

August 31, 2021

**IRREGULAR WARFARE TECHNICAL SUPPORT DIRECTORATE/
Technical Support Working Group (IWTSD/TSWG)**

BROAD AGENCY ANNOUNCEMENT (BAA) 21S4405

Due Date for Receipt of Phase 1 Submissions:

No Later Than Thursday, September 30, 2021

All submissions are due by 3:00 p.m. Eastern Daylight Time (EDT) on the above date

**Expeditionary Force Protection (EFP)
Protection, Survivability, and Recovery (PSR)**

The Broad Agency Announcement Information Delivery System (BIDS) is the system in which all submissions and communications will flow. Communications outside of BIDS may result in expulsion from the competition.

TABLE OF CONTENTS

1. INTRODUCTION.....	5
1.1. APPROACH.....	5
1.1.1. Contracts Approach.....	5
1.1.1.1. Firm Fixed Price Contracts.....	5
1.1.1.2. Cost Type Contracts.....	5
1.2. SMALL BUSINESS SET ASIDE.....	6
1.3. LIMITATION OF FUNDS.....	6
1.4. TECHNICAL EVALUATION SUPPORT.....	6
1.5. BAA PACKAGE DOWNLOAD.....	6
1.6. BAA CONTRACTUAL AND TECHNICAL QUESTIONS.....	6
1.7. BIDS WEBSITE HELP REQUESTS.....	7
2. GENERAL INFORMATION.....	7
2.1. ELIGIBILITY.....	7
2.1.1. Who is Eligible?.....	7
2.1.2. Regarding FFRDCs.....	7
2.1.3. RDEC.....	7
2.2. PROCUREMENT INTEGRITY, STANDARDS OF CONDUCT, ETHICAL CONSIDERATIONS.....	8
2.3. PROHIBITION ON CONTRACTING FOR CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT.....	8
2.4. RESTRICTIVE MARKINGS ON PROPOSALS.....	9
2.5. SUBMISSION HANDLING/RIGHTS IN TECHNICAL DATA AND COMPUTER SOFTWARE/PATENT RIGHTS.....	9
2.5.1. Procurement Integrity.....	9
2.5.2. Submission Information and FOIA.....	9
2.5.3. Rights in Technical Data and Computer Software.....	9
2.5.4. Patents.....	10
2.6. PRODUCT AND DELIVERABLE REQUIREMENTS.....	10
2.7. DISTRIBUTION/RELEASE LIMITATIONS.....	10
2.8. SUBCONTRACTING.....	11
2.9. ANIMAL OR HUMAN TESTING COMPLIANCE.....	11
2.9.1. Animal Testing.....	11
2.9.2. Human Subjects Testing.....	11
2.10. SUBMISSION DOCUMENT LANGUAGE.....	12
3. PROPOSAL PREPARATION.....	12
3.1. BAA INFORMATION DELIVERY SYSTEM (BIDS).....	12
3.1.1. Submitter Registration.....	12
3.1.2. User Accounts and Password Resets.....	12
3.1.3. Registration and Account Help.....	12
3.1.4. Document Identifier.....	13
3.1.4.1. Constructing Document Identifiers.....	13
3.1.4.2. Creating Vendor Internal Tracking (VIT) Numbers.....	13
3.2. BIDS SECURITY AND ACCESS CONTROL.....	14
3.3. SUBMISSION CHANGES.....	14
3.4. SPECIAL HANDLING PROCEDURES FOR CLASSIFIED INFORMATION.....	14
3.5. PHASE 1 SUBMISSIONS.....	14
3.5.1. Phase 1 Due Date and Time.....	15
3.5.2. Electronic File Format.....	15
3.5.3. Quad Chart and Addendum Content.....	15

3.5.3.1. Header Information.....	15
3.5.3.2. Top Left Quadrant, Graphical Depiction.....	15
3.5.3.3. Top Right Quadrant, Operational and Performance Capabilities.....	15
3.5.3.4. Bottom Left Quadrant, Technical Approach.....	16
3.5.3.5. Bottom Right Quadrant, Cost and Schedule.....	16
3.5.3.6. Addendum.....	16
3.5.4. Phase 1 Notification to Offeror.....	16
3.5.5. Phase 1 Status and Inquiries.....	16
3.6. PHASE 2 WHITE PAPER SUBMISSIONS.....	17
3.6.1. Phase 2 Due Date and Time.....	17
3.6.2. Electronic File Format.....	17
3.6.3. Phase 2 Document Upload.....	17
3.6.4. White Paper Content.....	17
3.6.4.1. Cover Page.....	18
3.6.4.2. Technical Approach.....	18
3.6.4.3. Tasks and Deliverables.....	18
3.6.4.4. Schedule.....	18
3.6.4.5. Cost.....	18
3.6.4.6. Intellectual Property, Technical Data, and Software.....	19
3.6.4.6.1. Patents and Patent Applications.....	19
3.6.4.6.2. Rights in Technical Data and Software.....	19
3.6.4.7. Transition from Prototype to Production.....	19
3.6.4.8. Organizational Capability Statement.....	19
3.6.5. Phase 2 Status and Inquiries.....	19
3.6.6. Phase 2 Notifications to Offeror.....	19
3.7. PHASE 3 FULL PROPOSAL SUBMISSIONS.....	20
3.7.1. Phase 3 Due Date and Time.....	20
3.7.2. Electronic File Format.....	20
3.7.3. Phase 3 Document Upload.....	21
3.7.4. Full Proposal Components.....	21
3.7.5. Technical Proposal Content.....	21
3.7.5.1. Table of Contents.....	21
3.7.5.2. Abstract.....	21
3.7.5.3. Executive Summary.....	22
3.7.5.4. Technical Approach.....	22
3.7.5.5. Project Plan.....	22
3.7.5.5.1. Phases.....	22
3.7.5.5.2. Tasks Within a Phase.....	22
3.7.5.5.3. Products and Deliverables.....	22
3.7.5.6. Master Schedule.....	23
3.7.5.7. Government Furnished Equipment.....	23
3.7.5.8. Project Risks and Mitigation.....	23
3.7.5.9. Organizational Capability Statement.....	23
3.7.5.10. Organizational Resources.....	23
3.7.5.11. Intellectual Property, Technical Data, and Software.....	23
3.7.5.11.1. Patents and Patent Applications.....	23
3.7.5.11.2. Rights in Technical Data and Computer Software.....	24
3.7.5.12. Transition from Prototype to Production.....	24
3.7.5.12.1. Transition Strategy.....	24
3.7.5.12.2. Transition Approach.....	24
3.7.5.12.3. Test and Evaluation.....	25
3.7.5.12.4. Operational Support.....	25
3.7.5.13. Human Subjects and Animal Testing.....	25
3.7.5.14. Environmental Impact.....	25
3.7.5.15. Classification and Security.....	25
3.7.5.16. Subcontracting Plan.....	25

