COMBATING TERRORISM TECHNOLOGY SUPPORT OFFICE
TECHNICAL SUPPORT WORKING GROUP (TSWG)
BROAD AGENCY ANNOUNCEMENT (BAA)
03-Q-4070

Due Date for Receipt of Phase 1 Quad Charts
No Later Than April 3, 2003

ED – Explosives Detection
IDD – Improvised Device Defeat
IP – Infrastructure Protection
PP – Personnel Protection
PS – Physical Security
TOS – Tactical Operations Support

All submittals are due by 1600 - 4:00 p.m.
Eastern Daylight Time (EDT) on the above date

March 4, 2003

TABLE OF CONTENTS
BAA PACKAGE for 03-Q-4070

1. INTRODUCTION.....4

1.1. APPROACH. 4
1.2. HBCU/MI SET ASIDE.....4
1.3. PERIOD OF PERFORMANCE. 4
1.4. TECHNICAL SUPPORT. 4
1.5. INSTRUCTIONS AND POINTS OF CONTACT.....5

2. GENERAL INFORMATION. 6

2.1. ELIGIBILITY. 6
2.2. PROCUREMENT INTEGRITY, STANDARDS OF CONDUCT, ETHICAL CONSIDERATIONS.....6
2.3. DEFINITIONS. 6
2.3.1. Small Business Concern.....6
2.3.2. Small Disadvantaged Business Concern.....6
2.4. RESTRICTIVE MARKING ON PROPOSALS. 6
2.5. SUBMISSION HANDLING/RIGHTS IN TECHNICAL DATA AND COMPUTER SOFTWARE/PATENT RIGHTS - GENERAL 6
2.5.1. Procurement Integrity. 6
2.5.2. Rights in Technical Data and Computer Software. 7
2.5.3. Submission Information and FOIA.....7
2.6. REPORT REQUIREMENTS.....7
2.7. SUBCONTRACTING.....7

3. PROPOSAL PREPARATION. 8

3.1. GENERAL GUIDANCE. 8
3.1.1. Continuing Research Requirements. 8
3.1.2. BAA Information Delivery System (BIDS). 8
3.1.2.1. Format and Submittal Upload. 8
3.1.2.2. Cover Page/Submittal Markings. 8
3.1.2.3. Document Identifier. 8
3.1.3. BIDS Security and Submittal Changes. 9
3.1.4. Special Handling/Procedures for Classified Information. 9
3.2. PHASE I SUBMITTALS.....9
3.2.1. General. 9
3.2.2. File Format and Content. 9
3.2.3. Notification to Offeror. 10
3.2.4. Status and Inquiries.....10
3.3. PHASE II SUBMITTALS. 10
3.3.1. General. 10
3.3.2. File Format and Content. 10
3.3.3. Technical Content. 10
3.3.4. Notification to Offeror. 11
3.3.5. Status and Inquiries.....11
3.4. PHASE III SUBMITTALS. 11
3.4.1. General. 11
3.4.2. File Format and Content. 12
3.4.3. Technical.....12
3.4.4. Cost.....13
3.4.5. Contractual. 14
3.4.6. Notification to Offerors. 15

4. PROPOSAL EVALUATION. 16

4.1. OBJECTIVE 16
4.2. EVALUATION CRITERIA 16
4.2.1. Basic Requirement. 16
4.2.2. Technical Performance. 16
4.2.3. Contractor Past Performance. 16
4.2.4. Schedule. 16
4.2.5. Cost 16

5. TECHNOLOGY DEVELOPMENT REQUIREMENT TARGETS AND OBJECTIVES 17

5.1. EXPLOSIVES DETECTION (ED) MISSION AREA/SUBGROUP 17
R1066 Improved Trace Explosives Detection Sampling 17
R878 Standoff Detection 17
5.2. IMPROVISED DEVICE DEFEAT (IDD) MISSION AREA/SUBGROUP 17
R1003 Ballistic Shield and Framework 17
R1005 Robotic White Light/Infrared Switching System 18
R1016 Evaluation of Ballistic Vests Protective Performance in an Explosive Environment 18
5.3. INFRASTRUCTURE PROTECTION (IP) MISSION AREA/SUBGROUP 18
R000-IP Unspecified Requirement - Infrastructure Protection 18
R1050 PKI for Real-Time Communication 19
R1052 Network Isolation System 19
R1053 Real-Time Secure Authentication and Error Checking 19
5.4. PERSONNEL PROTECTION (PP) MISSION AREA/SUBGROUP 19
R000-PP Unspecified Requirement - Personnel Protection 19
R1040 Covert Vehicle Tamper Detection 19
5.5. PHYSICAL SECURITY (PS) MISSION AREA/SUBGROUP 20
R000-PS Unspecified Requirement - Physical Security 20
R1006 Deployable Intrusion Detection System 20
R1013 Rapidly Deployable Wire Barrier System 21
R1025 Integrated Base Defense, Identification Friend or Foe 21
R1026 Portable Invisible Spectrum Flood Light 22
R1048 Deployable Defense Panel System 23
R1096 Exterior Perimeter Early Warning 23
5.6. TACTICAL OPERATIONS SUPPORT (TOS) MISSION AREA/SUBGROUP 23
R000-TO Unspecified Requirement - Tactical Operations Support 23
R1042 Ascender Climbing Device 23
R1043 Modified GPS Handheld Unit 24

