

**COMBATING TERRORISM TECHNOLOGY SUPPORT OFFICE  
TECHNICAL SUPPORT WORKING GROUP (TSWG)**

**BROAD AGENCY ANNOUNCEMENT (BAA)  
04-Q-4198**

\*\*\*\*\*

**Due Date for Receipt of Phase I Quad Charts:**

**No Later Than April 13, 2004**

- ED - Explosives Detection**
- IDD - Improvised Device Defeat**
- IP – Infrastructure Protection**
- PS – Physical Security**
- TOS – Tactical Operations Support**
- TTD – Training Technology Development**
- VIP – VIP Protection**

**All submittals are due by Noon; 1200; 12:00 p.m.  
Eastern Standard Time (EST) on the above date**

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**March 9, 2004**

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## 1. INTRODUCTION.

This is the Combating Terrorism Technology Support Office (CTTSO) Technical Support Working Group (TSWG) Broad Agency Announcement (BAA) 04-Q-4198, issued under the provisions of paragraph 6.102(d)(2)(i) of the Federal Acquisition Regulation (FAR), to provide for the competitive selection of research proposals. Contracts based on responses to this BAA are considered to be the result of full and open competition and in full compliance with the provisions of Public Law (PL) 98-369, "The Competition in Contracting Act of 1984." Awards for submittals under this BAA are planned in Fiscal Year (FY) 2005. Funds may not be available for all requirements under this BAA. No contract awards will be made until appropriated funds are available from which payment for contract purposes can be made.

### **1.1. Approach.**

A three-phased proposal selection process will be employed for this solicitation. Phase I will consist of the solicitation, receipt and evaluation of a one-page Summary Quad Chart described later in this document. Phase II will consist of a solicitation of a White Paper (not to exceed 12 pages) from submitters with qualifying Quad Chart evaluations. The White Paper shall include supporting information for data submitted in the summary Quad Chart and shall describe the problem/threat addressed, provide a more detailed proposed solution/approach, identify deliverables, describe work to be performed, describe the offeror's expertise to effect the proposed solution, and present estimated costs and schedule. Phase III will consist of a solicitation of a full proposal (not to exceed 50 pages) resulting from favorable White Paper evaluations. A final evaluation phase will be conducted upon receipt of full proposals.

### **1.2. HBCU/MI 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), women-owned businesses, and Historically Underutilized Business (HUB) zone enterprises HBCU/MIs as well as large businesses and Government laboratories to submit research proposals for consideration and/or to join others in submitting proposals; however, no portion of the BAA will be set-aside for these special entities because of the impracticality of reserving discrete or severable areas of research and development in any specific requirement area. A goal of 2.5% of total dollars awarded under the listed mission areas will be considered for HBCU/MI and a goal of 2.5% of total dollars awarded under the listed mission areas will be considered for small businesses for a total goal of 5%. The final determination will be made based on the individual technical merits of the proposal and the budget constraints within the mission priorities.

To ensure full consideration in these programs, registration in the BAA Information Delivery System (BIDS), described later in this document, must include the appropriate business type category as well as accurate and relevant information requested in the BIDS registration.

### **1.3. Period of Performance.**

Most proposals awarded under this BAA are anticipated to be from 6 to 24 months in duration. The Government intends to incrementally fund contracts awarded from this BAA as provided by FAR 52.232-22, "Limitation of Funds." As described in section 3, proposals shall contain all work contemplated by tasks with all associated costs for each task separately identified including any proposed options. The proposal shall be structured to facilitate incremental funding and to enable all program requirements to be negotiated with the initial contract award.

### **1.4. Technical Evaluation Support.**

It is the intent of this office to use contractor support personnel in the review, evaluation, and administration of all submittals for this BAA. All individuals in this category that will have access to any proprietary data shall certify that they will not disclose any information pertaining to this solicitation including any submittal, the identity of any submitters or any other information relative to this BAA. Submission of information in response to this BAA constitutes permission to disclose information to certified evaluators under these conditions.

**1.5. Instructions and Points of Contact.**

This BAA Package may be downloaded electronically in its entirety from [www.bids.tswg.gov](http://www.bids.tswg.gov) under Downloads, BAAs. **Registration is not required** to download the BAA package; however, all unclassified proposals must be uploaded to BIDS and a registration is required to upload those submissions. BIDS registration requirements are discussed in section 3 of this document.

All contractual and technical questions regarding this BAA must be directed to the Contracting Officer, [04-Q-4198Questions@tswg.gov](mailto:04-Q-4198Questions@tswg.gov).

For help with BIDS, submit questions to BIDS administration at [bidshelp@tswg.gov](mailto:bidshelp@tswg.gov) or by accessing the **HELP REQUEST** link located in the left-hand panel of the BIDS Home Page. Please be sure to include the reason for your request in the text block provided and a correct email address.

Offerors are encouraged to periodically review the BAA Frequently Asked Question (FAQs) and answer section on the web site, [www.bids.tswg.gov](http://www.bids.tswg.gov), located in the FAQs section of the main menu bar.

***NOTE: Persons submitting proposals are advised that only the Contracting Officer may obligate the Government to any agreement involving expenditure of Government funds.***

## 2. GENERAL INFORMATION.

### **2.1. Eligibility.**

To be eligible for contract award, an offeror must meet certain minimum standards pertaining to financial solvency/resources, ability to comply with the performance schedule, prior record of performance, integrity, organization, experience, operational controls, technical skills, facilities, and equipment. See FAR 9.104. Additionally, all offerors MUST be registered in the Central Contractor Registration (CCR) database as indicated in DFARS 204.7300. The website address for CCR database is <http://www.ccr.gov>.

### **2.2. Procurement Integrity, Standards of Conduct, Ethical Considerations.**

Certain post-employment restrictions on former federal officers and employees may exist, including special Government employees (Section 207 of Title 18, United States Code (USC)). If a prospective offeror believes that a conflict of interest does exist, the situation should be raised to the issuing office's contracts representative before time and effort is expended in preparing a proposal.

### **2.3. Definitions.**

#### **2.3.1. Small Business Concern.**

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

#### **2.3.2. Small Disadvantaged Business Concern.**

"Small disadvantaged business concern" as used in FAR Part 19 (except for FAR Sections 52.212-3(c)(4) and 52.219-1(b)(2) for general statistical purposes and 52.212-3(c)(9)(ii), 52.219-22(b)(2), and 52.219-23(a) for joint ventures under the price evaluation adjustment for small disadvantaged business (SDB) concerns, means an offeror that represents, as part of its offer, that it is a small business under the size standard applicable to the acquisition; and either:

(1) It has received certification as a small disadvantaged business concern consistent with 13 CFR part 124, subpart B; and

(i) No material change in disadvantaged ownership and control has occurred since its certification;

(ii) Where the concern is owned by one or more disadvantaged individuals, the net worth of each individual upon whom the certification is based does not exceed \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and

(iii) It is identified, on the date of its representation, as a certified SDB concern in the database maintained by the Small Business Administration (SBA) (PRO-Net); or

(2) For a prime contractor, it has submitted a completed application to the SBA or a private certifier to be certified as a small disadvantaged business concern in accordance with 13 CFR part 124, subpart B, and a decision on that application is pending, and that no material change in disadvantaged ownership and control has occurred since it submitted its application. In this case, a contractor must receive certification as an SDB by the SBA prior to contract award.

#### **2.3.3. North American Industry Classification System.**

Establishments that specialize in performing Professional, Scientific and Technical Activities for others are coded 541710 under the North American Industry Classification System (NAICS). The small business size standard for Classification 541710 is 500 employees.

### **2.4. Restrictive Marking on Proposals.**

All proposals should clearly indicate content disclosure limitations. Submittals may be marked as "Proprietary" or words to that effect; however, markings such as "Company Confidential" or other phrases that may be confused with national security classifications shall be avoided.

**2.5. Submission Handling/Rights in Technical Data and Computer Software/Patent Rights - General.**

**2.5.1. Procurement Integrity.**

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

**2.5.2. Rights in Technical Data and Computer Software.**

Rights in technical data, computer software and software documentation provided in the proposal shall be treated in accordance with the DFARS 252.227-7016, entitled "Rights in Bid and Proposal Information." Rights in technical data, computer software and computer software documentation in the resultant contract shall be in accordance with DFARS 252.227-7013 (regarding technical data) and DFARS 252.227-7014 (regarding computer software and software documentation). Both clauses (DFARS 252.227-7013 and -7014) shall be included in any non-commercial contract exceeding the simplified acquisition threshold. Other clauses to be included in the contract are: DFARS 252.227-7017, DFARS 252.227-7019, Validation of Asserted Restrictions - Computer Software; DFARS 252.227-7025, Limitations on the Use or Disclosure of Government-Furnished Information marked with Restrictive Legends; DFARS 252.227-7027, Deferred Ordering of Technical Data or Computer Software; DFARS 252.227-7030, Technical Data-Withholding of Payment; DFARS 252.227-7036, Declaration of Technical Data Conformity; and DFARS 252.227-7037, Validation of Restrictive Markings on Technical Data.

