deliver three prototypes to DHS, S&amp;T (660 DAC)</li> <li>• Installation at test facility (660 DAC)</li> <li>• Draft Final Report (660 DAC)</li> <li>• System Design Document (690 DAC)</li> <li>• Final Report (690 DAC)</li> </ul>

*Days/months for deliverables are measured after contract award date unless otherwise indicated.*

**1.9. Government Representatives**

Technical:

Frederick F. Myers, Ph.D.  
 Program Manager  
 Explosives Division  
 Science and Technology Directorate  
 Department of Homeland Security  
 Washington, DC 20528

Contracting:

Duane Schatz  
 Contracting Officer  
 Science and Technology Acquisitions Division  
 Office of Procurement Operations

Department of Homeland Security  
Washington, DC 20528

## **2. AWARD INFORMATION**

### **2.1. Available Amount of Funding Expected to be Awarded Through this BAA**

Although subject to official fiscal appropriation and availability, it is anticipated that the S&T will have approximately \$3M for all awards to be made under this BAA for the period of performance.

### **2.2. Limitation of Funds.**

The Government reserves the right to incrementally fund contracts awarded from this BAA as provided by the FAR 52.232-22, "Limitation of Funds."

### **2.3. Anticipated Number of Awards**

DHS S&T expects to make at least one, and possibly up to three awards under this BAA.

### **2.4. Anticipated Award Types**

Award type is anticipated to be in the form of a Cost Reimbursement type contract. To be eligible for such an award, the Offeror must have an adequate accounting system, in accordance with FAR 16.301-3(a)(3).

### **2.5. Anticipated Period of Performance for New Awards**

The period of performance for research efforts and studies proposed should not exceed 24 months. Proposals that build on current or previous work are encouraged. If Offerors are extending work performed under other DHS projects or projects for other sponsors, the proposal 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. The final deliverables will be three prototypes, a system design document, and a final report.

## **3. 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.

### **3.1. Federally Funded Research & Development Centers (FFRDCs)**

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.

### **3.2. Nonprofit Organizations, Educational Institutions and Small Business Set Aside**

The Government encourages nonprofit organizations, educational institutions, small businesses, small disadvantaged business (SDB) concerns, Historically Black Colleges and Universities (HBCU)/ Minority Institutions (MI) (HBCU/MIs), women-owned businesses (WB), and Historically Underutilized Business (HUB) zone enterprises as well as large businesses, academic institutions, 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 pursuant to FAR Part 19.502-2, because of the impracticality of reserving discrete or severable areas of research and development in any specific requirement area.

To ensure full consideration in these programs, registration in the <https://baa2.st.dhs.gov/> website, described later in this document, requires the appropriate business type selection as well as accurate up-to-date information.

### **3.3. Organizational Conflict of Interest**

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 the DHS S&T Directorate will receive particular scrutiny.

(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.

#### **4. APPLICATION AND SUBMISSION INFORMATION**

##### **4.1. BAA Package Download.**

This BAA package may be downloaded in its entirety from the FedBizOpps website <http://www.fbo.gov> or from <https://baa2.st.dhs.gov> .

Registration is not required to download the BAA package; however, a registration in [https://baa2.st.dhs.gov/](https://baa2.st.dhs.gov) is required to upload a response to the BAA.

##### **4.2. Application and Submission Process**

Submissions will not be accepted from organizations that have not registered. Any organization that wishes to participate in this solicitation must register at: <https://baa2.st.dhs.gov/> . Interested parties are encouraged to register early in the process.

To submit your White Paper (a completed Project Proposal Form, see Section 8.2, Appendix B), select the appropriate submission button, fill out the requested 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 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.

No classified White Papers or Full Proposals (or portions of proposals) will be accepted.

The DHS BAA website at <https://baa2.st.dhs.gov> offers electronic access to BAA solicitations, frequently asked questions (FAQs), answers to FAQs, and hyperlinks to other useful information.

Please refer to the “Registrations and Submissions Training Guide” at

[https://baa2.st.dhs.gov/portal/jsp/public/help/public\\_portal\\_registration\\_and\\_submissions\\_training\\_guide.pdf](https://baa2.st.dhs.gov/portal/jsp/public/help/public_portal_registration_and_submissions_training_guide.pdf) for step-by-step instructions for registering your company and submitting your proposal.

**IMPORTANT:** Before submitting a proposal for the first time, you must first register your company and user account in the system. It is recommended that the Business Official, or an authorized representative designated by the Business Official, be the first person to register for your company. Your company's Taxpayer Identification Number (TIN) is required during registration. (If your company does not have a TIN, you can generate a unique ID by following the prompts provided in the system). After your company is registered, other new users may register and associate their information with the company's existing record. When registration is complete, users can submit and manage their proposals.

**IMPORTANT:** User registration is not sufficient for registering the White Paper. To register your White Paper, you must log on with your credentials. Click the "Start New Proposal" button. When the Start New Proposal page displays, pick the solicitation and topic, and then enter the title of the white paper / proposal that you are submitting. Note: if the solicitation that you want to submit against is not listed, click on the "click here to register a solicitation" link to gain access. When you have entered the title, click the "Add Proposal to Activity Worksheet" button. The Proposal Activity worksheet page lists your proposal in the proposals in progress section of the page. Your White Paper is registered at this point. Repeat this step before the White Paper registration deadline for every White Paper you wish to register.

**IMPORTANT:** After you have completed the Coversheets and uploaded your White Paper document, you must click on the "Submit White Paper" button to submit the White Paper; simply uploading the document is not sufficient. After you have uploaded your Full Proposal documents, you must click on the "Submit Proposal" button to submit the Full Proposal; simply uploading the documents is not sufficient.