3.7.6. Cost Proposal.....	25
3.7.6.1. Cost Narrative.....	26
3.7.6.1.1. Table of Contents.....	26
3.7.6.1.2. Direct Labor Costs.....	26
3.7.6.1.3. Indirect Costs.....	26
3.7.6.1.4. Other Direct Costs.....	26
3.7.6.1.5. Government Furnished or Contractor Acquired Equipment.....	27
3.7.6.1.6. Profit or Fee.....	27
3.7.6.1.7. Competitive Methods.....	27
3.7.6.1.8. Established Catalog or Market Prices/Prices Set By Law or Regulation.....	28
3.7.6.1.9. Royalties.....	28
3.7.6.2. Facilities Capital Cost of Money.....	28
3.7.6.3. Other Funding Sources.....	28
3.7.6.4. Additional Information/Documents.....	28
3.7.7. Phase 3 Notifications to Offerors.....	29
3.7.8. Phase 3 Protests.....	29
3.7.9. Phase 3 Status and Inquiries.....	29
3.8. CLARIFICATION REQUESTS.....	30
3.9. INSTRUCTIONS FOR OFFEROR "NO-BID" AND SUBMISSION WITHDRAWAL.....	30
4. PROPOSAL EVALUATION.....	30
4.1. EVALUATION CRITERIA.....	30
4.1.1. Basic Requirement.....	30
4.1.2. Technical Performance.....	30
4.1.3. Cost.....	31
4.1.4. Schedule.....	31
4.1.5. Contractor Past Performance.....	31
5. TECHNOLOGY DEVELOPMENT REQUIREMENTS AND OBJECTIVES.....	33
5.1. EXPEDITIONARY FORCE PROTECTION (EFP).....	33
5.2. PROTECTION, SURVIVABILITY, AND RECOVERY (PSR).....	35

1. INTRODUCTION.

This is an Irregular Warfare Technical Support Directorate (IWTSD) Broad Agency Announcement (BAA) 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 Section 2701, "The Competition in Contracting Act." Submissions to specific requirements and awards under this BAA must be of interest to both the U.S. Government and Israel Government in countering unmanned aerial systems or anti-tunnel activities. Funding for requirements are set forth in accordance with National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2020 Section 1278 and NDAA for FY 2016 Section 1279, as amended by NDAA for FY 2020 Section 1279. Contracts awarded shall be conducted in a manner that appropriately protects sensitive technology and information and the national interests of the United States and Israel. Awards for submissions under this BAA are planned for FY 2022. No contract awards will be made until appropriated funds are available from which payment for contract purposes can be made.

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

1.1. Approach.

A three-phased proposal selection process will be used for this BAA to minimize cost and effort for prospective offerors:

- Phase 1 will consist of the solicitation, receipt, and evaluation of a one-page Quad Chart and a one-page addendum.
- Phase 2 will consist of the solicitation, receipt, and evaluation of a White Paper and applies to only those submissions that have been accepted in Phase 1.
- Phase 3 will consist of the solicitation, receipt, and evaluation of a Full Proposal and applies to only those submissions that have been accepted in Phase 2. Based on the priority of critical requirements and the availability of funding, Phase 1 submissions can be selected for Phase 3 without a Phase 2 submission.

Clarifications to White Papers and Full Proposals may be requested.

1.1.1. Contracts Approach.

1.1.1.1. Firm Fixed Price Contracts.

A firm fixed price proposal is preferred.

1.1.1.2. Cost Type Contracts.

Offerors interested in cost type contracts (to include Cost Plus Fixed Fee options) must have an accounting system determined adequate by the Defense Contract Auditing Agency/ Defense Contract Management Agency (reference FAR 16.301-3(a)(3)). If no determination has been made, please contact

BIDSHelp@iwtsd.gov for further guidance.

1.2. 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 zone enterprises as well as large businesses and Government laboratories to submit research proposals for consideration and/or to join others in submitting proposals; however, no portion of the BAA will be set aside for these special entities because of the impracticality of reserving discrete or severable areas of research and development (R&D) in any specific requirement area.

1.3. Limitation of Funds.

The Government intends to incrementally fund Cost Reimbursement contracts awarded from this BAA as provided by FAR 52.232-22, "Limitation of Funds." Most contracts awarded are anticipated to be 12 to 24 months in duration and at times may include additional 6 to 12 month option(s). To facilitate incremental funding, submissions shall include the cost and schedule by a task-phased structure with clear exit criteria, and shall be inclusive of all work to complete the effort including any options. It is anticipated that the entire effort will be negotiated with the initial contract award.

[NOTE: Based upon the availability of funding, the Government may have to partially fund Fixed Price contracts in accordance with DFAR 252.232-7007, "Limitation of Government's Obligation." In such cases, milestone payments will need to be a part of the full proposal. Applicability of this issue will be stated in the email asking for a Phase 3 proposal.]

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 submissions for this BAA. All contractor support personnel will have access to proprietary data and shall certify that they: (1) will not disclose any information pertaining to this solicitation including any submissions, the identity of any submitters, or any other information relative to this BAA; and (2) have no financial interest in any submissions evaluated, reviewed, and administered. Submissions and information received in response to this BAA constitutes permission to disclose that proposal data to certified evaluators under these conditions.

1.5. BAA Package Download.

This BAA Package can be downloaded electronically in its entirety from IWTSB BAA Information Delivery System (BIDS), <https://bids.iwtsd.gov/>, under Resources. Registration is not required to download the BAA package; however, BIDS registration is required to upload a response to the BAA.

1.6. BAA Contractual and Technical Questions.

All contractual and technical questions regarding this BAA, including the published requirements and instructions, must be posted via either the BAA and Requirement Questions feature, accessible from the [BIDS](#) homepage via [Have a Question?](#), or emailed to

BIDSHelp@iwtsd.gov. No other office personnel will acknowledge, forward, or respond to any inquiries received in any manner concerning the BAA. All questions must be received no later than 14 days after the release of the final BAA. Contractual questions and answers will be posted periodically under BAA Questions. Offerors are encouraged to periodically review BAA Questions, accessible from the [BIDS](#) homepage via [Have a Question?](#).