**2.5.3. Submission Information and FOIA.**

Records or data bearing a restrictive legend may be included in the proposal. The offeror is cautioned; however, that portions of the proposal may be subject to release under terms of the Freedom of Information Act (FOIA), 5 U.S.C. 552, as amended. In accordance with FOIA regulations, the offeror will be afforded the opportunity to comment on, or object to the release of proposal information.

**2.6. Report Requirements.**

The number and types of deliverable reports shall be specified in the contractual document. The reports shall be prepared and submitted in accordance with the procedures contained in the contract. A Final Report that summarizes the project and associated tasks is required at the conclusion of each contract, notwithstanding the fact that the research may be continued under a follow-on contract. Monthly Reports documenting program and financial status are required. In addition, test plans, test and technical reports, technical data, specifications, computer programs or other data should be specified based on the proposed efforts as appropriate.

**2.7. Subcontracting.**

Pursuant to Section 8(d) of the Small Business Act (15 U.S.C. 637(d)), it is the policy of the Government to enable small business and small disadvantaged business concerns to be considered fairly as subcontractors to contractors performing work or rendering services as prime contractors or subcontractors under Government contracts, and to assure that prime contractors and subcontractors carry out this policy.

### 3. PROPOSAL PREPARATION.

This section provides information needed by the individual preparing the proposal for submission under this BAA.

#### **3.1. General Guidance.**

All submittals must strictly follow the instructions in this announcement and include the information specified to avoid delays in evaluation or disqualification of a submittal.

##### **3.1.1. BAA Information Delivery System (BIDS).**

The BIDS, in operation at [www.bids.tswg.gov](http://www.bids.tswg.gov), will be used to provide public access to the BAA package and will be used to collect all **unclassified** submittals under this BAA. A Submitter Registration is required to respond to this BAA to upload submittal response data. The offeror must complete all mandatory fields on the submitter registration form in BIDS including a User Name that will be used for login and as part of document identifiers for submissions described later in this BAA package. Registration acceptance for submitters is automatic and will be transmitted by email indicating the User Name for login, but may take a few minutes to be recognized by BIDS. Questions regarding BIDS may be addressed via email to TSWG BAA Administrators at [bidshelp@tswg.gov](mailto:bidshelp@tswg.gov) or by accessing the **HELP REQUEST** link in the left-hand panel of the BIDS Home Page. For password resets, if you know your User Name and have a valid email address, the password can be reset automatically by selecting "Forgot My Password." A new password will be sent to the email address. Use the HELP REQUEST if you are having problems with your BIDS account. Registration account information can be updated by the user after login. The email address for a specific User Name in the BIDS registration serves as the notification point for all email correspondence to that "user" and should be the point of contact for the Government Contracting Officer.

##### **3.1.1.1. Format and Submittal Upload.**

All unclassified responses shall be uploaded to BIDS in the electronic format specified and each must include all information requested for each submittal type as described in this document. Each follow-on submittal shall not be uploaded until the previous submittal has been evaluated and an email request for the next submittal is received by the offeror from the contracting officer.

##### **3.1.1.2. Cover Page/Submittal Markings.**

The cover page of all submittals (or margin headers for all Quad Charts) shall be marked with the appropriate *BAA Announcement Number, Requirement Number, Submission/Proposal Title*, and the *Document Identifier* as described below. Additionally, for any classified material, the document must be clearly marked in accordance with appropriate security regulations.

##### **3.1.1.3. Document Identifier.**

**The offeror shall insert a "Document Identifier" into the header (top margin area) of each submittal.** The identifier shall be unique to any other submittal from the offeror and **MUST** be formatted with the targeted Mission Area or subgroup (i.e. CB, ED, IS, IDD, IP, VIP, or TOS), the Requirement Number, the User Name, and the submitter internal tracking number (SIT). For example, Document Identifiers are formatted as follows:

**MissionArea-Requirement Number-UserName-Submitter Internal Tracking Number.**

The constructed document identifier is frequently used by the evaluation team to identify each submittal and to connect downloaded/printed documents with evaluation records posted into on-line collaboration software.

Note: When actually uploading the document to a specific requirement in BIDS (on-line), the appropriate prefix (**underlined in the example**) is automatically generated by the system and

attached to the submitter internal tracking number which is unique and created by the offeror. The document identifier should be inserted into the header of the uploaded document and **MUST** match the document identifier in BIDS.

The system enforces unique tracking numbers for each offeror and will not allow an upload of a submittal document if the submitter internal tracking number has already been used. For best tracking purposes, it is recommended that offeror use tracking numbers that will indicate the Phase to which the document was submitted. For example, {submitter internal tracking number}-01 would indicate that the document was submitted to Phase 1, and a suffix of -02 would indicate that the document was submitted to Phase 2, thereby making each number unique by virtue of the suffix. An alternative is to use -QC for a Quad Chart submittal, -WP for a White Paper and -FP as the full proposal, all unique because of the dash characters.

**3.1.2. BIDS Security and Submittal Changes.**

All data uploaded to BIDS is secure from public view or download. All submissions will be considered proprietary/source selection sensitive and protected accordingly. The documents may only be reviewed by the registrant, authorized Government representatives, and assigned evaluators. Changes to uploaded responses will be permitted **up to the closing date and time**. If the offeror wishes to submit a modified requirement response, the offeror must first delete the previous response and then upload a modified document. Changes after the requirement due date will not be permitted.

**3.1.3. Special Handling/Procedures for Classified Information.**

If a submittal contains classified information, the offeror must first obtain a submittal number through BIDS for tracking purposes and identify in the comments section why the submittal cannot be uploaded and submitted via the automated system. The BIDS tracking number must be clearly identified on the mailed submittal. Classified responses (up to SECRET) must be appropriately marked, sealed and mailed in accordance with classified material handling procedures. **All classified documents must be packaged and shipped in accordance with regulations and instructions pertaining to the level of classification.**

**For classified submittals, send an email to [BAAssecurity@tswg.gov](mailto:BAAssecurity@tswg.gov).** Mailing instructions will be provided at that time.

**Classified documents MUST be mailed and MUST be received by the applicable due date and time. Classification does not in any way eliminate the offeror's requirement to comply with all instructions in this BAA.**

**3.2. Phase I Submittals.**

**3.2.1. General.**

Offerors shall respond to Phase I of this BAA using a one-page Quad Chart in the format depicted in the Quad Chart samples downloadable from the BIDS web site "Reference Materials" option in the right hand panel. The Quad Chart must be received electronically through BIDS (unclassified) or received by mail (classified only) no later than **1200 (12:00 p.m.) EST on April 13, 2004**. Upon request, the offeror may be required to provide access to pending patent applications. Classified submittals (up to SECRET) must be appropriately marked, sealed, and mailed in accordance with classified material handling procedures. Proposals received after the closing date will not be considered by the Government.

**3.2.2. File Format and Content.**

The Quad Chart shall be prepared in color or black and white in Microsoft Office 2000 Word, PowerPoint, or Adobe Acrobat (PDF – portable document format) electronic file format. The document must be print-capable, without password, using text font and graphic file formats that will cause the document to be NO LARGER THAN 500KB IN FILE SIZE. Graphic images inserted into

the document should be in a file format (such as GIF/JPEG) that will minimize file size and support clear SVGA display and document printing (96 DPI recommended). The offeror shall upload the submittal via the BIDS response form for each requirement before the due date and time, and in accordance with instructions in sections 3.1 and 3.2. Prior to submittal, the offeror must ensure that the prepared chart includes the document identification header content as described in this document. The offeror should also ensure that the candidate proposal meets the needs of the requirement including cost, technical feasibility and other evaluation criteria as identified in this BAA.