ATTACHMENT A – ACRONYMS AND ABBREVIATIONS 25

1. INTRODUCTION.

This is the Combating Terrorism Technology Support Office (CTTSO) Technical Support Working Group (TSWG) Broad Agency Announcement (BAA), 03-Q-4070, 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 the first quarter of Fiscal Year (FY) 2004 at the earliest.

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 (viewgraph) described later in this document. Phase II will consist of a solicitation of a White Paper (not to exceed 12 pages) from responders 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 Set Aside.

In an attempt to maximize participation of Small Businesses and Historically Black Colleges, Universities (HBCU) and other Minority Institutions (MI), a goal of 2.5% of total dollars awarded under the listed mission areas will be set-aside for HBCU/MI and a goal of 2.5% of total dollars awarded under the listed mission areas will be set-aside for small businesses for a total goal of 5%. If set-asides are not determined possible after examination of all proposals submitted under this BAA, goals for total dollars expended will no longer be subject to any set-aside restriction. The Government encourages nonprofit organizations, educational institutions, small businesses, small disadvantaged business concerns, and HBCU/MIs, as well as large businesses and Government laboratories to submit research proposals for consideration.

To ensure full consideration in these programs be sure to select the appropriate categories and include accurate and relevant information when registering in the BAA Information Delivery System (BIDS) described later in this document.

1.3. Period of Performance.

Proposals that encompass a 12 to 18 month period of performance or less are anticipated for many of the requirements in this BAA. The Government may incrementally fund contracts including those that encompass more than a single fiscal year or exceed 12 months. Proposals shall contain a brief summary of the work contemplated for each period of performance (with associated cost data) so that the contract(s) may be negotiated for the entire program. Long-term proposals must include all tasking described in a phased approach. Also, the proposals must include a full cost proposal for the basic contract and any phases proposed. Any desired period for contract option exercise shall be negotiated at the time of contract award in accordance with the option clause set forth in the contract.

1.4. Technical 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** on the Home Page under Download 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, 03-Q-4070Questions@tswg.gov.

For help with BIDS, submit questions to BIDS administration at bidshelp@tswg.gov or by accessing the HELP REQUEST link located at the bottom of the BIDS Home Page. Please be sure to include the reason for your request in the text block provided.

Offerors are encouraged to periodically review the BAA question and answer section on the web site, www.bids.tswg.gov, located in the Frequently Asked Questions (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. See DFARS 204.7300. 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). 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.

2.4. 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, based on the minimum reporting requirements, the offeror's proposal, and as mutually agreed upon before award. 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, as appropriate, should be specified based on the proposed efforts.

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. Continuing Research Requirements.

A proposal for continuation of a given research project will be considered on the same basis as proposals for new research agreements. The proposal must be submitted sufficiently in advance of the termination of the existing agreement so that if it is accepted, support may be continued without interruption.

3.1.2. BAA Information Delivery System (BIDS).

The BIDS, in operation at 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 BIDS registration is not necessary to download the BAA package. 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** or by accessing the HELP REQUEST at the bottom 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.

3.1.2.1. 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.

3.1.2.2. 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* and *Title* as well as a *Document Identifier* described below. Additionally, for any classified material, the document must be clearly marked in accordance with appropriate security regulations.

3.1.2.3. 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. ED, IDD, IP, PP, PS or TOS), the Requirement Number, the User Name and the 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.

For example, Document Identifiers are formatted as follows:

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

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 final proposal, all unique because of the dash characters.

3.1.3. 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.

3.1.4. 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 security@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 "Other Downloads" 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 **1600 (4:00 p.m.) EST on April 3, 2003**. Upon request, the offeror may be required to provide access to pending patent applications.

3.2.2. File Format and Content.
The Quad Chart shall be prepared in color or black and white in Microsoft Word 97, Microsoft PowerPoint 95, 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 are not anticipated due to the nature of a BAA. 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.

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.