### **4.3. Format and Content of White Paper**

**DHS S&T Project Proposal Forms are being solicited in the White Paper narrative form.** For the purposes of the website, a completed DHS Explosives Division Project Proposal Form (an MS Word document) constitutes a White Paper. See the Anticipated Schedule of Events in paragraph 4.6 for the due date for the White Papers (completed DHS Project Proposal Forms) and for when notification of DHS S&T evaluation of White Papers will be issued via e-mail. **White Papers WILL NOT BE ACCEPTED after the published due date.**

White papers should capture the essence of a proposal. The Government will evaluate the White papers to determine those submittals worthy of a full proposal.

White papers shall include, as a minimum, the following:

- a. A top-level narrative summary of the balance of the content of the document (not to exceed ½ page).
- b. A description of the core technologies, and the unique capabilities those technologies bring to bear on the problem of bottled liquids screening.

c. A discussion of how the performance requirements detailed in section 1.8 will be met. This section should include a description of specific categories and examples of threats for which the system will generate alarms.

d. A description of any supporting technology in terms of whether or not the offeror is dependent upon others to provide that technology or expertise in order to be able to constitute a prototype at a desired TRL 6-7.

e. A description of tasks, milestones, and deliverables that will be proposed for the effort. If a period of performance of more than 24 months is anticipated, appropriate justification should be provided.

f. A description of the offeror's organization and team members: identify qualifications to perform the program, lines of authority, and a summary of the management approach. Clearly identify the lead organization and the roles/responsibilities of each of the team members contributing to the technology.

g. A list of any government furnished equipment required and any associated security plans.

h. A rough order of magnitude (ROM) estimate of the cost to acquire and deploy. Provide the basis for the ROM.

Space permitting, the offeror may also address other elements of their technology and concept of operations.

### **Format and size limitations**

White papers may include narrative, pictures, figures, tables, and charts in a legible size and may consist of not more than 10 (ten) pages (8.5" x 11"), and must be accompanied by a one-page (8.5" x 11") quad chart. Therefore, the entire white paper submission shall not exceed 11 (eleven) pages. Except for text embedded in graphics or tables, all text must be no smaller than 12-point. Text embedded within graphics or tables in the body of the white paper or the quad chart may not be smaller than 8-point.

A White paper shall consist of ONE (1) electronic file in portable document format (PDF), readable by IBM-compatible personal computers (PCs).

### **Organization of Quad Chart**

BAA Number:		Offeror Name:	
Title: <i>(Brief/Short Title to Describe Offeror's Proposed Effort)</i>		Date:	
Photograph or artist's concept: <i>Provide a simple but sufficiently detailed graphic that will convey the main idea of the final capability/use/deployment of the prototype, and its technological methodology</i>		Technology Readiness Level: <i>Provide information on the current state of the proposed technology in terms of the DHS (S&amp;T) TRL Chart. Identify strengths and weaknesses relative to the TRL Chart.</i>	
Proposed Technical Approach: <i>How will the problem be approached? Describe tasks to be performed. Describe any ongoing related efforts by the offeror. Describe the technology involved and how it will be used to solve the problem. Describe key technical challenges.</i>		Schedule, Cost, Deliverables & Contact Info: <i>Summarize key schedule, cost, and deliverable elements and full contact information for the lead offeror as well as other key technical contributing organizations, including phone numbers and email</i>	

Figure 1. Quad Chart

Quad Charts shall not use any font smaller than 8-point and shall be organized as shown in Figure 1.

### DHS Project Form Preparation and Submission Guidelines

Submitters will be encouraged to submit Full Proposals based on the White Paper review. Awards will be based on the Full Proposal.

Entries in the various sections of the Project Proposal Form should be concise. All pages shall be printed single-spaced on 8-1/2 by 11 inch paper with type not smaller than 12 point font. Pertinent figures, tables, and charts are encouraged and are not included in the font size limitation for the various sections of the Project Proposal Form. The font for diagrams, figures, or tables should have fonts that are legible – no smaller than 8-point font.

#### 4.4. Format and Content of Full Proposals

##### Full Proposals

See the Anticipated Schedule of Events in paragraph 4.6 for the due date for receipt of Full Proposals. Receipt means the uploading of the Full Proposal to the DHS BAA website and receiving confirmation of submission. **Full Proposals WILL NOT BE ACCEPTED after the published due date.** Proposals that exceed the page limit will not have the extra pages reviewed, which may affect the proposal rating.

**ONLY OFFERORS WHO SUBMIT A RESPONSIVE WHITE PAPER WILL BE CONSIDERED FOR FULL PROPOSALS. THE GOVERNMENT WILL ADVISE IN**

WRITING THOSE OFFERORS ENCOURAGED TO SUBMIT FULL PROPOSALS. OFFERORS NOT ENCOURAGED TO SUBMIT A FULL PROPOSAL ARE NOT PROHIBITED FROM SUBMITTING A FULL PROPOSAL.

Feedback will not be provided to Offerors not encouraged to submit a Full Proposal.

Full Proposal Format: Volume 1 Technical Proposal; and Volume 2 - Cost Proposal

Full proposals will consist of two volumes: a Technical Proposal 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 Project Description Form should be legible and not smaller than 8 point.
- Number of Pages –
  - Volume 1 (Technical Proposal): No more than 30 single-sided pages. Full proposals exceeding the page limit will not be evaluated. The Official Transmittal Letter, as well as the cover page, table of contents and resumes/biographical information about potential performers in the Full Proposal are not subject to the page limitation.
  - Volume 2: (Cost Proposal): No page limitation.
- Copies – A proposal shall consist of one electronic file for the Technical Proposal volume and one electronic volume for the 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**

Volume I of the Full Proposal shall be in the form of a Technical Proposal volume. Responsiveness to the order and content of sections listed in Volume I is important to assure thorough and fair evaluation of proposals. Nonconforming proposals may be rejected without review. The Technical Proposal shall cover all of the elements of the Project Proposal Form (White Paper) that was submitted. In particular, the Technical Proposal must cover the following points in more detail:

- Official Transmittal Letter: 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.