**3.2.3. Notification to Offeror.**

Following review of the Quad Chart, the Government will notify the offeror when a submittal has been accepted or rejected. Notification of acceptance accompanied with a request to submit the Phase II requirement (White Paper) will be emailed to the offeror's contracting authority as entered in the BIDS registration and will indicate the new submittal due date and time. Notifications of rejection will likewise be emailed to the address provided by the offeror during BIDS registration. **Debriefings for Quad Charts will not be provided due to the nature of BAAs. It should generally be assumed that the reason a proposed solution was not considered for further review was that it did not fit the needs of the TSWG, that it was too costly, or that it failed to meet requirements as specified for technical evaluation.**

**3.2.4. Status and Inquiries.**

Phase I is complete when all submissions have been accepted or rejected in accordance with paragraph 3.2.3 above. Telephonic inquiries concerning the status of Quad Charts will not be accepted. Submitters are able to check the status of any submission by accessing the BIDS website under "My Submissions."

**3.3. Phase II Submittals.**

**3.3.1. General.**

The second phase consists of a White Paper submitted with no more than 12 pages (including figures, charts, and tables, but excluding the cover page). All submittal pages must be formatted using single-side, double-spaced pages, font no smaller than 10 point, with 1-inch page margins (left/right/top/bottom). If the White Paper is longer than 12 pages, only the first 12 pages will be evaluated. A cover page shall include the data specified in the sample document entitled: Submittal Cover Sheet provided under Reference Materials in the Downloads section of the BIDS home page. Prior to submittal, the offeror must ensure that the submittal includes the document identification header content as described in section 3.1 of this document. Classified submittals (up to SECRET) must be appropriately marked, sealed, and mailed in accordance with classified material handling procedures. Submittals received after the closing date will not be considered by the Government.

**3.3.2. File Format and Content.**

The White Paper shall be prepared in color or black and white in Microsoft Office 2000 Word or Adobe Acrobat PDF electronic file format. The document must be print-capable and without password. All text and graphic content MUST NOT EXCEED 500KB IN TOTAL FILE SIZE. Graphic images inserted into the document should be in a file format (such as GIF/JPEG) that will minimize file size and support clear SVGA display and document printing (96 DPI recommended). The offeror shall upload the submittal via the BIDS response form (select "create next submission" from the accepted submittal) before the due date and time (i.e., 30 days from the date of the notification email), and in accordance with instructions in section 3.1 above. The offeror should ensure that the submittal meets the needs of the requirement including cost, technical feasibility, and other evaluation criteria as identified in this BAA.

**3.3.3. Technical Content.**

The White Paper shall describe the problem/threat addressed in the BAA Requirement and include:

**3.3.3.1.** Description of the proposed solution including underlying theory, a suggested concept of operations and potential users. Include a description of similar work performed, including what agency funded the effort.

**3.3.3.2.** Description of the proposed tasks and associated deliverables. Include definition of anticipated risks, planned mitigation efforts, work to be performed by the offeror, by other organizations, and any required Government furnished material (GFM) or information (GFI). Include clear descriptions of proposed phases, decision points and any options. The offeror's proposed position on ownership of intellectual property shall also be described. Upon request, the offeror may be required to provide access to pending patent applications.

**3.3.3.3.** Description of the planned methodology to transition to production and the suggested field support methodology, including:

**3.3.3.3.1.** A description of the offeror's capability and/or experience in doing this type of work. Include description of co-participants' capabilities and/or experience as well. State whether agreement has been reached with proposed co-participants.

**3.3.3.3.2.** A Master Project Schedule preferably in Gantt chart format. Schedule should show planned start and stop point of each phase and subordinate tasks, estimated delivery dates, and decision points. Period of performance will be assumed to be the last completion date shown unless otherwise stated.

**3.3.3.3.3.** A proposed, task-phased budgetary estimate inclusive of any proposed options. At a minimum, this estimate shall detail estimated labor hours and costs and anticipated material and other costs for each task area. Costs allocated to other organizations (e.g., Government testing) shall also be clearly shown. Estimated production unit costs should also be included.

**3.3.3.4.** Identification of Rights in Technical Data and Computer Software/Patent Rights. Technical data and computer software to be delivered with less than unlimited rights should be identified as prescribed by DFARS 252.227-7017 and DFARS 252.227-7028.

**3.3.3.5.** Technology Transition. The White Paper shall contain a brief discussion on the proposed concept for commercializing or transitioning the technology to production if the project is successful. If the offeror's proposal is based on technology that has a patent applied for, or issued, the offeror must provide the patent number or application serial number.

**3.3.4. Notification to Offeror.**

Following review of the White Paper, the Government will notify the offeror (normally within 90 days of the submittal close date) when a submittal has been accepted or rejected. Notification of acceptance accompanied with a request to submit the Phase III requirement (Proposal) will be emailed to the offeror's contracting authority as **entered in the BIDS registration** and will indicate the new submittal due date and time. Notifications of rejection will likewise be emailed to the address provided by the offeror during BIDS registration. **Debriefings for White Papers will not be provided due to the nature of BAAs. It should generally be assumed that the reason a White Paper was not considered for further review was that it did not fit the needs of the TSWG, that it was too costly, or that it failed to meet requirements as specified for technical evaluation.**

**3.3.5. Status and Inquiries.**

Phase II is complete when all submissions have been accepted or rejected in accordance with paragraph 3.3.4 above. Telephonic inquiries concerning the status of White Paper submittals will not be accepted. Submitters are able to check the status of any submission by accessing the BIDS website under "My Submissions."

### **3.4. Phase III Submittals.**

#### **3.4.1. General.**

The primary objective of the phased solicitation approach used in this BAA is to minimize cost and effort of prospective offerors. Accordingly, full proposals will only be requested for qualifying solutions that have a high probability of award. However, the Government reserves the right to cancel any Phase III solicitation prior to award. It is requested that proposals be divided into two "uploadable" documents/files. The first document should include all technical and contractual information. The second document shall include all cost information preferably in spreadsheet format. Each single file shall not exceed 500KB in total file size. In any case, technical descriptions shall not exceed 50 pages including cover page, figures, charts and tables (excluding any forms requested within this BAA package). All submittal pages must be formatted using single-sided, double-spaced pages, font no smaller than 10 point, with 1-inch page margins (left/right/top/bottom). A cover page shall include the data specified in the sample document entitled: **Submittal Cover Sheet** provided under Reference Materials in the Downloads section of the BIDS home page. Prior to submittal, the offeror must ensure that the submittal includes the document identification header content as described in section 3.1 of this document. Classified submittals (up to SECRET) must be appropriately marked, sealed, and mailed in accordance with classified material handling procedures. Submittals received after the closing date will not be considered by the Government.

#### **3.4.2. File Format and Content.**

The proposal shall be prepared in color or black and white in Microsoft Office 2000 Word, Excel 2000 and/or Adobe Acrobat PDF electronic file format. The document must be print-capable and without password. Total text and graphic content in any upload section of the proposal MUST NOT EXCEED 500KB IN TOTAL FILE SIZE. Graphic images inserted into submittal documents should be in a file format (such as GIF/JPEG) that will minimize file size and support clear SVGA display and document printing (96 DPI recommended). All (unclassified) submittals shall be uploaded via the BIDS response upload form (select "create next submission" from the accepted submittal) before the due date and time specified in the email notice (i.e. 30 days from the date of the notification email) and in accordance with section 3.1 above. The offeror should ensure that the submittal meets the needs of the requirement including cost, technical feasibility, and other evaluation criteria as identified in this BAA.

#### **3.4.3. Technical.**

The technical portion of the proposal shall contain the following:

**3.4.3.1.** A title and an abstract that includes a concise statement of work and basic approaches to be used. This should be on a separate page and in a form suitable for release under the Freedom of Information Act, 5 U.S.C. 552, as amended. The statement of work should indicate the effort intended for the period of performance.

**3.4.3.2.** The technical portion shall include an Executive Summary, a technical approach, description of relevant prior work, a program plan including a statement of work with task phasing and proposed options, facilities and equipment descriptions, list of documentation and reports, and a management plan. All paragraphs containing proprietary information must be clearly marked.

**3.4.3.3.** The proposal shall include a section on technology transition planning that discusses the proposed approach for commercializing or transitioning the prototype technology to production. This section shall identify any existing intellectual property claims or intentions. The offeror shall specifically indicate if there is a patent pending (and the patent application number, if received) or a patent issued with the patent number(s). The offeror shall include a statement on licensing or venturing plans, as applicable, if the project is successful. The offeror shall discuss barriers to commercialization, such as anticipated regulatory issues (such as environmental, safety, health, and transportation), liability issues, interoperability, financing,

etc. and planned steps to address these barriers. Also, if not covered in other sections, this section shall address interaction with potential users.