3.3.2. File Format and Content.
The White Paper shall be prepared in color or black and white in Microsoft Word 97 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. 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. The offeror should also 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/or 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. At a minimum, this estimate shall detail estimated labor hours and costs and anticipated material and other costs. 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 are not anticipated due to the nature of the BAA. 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.

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). Each proposal submittal shall reference the BAA Number, the BAA Mission Area Title, the specific Requirement Number and Title as identified in Section 5 and include a Document Identifier as described in section 3.1 of this document. Classified proposals (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.

3.4.2. File Format and Content.
The proposal shall be prepared in color or black and white in Microsoft Word 97, Microsoft Excel 97 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.

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, 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 facilities, equipment, or materials.

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.

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 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 other contact 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 effort, 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. Also 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 $550,000 and the offeror is not a small business, the offeror shall submit a subcontracting plan for small business and small socially and economically disadvantaged business concerns. A mutually agreeable plan will be included in and made a part of the resultant contract. The contract cannot be executed unless the contracting officer determines that the plan provides the maximum practicable opportunity for small business and small disadvantaged business concerns to participate in the performance of the contract.

3.4.6. Notification to Offerors.

Phase III is complete when the Government concludes technical evaluations and transitions to formal negotiations. 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.

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 the merit and relevance of the specific proposal as it relates to the TSWG program rather than against other proposals for research in the same general area.

4.2.1. Basic Requirement.

The proposed solution meets the letter and intent of the stated requirement and all elements within the proposal exhibit a comprehensive understanding of the problem and the requirements of intended end users. The proposed solution meets multiple TSWG user (either U.S. Government or commercial) needs and is conclusive with full compliance and justification of each required element in the solicitation.

4.2.2. Technical Performance.

The proposed technical approach is 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 provided are complete and in a logical sequence with all proposed deliverables clearly defined such that a final product that achieves the requirement can be expected as a result in the award. The proposal identifies all technical risks and planned mitigation efforts are clearly defined and feasible. The roles of the prime and other participants required are 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, information, etc. is fully described including dates when such GFM will be required. Intellectual property ownership and the planned transition to production are adequately addressed, including a support concept for product described. Similar efforts completed by the offeror the in this area are fully described including identification of other Government sponsors.

4.2.3. Contractor Past Performance.

The offeror's past performance in similar efforts clearly demonstrates an ability to deliver products that meet the proposed technical performance requirements within the proposed budget and schedule. The proposed project team has the expertise to manage the cost and schedule.

4.2.4. Schedule.

The proposed schedule is complete and achievable. The proposal indicates 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 are both reasonable for the work proposed and affordable. The proposal documents all anticipated costs including those of associate, participating organizations. The proposal demonstrates that the offeror has fully analyzed budget requirements and addressed resulting cost risks. All cost-sharing and leveraging opportunities have been explored and identified. Other sponsors who have funded or are funding this offeror for the same or similar efforts are identified.

5. TECHNOLOGY DEVELOPMENT REQUIREMENT TARGETS AND OBJECTIVES.

TSWG is interested in soliciting proposals in the following areas combating terrorism. 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 US 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 (i.e. ED, IDD, IP, PP. PS or TOS), the requirement number and a submitter 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.

R1066 Improved Trace Explosives Detection Sampling

Develop improved trace explosives sampling equipment/methods that can be easily adapted for use with existing commercially available explosive detection sensors. Short-term goal is non manufacturer specific sampling devices that interface with currently deployed trace explosive detection systems. Long-term goal is to develop sampling devices that will interface with next generation trace explosive detection sensors, including miniaturized, micro, and nano scale detectors. The detector should ideally be able to collect both nanogram levels of explosive particles and part per billion levels of vapors from explosives. The collector would ideally allow for standoff collection, but direct contact is suitable for some applications. Automated sampling systems are desired. Semi-automated systems will be considered.

R878 Standoff Detection

Develop enabling technology and/or advanced prototypes to provide a standoff explosive detection capability. Standoff detection as discussed in this requirement means distance between sensor and target of interest. This capability is required for both military and civilian applications. The system should be capable of detecting military, commercial and improvised explosives in cluttered environments that include standard maritime shipping containers, civilian and military aircraft pallets, trucks, and automobiles. A detection rate of 80% is required with an objective of 95%. Threshold standoff range is 10 meters with an objective of 30+ meters. Throughput will be application dependent. The system should meet the above requirements with 100kg of explosives present with an objective of 25 kg, not hermetically sealed. Proposed advanced prototype solutions can address one or more of the above environments. Proposed advanced technologies can address phenomenology, advances in sensor development or signal processing. Technical solutions involving isotopic nuclear radiation sources will not be considered.