1.7. BIDS Website Help Requests.

For technical help using BIDS, submit questions to BIDSHelp@iwtsd.gov or by using the button located under [Have a Question?](#). Include a valid email address, your BIDS username, and a detailed description of the question or concern in the comments block. [BIDS](#) provides other valuable resources, such as Doing Business with the Government. Reference documents noted in this BAA, such as the Quad Chart Sample and IWTSD Cost Proposal Template, are available for download under Resources on the homepage menu bar.

A list of BIDS FAQs can be found in the [Have a Question?](#) section of [BIDS](#).

2. GENERAL INFORMATION.

This section includes information applicable to all awards under this BAA.

2.1. Eligibility.

2.1.1. Who is Eligible?

All private companies, educational institutions, non-profit organizations both large and small are able and encouraged to submit their ideas.

2.1.2. Regarding FFRDCs.

Only DoD-sponsored federally funded research and development centers (FFRDCs) submissions can compete with commercial sector submissions and will be evaluated using the normal BAA process.

2.1.3. RDEC.

DoD Research Development and Engineering Centers (RDECs)/DoD Labs, e.g., Naval Research Lab (NRL), may submit to the IWTSD BAA. Submissions from DoD RDECs/DoD Labs will be evaluated only after all commercial sector and DoD-sponsored FFRDC submissions have been evaluated and determined that such submissions did not meet the BAA requirement.

IWTSD will inform the DoD RDECs/DoD Labs through a BIDS notification at time of submitter registration that DoD RDEC/DoD Lab submissions will be reviewed last in the process, i.e., after all commercial sector Vendor and DoD Sponsored FFRDC submissions are reviewed and determined that none meet the BAA requirement. DoD RDECs/DoD Labs will also be informed of this condition during BIDS registration.

If a DoD RDEC's/DoD Lab's submission meets the BAA requirement and all other commercial sector/DoD-sponsored FFRDC submissions have been exhausted (i.e., post

non-select), correspondence with the DoD RDEC/ DoD Lab will occur directly (Government to Government) to establish a SOW, deliverables, and MIPR/Work Order to commence the project.

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

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

2.3. Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

FAR provision 52.204-24 applies to all BAA requirements. The full text of FAR provision 52.204-24 is below. All contracts awarded from the BAA will include related FAR clauses 52.204-25 and 52.244-6.

52.204-24 Representation Regarding Certain Telecommunications and Video Surveillance Services or Equipment (AUG 2019)

(a) *Definitions.* As used in this provision-

Covered telecommunications equipment or services, Critical technology, and Substantial or essential component have the meanings provided in clause 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

(b) *Prohibition.* Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining or extending or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. Contractors are not prohibited from providing -

(1) A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(2) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(c) *Representation.* The Offeror represents that -

It [] will, [] will not provide covered telecommunications equipment or services to the Government in the performance of any contract, subcontract or other contractual instrument resulting from this solicitation.

(d) *Disclosures.* If the Offeror has responded affirmatively to the representation in paragraph (c) of this provision, the Offeror shall provide the following information as part of the offer-

(1) All covered telecommunications equipment and services offered (include brand; model number, such as original equipment manufacturer (OEM) number, manufacturer part number, or wholesaler number: and item description, as applicable);

(2) Explanation of the proposed use of covered telecommunication equipment and services and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b) of this provision;

(3) For services, the entity providing the covered telecommunication services (include entity name, unique entity identifier, and Commercial and Government Entity (CAGE) code, if known); and

(4) For equipment, the entity that produced the covered telecommunications equipment (include entity name, unique entity identifier, CAGE code, and whether the entity was the OEM or a distributor, if known).

(End of provision)

2.4. Restrictive Markings on Proposals.

All proposals should clearly indicate content disclosure limitations. Submissions can be marked as “Proprietary” or words to that effect; however, markings such as “Company Confidential” or other phrases that could be confused with national security classifications shall not be used. All paragraphs that contain proprietary information must be clearly marked. The Contracting Officer may challenge proprietary markings if they are not substantiated.

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

2.5.1. Procurement Integrity.

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

2.5.2. Submission Information and FOIA.

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

2.5.3. Rights in Technical Data and Computer Software.

Rights in technical data and computer software and software documentation provided in the proposal are treated in accordance with the Department of Defense Federal Acquisition Regulation Supplement (DFARS) 252.227-7016, “Rights in Bid and Proposal Information.” Rights in technical data, and computer software and computer software documentation in the resultant contract shall be in accordance with DFARS 252.227-7013 (regarding technical data) and DFARS Section 252.227-7014 (regarding

computer software and software documentation). Both clauses (DFARS sections 252.227-7013 and 252.227-7014) will be included in any noncommercial contract exceeding the simplified acquisition threshold. Table 1 contains these and related clauses that may be included in the contract.

Table 1. Contract Clauses	
DFARS	Title
252.227-7013	Rights in Technical Data – Noncommercial Items
252.227-7014	Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation
252.227-7016	Rights in Bid and Proposal Information
252.227-7017	Identification and Assertion of Use, Release, or Disclosure Restrictions
252.227-7019	Validation of Asserted Restrictions - Computer Software
252.227-7025	Limitations on the Use or Disclosure of Government-Furnished Information Marked with Restrictive
252.227-7027	Deferred Ordering of Technical Data or Computer
252.227-7028	Technical Data or Computer Software Previously Delivered to the Government
252.227-7030	Technical Data - Withholding of Payment
252.227-7037	Validation of Restrictive Markings on Technical Data

2.5.4. Patents.

Patents in existence and patent applications pending at the time of the proposal, which relate to the proposed effort, shall be identified in the White Paper and Full Proposal in accordance with the clauses above. Patents developed under awarded contracts are subject to either FAR 52.227-11 or DFARS 252-227-7038. Contractors developing such patents are required to report them in accordance with DFARS 252.227-7039.

2.6. Product and Deliverable Requirements.

All proposal phases shall include the costs for products and data deliverable requirements. Minimum data (report) requirements include Monthly Status Reports (MSRs), meeting minutes and a Final Technical Report even if the research is to be continued under a follow-on contract or contract option. MSRs document program, technical, and financial status. The Final Technical Report summarizes the project and associated tasks at the conclusion of each contract. Include MSRs, the Final Technical Report, and any products and deliverables specific to the performance of the proposed effort (e.g., system specification). The Government will provide the offeror with a full listing of data deliverables (i.e., Contract Data Requirements List (CDRLs)) in the request for Phase 3 Full Proposal. Additional products and deliverables may include prototype hardware, software, or systems; test plans; test and technical reports; technical data; specifications; requirements documents; computer programs or software; user manuals; drawings; or other products and data. The number, types, and preparation instructions for products and deliverables will be specified in the contract.