**3.4.3.4.** The names, brief biography, and a list of recent publications of the offeror's key personnel (including alternates, if desired) who will be involved in the research. Documentation of previous work or experience in the field of the offeror is especially important.

**3.4.3.5.** The type of support, if any, the offeror might request from the Government, such as government furnished equipment (GFE), materials (GFM) or facilities.

**3.4.3.6.** The names of other federal, state, or local agencies or other parties receiving the proposal and/or funding the proposed effort. If none, so state.

**3.4.3.7.** A statement regarding possible impact, if any, of the proposal's effect on the environment. If none, so state.

**3.4.3.8.** A brief description of the offeror's organization.

**3.4.3.9.** The offeror shall indicate the total scope of work to be performed for this effort inclusive of any proposed options.

**3.4.4. Cost.**

The cost information of the proposal shall contain the following:

**3.4.4.1.** A cost estimate that is sufficiently detailed by element of cost for meaningful evaluation. Cost estimates shall be identifiable by task phasing proposed in the technical section and shall be inclusive of any proposed options. Cost breakdown shall include materials, direct labor, indirect costs, and other direct costs such as special test equipment or travel. Offerors shall provide exhibits as necessary to substantiate the cost elements.

**3.4.4.2.** A cost-element breakdown shall be attached for each proposed line item and must reflect all specific requirements. Supporting breakdowns must be furnished for each cost element, consistent with the offeror's cost accounting system. When more than one contract line item is proposed, summary total amounts covering all line items must be furnished for each cost element. If agreement has been reached with Government representatives on the use of forward pricing rates/factors, identify the agreement. Depending on the offeror's system, breakdowns shall be provided for the following basic elements of cost, as applicable:

**3.4.4.2.1. Materials:** Provide a consolidated price summary of individual material quantities included in the various tasks, orders, or contract line items being proposed and the basis for pricing (vendor quotes, invoice prices, etc.). Include new materials, parts, components, assemblies, and services to be produced or performed by others. For all items proposed, identify the item and show the source, quantity, and price.

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

**3.4.4.2.3. Established Catalog or Market Prices/Prices Set By Law or Regulation:** When an exemption from the requirement to submit cost or pricing data is claimed, whether the item was produced by others or by the offeror, provide justification for the exemption.

**3.4.4.2.4. Noncompetitive Methods:** For those acquisitions (e.g., subcontract, purchase orders, material orders) over \$550,000 priced on a noncompetitive basis, also provide data showing the basis for establishing source and reasonableness of price. For standard commercial items fabricated by the offeror that are generally stocked in inventory, provide a separate cost breakdown if price is based on cost. For inter-organizational transfers priced at cost, provide a separate breakdown of cost by elements.

**3.4.4.2.5. Direct Labor:** Provide a list of participants, not necessarily by name, showing a time phased (e.g., monthly, quarterly) breakdown of labor hours, rates, and cost by appropriate category, and furnish basis for estimates.

**3.4.4.2.6. Indirect Costs:** Indicate how offeror has computed and applied offeror's indirect costs. Indicate the rates used and provide an appropriate explanation.

**3.4.4.2.7. Other Costs:** List all other costs not otherwise included in the categories described above (e.g., special tooling, travel, computer and consultant services, preservation, packaging and packing, spoilage and rework) and provide basis for pricing.

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

- Name And Address of Licensor
- Date of the License Agreement
- Patent numbers, Patent Application Serial Numbers, or other basis on which the royalty is payable
- Brief description (including any part or model numbers of each contract item or component on which the royalty is payable)
- Percentage or dollar rate of royalty per unit
- Unit price of contract item
- Number of units
- Total dollar amount of royalties

Note: A copy of the current license agreement and identification of applicable claims of specific patents may be specifically requested by the contracting officer. (See FAR 27.204 and 31.205.37.)

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

**3.4.4.2.10. Fee:** Include the fee, if any, proposed for this effort.

**3.4.5. Contractual.**

The contractual portion of the proposal should contain the following:

**3.4.5.1.** Identify the offeror's contracting point of contact including name, telephone number, email address, facsimile number, mailing address, and contact information including DUNS number, CCR, business type, and other relevant information.

**3.4.5.2.** The type of contract preferred. Generally, the contract type most used is Cost Plus Fixed Fee (CPFF).

**3.4.5.3.** Proposed duration of all tasks in the basic contract and any options.

**3.4.5.4.** The identity of any members of the organization with potential conflicts of interest. Possible conflicts of interest include any people with prior federal employment including employment of the principal investigator as a special Government employee (duties, agency with whom employed, dates of employment) within two years from the date of proposal submission. If none, so state.

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

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

**3.4.5.7.** If the total amount of the proposal exceeds \$500,000 and the offeror is not a small business, the offeror shall submit a subcontracting plan for small business and small socially and economically disadvantaged business concerns. A mutually agreeable plan will be included in and made a part of the resultant contract. The contract cannot be executed unless the contracting officer determines that the plan provides the maximum practicable opportunity for small business and small disadvantaged business concerns to participate in the performance of the contract.

**3.4.6. Notification to Offerors.**

Phase III is complete when the Government concludes technical evaluations of all submittals and awards any contracts considered under this BAA. Notification of acceptance or rejection of a Phase III Proposal will be sent via email to the offeror's principal contact as entered in the BIDS registration. A formal debriefing may be requested by the offeror if the Government does not accept the Phase III proposal. Telephonic inquiries concerning the status of Phase III prior to official notification will not be accepted. Submitters are able to check the status of any submission by accessing the BIDS website under "My Submissions."

**4. PROPOSAL EVALUATION.**

**4.1. Objective.**

The TSWG conducts rapid prototype development focused on critical multi-agency and future threat counter/anti-terrorism requirements. The primary TSWG mission is to conduct the National Interagency Research and Development (R&D) Program for combating terrorism through rapid research, development, and prototyping. This agency's program objectives are to provide an interagency forum to coordinate R&D requirements for combating terrorism, to sponsor R&D not otherwise being addressed by individual agencies, and to promote information transfer among the participating agencies.

**4.2. Evaluation Criteria.**

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

**4.2.1. Basic Requirement.**

The proposed solution must meet the letter and intent of the stated requirement; all elements within the proposal must exhibit a comprehensive understanding of the problem and the requirements of intended end users. The proposed solution must meet multiple TSWG user (U.S. Government or commercial) needs and be fully compliant with each required element of the solicitation.

**4.2.2. Technical Performance.**

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

**4.2.3. Contractor Past Performance.**

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

**4.2.4. Schedule.**

The proposed schedule must be complete and achievable. The proposal must indicate that the offeror has fully analyzed the project's critical path and has addressed the resulting schedule risks.

**4.2.5. Cost.**

The proposed costs must be both reasonable for the work proposed and affordable. The proposal must document all anticipated costs including those of associate, participating organizations. The proposal must demonstrate that the offeror has fully analyzed budget requirements and addressed resulting cost risks. The proposal must indicate all cost-sharing and leveraging opportunities explored and identified. Other sponsors who have funded or are funding this offeror for the same or similar efforts must be identified.

## 5. TECHNOLOGY DEVELOPMENT REQUIREMENT TARGETS AND OBJECTIVES.

TSWG is interested in soliciting proposals in the following areas of combating terrorism and explosive ordnance disposal/low intensity conflict. The intent of this BAA is to identify technologies and approaches that provide near-, mid-, and long-term solutions that enhance the capabilities of the U.S. Government to combat or mitigate terrorism. The level of detail provided for each specific mission area requirement or the order in which requirements appear is not intended to convey any information regarding relative priority. As a reminder, every submittal must have a document identifier that includes the mission area designator (CB, ED, IDD, IP, IS, PS, SC, TOS, TTD or VIP), the requirement number, user name, and a submitter internal tracking number as described in section 3 of this document.

### **5.1. Explosives Detection (ED) Mission Area/Subgroup**

The Explosives Detection (ED) Subgroup is responsible to identify, prioritize and execute research and development projects that satisfy interagency requirements for existing and emerging technology in the area of explosives detection and diagnostics. Emphasis is on long term sustained approach to develop technologies for detection and subsequent characterization of concealed explosives.

#### **R000-ED ED Unspecified Requirement**

The ED Subgroup mission is to identify and develop technologies for detection and subsequent characterization of concealed explosives. The ED Subgroup focus includes suicide bomber detection, large vehicle bomb detection, short range detection, and canine enhancements. The current ED Subgroup program has projects in the above areas; however, the ED Subgroup will entertain new ideas that have the potential to lead to a significant breakthrough for explosives detection in any of the current focus areas.