- Cover Page: 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)
- Table of Contents
- Executive Summary: Summarize the Proposal and the expected benefits of the solution.
- Proposal: Describe the proposed work and the associated technical and management issues.
- Performance Goals: Describe the overall methodology and how it will meet the objectives.
- Detailed Technical Approach: Describe the proposed technical issues and methodology to address the stated program objectives set forth, including risks, and the risk mitigation plan. All technical claims must be substantiated with data and/or analysis.  
**THIS SECTION MUST INCLUDE THE FOLLOWING INFORMATION:**
  - A proposed list of liquid threats for which the system will generate alarms.
  - A proposed list of benign substances and confusants for which the system will not generate alarms.
  - Proposed metrics for detection rate and false alarm rate.As stated in Section 7.2, all proposal content must remain unclassified.
- Statement of Work (SOW), Schedule, and Milestones: Provide an integrated display for the proposed research, showing each task with major milestones. Include a proposed schedule for the effort (estimated dates of tasks, milestones and deliverables). If a period of performance of more than 24 months is anticipated, appropriate justification should be provided. Describe how each task will be performed and identify sub-tasks, if appropriate. 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, proposals must include a severable self-standing SOW without any proprietary restrictions, which can be attached to the contract or agreement award.**
- Deliverables: Provide a brief summary of all deliverables proposed under this effort, including data, hardware, reports/papers, and other materials consistent with the objectives of the work, along with 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, 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.**

- **Management Plan:** Provide a summary of the management plan, including a time-phased task schedule, an explicit description of what role each participant or team member will play in the project, and a description of their past experience in technical areas related to this proposal.
- **Facilities:** 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.
- **Government-Furnished Resources:** Provide a brief summary of required information and data which must be provided by the Government to support the proposed work, if any.
- **Cost Summary:** Summarize the projected total costs for each task in the initial period of performance and any proposed option periods of the effort, including a summary of subcontracts, man hours, and consumables.
- **Offeror's Capability:** Summarize research, development, and commercialization capabilities to include discrete examples of successful commercialization of developed technologies.
- **Resumes for Key Personnel:** In Appendix A, provide resumes and *curriculum vitae* (CVs) for each of the key personnel. These resumes do not count toward the 30-page limit.
- **Other DHS Support:** As an appendix, provide a list of any current or pending awards or proposals with DHS that pertain to this work. This section will not count towards the 30-page limit.
- **Assertion of Data Rights:** Include here a summary of any assertions to any technical data or computer software that will be developed or delivered under any resultant award. This includes any assertions to pre-existing results, prototypes, or systems supporting and/or necessary for the use of the research, results, and/or prototype. Any rights asserted in other parts of the proposal that would impact the rights in this section must be cross-referenced. If less than unlimited rights in any data delivered under the resultant award are asserted, the Offeror must explain how these rights in the data will affect its ability to deliver research data, subsystems, and toolkits for integration as set forth below. Additionally, the Offeror must explain how the program goals are achievable in light of these proprietary and/or restrictive limitations. If there are no claims of proprietary rights in pre-existing data, this section shall consist of a statement to that effect.

Proposals submitted in response to this BAA shall identify all technical data or computer software that the Offeror asserts will be furnished to the Government with restrictions on access, use, modification, reproduction, release, performance, display, or disclosure. Offeror's pre-award identification shall be submitted as an attachment to its offer and shall contain the following information:

(1) Statement of Assertion. Include the following statement: "The Offeror asserts for itself, or the persons identified below, that the Government's rights to access, use, modify, reproduce, release, perform, display, or disclose only the following technical data or computer software should be restricted:"

(2) Identification of the technical data or computer software to be furnished with restrictions. For technical data (other than computer software documentation) pertaining to items, components, or processes developed at private expense, identify both the deliverable technical data and each such item, component, or process as specifically as possible (e.g., by referencing specific sections of the proposal or specific technology or components). For computer software or computer software documentation, identify the software or documentation by specific name or module or item number.

(3) Detailed description of the asserted restrictions. For each of the technical data or computer software identified above in paragraph (2), identify the following information:

(i) Asserted rights. Identify the asserted rights for the technical data or computer software.

(ii) Copies of negotiated, commercial, and other non-standard licenses. Offeror shall attach to its offer for each listed item copies of all proposed negotiated license(s), Offeror's standard commercial license(s), and any other asserted restrictions other than Government purpose rights; limited rights; restricted rights; rights under prior Government contracts, including Small Business Innovation Research (SBIR) data rights for which the protection period has not expired; or Government's minimum rights.

(iii) Specific basis for assertion. Identify the specific basis for the assertion. For example:

(A) Development at private expense. For technical data, development refers to development of the item, component, or process to which the data pertains. For computer software, development refers to the development of the software. Indicate whether development was accomplished exclusively or partially at private expense.

(B) Rights under a prior Government contract, including SBIR data rights for which the protection period has not expired.

(C) Standard commercial license customarily provided to the public.

(D) Negotiated license rights.

(iv) Entity asserting restrictions. Identify the corporation, partnership, individual or other person, as appropriate, asserting the restrictions.

(4) Previously delivered technical data or computer software. The Offeror shall identify the technical data or computer software that are identical or substantially similar to technical data or computer software that the Offeror has produced for, delivered to, or is obligated to deliver to the Government under any contract or subcontract. The Offeror need not identify commercial technical data or computer software delivered subject to a standard commercial license.

(5) Estimated cost of development. The estimated cost of development for that technical data or computer software to be delivered with less than Unlimited Rights.

(6) Supplemental information. When requested by the Contracting Officer, the Offeror shall provide sufficient information to enable the Contracting Officer to evaluate the Offeror's assertions. Sufficient information must include, but is not limited to, the following:

(i) The contract number under which the data or software were produced;

(ii) The contract number under which, and the name and address of the organization to whom, the data or software were most recently delivered or will be delivered; and

(iii) Identification of the expiration date for any limitations on the Government's rights to access, use, modify, reproduce, release, perform, display, or disclose the data or software, when applicable.