2.7. Distribution/Release Limitations.

The offeror should be aware that all awarded contracts will contain release limitations for all data

resulting from the effort in accordance with DFARS 252.204-7000. This includes products, data, information, and services to be performed. The contractor shall protect all data and information from disclosure, and shall not release any data or information by any method of dissemination without prior Government approval.

2.8. 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.

2.9. Animal or Human Testing Compliance.

The contractor shall comply with all laws and regulations governing the use of animals or human subjects in research projects. Information regarding compliance requirements for using humans and animals in testing is also available on BIDS under Resources.

2.9.1. Animal Testing.

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

Any contractor performing research on warm blooded vertebrate animals shall comply with the Laboratory Animal Welfare Act of 1966, as amended, 7 U.S.C. §§ 2131 - 2159, and the regulations promulgated thereunder by the Secretary of Agriculture in 9 C.F.R. Parts 1 through 4, pertaining to the care, handling, and treatment of vertebrate animals held or used for research, teaching, or other activities supported by Federal contract awards. In addition, the contractor shall comply with the provisions of Department of Defense Instruction (DoDI) 3216.01, as implemented by SECNAVINST 3900.38C, and DFARS 252.235-7002, "Animal Welfare," which is incorporated into this contract.

2.9.2. Human Subjects Testing.

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

The contractor shall comply with all regulations promulgated by the Office of the Secretary of Defense in 32 C.F.R. Part 219, pertaining to the protection of human subjects. In addition, the contractor shall comply with the provisions of DoDI 3216.02. If human subjects are to be used at any time during the project, the contractor shall have a Federal assurance that is acceptable to IWTSD before involving human subjects. Additionally, the protocol shall be approved by a Federally-assured Institutional Review Board (IRB) office named in the institution's assurance. The contractor shall prepare these documents and shall ensure that they are on file with IWTSD prior to the start of research involving human subjects. Collaborators with the contractor, to include IRBs, shall also comply with regulations to protect human subjects for both classified and unclassified research. The contractor shall report all changes in the protocol or consent

form to the IWTSD Contracting Officer's Representative as they occur. Release of initial and follow-up funding will be contingent upon initial and continuing reviews, and to other IRB and component requirements.

2.10. Submission Document Language.

All submission documents must be in English.

3. PROPOSAL PREPARATION.

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

3.1. BAA Information Delivery System (BIDS).

BIDS at <https://bids.iwtsd.gov/> is used: (1) to provide public access to the BAA package; (2) to collect all unclassified submissions; and (3) to collect placeholder records for all classified submissions. BIDS also provides submission progress tracking, evaluation comment collection, and results notification back to the submitter.

3.1.1. Submitter Registration.

A BIDS submitter registration is required to respond to this BAA. A new BIDS system was activated on February 15, 2020. All vendors who had registered before this date, must re-register in the system. Registrations should reflect the offeror's contracting or business authority. The username, created by the offeror, must be unique and is used for BIDS log in and submission tracking. Registration acceptance for submitters is automatic, but takes several seconds to be recognized by BIDS. A success email will be sent to indicate that the username and account are accepted. BIDS is email dependent and uses the registration email as the single point of contact (POC) for all notifications associated with the BAA. This email address should be monitored frequently during the BAA process for the notices. Submitters should periodically check status in their account, not receiving a notification email does not constitute grounds to appeal an evaluation decision. Spam blockers and other email security software may cause a notification email to be rejected; check your account. Email addresses included in the submissions or any other data field in BIDS will not be used for contact and notification purposes.

3.1.2. User Accounts and Password Resets.

Registration account information such as the POC, email, and password can be updated after log in. The Forgot your password? link on the BIDS login page allows registered users with a valid username to automatically reset a password. The system will verify the account username and email and then send a new password to that email.

3.1.3. Registration and Account Help.

BIDS help requests can be emailed to BIDS administrators at BIDSHelp@iwtsd.gov or submitted via the button located on the [Have a Question?](#) page.

3.1.4. Document Identifier.

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

3.1.4.1. Constructing Document Identifiers.

Document identifiers, auto-generated in part by BIDS, are based on Subgroup, the requirement number, the username, and a Vendor Internal Tracking (VIT) number. The underlined portion of the sample shown in Table 2 depicts the segment automatically formed by BIDS.

Table 2. Sample Document Identifier and Components Definition

CBRNE-1112-ABCCORP-10703JT-QC	
From Sample	Document Identifier Component
CBRNE	subgroup designation - from BAA
1112	requirement number - from BAA
ABCCORP	username - from BIDS registration
10703JT-QC	VIT number - any alphanumeric combination (with no special characters or spaces) created by the submitter for (submitter) tracking purposes along with the document type suffix

3.1.4.2. Creating Vendor Internal Tracking (VIT) Numbers.

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

Table 3. Sample VIT Numbers for an Accepted Submission

Document Type	Auto-generated by BIDS	VIT#
Quad Chart +1-page addendum	CBRNE-1112-ABCORP	10703JT-QC
White Paper	CBRNE-1112-ABCORP	10703JT-WP
Full Proposal	CBRNE-1112-ABCORP	10703JT-FP

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

Table 4. Sample VIT Numbers for Multiple Submissions to the Same

Requirement

Submission #	Auto-generated by BIDS	VIT# Sample 1	VIT# Sample 2*
Submission 1	CBRNE-1112-	10703JT-QC1	QC1
Submission 2	CBRNE-1112-	10703JT-QC2	QC2
Submission 3	CBRNE-1112-	10703JT-QC3	QC3
* NOTE: If the submitter does not require an internal tracking number, use the document type designation.			

3.2. BIDS Security and Access Control.

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

3.3. Submission Changes.

Changes to uploaded submissions are permitted up to the closing date and time. If a modification is required, update the original file in the source application and save. Convert to an acceptable format (detailed below) if applicable. In BIDS, open the submission record under **Previously Uploaded Proposals**. Only submissions with the **Update Proposal** status can be modified. Changes can be made after clicking on the submission link. Click on the trash icon to delete the old file. Use **Choose File** to select the revised document. Click **Save Proposal** to save the changes. Documents cannot be edited online through the BIDS interface. File names must contain no spaces or special characters. Ensure the file size does not exceed the prescribed limits. To completely remove a submission from consideration, select **Delete Proposal**. Changes after the submission due date and time are not permitted.