Submit candidate concepts that may be of interest to the TSWG that pertain to the ED Subgroup mission described above. Areas not to be considered are: commercial off the shelf systems and incremental improvements to these systems, or incremental improvements to technologies currently under development. Proposed concepts, if brought to fruition, need to be supportable in the field and not significantly impact the surrounding environment and infrastructure of the deployment location. Implementation of these technologies cannot pose potential health and safety risks to equipment operators or to the public.

Unspecified requirements (R-000) are for proposing unique innovations that have not yet been identified by TSWG. TSWG does not budget funds for unspecified requirements. If TSWG evaluators determine an unspecified requirement submission is promising enough to pursue, funds may be identified at that point. Because proposed technologies from the unspecified requirement will be competing against proposed technologies for identified and prioritized interagency requirements, TSWG may not make any awards against the unspecified requirement.

#### **R1231 Portable Personnel Screening Portal**

Develop a scaled down and easily portable explosive detection portal system. System performance should not be less effective than existing fixed site system performance. Modified systems should automatically detect and identify trace explosives on a person, be easily transportable, require minimal assembly time and infrastructure, have a low false alarm rate, and capable of meeting TSA criteria for trace explosives. The system should be developed with the potential to be integrated with current portable metal detectors to develop a dual-purpose system.

### **5.2. Improvised Device Defeat (IDD) Mission Area/Subgroup**

The Improvised Device Defeat (IDD) Subgroup is responsible for prioritizing and addressing the technological requirements of the military, federal, state, and local bomb technician community for increased capabilities in diagnostics and defeat technologies to more safely and effectively render terrorist explosive devices safe. Particular emphasis is placed on technologies that safely diagnose and defeat terrorist improvised explosive devices (IEDs), improvised chemical and biological devices, and

large vehicle bombs (LVBs).

**R1215 Multiple IED Disruption System**

Develop an IED disruption system that enables single sortie multiple IED disruptions (4 to 10) during EOD and bomb squad operations. New EOD procedures and tactics necessitate the need to perform single entries during response in order to minimize personnel exposure, lessen time-on-target, and reduce the travel time of robots. Requires the ability to load a robot (and select, possibly while down range) multiple and/or differing disrupter rounds. Primary need is to develop a method to fire multiple shots from the same disruptor without adding additional barrels. For the sake of this requirement, disruption is considered the act of separating components of an improvised explosive device through circuitry sabotage or rapid separation of energetic materials. The system must be lightweight and easily affixed to current and future RCV platforms and utilize existing RCV electronic and RF architecture, without costly upgrade by the manufacturer of that system. The system must perform disruptions (precision, general or both) at a distance of up to 15 meters. The system must facilitate proper disruption positioning through the use of an aiming confirmation system. The system's operational mission setup time should be less than 2 minutes. The system shall use existing military and low cost commercially available expendables and must not generate sole-source procurement requirements for expendables. The system must be environmentally sealed, water resistant, and operate regardless of lighting conditions.

Additional requirements:

- Sighting system for aiming disrupter (robot or disrupter mounted)
- Employed by various robotic systems, Remotec, Vanguard, Foster-Miller, etc.
- Fire standard percussion primed ammunition
- Semi-automatic operation
- Capable of firing minimum of 4 rounds
- Weigh less than 10 pounds with ammo weight included
- Maximum of 3 hours of training to be able to safely and reliably employ the system
- Constructed of metals common to firearm fabrications; steel, stainless steel, titanium
- Use common hardware, bolts, nuts etc. that would be easily obtainable in the US
- Able to withstand the recoil energy generated by the disruptor/cartridge

**R1218 Tactical Timed Firing Device**

Develop a small and reliable multiple use, self-contained timer that is capable of initiating multiple size shock-tube. The system must deploy from packaging to operational readiness in less than one minute. The device must be weather resistant, able to function in extreme climatic conditions, and sustain a 10-foot drop without damage. The system must be smaller than 3in. x 3in. x 1in. The system should cost between \$30-50 USD per unit in lots of ten.

Shock tube attachment mechanism shall securely fashion shock-tube to initiator and must withstand a two-pound pull on the shock tube without permitting separation. The insertion of standard shock tube and the securing process must be possible while wearing neoprene gloves and take no more than 15 seconds. The entire system should weigh no more than 4 oz. If the system contains a power source, the shelf life should be accordance with industry standards. Power source expiration date must be indicated on exterior of device's casing.

The user will set the delay time desired and this time shall be clearly indicated on the device. Once set, the delay time must be able to be "locked" so that this delay time cannot be inadvertently changed. After the delay time has been set and locked, the timer shall function as a count down delay timer. When activated by the user, the timer will begin the countdown. Upon reaching zero (0) delay, the unit will fire a single standard shock tube trunk line (often referred to as Nonel).

The system should offer a range of delays between 5 sec and 9 minutes 59 seconds. The system must have defined misfire procedures for safe recovery of a failed initiation attempt. If the device incorporates electronics, the timer shall clearly display the remaining time in minutes and

seconds. The timer should begin the countdown sequence upon removal of a positive safety and cease countdown upon its return. There is to be a means to determine how much time remains on the timer.

Safety: The following issues must be strictly adhered to:

1. The timer must be 100% safe with regards to premature initiation of the shock tube.
2. The timer must afford positive safety control.
3. If the timer has been initiated by removal of positive safety mechanism, replacing the safety must inactivate the countdown sequence.
4. The timer must be able to withstand a 10' drop without initiating the shock tube that is inserted into the unit.
5. Any failure of the timer will fail on the side of safety. This means that there is no chance that the timer will fire the shock tube.
6. Any malfunction of the timer countdown will be indicated and appropriate misfire procedure provided via a users manual.

The timer shall initiate a single piece of standard shock tube. If the timer uses a spark type initiation, it shall attempt to initiate the shock tube twice within one second. The timer must initiate shock tube with 99.99% reliability. If the timer utilizes a pyrotechnic type initiation system, the unit must be DOT classified as 1.4S or NOS. If the timer does not use a pyrotechnic means of initiation, then the timer shall have no shipping constraints.

#### **R1243 Vehicle Borne IED Disruption and Disablement**

Increased mitigation, render safe, access and disablement capabilities for disabling and neutralizing Vehicle Borne Improvised Explosive Devices (VBIED). Systems are needed to facilitate the rapid defeat of VBIEDs. The proposed systems must disrupt VBIEDs without causing the device to initiate or detonate. Ease of deployment, system size, and low cost are primary considerations. To minimize operator risk, consideration should be given to using remote employment techniques leveraging existing robotic systems to the greatest extent possible. Systems must address the ability to disrupt multiple threat type vehicles without causing the device to initiate or detonate. Threat vehicles include, but are not limited to, vans, tractor trailers, fuel tanks, sewage trucks, water tankers, etc. Further, developed systems must be made available to both military and civilian EOD communities and must not generate sole source procurement requirements for expendables.

Areas not to be considered are: commercial or modified commercial off the shelf systems; projects that take longer than 18-24 months to result in a prototype; or chemical/biological defeat systems.

#### **5.3. Infrastructure Protection (IP) Mission Area/Subgroup**

The Infrastructure Protection (IP) Subgroup identifies and pursues user requirements for the protection and assurance of critical Government, public, and private infrastructure systems required to maintain the national and economic security of the United States.

#### **R1190 Improved Patch Authentication, Testing and Dissemination**

Background:

An overwhelming majority of cyber intrusions and attacks result from the exploitation of known vulnerabilities or configuration problems. In many cases, exploitation occurs after a patch is already available for remediating the problem. However, patching frequently is not done in a timely fashion because of the high rate of new patches, the time needed to authenticate patches and to test them in operational environments, and the problems with identification of applicable machines and verification of patch deployment in heterogeneous software environments.

Recent events have revealed an insufficient capability in the government's approach to patching vulnerabilities on Federal information systems. Compounding the problem are the numerous websites for locating and downloading patches, the need for authentication of patches, and the time required for testing of patches against configurations prior to deployment. Because of these

complexities, there is a desire to identify better patching processes and technologies to improve the management, maintenance, and security of Federal information systems. Furthermore, the establishment of a mechanism and process to ensure and verify that validated patches are known, made available, and installed on affected systems will significantly enhance the government's ability to protect its systems and the information transmitted, processed, and stored thereon. Although the problem is discussed in the context of government needs, the same issues are of significant relevance outside the government as well (e.g. the private sector).