**Ineligibility for award.** An Offeror's failure to submit or complete the identifications and assertions required by this provision with its offer may render the offer ineligible for award.

It is anticipated that the proposed Assertion of Data Rights will be incorporated as an attachment to the resultant award instrument. To this end, proposals must include a severable self-standing Assertion of Data Rights without any proprietary restrictions, which can be attached to the contract or agreement award.

## **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 task and month/fiscal year and Part 2 will be a time-phased cost breakdown by task/sub-task using the same task numbers in the Statement of Work. Options must be separately priced and cost proposed. No rough order of magnitude estimations will be accepted.

- Cover Page: 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 task and month/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 in-kind 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** - 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: Time-phased 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 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. Certified cost or pricing data may be required.

**4.5. Protection of Information Uploaded to BAA Website:**

All data uploaded to <https://baa2.st.dhs.gov/> 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 and authorized Government representatives. Offerors submitting proprietary information should specifically mark or identify any information they perceive is proprietary for which they seek added protection. Submissions to this solicitation (e.g., white papers and full proposals) constitute the offeror’s consent to access of this information by authorized Government representatives, assigned evaluators, and support contractors providing administrative support to the evaluators.

**4.6. Significant Dates and Times**

DHS S&T plans to review all Project Proposal Forms (referred to as White Papers on the website) and subsequent Full Proposals in accordance with the “Anticipated Schedule of Events” set forth in the table in this section, using the evaluation criteria described in Section 5.1. After the Project Proposal Forms (White Papers) review, DHS S&T will notify Offerors, electronically or in writing, either encouraging or discouraging submission of a Full Proposal based upon that review. A Review Panel will evaluate the Full Proposals using the criteria specified under the evaluation criteria set forth in Section 5.1. Following that review, Offerors will be notified whether or not their proposal has been selected for negotiation. It is anticipated that multiple awards may be made under this BAA.

The Government reserves the right to fund none, some, or all of the proposals received. It is the intention upon completion of the 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.

**Anticipated Schedule of Events**

<b>Anticipated Schedule of Events</b>		
<b>Event</b>	<b>Due Date</b>	<b>Time (E.S.T.)</b>
BAA Posted to Website	October 17, 2012	
Deadline for submissions of White Paper Questions	October 31, 2012	12:00 PM
White Paper Website Registration Deadline	November 13, 2012	12:00 PM
White Paper Due Date	November 14, 2012	12:00 PM
Invitations to Submit Full Proposals Sent	December 12, 2012	N/A
Full Proposal Website Registration Deadline – Full Proposal Due Date	January 23, 2013	12:00 PM
Notification of Selection for Award Negotiations	February 20, 2013	N/A
Contract Award	TBD	N/A

Kickoff Meetings	TBD	TBD
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#### 4.7. Submission of Late Full Proposals

White Papers and Full Proposals **WILL NOT BE ACCEPTED** after the published due dates.

#### 4.8. Further Assistance Needed for this BAA

The applicable electronic address for all correspondence for this BAA is: BAA12-09@HQ.DHS.GOV.

For technical assistance with using the <https://baa2.st.dhs.gov/> website, submit questions to the administrators at [dhsbaa@reisis.com](mailto:dhsbaa@reisis.com) , phone 703-480-7676.

#### 4.9. 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 BAA mailbox: BAA12-09@HQ.DHS.GOV. The program and technical staff will not acknowledge, forward, or respond to any inquiries received in any other manner concerning this BAA. Contractual questions and answers will be posted periodically on the [www.fbo.gov](http://www.fbo.gov) and <https://baa2.st.dhs.gov> websites.

### 5. EVALUATION INFORMATION

#### 5.1. Evaluation Criteria:

The evaluation of White Papers and Full Proposals will be accomplished through a Peer or Scientific Review using the following criteria, which are listed in descending order of relative importance:

**Criterion I: Scientific/Technical Merit:** Presentation of a sound technical approach to the proposed work that demonstrates reasonableness and responsiveness to, understanding of, as well as a clear path to address the technical requirements presented by Section 1.8 of this BAA. In particular, the following points should be addressed:

- Are claims supported by scientific principles, and substantiated by data?
- Are risks identified and mitigation approaches provided?
- How well does the proposal address each of the performance parameters stated in Section 1.8.2?
- Are technical or testing-related milestones identified to demonstrate that the project can progress successfully to the next step?

**Criterion II: Sound Management Approach:** Presentation of a sound managerial approach to the proposed work, including a demonstrated understanding of the issues and challenges associated with fulfilling project requirements, as well as a strategy to address project requirements, issues and challenges. A successful team will possess multidisciplinary expertise to address the complexity of the effort and clearly identify

the lead organization and the roles/responsibilities of each of the team members contributing to the technical approach.

**Criterion III: Offeror's Capabilities/History of Performance:** Demonstration of a capability of the contractor's team and team members to perform the proposed work, including history of previous performance in developing related solutions and technologies, and capability to fabricate proposed hardware / software components.

**Criterion IV: Cost Realism:** Presentation of accurate, well-founded and reasonable estimates of all costs related to performance of the proposed effort, including an appropriate allocation of labor resources.

Evaluation of White Papers and Full Proposals will be based on an assessment of the proposed solutions which are most advantageous to the Government based on the aforementioned criteria. Awards will be made based upon Full Proposal evaluation, funds availability, and other programmatic considerations, including awards to lesser rated proposals where alternative approaches and technologies are deemed to be more technically advantageous.