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).

R1003 Ballistic Shield and Framework

Develop a portable, ballistic shield to protect from handgun fire, rifle fire and fragmentation. Shield must provide mobile cover for pre-operational staging and offensive tactical maneuvers. The shield must be two-man portable, deploy in less than two minutes, require no tools to assemble, capable of "standing" to form a protective barrier, require minimal training, low-cost, mobile under fire, and adjustable in size with a minimum protection area of 6ft x 6ft when deployed. The shield shall comply with NIJ Level IV body armor protective standards.

R1005 Robotic White Light/Infrared Switching System

Develop a system to provide various robotic platforms i.e. Remotec's Andros series, EOD Performance's Vanguard, and Foster-Miller's Talon, and other similar systems, with the ability to switch from white light (spotlights) to low level infrared (IR) light for tactical operations. The IR lighting system must be low wattage, low maintenance, mount to any robotic platform with little to no system modification, remain sealed from inclement weather and hazardous chemical environments, low-cost, require minimal training, as well as provide ample lighting for full-scope robotic operations, day or night.

R1016 Evaluation of Ballistic Vests Protective Performance in an Explosive Environment

Evaluate ballistic vest, helmet and face shield sets to determine their ability to protect humans when subjected to proximate explosive device detonation. Specific vests, helmets and face shields to be identified by the Government at a later date. Testing (both with and without ballistic inserts, if applicable) will be conducted against common threats. Threat devices must be electrically initiated at a distance of 3 feet and will include:
-PVC pipe bomb filled with one pound of black powder
-Galvanized pipe bomb filled with one pound of black powder
-M-67 hand grenades (standard)

Deliver a technical report with recommendations for improving SWAT tactical gear protection against explosive threats. Data suite and analysis must include:
-Blast overpressures (5 psi, 15 psi, 40 psi, and 80 psi)
-Penetration levels (vest, helmet, face shield)
-Trauma levels (vest, helmet, face shields)
-Overpressure reduction (vest, helmet, face shield)
-Noise reduction (helmet, face shield)
-Thermal effects (exposed dermal areas)

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.

R000-IP Unspecified Requirement - Infrastructure Protection

Submit under this number and title any technologies or technological capabilities pertaining to the field of Infrastructure Protection, which the vendor believes would interest TSWG but may not have been specifically requested in this BAA. The areas of interest are technologies associated with cyber security and physical protection. Cyber security technologies are those that provide detection, prevention, response, and alert capabilities to strengthen electronic information and control systems and counter cyber attacks. Physical protection technologies are those that provide standardized modeling and decision aids for vulnerability analysis and enhanced protection of elements critical to the national infrastructure. These critical elements include power generation and transmission systems, water supplies, petroleum and gas processing and distribution systems, and communication systems. The technologies of interest include, but are not limited to:
- Information Security
- Passive monitoring capabilities
- Electric power flow analysis
- Critical asset protection
- Interdependency modeling
- Protection from computer network attack
- Protection of the interface between physical and cyber systems

What these technologies do not include are:
- Vulnerability assessment/analysis methodology
- Intrusion detection systems
- Surge protection devices for power transmission networks
- Chemical, Biological, Radiological detectors or sensors
- Active intrusion countermeasures for physical topologies
- Mobile communications networks for use during emergency response

R1050 PKI for Real-Time Communication

Develop and demonstrate a public key infrastructure (PKI) device that integrates smart chip and biometric technology to achieve near real-time key exchange and identity confirmation. The system must allow for retrieval, revocation, and certification of credentials independent of functional system operations. The system must have a robust architecture with built-in redundancy to prevent denial of service in the event of a failure of the primary PKI system. The system must be compatible with both stationary and mobile systems.

R1052 Network Isolation System

Develop and demonstrate a system that contains a hardware component to sever physical connections between area networks and a software component to separate mission critical systems from administrative systems that share resources during normal operations. The hardware component must be remotely operated. The tool must include an internal intrusion detection system and firewall. The system shall provide an automated means to restore all severed connections. The system shall include a network mapping and design component. The purpose of the tool will be for network planning and real-time mitigation of viral and other computer network attacks.

R1053 Real-Time Secure Authentication and Error Checking

Develop and demonstrate a hardware device for real-time, encrypted authentication of voice, data, and broadcast transmissions. The device shall include a component for error checking to ensure data integrity and a component for automatic key management. The device shall provide protection against spoofing, replay, and man-in-the-middle attacks. The device shall provide 95% or better accuracy of authentication and error checking. The device shall provide LCD visual indication of source authenticity and data integrity. The device shall be designed as not to interrupt or block incoming transmissions. The device must be compatible with the operations of avionics equipment. Due to application, size will be a driving constraint in the solution to satisfy this requirement. Any solution must be acceptable to RTCA and AEEC.