It is preferable that tools developed under this topic be released as open source software under the Berkeley Software Distribution (BSD) license. Exceptions may be possible in cases where an established company is interested in developing a tool for release at no charge and without redistribution restrictions, but not under an open source license due to intellectual property issues. Exceptions will be negotiated on a case-by-case basis.

Specific Requirements:

1. Improved (and when possible automated or semi-automated) authentication, analysis, notification, distribution, and installation of security patches and related software to network-based computer systems
2. Visibility into patch deployment status for verification purposes.
3. Capability should be scale up to large networks (hundreds of machines)
4. Implemented in a vendor-independent fashion
5. Testing of patches against known configurations should precede deployment of patches
6. Capability to prioritize based on:
  - \* Degree of vulnerability
  - \* Mission criticality of operational systems that are vulnerable
  - \* The number of vulnerable systems

#### **5.4. Physical Security (PS) Mission Area/Subgroup**

The Physical Security (PS) Subgroup is responsible to identify, prioritize and execute research and development projects that satisfy interagency requirements for physical security support to protect personnel, equipment and facilities against terrorist activity.

##### **R1239 Perimeter Security Veil**

Develop a perimeter security screen to attach to existing fences, buildings, or natural objects. Similar to some camouflage materials or vehicle window screens, the security screen must block or limit viewing of the interior of a facility from the outside, with an ability to see through the screen from the inside with the naked eye, night vision devices, and/or thermal viewers. The outside surface may have graphic designs or solid colors acceptable to the user. The material must be durable, lasting a minimum of 6 months of duty while exposed to the elements. It must be lightweight; all weather; wind, rain, UV resistant; and cost effective. Recovery and reuse of the screen is desirable, and will be determined by the user based on operational requirements and the cost effectiveness of recovery and reuse, versus deploying a new screen. The screening material should be in sections measuring approximately 8'X300' and should weigh less than 150 lbs. Attachment points or grommets should be placed incrementally along both top and bottom, and engineered to absorb or mitigate wind loads. Additional anchor points interspaced between the top and bottom to provide supplemental support to the screen are acceptable. Attachment to the fence or structure should be quick and simple, and use materials that could be, but not be limited to, reinforced heavy duty VELCRO type strips, shock cords, cable ties or pre-cut lengths of rope or cable. Each roll of material must be deployable along an existing fence line by three soldiers in less than 60 minutes, using a temporary vehicle attachment such as a bumper mounting kit or a trailer unit. Recovery times would be anticipated to exceed the deployment time. The dispensing/recovery device should be adaptable to fit military light trucks and commercial pickup trucks and/or SUVs. The developer might consider a dispensing/recovery device based on cyclone fencing dispensers or carpet rollers, but equipped with a ratchet type device that could be set in either free/braked spool mode for deployment, or engaged mode for recovery by a hand-cranked or motorized system. Repair kits should consist of patches and

adhesives or binding material, and allow repairs in place on the deployed screen. The developer must also provide all tools necessary for the dispensing/recovery devices and the repair kits. Cost estimates should include the delivery of 2 dispensing/recovery devices, 10 increments of screen fabric with attachment material, 2 repair kits, and 2 tool kits.

**5.6. Tactical Operations Support (TOS) Mission Area/Subgroup**

The Tactical Operations Support (TOS) Subgroup is responsible to identify, prioritize, and execute research and development projects that satisfy interagency requirements for unique equipment and systems to support specialized force offensive operations directed against terrorist activities and groups. The subgroup will transition non-sensitive prototype hardware to commercial production to assist state and local law enforcement agencies.

**R000-SW SWAT Unspecified Requirement**

The SWAT Focus Group supports federal, state, and local Special Weapons and Tactics (SWAT) units involved in a variety of high threat terrorism situations. This focus group is interested in a variety of technology enhancements to facilitate more effective execution of the following SWAT missions: surveillance, counter-surveillance detection, small group tactical communications, dynamic entry (physical and explosive), special weapons, and distraction devices.

New or improved technologies or emerging technological capabilities pertaining to Special Weapons and Tactics / Close Quarter Battle that may be of interest to the TSWG, but were not specifically requested in this BAA and are not commercially available. Future interests must be timely, relevant, further the global war on terrorism, and may include:

- Improved response procedures, tools and equipment to increase the effectiveness of CQB/SWAT during tactical response.
- Information sources to influence interagency research and development and enhance response capability.

Submit candidate projects that are new (or improved) technologies or emerging technological capabilities pertaining to the SWAT Focus Group mission described above that may be of interest to the TSWG.

Areas not to be considered are: commercial off the shelf systems or projects that take longer than 18-24 months to result in a prototype.

Unspecified requirements (R-000) are for proposing unique innovations that have not yet been identified by TSWG. Submissions against a particular subgroup's unspecified requirement may fall under any aspect of that subgroup's mission. TSWG does not budget funds towards unspecified requirements. If TSWG evaluators determine an unspecified requirement submission is promising enough to merit pursuing, funds may be identified at that point. Because proposed technologies from the unspecified requirements will be competing against proposed technologies for identified and prioritized interagency requirements, TSWG may not make any awards against the unspecified requirements.

**R1171 Small Target Designator**

Develop a small laser designator system with the following characteristics:

- Lightweight designator for handheld or tripod applications. The desired size should not exceed 4" high by 3.75" wide by 7" long (threshold), 4.5" high by 2.5" wide by 4.75" long (Objective).
- Provide operations at a range of 200-1500 meters with fixed PRF (Threshold), and 200-5000 meters with selectable PRF (Objective).
- Capable of operating with current laser guided munitions including laser guide bombs (LGB), Hellfire missiles, and other future NATO Band I and II LGB's.
- Include an integrated 10X day optic with the ability to adapt a generation 3 night vision scope (Threshold); and a 15X day optic with the ability to adapt a generation 3 night vision scope

(Objective).

- Operable during all typical operational environmental conditions for tactical forces.

**R1183 High Performance In Line Sniper Sight (HISS)**

Develop a removable modular sight that uses the weapon day sniper scope as the eyepiece for the system. The system must provide full operational capability during all light levels and must include the following capabilities:

Provide for repeated remounting on the weapon without affecting boresight of the day sniper scope when mounted.

Provide capability to recognize humans at 1500 meters.

Include internal electronic reticules that match the day sniper scope.

Provide for a closed cycle cooling system for the focal plane array.

Include standard NTSC video, digital video, and onboard memory for image storage. Include capability for image extraction using USB-2 or similar means.

System to operate using external power from 12-28 VDC, and include an internal battery for minimum of 4 hours for both non-rechargeable and rechargeable 3, 6, and 12 VDC power sources.

Provide suitable controls that can be operated easily in the field to function both optical capabilities as required, (for example: on/off; auto/manual gain; reticule selection; non-uniformity correction; sensitivity select; and focus.

Operable during all tactical operational environments of low/high temperatures, immersion, salt fog, shock and vibration.

Dimensions - not greater than 3" wide by 3" high by 10" long

Desired weight <5 lbs (Threshold) 3 lbs objective.

**R1187 Portable Vehicle Immobilization System**

Develop a system that will quickly immobilize a moving vehicle without harming the occupants. A man-portable system is required that can be deployed quickly in the path of the vehicle from a stand-off position. System must work on all types of road surfaces, and must be able to be placed such that the vehicle cannot avoid it.

**R1219 5.56 Subsonic Ammunition**

Develop accurate and reliable 5.56 mm X 45 mm subsonic ammunition for use in Colt M-4 Carbine, H&K Modified M-4 carbine, and SIG 552C Carbine (all using suppressors). Ammunition must function, feed, and fire in the semi-automatic mode with the weapons listed. Ammunition must equal or exceed the reliability of M855 (green tip) ammunition when employed with the Colt M-4. Ammunition must demonstrate reliable performance over a temperature range of -10C to +50C.

**R1226 Combat Swimmer Communications**

Develop a lightweight, swimmer-efficient multi-channel, hands free underwater communications capability for combat swimmers. System should allow effective communications up to 1000 yards. Include capability to talk between surface vessel and divers – surface system to be deployed from a variety of craft to support operations. System must be lightweight and user friendly with full range of underwater dive suits and gloves. System must be compatible with current Navy UBA Mk 25 Mod II systems. System battery must support minimum of 8 hours of operations. System should be able to support secure communications for up to four separate dive teams.