3.4. Special Handling Procedures for Classified Information.

If a submission contains classified information, the offeror must first create a placeholder record in BIDS with an unclassified cover page attachment. Identify in the placeholder document that the submission cannot be uploaded due to classification and include the method of delivery (hand-carried, secure fax, secure mail, etc.) as well as the tracking number, if applicable. The BIDS Document Identifier must be clearly identified on the mailed document(s). Classified responses (up to SECRET) must be appropriately and clearly marked (including all paragraphs and pages containing the subject data), packaged, and shipped in accordance with classified material handling procedures and security regulations pertaining to the level of classification for that document. To obtain mailing instructions for classified submissions, email: BIDSHelp@iwtsd.gov.

Classified submissions must be received by the applicable due date and time. Classification in no way eliminates the offeror's requirement to comply with all BAA instructions.

3.5. Phase 1 Submissions.

Offerors shall prepare and upload a one-page Quad Chart and a one-page addendum in response to Phase 1 of this BAA. All pages shall be 8 ½ by 11 inches. Use Times New Roman font size 10 point or greater. Single spacing is preferred for the addendum. If more than two pages (i.e., the

Quad Chart plus the addendum) are submitted, only the first two pages will be evaluated. Phase 1 submissions do not require a cover page.

3.5.1. Phase 1 Due Date and Time.

All unclassified Quad Charts must be received electronically through BIDS no later than 1500 (3:00 p.m.) Eastern Daylight Time (EDT) on the date specified on the cover of this document. Likewise, classified submissions must be received by the same due date and time. Offerors must create a placeholder record in BIDS with an unclassified cover page attachment. Refer to section 3.4. of this BAA for instructions on classified submissions. BIDS does not allow proposals to be uploaded or classified placeholders to be created after the closing date and time. Any proposal, regardless of classification, submitted by any other means, or that is late, will not be considered by the Government. Avoid the last minute rush; submit early.

3.5.2. Electronic File Format.

The Quad Chart and addendum shall be submitted in a single file. This file must be in Portable Document Format (.pdf). Adobe Acrobat and MS Word can generate such files. The document must be print-capable, without password, and no larger than 1024 KB. File names cannot contain spaces or special characters. Apple users must ensure the entire file name and path are free of spaces and special characters. Submissions that cannot be opened, viewed, or printed will not be considered.

[NOTE: ZIP files and other application formats, such as Microsoft Office (.docx or .pptx) are NOT acceptable.]

3.5.3. Quad Chart and Addendum Content.

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

3.5.3.1. Header Information.

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

3.5.3.2. Top Left Quadrant, Graphical Depiction.

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

3.5.3.3. Top Right Quadrant, Operational and Performance Capabilities.

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

3.5.3.4. Bottom Left Quadrant, Technical Approach.

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

3.5.3.5. Bottom Right Quadrant, Cost and Schedule.

The bottom right quadrant contains the Rough Order of Magnitude (ROM) and Schedule, Products and Deliverables, and Corporate Contact Information. ROM and Schedule shall be proposed by phase and include the cost, period of performance (POP), and exit criteria for each phase. A total cost and POP that combines all phases, all applicable data requirements and minimum data report requirements (e.g., MSR, meeting minutes, Final Technical Report, etc.) shall also be included. Products and Deliverables shall include, by phase, a list of all prototype hardware and software along with the required data as described in "Product and Deliverable Requirements" in section 2.6. of this document. Corporate contact information shall include the submitter's company name, POC, phone number, and email address. Include any significant teaming partner (contact information) relevant to the evaluation.

[NOTE: The contact information in the BIDS registration is used for all notices and contact purposes.]

3.5.3.6. Addendum

The offeror shall use the addendum to describe the technical solution in greater detail.

3.5.4. Phase 1 Notification to Offeror.

The Government will notify the offeror when a submission has been accepted or rejected. Notification of acceptance with a request to submit the next phase document will be emailed to the offeror's contracting authority as entered in the BIDS registration and will indicate the next submission type, clarification requests, and due date and time. Likewise, rejection notifications will be emailed to the address provided in the BIDS registration. Debriefings for Phase 1 submissions will not be conducted due to the nature of BAAs.

In general, submissions are not considered for further review when they do not meet the basic requirement, are too costly, or do not fit the mission. All Phase 1 submissions are evaluated in accordance with Section 4, Proposal Evaluation, of this BAA.

3.5.5. Phase 1 Status and Inquiries.

Phase 1 is complete when all submissions have been accepted or rejected in accordance

with this BAA. Inquiries outside of the BIDS system (e.g., phone, email, etc.) concerning the status of Phase 1 submissions will not be accepted. After BIDS log on, submitters are able to check the status of their submission(s) under **Previously Uploaded Proposals**.

3.6. Phase 2 White Paper Submissions.

Offerors shall prepare and upload a White Paper with no more than twelve (12) pages plus a cover page in response to Phase 2 of this BAA. The cover page template is provided at the BIDS website under Resources. The cover page is excluded from the White Paper page count. All submission pages shall be 8 ½ by 11 inches, double-spaced with Times New Roman font no smaller than 10 point; all margins shall be one inch. Each page of the submission shall contain the document identifier in the document header. If the White Paper contains more than 12 pages including tables, charts, and figures, only the first 12 pages will be evaluated.

3.6.1. Phase 2 Due Date and Time.

All unclassified White Papers must be received electronically through BIDS no later than the due date and time specified in the Phase 1 Quad Chart acceptance email. Likewise, classified submissions must be received by the same due date and time; offerors must create a placeholder record in BIDS with an unclassified cover page attachment. Refer to section 3.4. of this BAA for instructions on classified submissions. BIDS does not allow proposals to be uploaded or for classified submissions to be created after the due date and time. Any proposal, regardless of classification, submitted by any other means, or that is late, will not be considered by the Government.

3.6.2. Electronic File Format.

The White Paper shall be submitted in a single file. This file must be in Portable Document Format (.pdf). Adobe Acrobat and MS Word can generate such files. The document must be print-capable, without password, and no larger than 2048 KB. File names cannot contain spaces or special characters. Apple users must ensure the entire file name and path are free of spaces and special characters. Submissions that cannot be opened, viewed, or printed will not be considered.