5.4. Personnel Protection (PP) Mission Area/Subgroup

The Personnel Protection (PP) 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.

R000-PP Unspecified Requirement - Personnel Protection

Any innovative technology developments or capabilities pertaining to the field of VIP Protection that specifically fall within the following guidelines: Improvements in the performance and security of fully armored passenger vehicles, including weight reduction of opaque and transparent armor; and/or Methods that will provide indication and warnings of potential sniper activity – NOT to include post shot sniper location.

R1040 Covert Vehicle Tamper Detection

Develop a system that will alert personnel of potential tampering of a vehicle, to specifically identify placement of IED or tracking devices. System must be self-contained with its own power source that will

provide power for several days without recharging. The system must mount in a secure location in the vehicle in a tamper resistant container, and must be able to store alert information in a manner that will support post event data analysis. The system must include a link to a user-operated device (such as a key fob) that will provide indication and warning of potential tampering from a safe distance from the vehicle. In order to be effective the system must have a low false alert capability to avoid false trigger from innocent near vicinity events, including wind.

5.5. 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.

R000-PS Unspecified Requirement - Physical Security

Submit under this number and title any new (or improved) technologies or emerging technological capabilities pertaining to the field of Physical Security, which the vendor believes would interest TSWG, but may not have been specifically requested in this BAA. The technological areas of interest are (1) entry point screening and (2) perimeter protection. Entry Point Screening technologies and techniques are those that provide detection of attempts of unauthorized access and/or the insertion of prohibited items (e.g., weapons, explosives) into secure areas in order to strengthen public access control points, government installations, and any other high security areas against terrorist intrusion and attack. Perimeter Protection technologies are those that provide increased terrorist intrusion detection, alarm assessment, adversary delay, and response by security personnel at the outer perimeter of a secured area and the building perimeter around a secured asset.

The emerging technologies of interest include, but are not limited to:
- Vulnerability assessment/analysis tools
- Intrusion detection and video alarm assessment systems
- Active countermeasures/barriers to prevent or delay intrusions
- Secure communications systems/networks for use during emergency response

What these technologies do not include are:
- Protection from computer network attack
- Chemical, Biological, Radiological detectors or sensors
- Commercially available technologies or capabilities

R1006 Deployable Intrusion Detection System

U.S. military ground forces require a Deployable Intrusion Detection System (DIDS) to supplement the security provided for weapons and for high value or sensitive equipment assigned to military units deployed to various theaters of operation. The system shall be lightweight, rapidly deployable and recoverable, and simple to operate. It will include an alarm monitor station, interior storage room alarm kit and an exterior area alarm kit. The primary means of communication for all system components will be Radio Frequency (RF). System design will allow rapid deployment and recovery by a single soldier for each subsystem, as described below, who have minimal knowledge of electronic security systems and electronic equipment. Contract or engineer support will not be required to install this system. DIDS will provide a minimum of two layers of electronic security system protection/phenomenology for high value and sensitive assets world wide in a deployable environment.

Deliverables for the DIDS must include: (a) One Alarm Monitor Station (AMS). The AMS will be a computer-based industry standard AMS (similar to U.S. Army ICIDS and compatible with U.S. Air Force TASS system). It must receive data from sensors in access, secure and alarm status and notify the alarm monitor of emergency situations by visual and audible display. The AMS will monitor all sensors in multiple zones (32 or more) and be configuration programmable to grant persons specific access to monitoring/alarm equipment and/or access to controlled areas (a minimum of ten personnel entries per zone) for equipment