**NOTE: 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 announcement.**

## **5.2. Evaluation Panel**

All properly submitted White Papers (in Project Proposal Form format) and Full Proposals that conform to the BAA requirements will be evaluated by a review panel comprised of Government technical experts drawn from staff within DHS S&T and other Federal agencies. All Government personnel are bound by public law to protect proprietary information.

Contract personnel who provide administrative support to the panel will be bound by appropriate non-disclosure agreements to protect proprietary and source-selection information. They will not be permitted to release any source-selection information to third parties, including others in their organization. Submissions and information received in response to this BAA constitute permission to disclose that information to certified evaluators under these conditions.

## **5.3. Feedback**

Due to the estimated number of White Papers to be submitted in response to this targeted BAA, the Government shall not provide feedback to Offerors not encouraged to submit a Full Proposal. The Government shall, if requested by unsuccessful Full Proposal Offerors within three calendar days of being notified that their Full Proposal was not selected for an award, provide feedback on full proposals submitted.

## **6. AWARD ADMINISTRATION INFORMATION**

### **6.1. Reporting**

The following *minimum* deliverables will be required under traditional procurement contracts or other transactions agreements awarded to those Offerors whose Full Proposals are selected for award.

#### Monthly Project Status Report

Reports of project status will be solicited on a monthly basis from all performers using “Monthly Project Status Report Forms.” A sample of the Monthly Project Status Report Form is provided in Appendix C of this BAA. These reports will be electronically submitted to the program manager within fifteen days after the last day of each month. The Monthly Project Status Report Forms provide a standardized format to collect the following information:

#### Static Information (Information that does not change monthly over the project):

- Project Title
- DHS Project Control #
- Period of Performance
- Principal Investigator’s Name, Telephone Number, E-mail and Unclassified/Secure Facsimile Number(s)
- Performer’s Financial Contact Name and Telephone Number

#### Monthly Update Information to Be Provided in Bulleted or Short Narrative Format:

- Activity During the Past Reporting Period (month)
- Progress Achieved Against Deliverable(s) During Reporting Period
- Progress Achieved Against Project Milestones and Tasks During Reporting Period
- Deliverables Submitted This Period
- Milestones Reached/Achieved This Period
- Other Noteworthy Accomplishments (Meetings, Presentations, Publications, etc.)
- Topics of Concern/Slippage (Technical, Schedule and/or Cost)
- Recovery Plan (if needed)
- Explicit Plans for Next Month
- Project Budget Information (Amount Spent During Reporting Period in US dollars and labor hours, including any significant equipment or material purchases, Cumulative Amount Spent Since Project Inception, and Amount of Funding Remaining)

Performers are requested to provide monthly update information only in those sections of the form that are applicable to the activities performed during the reporting period. If there is no updated information to report in a section, it can be marked “N/A” for Not Applicable, or left blank.

The following deliverables, primarily in contractor format, are anticipated as necessary. However, specific deliverables should be proposed by each Offeror and finalized with the Contracting Officer:

- Monthly Progress Status Reports

- Presentation Material
- Other Documents or Reports
- Final Report (suitable for publishing and peer review)

## **6.2. Project Meetings and Reviews**

Program status reviews may also be held to provide a forum for reviews of the latest results from experiments and any other incremental progress towards the deliverables and major demonstrations. These meetings will be held at various sites throughout the country. For costing purposes, Offerors should assume that one of these one-day meetings will be at or near DHS S&T, Washington D.C., and one other meeting will be held at the contractor's facility or a near-by government facility.

## **6.3. Additional Deliverables**

Performers should define additional program-specific deliverables as appropriate for the proposed approach. The Government may describe additional deliverables at the time full proposals are requested.

## **7. OTHER INFORMATION**

### **7.1. Security Classification**

No Classified White Papers or Full Proposals (or portions of white papers / proposals) will be accepted.

The Contractor and its affiliates **shall not** be permitted to advertise or make endorsement claims of any kind relating to this procurement, the project sites, or the evaluated systems and processes, existing or proposed. The Contractor personnel and the Contractor shall sign non-disclosure agreements protecting all "official use only" and other sensitive aspects of the project from outside release upon contract award.

### **7.2. 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. Unnecessarily elaborate responses containing extensive marketing materials are not desired.

### **7.3. SAFETY Act**

As part of the Homeland Security Act of 2002, Congress enacted the Support Anti-Terrorism by Fostering Effective Technologies Act of 2002 (the "SAFETY Act"). The SAFETY Act puts limitations on the potential liability of firms that develop and provide qualified anti-terrorism technologies. DHS S&T, acting through its Office of SAFETY Act

Implementation (OSAI), encourages the development and deployment of anti-terrorism technologies by making available the SAFETY Act's system of "risk management" and "liability management." Offerors submitting proposals in response to this BAA are encouraged to submit SAFETY Act applications for their existing technologies. They are invited to contact OSAI for more information, at 1-866-788-9318 or [helpdesk@safetyact.gov](mailto:helpdesk@safetyact.gov). They also can visit OSAI's Web site at [www.safetyact.gov](http://www.safetyact.gov).

#### **7.4. Subcontracting Plan**

Successful contract proposals that exceed \$650,000.00, submitted by all but small business concerns, will be required to submit a Small Business Subcontracting Plan in accordance with FAR 52.219-9, prior to award.

#### **7.5. Certificate of Current Cost or Pricing Data**

Successful contract proposals that exceed \$700,000.00 may require the submission of a Certificate of Current Cost or Pricing Data in accordance with FAR 15.403-4(b)(2), prior to award.