[NOTE: ZIP files and other application formats, such as Microsoft Office (.docx or .pptx) are NOT acceptable.]

3.6.3. Phase 2 Document Upload.

To upload a next phase document use the link back to BIDS provided in the acceptance email, or log in to BIDS and navigate to Requested Proposals to open the accepted record. Review the checklist then click Create Proposal and follow the instructions.

3.6.4. White Paper Content.

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

3.6.4.1. Cover Page.

A cover page template is provided [BIDS](#) under Resources. The cover page includes necessary contractual information including the offeror's contracting POC (name, telephone number, email address, facsimile number, mailing address) and business information (Data Universal Numbering System (DUNS) number, Commercial and Government Entity (CAGE) code, business type). Include the proposed contract type, total cost, and the duration of all phases/tasks. The cover page is excluded from the page count.

3.6.4.2. Technical Approach.

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

3.6.4.3. Tasks and Deliverables.

Identify the proposed tasks by phase in the order of occurrence. A phase must have clear exit criteria to serve as a "go" or "no-go" decision point to proceed to the next phase. Identify work that will be performed by other organizations or agencies. Identify anticipated technical risks along with planned mitigation efforts. Indicate any Government furnished material (GFM), equipment (GFE), or information (GFI) that will be required with the task and need date; or state if none. For each phase include the exit criteria and all products and deliverables as defined in section 2.6. of this BAA. State if a phase is proposed as an option.

3.6.4.4. Schedule.

Develop a master project schedule preferably in Gantt chart format. The schedule shall indicate the planned start and stop point for each phase with top level subordinate tasks, estimated delivery dates, and completion dates. Indicate the total project POP in months using March 30th as a notional start date through the completion date.

3.6.4.5. Cost.

Provide the proposed, task-phased budgetary estimate inclusive of any proposed options. At a minimum, this estimate shall detail estimated labor hours and costs, anticipated material costs, product and deliverable costs (see section 2.6. of this BAA), and other costs (e.g., subcontracts, indirect rates, profit or fee rate) for each phase/task. Costs allocated to other organizations (e.g., Government testing) shall be clearly shown; or state if none. Changes in cost from those proposed in the prior submission shall be explained.

3.6.4.6. Intellectual Property, Technical Data, and Software.

Disclose/discuss all intellectual property, technical data, and/or software rights that are intended to be used in connection with this submission. See section 2.5. of this BAA for additional information.

3.6.4.6.1. Patents and Patent Applications.

Identify any existing, applied for, or pending patents that will be used in the conduct of this effort. Provide patent number with date of issue and title or patent application number with filing date and title. Any patent or patent application that resulted from prior government funding should be identified. If no patents or patent applications are relevant, so state. See section 2.5. of this BAA for additional information.

3.6.4.6.2. Rights in Technical Data and Software.

Identify any technical data and/or computer software that will be delivered with less than unlimited rights as prescribed in DFARS 252.227-7013 and DFARS 252.227-7014. State if unlimited rights in technical data are proposed. See section 2.5 of this BAA for additional information.

3.6.4.7. Transition from Prototype to Production.

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

3.6.4.8. Organizational Capability Statement.

Describe the offeror's capability and/or experience in doing this type of work. Identify technical team members or principal investigators and associated expertise. If applicable, include a description of co-participants' capabilities and/or experience. State whether an agreement has been reached (or not) with the co-participants. The offeror is only required to submit past performance information in response to a request for Full Proposal.

3.6.5. Phase 2 Status and Inquiries.

Phase 2 is complete when all submissions have been accepted or rejected in accordance with this BAA. Inquiries outside of the BIDS system (e.g., phone, email, etc.) concerning the status of White Papers will not be accepted. After login to the [BIDS website](#), submitters are able to check the status of their submission(s) under Previously Uploaded Proposals.

3.6.6. Phase 2 Notifications to Offeror.

The Government will notify the offeror when a submission has been accepted or rejected. Notification of acceptance with a request to submit the next phase document will be emailed to the offeror's contracting authority as entered in the BIDS registration and will

indicate the next submission type, clarification requests, and due date and time. Likewise, rejection notifications will be emailed to the address provided in the BIDS registration. **Debriefings for White Papers will not be conducted due to the nature of BAAs.** In general, submissions are not considered for further review when they do not meet the basic requirement, are too costly, do not fit the mission, or funding is not expected. All White Papers are evaluated in accordance with section 4. Proposal Evaluation, of this BAA.

3.7. Phase 3 Full Proposal Submissions.

Offerors shall prepare and upload a Full Proposal, consisting of a Technical Proposal in Portable Document Format (.pdf), a completed IWTSD Cost Proposal template (using the Microsoft Excel format provided by IWTSD) along with a supporting Cost Narrative pdf, plus a cover page, in response to Phase 3 of this BAA. All pages shall be 8 ½ by 11 inches, double-spaced with Times New Roman font no smaller than 10 point; all margins shall be one inch. Each page of the submission shall contain the document identifier in the document header. The Technical Proposal must be no more than 50 pages including tables, charts, and figures. If the document contains more than 50 pages, only the first 50 pages will be evaluated. All paragraphs containing proprietary information must be clearly marked. The Cost Proposal has no page limit; however, unnecessarily elaborate or information beyond those sufficient to present a complete and effective response is not desired.

Disclaimer - To minimize the cost and effort for submitters, Phase 3, Full Proposals, will only be requested for qualifying solutions that have a high probability of award; however, the Government reserves the right to cancel requirements, or any request for proposals for this solicitation, at any time prior to award and shall not be liable for any cost of proposal preparation or submission.

3.7.1. Phase 3 Due Date and Time.

All unclassified Full Proposals must be received electronically through BIDS no later than the due date and time specified in the acceptance email. Likewise, classified submissions must be received by the IWTSD Security Office by the due date and time; offerors must create a placeholder record in BIDS with an unclassified cover page attachment. Refer to section 3.4. of this BAA for instructions on classified submissions. BIDS does not allow proposals to be uploaded or classified placeholders to be created after the due date and time. Any proposal, regardless of classification, submitted by any other means, or that is late, will not be considered by the Government.

3.7.2. Electronic File Format.

The technical proposal must be submitted in **Portable Document Format (.pdf)**. The IWTSD Cost Proposal Template (MS Excel) must be completed and submitted with formulas visible and the document unlocked. A supporting cost narrative must be submitted in **Portable Document Format (.pdf)**.