maintenance or replacement activities. The AMS will manually and automatically perform periodic system-wide prognostic and diagnostic tests of each component and immediately report discrepancies to the AMS. The complete AMS in a carrying case will weigh no more than 30 lbs. The AMS will take no more 30 minutes to deploy or recover by one soldier.
(b) Five Interior Storage Room Alarm Kits (ISRAK). Each ISRAK will provide an interior storage room with intrusion detection protection. System design will consider a "standard storage room" with two doors, one window, and 20' X 20' of interior storage space with a 12' ceiling. Standard issue weapons racks and high value asset containers may be used to store the equipment within the arms/storage facility. The ISRAK and carrying case will weigh no more than 30 lbs. The kit will take no more than 30 minutes (Desired) to 60 minutes (maximum) for one soldier to install or recover.
(c) Four Exterior Area Alarm Kits (EAAK). Each EAAK will provide an exterior area around a protected asset (e.g., a building) with intrusion detection. System design will consider a 'standard exterior area' that has one entry/exit point, and a perimeter that may or may not include an 80" high, chain link fence or triple strand concertina wire barrier. System design must provide protection for two types of area configurations the first with 100' X 50' of storage space (two kits), and a second with 300' X 20' of storage space (two kits). The EAAK and carrying case will weigh no more than 50 lbs. The kit will take no more than 30 Minutes (Desired) to 60 minutes (Maximum) for one soldier to install or recover.
(d) Commonality, Logistics and Interoperability. Primary power for the alarm monitor station will be facility power worldwide with 8 hour battery backup. Primary power for each component of the alarm kits will be battery, providing a minimum of 30 days or operation and a minimum of 24 hours early warning for a low battery. All alarm kits will have an entry control device (ECD) that will require two forms of positive identification, such as the Common Access Card and one additional measure to verify identity; and the ECD will also have a duress alarm. All alarm kit components will include tamper protection. All DIDS component systems will have a rugged carrying case with an interior padded container(s) that is able to sustain standard military handling and transport. The primary communications link between the alarm monitor station and alarm kits will be RF. Backup capability may be wire, such as telephone wire, coax cable, fiber optic cable or even field wire. Radio range will allow the alarm monitor station to communicate with the storage facility at a minimum distance of 2 km. Radio frequency should be between 138.025- 152.975 MHz with a bandwidth of 2KHz. The system design will minimize any installation and recovery tools and make maximum use of tools that are currently in the U.S. Army inventory. Any specialized tools will be included.

R1013 Rapidly Deployable Wire Barrier System

Develop a rapidly deployable and recoverable Wire Barrier System that can be deployed from a light vehicle (e.g., HMMWV), possibly including the use of a trailer, or from standard U.S. Army trucks, 2.5 and 5 ton, with no modification. The new system should provide protection equal to or greater than concertina wire in a fraction of the deployment time. System must incorporate a vehicular-mounted device or trailer that will allow the transport, rapid deployment, recovery, and storage of the system. The system will be used in defining perimeters, supplemental security, temporary area denial, and holding areas. Minimum requirements for the system are: a) 1 section of 250 meters or more, b) 72 inches high or higher, c) deployable by three soldiers in less than 10 minutes, d) sufficient ground clearance to be employed in all theatres of operation over moderately difficult terrain, e) the base of the wire must be wide enough to support the height and resist being toppled over by wind or personnel, f) strategically placed, rigid, integrated support frames must be included in each increment, g) must be durable, resist crushing, bending, and environmental conditions, h) must be able to be placed and recovered multiple times without damaging the wire and degrading the system.

R1025 Integrated Base Defense, Identification Friend or Foe

The U.S. Air Force has increased its use of wide area sensors in open restricted areas like military airfield aircraft parking areas. As a result, the Air Force has identified an immediate requirement to enable those detection and tracking sensors to distinguish authorized personnel and vehicles from intruders. Areas like aircraft parking areas, referred to as "flightlines", typically have a high volume of authorized ground vehicle traffic and have historically been areas where intrusion detection devices could not be effectively or

economically employed. The recent emergence and employment of relatively inexpensive wide area sensors, like Frequency Modulated Continuous Wave (FMCW) radars that have very high resolution, provide an opportunity to improve perimeter and open area security. These wide area sensors coupled with an "Identification, Friend or Foe" (IFF) capability will provide security forces with more effective and automated intruder detection at flightlines and other large outdoor restricted areas.

This announcement seeks the development and integration of an IFF capability that will operate seamlessly with existing wide area detection and tracking sensors. Using a military aircraft flightline as an example, an IFF system integrated with a ground-based wide-area intrusion detection and tracking system will allow security forces to easily determine friend from foe during an intrusion. Currently, security system operators using wide area sensors are seeing authorized and unauthorized targets presented in the same manner and cannot clearly distinguish between the two target types on a display screen. We expect that an IFF system coupled with the wide area sensor will provide the operator with the capability to distinguish between such targets.

The system must be able to distinguish between authorized personnel and vehicles, and unauthorized personnel and vehicles. The system must be able to interface with and display information to security intrusion detection and alarm monitoring systems. The IFF system must operate on approved military frequencies for the initial developed prototype. (A domestic prototype for civilian, homeland security applications can be developed as a follow-on effort.) The military prototype will be tested at the USAF's physical security test site at Eglin Air Force Base, FL. Given that a current wide area sensor of choice is a FMCW radar based sensor, it is highly desirable that the IFF solution be integrated with those radars. The Government plans to make one or more FMCW radars available during the development and testing periods.