#### **7.6. Solicitation Provisions and Clauses**

##### **FAR 52.222-54 Employment Eligibility Verification (Jan 2009).**

(a) *Definitions.* As used in this clause—

“Commercially available off-the-shelf (COTS) item”—

(1) Means any item of supply that is—

(i) A commercial item (as defined in paragraph (1) of the definition at 2.101);

(ii) Sold in substantial quantities in the commercial marketplace; and

(iii) Offered to the Government, without modification, in the same form in which it is sold in the commercial marketplace; and

(2) Does not include bulk cargo, as defined in section 3 of the Shipping Act of 1984 (46 U.S.C. App. 1702), such as agricultural products and petroleum products. Per 46 CFR 525.1(c)(2), “bulk cargo” means cargo that is loaded and carried in bulk onboard ship without mark or count, in a loose unpackaged form, having homogenous characteristics. Bulk cargo loaded into intermodal equipment, except LASH or Seabee barges, is subject to mark and count and, therefore, ceases to be bulk cargo.

“Employee assigned to the contract” means an employee who was hired after November 6, 1986, who is directly performing work, in the United States, under a contract that is required to include the clause prescribed at 22.1803. An employee is not considered to be directly performing work under a contract if the employee—

- (1) Normally performs support work, such as indirect or overhead functions; and
- (2) Does not perform any substantial duties applicable to the contract.

“Subcontract” means any contract, as defined in 2.101, entered into by a subcontractor to furnish supplies or services for performance of a prime contract or a subcontract. It includes but is not limited to purchase orders, and changes and modifications to purchase orders.

“Subcontractor” means any supplier, distributor, vendor, or firm that furnishes supplies or services to or for a prime Contractor or another subcontractor.

“United States,” as defined in 8 U.S.C. 1101(a)(38), means the 50 States, the District of Columbia, Puerto Rico, Guam, and the U.S. Virgin Islands.

(b) *Enrollment and verification requirements.*

(1) If the Contractor is not enrolled as a Federal Contractor in E-Verify at time of contract award, the Contractor shall—

(i) *Enroll.* Enroll as a Federal Contractor in the E-Verify program within 30 calendar days of contract award;

(ii) *Verify all new employees.* Within 90 calendar days of enrollment in the E-Verify program, begin to use E-Verify to initiate verification of employment eligibility of all new hires of the Contractor, who are working in the United States, whether or not assigned to the contract, within 3 business days after the date of hire (but see paragraph (b)(3) of this section); and

(iii) *Verify employees assigned to the contract.* For each employee assigned to the contract, initiate verification within 90 calendar days after date of enrollment or within 30 calendar days of the employee’s assignment to the contract, whichever date is later (but see paragraph (b)(4) of this section).

(2) If the Contractor is enrolled as a Federal Contractor in E-Verify at time of contract award, the Contractor shall use E-Verify to initiate verification of employment eligibility of—

(i) *All new employees.*

(A) *Enrolled 90 calendar days or more.* The Contractor shall initiate verification of all new hires of the Contractor, who are working in the United States, whether or not assigned to the contract within 3 business days after the date of hire (but see paragraph (b)(3) of this section); or

(B) *Enrolled less than 90 calendar days.* Within 90 calendar days after enrollment as a Federal Contractor in E-Verify, the Contractor shall initiate verification of all new hires of the Contractor, who are working in the United States, whether or not assigned to the contract, within 3 business days after the date of hire (but see paragraph (b)(3) of this section); or

(ii) *Employees assigned to the contract.* For each employee assigned to the contract, the Contractor shall initiate verification within 90 calendar days after date of contract award or within 30 days after assignment to the contract, whichever date is later (but see paragraph (b)(4) of this section).

(3) If the Contractor is an institution of higher education (as defined at 20 U.S.C. 1001(a)); a State or local government or the government of a Federally recognized Indian tribe; or a surety performing under a takeover agreement entered into with a Federal agency pursuant to a performance bond, the Contractor may choose to verify only employees assigned to the contract, whether existing employees or new hires. The Contractor shall follow the applicable verification requirements at (b)(1) or (b)(2), respectively, except that any requirement for verification of new employees applies only to new employees assigned to the contract.

(4) *Option to verify employment eligibility of all employees.* The Contractor may elect to verify all existing employees hired after November 6, 1986, rather than just those employees assigned to the contract. The Contractor shall initiate verification for each existing employee working in the United States who was hired after November 6, 1986, within 180 calendar days of—

(i) Enrollment in the E-Verify program; or

(ii) Notification to E-Verify Operations of the Contractor's decision to exercise this option, using the contact information provided in the E-Verify program Memorandum of Understanding (MOU).

(5) The Contractor shall comply, for the period of performance of this contract, with the requirement of the E-Verify program MOU.

(i) The Department of Homeland Security (DHS) or the Social Security Administration (SSA) may terminate the Contractor's MOU and deny access to the E-Verify system in accordance with the terms of the MOU. In such case, the Contractor will be referred to a suspension or debarment official.

(ii) During the period between termination of the MOU and a decision by the suspension or debarment official whether to suspend or debar, the Contractor is excused from its obligations under paragraph (b) of this clause. If the suspension or debarment official determines not to suspend or debar the Contractor, then the Contractor must reenroll in E-Verify.

(c) *Web site.* Information on registration for and use of the E-Verify program can be obtained via the Internet at the Department of Homeland Security Web site: <http://www.dhs.gov/E-Verify> .

(d) *Individuals previously verified.* The Contractor is not required by this clause to perform additional employment verification using E-Verify for any employee—

(1) Whose employment eligibility was previously verified by the Contractor through the E-Verify program;

(2) Who has been granted and holds an active U.S. Government security clearance for access to confidential, secret, or top secret information in accordance with the National Industrial Security Program Operating Manual; or

(3) Who has undergone a completed background investigation and been issued credentials pursuant to Homeland Security Presidential Directive (HSPD) -12, Policy for a Common Identification Standard for Federal Employees and Contractors.

(e) *Subcontracts.* The contractor shall include the requirements of this clause, including this paragraph (e) (appropriately modified for identification of the parties), in each subcontract that—

(1) *Is for—*

(i) Commercial or noncommercial services (except for commercial services that are part of the purchase of a COTS item (or an item that would be a COTS item, but for minor modifications), performed by the COTS provider, and are normally provided for that COTS item); or

(ii) Construction;

(2) Has a value of more than \$3,000; and

(3) Includes work performed in the United States.