The document must be print-capable, without password, and no larger than 2048 KB. File names cannot contain spaces or special characters. Apple users must ensure the entire file name and path are free of spaces and special characters. Submissions that cannot be

opened, viewed, or printed will not be considered.

3.7.3. Phase 3 Document Upload.

To upload a next phase document, locate and open the accepted record under Requested Proposals. Review any available files (e.g., SOW, CDRLS) and the checklist, then click Create Proposal and follow the instructions.

3.7.4. Full Proposal Components.

Full Proposal shall consist of three major sections (Technical Proposal and Cost Proposal with a supporting Cost Narrative) described in this document, and can be uploaded to BIDS as three separate files each limited to 2048 KB.

- The first section is the technical proposal and shall include all information related to the proposal as specified in this BAA including figures, charts, and tables plus the cover page.
- The second section is the cost proposal, which will show a breakdown of costs by contract line item number (CLIN) as well as phase using the Cost Proposal template. **This template is available on the Resources page of BIDS.**
 - Part of the cost proposal is a cost narrative that includes all cost data as well as an explanation of changes in cost from those proposed in the prior submission. Additionally, the offeror will include a cover page as follows:

A cover page template is provided at the BIDS website under [Reference Materials](#). The cover page includes necessary contractual information including the offeror's contracting POC (name, telephone number, email address, facsimile number, mailing address) and business information (DUNS number, CAGE code, business type). Include the proposed contract type, total cost, and the duration of all phases/tasks.

3.7.5. Technical Proposal Content.

The Technical Proposal shall provide a technically detailed solution of the problem addressed in the requirement and fully expand the technology proposed in the prior submissions. The following sections and associated data are required. The offeror shall incorporate all clarification data requests in the Phase 2 acceptance email. Indicate clarification entries by footnote and reference the requested item(s) in the footer area.

3.7.5.1. Table of Contents.

The technical proposal shall include a table of contents noting the page number of each section detailed below. The table of contents is excluded from page count.

3.7.5.2. Abstract.

The abstract is a one-page (or less) synopsis of the proposal that includes the title and the basic approach to satisfy the requirement. Describe the overall scope of work to be performed for the entire period of performance, inclusive of options.

The abstract shall stand alone and be suitable for release under the Freedom of Information Act, 5 U.S.C. § 552, as amended.

3.7.5.3. Executive Summary.

An executive summary is a concise description of the technology and solution being proposed. Include key information that demonstrates how the proposed solution meets the published requirement. The executive summary should not introduce any new information not covered in the subsequent content.

3.7.5.4. Technical Approach.

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

3.7.5.5. Project Plan.

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

3.7.5.5.1. Phases.

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

3.7.5.5.2. Tasks Within a Phase.

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

3.7.5.5.3. Products and Deliverables.

Identify all deliverables - products as well as documentation and reports - for each Task/Phase. Refer to section 2.6. of this BAA for minimum reporting requirements, and additional products and deliverables in performance of the effort proposed.

3.7.5.6. Master Schedule.

Develop a master project schedule that includes phase start and stop dates as well as major milestones, critical tasks, and report and product delivery dates. Assume a start date of March 30th. Indicate any optional phases.

3.7.5.7. Government Furnished Equipment.

Reasonably identify all Government furnished equipment (GFE), materials, facilities, or information with the need date and suggested source at the time of proposal submission. GFE includes, but is not limited to: Government email accounts, SIPRNET access, Common Access Cards (CACs), and/or space at an IWTSD facility or other government facility (e.g., permanent residence, temporary residence, or testing). Upon identifying GFE, if an offeror's proposal is selected for contract award, the proposed GFE will be identified in the resulting contract. Failure to adequately identify necessary GFE may result in contract termination due to the offeror's inability to perform under this competitive source selection. State if Government equipment, materials, facilities, or information are not required.

3.7.5.8. Project Risks and Mitigation.

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

3.7.5.9. Organizational Capability Statement.

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

3.7.5.10. Organizational Resources.

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

3.7.5.11. Intellectual Property, Technical Data, and Software.

All anticipated intellectual property, to include patents, technical data, and/or software rights shall be disclosed. See section 2.5. of this BAA for additional information.

3.7.5.11.1. Patents and Patent Applications.

Identify any existing, applied for, or pending patents that will be used in the conduct of this effort. Provide patent number or application number

and title. Any patent that resulted from prior Government funding should be identified including, but not limited to patent number or application number and contract under which the patent(s) was/were developed. State if no patents or patent applications are relevant.

3.7.5.11.2. Rights in Technical Data and Computer Software.

State if unlimited rights in technical data and/or computer software are proposed. If not, identify any technical data and/or computer software that will be delivered with less than unlimited rights as prescribed in DFARS 252.227-7013 and DFARS 252.227-7014. When less than unlimited rights are proposed, a data rights assertion table shall be provided as prescribed in DFARS 252.227-7017.

3.7.5.12. Transition from Prototype to Production.

Describe the approach and issues related to transition or commercialization of the results of this effort to an operationally suitable and affordable product for the intended users to include the following. The cost to prepare the Transition Plan should be included in the proposed costs. The cost to prepare the Transition Plan should be detailed in the cost proposal. Additional information regarding the Transition Plan can be found in the IWTSD Technology Transition Handbook located on BIDS under Resources.

[NOTE: If the specific requirement will not reasonably result in a prototype (e.g., study, service requirement), state “Not Applicable to this Requirement” and justify why.]

3.7.5.12.1. Transition Strategy.

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

3.7.5.12.2. Transition Approach.

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

3.7.5.12.3. Test and Evaluation.

Describe the plan to involve representative users during the design and development process and the general plan for test and evaluation by representative end users. If the phases of performance include representative user test and evaluation: (1) ensure coordination of user participation is thoroughly discussed in the technical approach; and (2) state “Representative User Participation will occur during contract performance.”

3.7.5.12.4. Operational Support.

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

3.7.5.13. Human Subjects and Animal Testing.

The proposal shall provide a statement regarding the anticipated use of human subjects or animals in testing, or state if none. If yes, procedures for complying with all laws and regulations governing the use of animals or human subjects in research projects shall be included in the technical proposal. See section 2.9, “Animal or Human Testing Compliance” in this document for details.