R1026 Portable Invisible Spectrum Flood Light

Develop a flood light that makes use of illumination that does not use the visible light spectrum, yet provides sufficient illumination for standard video cameras and night vision devices to observe activities within the illuminated area. This system will be used wherever optical surveillance encounters any circumstance that requires enhanced illumination and reduction or elimination of shadows. This illumination should have both reflective and refractive capabilities to ensure sufficient illumination throughout the illuminated area. This technology will have no/minimal adverse effect on night vision of security force personnel in the illuminated area. This illumination should help reduce or eliminate shadows without requiring special proprietary glasses, goggles, or cameras. The illumination should be able to be directed like a spot light for specific point illumination or non-directed like a flood light for general illumination.

Specific Capabilities: (a) Must operate with little or no audible signature, and be able to be easily camouflaged without compromising the operational capability of the system; (b) The range of the illumination should be sufficient to provide adequate reaction time by a security force in order to take defensive actions (Greater than 300-1000 feet); (c) Design should include an adjustment capability to regulate the illuminated area from at least 90° (or less) to 360°; (d) It will be a self-contained device, (Case/mounting hardware/mast/illumination lens-bulb mechanism) that is man-portable or man-packable, weighing less than 50 lbs; (e) able to be emplaced by one person in less than 10 minutes with no special tools.

Logistics and Interoperability: (a) may use facility electrical power. If designed with a self-contained power source, the flood light must have sufficient power to operate over the duration of a standard period of limited illumination (Nighttime, 8 to 12 hours); (b) must be weather resistant/water proof, able to operate in all climatic conditions in all operational areas worldwide; (c) must be able to be installed and operated by soldiers in cold weather clothing and chemical, nuclear, biological warfare mission oriented protective equipment.

Deliverables include three Portable Invisible Spectrum Floodlights in protective carrying/storage cases, mounting hardware, and extendible mast.

R1048 Deployable Defense Panel System

Deployed U.S. Military forces have a need to rapidly harden facilities, aircraft parking areas, and utility systems while located in a threatening operational environment. Proposed system must be lightweight, modular, capable of being melded together to rapidly build fragmentation and ballistic protection from conventional weapons. Candidate systems must provide lightweight panels that will protect personnel and resources from fragmentation and ballistic threats at least at the 7.62mm hazard. The desired threat protection level is up to .50 caliber.

R1096 Exterior Perimeter Early Warning

This requirement describes the interagency need to develop technologies or methods to provide for the timely detection of terrorist surveillance activities, group assembly for assault or ambush, and terrorist activities for setting up stand-off weapons or sniper operations targeted against U.S. military, civilians and allies. The objective of this requirement is to effectively extend the safe perimeter outside U.S. military bases, other secure federal installations, and common routes of travel. Included in this requirement are the means to detect and warn targeted fixed-site facilities, transport vehicles or convoys, or individuals and groups regarding acts of external surveillance of fixed sites or transportation routes, terrorist optics retro-reflection, and any other abnormal/threatening behavior that might be indicative of terrorist preparative activities prior to an actual attack. Not included in this requirement are (1) "post-shot" sniper or "post-shot" stand-off weapon detection and location, or (2) target hardening technologies.

This requested developmental effort should consist of 2 phases. Phase 1 will focus on the problem of detecting terrorist surveillance and attack preparation. Phase 2 will focus on countermeasures to effectively respond to and neutralize these detected and confirmed threatening activities.

If the collective set of developmental expertise is beyond the capabilities of one developer, collaboration or teaming to assemble a comprehensive team capable of meeting the full scope of this requirement is strongly encouraged.

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-TO Unspecified Requirement - Tactical Operations Support

Any innovative technology developments or capabilities pertaining to the field of Tactical Operations conducted by small anti-terrorist teams that specifically fall within the following guidelines: Imaging systems for night and obscured viewing conditions; Systems that will enhance access to tactical objectives and improved efficiencies in assault operations; Unique offensive equipment suited for small assault force operations; and/or Improved communications support equipment that focuses on reduced size and greater flexibility for small assault teams.

R1042 Ascender Climbing Device

The desired objective of this program is to design, develop, and test an ascender system that will be able to mechanically lift 400-pounds of weight up to heights of 100 feet at a rate of not less than 5 feet per second with a goal rate of 10 feet per second. The device must be compatible with the rope line used in conjunction with the Standoff Target Access Device (STAD) (e.g. 5mm SPECTRA or 6mm Technora) or similar rope. The system must be inherently safe in design with a manual method to engage and disengage the Ascender System. Ideally, the power control should be a left-hand throttle style grip with a fail-safe dead-man stop. The system shall meet the following specific requirements: (a) The systems dimensions shall be as small as practical and shall allow a single mission-equipped operator to connect and operate the system in an

assault boat mission profile. (b) The ascender system weight shall not be more than 20 pounds with goal of 10 pounds. (c) The system must be self-powered using a fuel/power source that is safe, stable, and easily acquired worldwide. The fuel/power and system controls shall be completely self-contained in one unit. (d) The ascender system should attach to the operator by a standard carabineer to a safety/sit harness in a way similar to rappelling devices. (e) The system must be near noise free operation while ascending 100 feet. (f) The system must operate in temperatures ranging from 0° – 120° Fahrenheit and be designed with corrosion-resistant internal and external components due to repeated exposure to seawater but not limited in design to operating in a dry, dusty environment.