(End of Clause)

### **HSAR 3052.209-70 Prohibition on Contracts with Corporate Expatriates (Jun 2006)**

(a) Prohibitions.

Section 835 of the Homeland Security Act, 6 U.S.C. 395, prohibits the Department of Homeland Security from entering into any contract with a foreign incorporated entity which is treated as an inverted domestic corporation as defined in this clause, or with any subsidiary of such an entity. The Secretary shall waive the prohibition with respect to any specific contract if the Secretary determines that the waiver is required in the interest of national security.

(b) Definitions. As used in this clause:

*Expanded Affiliated Group* means an affiliated group as defined in section 1504(a) of the Internal Revenue Code of 1986 (without regard to section 1504(b) of such Code), except that section 1504 of such Code shall be applied by substituting `more than 50 percent' for `at least 80 percent' each place it appears.

*Foreign Incorporated Entity* means any entity which is, or but for subsection (b) of section 835 of the Homeland Security Act, 6 U.S.C. 395, would be, treated as a foreign corporation for purposes of the Internal Revenue Code of 1986.

*Inverted Domestic Corporation.* A foreign incorporated entity shall be treated as an inverted domestic corporation if, pursuant to a plan (or a series of related transactions)—

(1) The entity completes the direct or indirect acquisition of substantially all of the properties held directly or indirectly by a domestic corporation or substantially all of the properties constituting a trade or business of a domestic partnership;

(2) After the acquisition at least 80 percent of the stock (by vote or value) of the entity is held—

(i) In the case of an acquisition with respect to a domestic corporation, by former shareholders of the domestic corporation by reason of holding stock in the domestic corporation; or

(ii) In the case of an acquisition with respect to a domestic partnership, by former partners of the domestic partnership by reason of holding a capital or profits interest in the domestic partnership; and

(3) The expanded affiliated group which after the acquisition includes the entity does not have substantial business activities in the foreign country in which or under the law of which the entity is created or organized when compared to the total business activities of such expanded affiliated group.

*Person, domestic, and foreign* have the meanings given such terms by paragraphs

(1), (4), and (5) of section 7701(a) of the Internal Revenue Code of 1986, respectively.

(c) *Special rules.* The following definitions and special rules shall apply when determining whether a foreign incorporated entity should be treated as an inverted domestic corporation.

(1) *Certain stock disregarded.* For the purpose of treating a foreign incorporated entity as an inverted domestic corporation these shall not be taken into account in determining ownership:

(i) Stock held by members of the expanded affiliated group which includes the foreign incorporated entity; or

(ii) Stock of such entity which is sold in a public offering related to an acquisition described in section 835(b)(1) of the Homeland Security Act, 6 U.S.C. 395(b)(1).

(2) *Plan deemed in certain cases.* If a foreign incorporated entity acquires directly or indirectly substantially all of the properties of a domestic corporation or partnership during the 4-year period beginning on the date which is 2 years before the ownership requirements of subsection (b)(2) are met, such actions shall be treated as pursuant to a plan.

(3) *Certain transfers disregarded.* The transfer of properties or liabilities (including by contribution or distribution) shall be disregarded if such transfers are part of a plan a principal purpose of which is to avoid the purposes of this section.

(d) *Special rule for related partnerships.* For purposes of applying section 835(b) of the Homeland Security Act, 6 U.S.C. 395(b) to the acquisition of a domestic partnership, except as provided in regulations, all domestic partnerships which are under common

control (within the meaning of section 482 of the Internal Revenue Code of 1986) shall be treated as a partnership.

(e) Treatment of Certain Rights.

(1) Certain rights shall be treated as stocks to the extent necessary to reflect the present value of all equitable interests incident to the transaction, as follows:

(i) warrants;

(ii) options;

(iii) contracts to acquire stock;

(iv) convertible debt instruments; and

(v) others similar interests.

(2) Rights labeled as stocks shall not be treated as stocks whenever it is deemed appropriate to do so to reflect the present value of the transaction or to disregard transactions whose recognition would defeat the purpose of Section 835.

(f) *Disclosure*. The offeror under this solicitation represents that [Check one]:

it is not a foreign incorporated entity that should be treated as an inverted domestic corporation pursuant to the criteria of (HSAR) 48 CFR 3009.108-7001 through 3009.108-7003;

it is a foreign incorporated entity that should be treated as an inverted domestic corporation pursuant to the criteria of (HSAR) 48 CFR 3009.108-7001 through 3009.108-7003, but it has submitted a request for waiver pursuant to 3009.108-7004, which has not been denied; or

it is a foreign incorporated entity that should be treated as an inverted domestic corporation pursuant to the criteria of (HSAR) 48 CFR 3009.108-7001 through 3009.108-7003, but it plans to submit a request for waiver pursuant to 3009.108-7004.

(g) A copy of the approved waiver, if a waiver has already been granted, or the waiver request, if a waiver has been applied for, shall be attached to the bid or proposal.