**R1229 Assured Tactical Communication System**

Develop a lightweight, user-efficient, multi-channel, hands free integrated communications capability for special weapons and tactics, or close quarters battle, personnel. The system should allow effective communications up to 1000 yards, in urban or rural terrain. The system shall include the capability to talk between a mobile tactical operations center and operators. System must be lightweight and user friendly with full range of close quarters battle apparel, gloves, gas masks, and other individual equipment. System must be compatible with current

commercial land mobile radio systems, to include secure communications. Individual unit battery must support minimum of 8 hours of operations. System should be able to support secure communications for up to four separate close combat, entry and/or counter-sniper teams. The resulting deliverable must allow for low cost upgrades as technology advances. The system should be able to operate in outdoor temperature extremes with capability to withstand HAZMAT environments. The plausible scenarios for use of the system include close-combat, building-clearing operations, establishing clandestine surveillance or observation, and service of arrest warrants / apprehension of terrorists and other individuals.

**R1241 Next Generation Diversionary Device**

Develop a physiological disablement device for special weapons and tactics, or close quarters battle applications, that will quickly and reliably incapacitate a subject without causing long-term harmful side effects or permanent damage to the subject or innocent bystanders. The potential subjects include those who are deranged, under the influence of drugs or alcohol, or who are exceptionally determined. The device must incapacitate quickly, e.g. within 1 second, allowing minimal reaction time for the subject once its use is detected. The incapacitation may be achieved by any number of means, but the desired end-state is that the subject would be rendered unwilling and/or unable to display aggressive behavior toward law enforcement personnel or innocent bystanders. Users must be able to safely operate in the resulting environment in which the device is employed, using only conventional special weapons and tactics apparel and individual equipment. The device may be hand deployed or may be deployable/dispersed via a variety of methods to include barrier penetrating munitions (i.e. 12ga, 37mm and 40mm) and diversionary device bodies. The resulting deliverable must allow for low cost upgrades as technology advances. The device should operate to incapacitate the full range of possible subjects with self-calibration and be easily operated by non-technical personnel. The device should have compact size and weight for use in small spaces (e.g. vehicle interiors). It should be capable of running on batteries, and not on an AC or DC power source, if internal electrical power is required. The system should be able to operate in outdoor temperature extremes with capability to withstand HAZMAT environments. The objective is to improve upon the stun performance of current diversionary devices and to eliminate some of all of the hazards and limitations associated with such devices, particularly with respect to secondary fragmentation effect and incendiary hazard. The best desired performance may be achievable through a combination electronic flash and piezo-audio device, but offerors may consider other designs. The plausible scenarios for use of the device include close-combat, building-clearing operations, breaking contact, creating a diversion from other activities, rapid entry situations, and apprehension of terrorists and other individuals. The resulting deliverable must not employ pyrotechnic materials, require special storage and transportation/handling, and may not be encumbered by potential manufacturer liability. Product improvements to existing fuzed diversionary devices will not be considered.

**R1244 Fully Integrated Ballistic Helmet**

Develop an improved ballistic helmet to protect users from small arms fire, shrapnel, and blasts. The helmet must offer Level IIIA ballistic protection or better and incorporate a built-in ballistic protective face shield which will be free of distortion and provide variable tinting, UV protection, scratch resistance, and fog proofing. The helmet must incorporate hearing protection and an integrated radio communications capability. The helmet internal design should employ shock absorption and shock mitigation technologies to support the users head; and, it must be adjustable for a wide range of head sizes and shapes. The shock absorption and mitigation material may include gels, pneumatic, or other materials which are conformal to the users head, while maintaining the helmet in a balanced and centered orientation. This helmet design must be capable of withstanding an average G-force attenuation at an impact velocity of 10 ft/sec. Users must be able to attach external equipment, such as cameras and night vision equipment, without greatly disturbing the ballistic protection features, balance, and/or comfort of the helmet. Helmet must be capable of being worn during situations where the user is required to wear a chemical protective mask or self-contained breathing apparatus (SCBA), while maintaining user fit and balance and not sacrifice ballistic or visual properties.

In order to prevent the helmet from being cumbersome to the user, the helmet must be more ergonomic and lighter than the existing ballistic protection configurations. Furthermore, the helmet's design must support the user wearing it for periods of 2 to 4 hours (continuous) without discomfort. The helmet's components and any attachments must be adequately secured to the helmet to prevent "flopping" or dislodgement when engaged in highly aggressive physical activity (i.e. rappelling, shooting, running, or when physically restraining a suspect/terrorist). A production version of the system must be economical for SWAT law enforcement procurement.

#### **5.7. Training Technology Development (TD) Mission Area/Subgroup**

The Training Technology Development (TD) Subgroup is responsible to identify, prioritize and execute research and development projects that satisfy interagency requirements for the development and delivery of combating terrorism related education, training, and mission performance support products and technologies.

##### **R1222 Combating Terrorism Training Registry and Repository Architecture**

Design and develop an advanced distributed learning (ADL) registry and repository architecture and associated user interfaces to support distributed and federated combating terrorism training repositories. The architecture must be Shareable Content Object Reference Model (SCORM) 1.3 conformant. The architecture must be based on a collection of distributed services with Web interfaces and an open component communications model that is consistent with emerging computing and communications infrastructures. The architecture must support content identifier, locator, reference, versioning, search, and query; content management, sharing, and delivery; and digital rights management, information assurance, and security. The architecture must provide the capability to federate existing (disparate) SCORM and non-SCORM conformant content repositories. The architecture must support content object reuse and establish models and procedures such that training materials produced by any agency will be available for reuse across the community. The architecture must perform all functions across multiple types of metadata (e.g., objective, subjective, rights, etc.) and layers of objects (e.g., learning, content, and knowledge). The architecture must support customization of information based on domain (e.g., federal, state, and local; homeland defense, homeland security, and emergency response; standards organizations and bodies; federal, state, and local sources for training; etc.) and unique taxonomies within those domains. The architecture must support establishing and maintaining a customizable metadata framework spanning all identified domains and associated training tasks. The architecture will be accessible via standard industry web browsers operating on personal computer systems with the following minimum system requirements – Pentium II/III or equivalent, 233 MHz, 128 MB RAM, audio and video capable, 16X CD-ROM, 56K modem, with Windows 98, ME, 2000, or XP Operating System.

##### **R1223 Development Tool for ADL and Simulation Based CBRNE Equipment Training**

Design and develop an advanced distributed learning (ADL) authoring tool to create simulation-embedded, web and CD based equipment training. The tool must enable the integration of 3D, 360 degree rendering and simulation into web and CD based training. The tool must produce integrated simulation and training that is level 3 interactive Shareable Content Object Reference Model (SCORM) 1.2 conformant. The tool must produce training in both web and CD-ROM delivery formats. Both formats will be equivalent in course structure, content and test fidelity. Both formats will minimize differences by allowing them only when required for technical and implementation reasons. Both formats will be playable in Microsoft Internet Explorer browsers, v6.x on personal computers with the following minimum system requirements – Pentium II/III or equivalent, 233 MHz, 128 MB RAM, audio and video capable, 16X CD-ROM, 56K modem, with Windows 98, ME, 2000, or XP Operating System. Develop training focused on the calibration, operation, and maintenance of selected CBRNE response equipment as a means to prototype the development tool. Training must be designed according to industry best practices for Instructional Systems Design (ISD). Training development must provide for linkages back to commercial off the shelf (COTS) learning management systems (LMS) so that trainee performance in both the web-based training and simulation will be measured, tracked, and

reported by the LMS. Training and simulation content and format must be trainee-centered, incorporate distributed practice exercises throughout the training experience covering all critical elements of performance, provide immediate exercise feedback to trainees, enforce remedial training, and provide performance or performance-based trainee evaluation which establishes training objective mastery with feedback. Training shall provide students an easy-to-use human-system interface, courseware loading and playability process, and course navigation.