R1043 Modified GPS Handheld Unit

The objective of this program is to integrate COTS Hardware and GPS mapping/navigation software into an existing handheld GPS Unit. The requirement shall include the modification of a standard GPS handheld unit to enable the units to read NIMA imagery from a Type 2 PC card. The system must be configured to ensure security and appropriate controls for handling and processing classified information, including provisions to prevent access to sensitive information in the event the device is lost. System design must include provisions for easy upgrade for new applications as they are identified. The desired unit size and dimensions should be similar to the GARMIN GPSMAP 76S. The system should include a communication port. The system must allow for a simple operating system that does not change the menu sequence or how the handheld GPS unit operates but allows the reading and displaying of NIMA charts and maps. The operating system shall not be Windows 2000. The system must have a color display that provides quality 5-Meter resolution. A standard internal battery, a standard AC/DC adaptor, or a standard cigarette lighter adapter must power the handheld unit. The system shall operate within the same temperature specification of the chosen handheld GPS Unit. The unit's design should have a limited organizational level maintenance.

ATTACHMENT A – ACRONYMS AND ABBREVIATIONS

AEEC	Airlines Electronic Engineering Committee
BAA	Broad Agency Announcement
BIDS	BAA Information Delivery System
CASB-CMF	Cost Accounting Standards (CAS) Board - Cost of Money Factors
CCR	Central Contractor Registration
CFR	Code of Federal Regulations
COTS	Commercial Off-The-Shelf
CTTSO	Combating Terrorism Technology Support Office
DFARS	Defense Federal Acquisition Regulation Supplement
DIDS	Deployable Intrusion Detection System
DPI	Dots per inch
DUNS	Data Universal Numbering System
EAAK	Exterior Area Alarm Kits
ECD	Entry Control Device
ED	Explosives Detection (mission area/subgroup designation)
EDT	Eastern Daylight Time
EOD	Explosive Ordnance Disposal
EST	Eastern Standard Time
FAQ	Frequently Asked Question
FAR	Federal Acquisition Regulation
FORAX	Fiber Optic Remote Amplifier Extension
FCCM	Facilities Capital Cost Of Money
FMCW	Frequency Modulated Continuous Wave
FOIA	Freedom of Information Act
FP	Full Proposal
fps	Feet per second
ft	Feet
FY	Fiscal Year
FP	Full Proposal
GFI	Government Furnished Information
GFM	Government Furnished Material
GIF	Graphics Interchange Format
GPS	Global Positioning System
G/T	Gain to Noise
HBCU	Historically Black Colleges, Universities
Hz	Hertz
IDD	Improvised Device Defeat (mission area/subgroup designation)
IED	Improvised Explosive Device
IFF	Identification, Friend or Foe
JPEG	Joint Photographic Experts Group
K	Thousand
KB	Kilobyte
Lbs	Pounds
LCD	Liquid Crystal Display
LOS	Line of Sight
LVB	Large Vehicle Bomb
MB	Megabyte
MHz	Mega-Hertz
MI	Minority Institutions
mm	millimeter
NIJ	National Institute of Justice

NGEODRCV	Next Generation Explosive Ordnance Disposal Remote Controlled Vehicle
PDF	Portable Data file
PKI	Public Key Infrastructure
PL	Public Law
PP	Personnel Protection (mission area/subgroup designation)
QC	Quad Chart
R&D	Research and Development
RAMP	Remote Multi-band Amplifier
RCV	Remote Controlled Vehicle
RF	Radio Frequency
RT	Receiver/Transmitters
RTCA	Radio Technical Commission for Aeronautics
SBA	Small Business Administration
SDB	Small Disadvantaged Business
SF	Standard Form
SOW	Statement of Work
STAD	Standoff Target Access Device
SVGA	Super Video Graphics Array
TOS	Tactical Operations Support (mission area/subgroup designation)
TSWG	Technical Support Working Group
USAF	United States Air Force
USC	United States Code
VAC	Volts AC (alternating current)
VIP	Very Important Person
WP	White Paper