(End of provision)

## **8. APPENDICES**

### **8.1. Appendix A – List of Acronyms**

### **8.2. Appendix B – Sample White Paper in “DHS Explosives Division Project Proposal Form” Format**

### **8.3. Appendix C – Sample DHS S&T Explosives Division “Monthly Project Status Reporting Form”**

### **8.4. Appendix D – DHS S&T Technology Readiness Levels**

## 8.1. Appendix A – List of Acronyms

AT	Advanced Technology X-ray
BAA	Broad Agency Announcement
BLS	Bottled Liquid Scanner
CA	Cooperative Agreement
CDA	Calendar Days After
CDR	Critical Design Review
COR	Contracting Officer's Representative
DAC	Days after Contract Award
DHS	Department of Homeland Security
DOE	Department of Energy
DT&E	Developmental Test & Evaluation
EXD	Explosives Division
FAQs	Frequently Asked Questions
FAR	Federal Acquisition Regulation
FedBizOps	Federal Business Opportunities ( <a href="http://www.fbo.gov">www.fbo.gov</a> )
FOUO	For Official Use Only
FFRDC	Federally Funded Research and Development Center
FY	Fiscal Year
G&A	General and Administrative
GFE	Government-Furnished Equipment
GFI	Government-Furnished Information
GFR	Government-Furnished Resources
GFS	Government-Furnished Services
HBCU	Historically Black Colleges and Universities
HSPD	Homeland Security Presidential Directive
HUB	Historically Underutilized Business
IAA	Interagency Agreement
OSAI	Office of SAFETY Act Implementation (DHS)
OTs	Other Transactions
PAC	Post-Award Conference
PDF	Portable Document Format
PDR	Preliminary Design Review
PL	Public Law
POP	Period of Performance
RFP	Request for Proposal
RDT&E	Research, Development, Test and Evaluation
S&T	Science and Technology
SAFETY Act	Support Anti-Terrorism by Fostering Effective Technologies Act 2002
SDB	Small Disadvantaged Business
TIM	Technical Interchange Meeting
TSA	Transportation Security Administration
TSL	Transportation Security Laboratory
TSO	Transportation Security Officer

## 8.2. Appendix B – Sample White Paper in “DHS Explosives Division Project Proposal Form” Format

### EXPLOSIVES DIVISION PROGRAM

#### FY 2013 PROJECT PROPOSAL FORM (White Paper) Name of Project

Project Name XXX

##### Name(s) and Contact Information of Performers

Name: XXX

Mailing Address: XXX

Telephone: XXX

Fax: XXX

Secure Fax: XXX

Email: XXX

Secure Email : XXX

##### Name and Contact Information of Financial Contact

Name: XXX

Mailing Address: XXX

Telephone: XXX

Fax: XXX

Email: XXX

##### Requirement Addressed (Reference Technology Focus Area[s])

XXX

##### Summary of Technical Approach & Project Activity

XXX

##### Justification & Potential Benefits/Outcomes of Project

XXX

##### List of Tasks and Schedule (From Contract Award Date)

Task 1: Task Name XXX (Contract Award Date to X month)

Task 2: Task Name XXX (Month X to X month)

...

Task N: Task Name XXX (Month X to X month) (Note: POP not to exceed 24 months)

##### Cost of Each Task/Total Project Cost

Task 1 Cost: \$ XXX

Task 2 Cost: \$ XXX

Task N Cost: \$ XXX

**Total Cost: \$ XXX**

##### Breakout and Categorization of Costs

Labor: \$ XXX

M&S: \$ XXX

Capital Equipment: \$ XXX

Travel: \$ XXX

Indirects: \$ XXX

Estimated Labor Hours: XX Hours

Average Cost per Labor Hour: \$ XXX/hour

##### Description of Deliverable(s) and Schedule of Delivery

Deliverable 1: Deliverable Name XXX (Contract Award Date + X months)

Deliverable 2: Deliverable Name XXX (Contract Award Date + X months)

...

Deliverable N: Deliverable Name XXX (Contract Award Date + X months)

##### Go / No Go Decision Point(s) for Project Completion

**8.3. Appendix C- Sample DHS S&T EXD “Monthly Project Status Reporting Form”**

**DHS S&T EXD PROGRAM  
FY 2013 MONTHLY PROJECT STATUS REPORT FORM**

**CONTRACTOR: XXX**

**MONTHLY PROJECT STATUS REPORT # x**

**For: xxx 201X (Month/Yr.)**

**Date Submitted: xxx ,201X**

**(Must be submitted to DHS PM by 15th of following month) Deliverable:**

**Project Title: Project Name XXX**

**Purchase Request/IAA No.: XXX**

**Period of Performance: Contract Award Date  
(C.A.D.) [xx/xx/201X] + X Months =  
xx/xx/201X**

**Principal Investigator (PI): XXX**

**PI Email: XXX**

**Financial Contact: XXX**

**DHS Program Manager: XXX**

**DHS PM Email: XXX**

**PI Telephone No.: XXX**

**PI Facsimile No.: XXX**

**Financial Contact Telephone No.: XXX**

**DHS PM Telephone No.: XXX**

**DHS PM Facsimile No.: XXX**

## 8.4. Appendix D – DHS S&T Technology Readiness Levels

TRL	Description	Notional Examples
1	Basic principles observed and reported.	Paper studies of a technology's basic properties, exploration of a technical phenomenon, and definition of a technical concept.
2	Technology concept and/or application reported.	Speculative applications, minimal proof or detailed analysis to support the assumptions. Limited to analytic studies, phenomenology and experimentation.
3	Analytical and experimental critical function and/or characteristic proof-of-concept.	Active research and development including analytical and laboratory studies to validate analytical predictions of separate elements of the technology. Examples include components that are not yet integrated.
4	Component validation in a laboratory environment.	Basic technological components are integrated to establish that they will work together. Examples include integration of modules and components in the laboratory.
5	Component validation in a relevant environment.	Basic technological components are integrated with reasonably realistic supporting elements so it can be tested in a simulated environment.
6	System/subsystem model or prototype demonstration in a relevant environment.	Representative model or prototype system is tested in a relevant environment. Examples include testing a prototype in a high-fidelity laboratory environment or in a simulated operational environment.
7	System prototype demonstration in relevant environment.	Prototype near, or at, planned operational system level. Requires demonstration of an actual system prototype in an operational environment.
8	Actual system completed and operationally qualified through test and demonstration.	System development complete. Examples include test and evaluation of the system in its intended system configuration and operational environment.
9	Actual system operationally proven through successful mission operations.	Actual application of the technology in its final form and under mission conditions, in accordance with the user's Concept of Operations.