**R1224 Domain Knowledge Based Assessment Development and Delivery Tool**

Design and develop an automated tool to create and deliver domain knowledge based assessments in a web-based, advanced distributed learning (ADL) environment. The tool must provide the capability to create, execute, and track domain knowledge assessments in a SCORM conformant delivery environment. The tool must provide training developers the capability to create and/or import assessment prompts and expert knowledge maps against which to measure a knowledge map created during the delivery of an assessment. The tool must provide the capability for the learner/trainee to create a knowledge domain map based on the assessment prompts presented. The tool must have the capability to track and assess the understanding of a content domain via comparison of the expert and trainee knowledge maps and responses to the assessment prompts. The tool must be capable of measuring the degree to which trainees have attained the intended outcomes of training. The tool must have the capability to provide information on a trainee's prior knowledge, the increase in a trainee's KSAs, the probability that the trainee will perform satisfactorily (or not) in future situations, and whether remediation on specific content for enhanced mastery is beneficial. Design must take into consideration key principals of knowledge mapping such as understanding that knowledge is transient; knowledge domains have boundaries with sanctions; knowledge can be recognized and located in a variety of forms: tacit and explicit, formal and informal, codified and personalized, internal and external, short life cycle and permanent; and knowledge can be located in processes, relationships, policies, people, documents, conversations, links and context. The tool will integrate with simulation and training that is level 3 interactive, Shareable Content Object Reference Model (SCORM) 1.2 conformant. The tool must provide for linkages back to commercial off the shelf (COTS) learning management systems (LMS) so that trainee performance in both the web-based training and simulation will be measured, tracked, and reported by the LMS. The tool must provide immediate feedback to trainees, enforce remedial training, and provide performance or performance-based trainee evaluation which establishes training objective mastery with feedback. The tool shall provide trainees and instructors an easy-to-use human-system interface and navigation. The tool must possess utility in both web and CD-ROM delivery formats. Both formats will be equivalent in structure, content, and fidelity. Both formats will minimize differences by allowing them only when required for technical and implementation reasons. Both formats will be playable in Microsoft Internet Explorer browsers, v6.x on personal computers with the following minimum system requirements – Pentium II/III or equivalent, 233 MHz, 128 MB RAM, audio and video capable, 16x CD-ROM, 56K modem, with Windows 98, ME, 2000, or XP Operating System.

**R1225 Chemical and Radiological Contamination Simulants**

Design and develop chemical and radiological contamination simulants for use during decontamination drills and training exercises. The simulants will be used to determine the efficacy of improvised and commercially available personnel and equipment decontamination systems. All simulants must contain embedded "tracer" materials to provide for material evidence that contamination is present until decontamination is complete. The simulants must correctly replicate contamination on multiple types of clothing materials (e.g., chemical protective suits, firefighter turn out clothing, ordinary civilian clothing, etc.), surfaces (e.g., wood, brick, metal, tile floor, etc.), and human skin. The chemical simulants must replicate the properties and viscosities of common chemical agents such as GB, VX, and H. The radiological simulants must be available in a range of particulate sizes representative of what could likely result from the release of a radiological dispersal device (e.g., dirty bomb). All simulants, ingredients, and components must currently meet government and industry safety requirements for use in the environment and should be listed in the International Cosmetic Ingredient Dictionary, published

by the Cosmetic, Toiletry, and Fragrance Association, Inc. Simulants should be packaged in a man-portable kit configuration. Components of the kit should include individual stimulant containers no larger than one quart; applicators (where applicable) to apply the simulants; safety and MSDS information; a user manual; and an instructional video demonstrating proper product use.

**5.8. VIP Protection (VIP) Mission Area/Subgroup**

The VIP Protection (VIP) Subgroup is responsible to identify, prioritize, and execute research and development projects that satisfy interagency requirements for unique equipment and systems to alert and prevent attacks on VIP protectees. This includes hardware and tools that provide security to both the VIPs and their protectors. Inherent in this development is additional emphasis on life safety and emergency response equipment.

**R1220 VIP Security Kit**

Develop an easily portable, integrated security kit to provide security screening of non-controlled areas (such as hotel rooms and condos) for executive protection teams. The kit would provide secure, wireless sensors that feed to CCTV. The kit must include capability to detect glass breaks, intrusions, eavesdropping and remotely monitored surveillance of the facility as a minimum. System components must be small, durable, and dependable. System must be designed for rapid installation by operations personnel, emphasizing ease of use and user friendliness. Installed components may be noticeable but must be unobtrusive in the venue. Surveillance cameras must have capability to zoom and pan/tilt. Kit shall also include devices that will support vehicle monitoring for intrusion, tagging, or sabotage. The system must be compatible with worldwide voltage and current conventions. System shall be designed to be easily upgraded as technologies develop.

**R748 Laser Detection and Locating**

Develop System that will identify the use of a laser in a potential anti-personnel role. The system must be able to reliably detect and identify the full spectrum of available lasers (500 nm - 1600 nm) using one or several detectors and include both continuous wave and pulsed sources. The system must be able to provide locating information for the source, including bearing and range. System must be designed to support operations in a wide variety of venues and allow for rapid setup using standard power sources.

**ATTACHMENT A – ACRONYMS AND ABBREVIATIONS**

3-D	Three-dimensional	IED	Improvised Explosive Device
AC	Alternating Current	IP	Infrastructure Protection (mission area/subgroup designation)
Atm	Atmosphere		
BAA	Broad Agency Announcement	IS	Investigative Support and Forensics (mission area/subgroup designation – Also ISF)
BIDS	BAA Information Delivery System		
CASB-CMF	Cost Accounting Standards (CAS) Board - Cost of Money Factors	JPEG	Joint Photographic Experts Group
CASEVAC	Casualty Evacuation	K	Thousand
CB	Chemical, Biological, Radiological and Nuclear Counter Measures (Also CBRNC or CBRN or CBR) (mission area/subgroup designation)	KB	Kilobyte
		Lbs	Pounds
		LIC	Low Intensity Conflict
		LIDAR	Light detection and ranging
		LVB	Large Vehicle Bomb(s)
		MB	Megabyte
C	Celsius	MI	Minority Institutions
CCR	Central Contractor Registration	mm	millimeter
CCTV	Closed Circuit Television	NAICS	North American Industry Classification System
CD	Compact Disk		
CFR	Code of Federal Regulations	NBC	Nuclear, Biological, and Chemical
COTS	Commercial-off-the-shelf	NCID	National Critical Infrastructure Database
CPFF	Cost Plus Fixed Fee		
CQB/SWAT	Close Quarter Battle/Special Weapons Assault Team	PCs	Personal Computers
CTTSO	Combating Terrorism Technology Support Office	PDA	Personal Digital Assistants
		PDF	Portable Document Format
DC	Direct Current	PETN	pentaerythritol tetranitrate
Deg	Degrees	PL	Public Law
DFARS	Defense Federal Acquisition Regulation Supplement	PPE	Personal Protective Equipment
		PS	Physical Security (mission area/subgroup designation)
DoD	Department of Defense		
DPI	Dots per inch	QC	Quad Chart
DUNS	Data Universal Numbering System	R&D	Research and Development
ED	Explosives Detection (mission area/subgroup designation)	Rad	Radians
		RAM	Random Access Memory
EDT	Eastern Daylight Time	RDX	Cyclotrimethylenetrinitramine
EL	Explosive Ordnance Disposal/Low Intensity Conflict (mission area/subgroup designation)	SBA	Small Business Administration
		SC	Surveillance, Collection and Operations Support (mission area/subgroup designation – Also SCOS)
EOD/LIC	Explosive Ordnance Disposal/Low Intensity Conflict		
EST	Eastern Standard Time	SDB	Small Disadvantaged Business
ET-SCBA	Expedient Tactical Self Contained Breathing Apparatus	SF	Standard Form
		SIT	Submitter Internal Tracking (Number)
FAQ	Frequently Asked Question	SOF	Special Operations Forces
FAR	Federal Acquisition Regulation	SOW	Statement of Work
FCCM	Facilities Capital Cost Of Money	SVGA	Super Video Graphics Array
FOIA	Freedom of Information Act	TD	Training Technology Development (mission area/subgroup designation – Also TTD)
FP	Full Proposal		
fsw	Feet of sea water	TOS	Tactical Operations Support (mission area/subgroup designation)
ft	Feet		
FY	Fiscal Year	TSWG	Technical Support Working Group
GFE	Government Furnished Equipment	USC	United States Code
GFI	Government Furnished Information	VBIEDs	Vehicle Borne Improvised Explosive Devices
GFM	Government Furnished Material		
GIF	Graphics Interchange Format	VIP	Very Important Person
GIS	Geographic Information System	VIP	VIP Protection (mission area/subgroup designation – Formerly PP)
GOTS	Government-off-the-shelf		
GPS	Global Positioning System	WP	White Paper
GUI	Graphical User Interface		
HAZMAT	Hazardous Material		
HBCU	Historically Black Colleges and Universities		
HUB Zone	Historically Underutilized Business Zone		
Hz	Hertz		
IDD	Improvised Device Defeat (mission area/subgroup designation)		