3.7.5.14. Environmental Impact.

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

3.7.5.15. Classification and Security.

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

3.7.5.16. Subcontracting Plan.

If the total amount of the proposal exceeds \$750,000 and the offeror is not a small business, the offeror shall submit a subcontracting plan for small business and small socially and economically disadvantaged business concerns. A mutually agreeable plan will be included in and made a part of the resultant contract. The contract cannot be executed unless the contracting officer determines that the plan provides the maximum practicable opportunity for small business and small disadvantaged business concerns to participate in the performance of the contract. The Subcontracting Plan/information is excluded from page count.

3.7.6. Cost Proposal.

The offeror and each significant subcontractor, if any, shall fill out the IWTS D Cost

Proposal Template (available on BIDS under Resources) and submit all supporting cost or pricing data along with any other supporting attachments. All prepared spreadsheet formulas must be accessible. As soon as practicable after agreement on price, but before contract award, the offeror shall submit a Certificate of Current Cost or Pricing Data for contracts exceeding \$2,000,000 as prescribed by FAR 15.406-2.

[NOTE: To determine the reasonableness of the cost proposal, the Government may request additional supporting documentation for proposed costs.]

3.7.6.1. Cost Narrative.

Provide a narrative discussing/substantiating elements of the cost proposal. Provide a separate summary of the total cost for each phase and for the total of the entire effort proposed. Indicate optional phases. Explain changes in cost from those proposed in the previous submission. The Cost Narrative must be submitted in PDF (.pdf) format with Times New Roman font no smaller than 10 point.

3.7.6.1.1. Table of Contents.

The cost narrative shall include a table of contents noting the page number of each section detailed below.

3.7.6.1.2. Direct Labor Costs.

Detail the direct labor cost estimate by showing the breakdown of labor hours, rates, cost for each category, and furnish the basis for the estimates.

- *Labor Category.* Include a detailed description of the category.
- *Labor Hours.* Include a Basis of Estimate for the proposed hours. Detail hours to be worked by each labor category proposed per each task, per each fiscal year and cumulatively.
- *Labor Rates.* Rates shall be in accordance with established rate agreements. If no rate agreement exists, use payroll data with actual rates to substantiate the proposed rates. If fully loaded rates are proposed, the offeror shall identify the base rate and build up.
- *Escalation.* Identify the escalation rate, how the rate is applied, and provide justification for the rate used.

3.7.6.1.3. Indirect Costs.

Indicate how the offeror has computed and applied offeror's indirect costs (e.g., overhead, G&A, material burden). Indicate the rates used and provide an appropriate explanation.

3.7.6.1.4. Other Direct Costs.

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

- *Travel.* The basis for travel estimates will include trip purpose, departure site and destination, number of persons traveling, number of

days, ground transportation requirements, and detailed costs for airfare, hotel, rental cars, and per diem allowances per Federal Travel Regulations (FTR).

- *Materials.* Submit a detailed Bill of Materials identifying each discrete material component. Backup documentation must be submitted to explain the basis of estimate for at least 80 percent of the total material cost proposed. Backup documentation may include actual production costs, catalog listings, supplier quotes, actual invoices, or other documentation from a third-party source which verifies the proposed price.
- *Consultants.* If any consultants are to be used, the offeror shall submit consultant quotes for hourly rates, estimated number of hours required, and justification.
- *Subcontractors.* If any subcontractors are to be used, the offeror shall submit complete subcontractor quotes or proposals as part of the proposal. Subcontractor proposals will be evaluated along with the prime's proposal, and they are expected to contain the same level of detail as a prime proposal. Subcontractors providing commercial items may submit a commercial quote instead of a detailed proposal. [NOTE: In order to protect proprietary data, subcontractors may submit their detailed cost proposals directly to the Contracting Officer instead of submitting to the prime contractor. If this occurs, the prime is responsible for ensuring subcontractor's submission is timely and is completed in accordance with these instructions.]

3.7.6.1.5. Government Furnished or Contractor Acquired Equipment.

Identify the external property or materials required to perform the task in the summary. Separate items to be acquired with contract funds and those to be furnished by the Government. Reasonably provide the description or title and estimated unit and total costs of each item (i.e., manufacturer, catalog price, or previous purchase price). When such information on individual items is not available, the items should be grouped by class and estimated values indicated. In addition, the offeror shall include a statement of the extent to which the offeror is willing to acquire the items.

[NOTE: The FAR generally prohibits providing an industrial contractor with facilities (including plant equipment and real property) with a unit acquisition cost of less than \$10,000.]

3.7.6.1.6. Profit or Fee.

Include the profit or fee proposed for this effort. State if no profit or fee is proposed. Include a discussion, in the summary, of risk, technical difficulty, need for management/oversight, exceptional circumstances, etc.

3.7.6.1.7. Competitive Methods.

For those acquisitions (e.g., subcontract, purchase orders, material orders)

over \$250,000 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)).

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

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

3.7.6.1.9. Royalties.

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

- Name and Address of Licensor.
- Date of the License Agreement.
[NOTE: A copy of the current license agreement and identification of applicable claims of specific patents shall be provided upon request by the contracting officer. See FAR 27.204 and FAR 31.205.37.]
- 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.

3.7.6.2. 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.

3.7.6.3. Other Funding Sources.

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

3.7.6.4. Additional Information/Documents.

Additional information/documents to be included in the Cost Narrative:

- *Business/Cost Checklist.* The offeror shall complete and include a copy of the Business/Cost Checklist found at the BIDS website under Resources.

Information and documents required in the Business/Cost Checklist shall be included in this proposal.

- *Terms & Conditions.* The offeror shall identify any anticipated/proposed contract terms and conditions in the proposal summary.
- *Proposal Validity.* The proposal shall remain valid for a period of no less than 180 days from submission.
- *Forward Pricing Rate Agreement.* If the offeror has an applicable rate agreement with DCAA (or another Federal Agency, e.g., HHS), please include a copy of the agreement and provide a point of contact to your cognizant DCAA office. If the offeror has not previously been audited by DCAA, the procuring office may request an audit to verify the proposal labor direct and indirect rates. This applies to both prime contractors and subcontractors.
- *ACH Form.* The offeror will submit a completed ACH Form. (Found on BIDS under Resources).
- *VETS-4212.* The offeror will submit the most recent VETS-4212 filing confirmation.
- *Subcontracting Plan.* If the offeror is a large business and work will be performed in the United States, a Small Business Subcontracting Plan shall be submitted if the contract is expected to exceed \$750,000.
- *Past Performance.* The offeror shall provide information on previous Federal Government prime or subcontracts featuring endeavors relevant (i.e., within the past three years and of similar size and complexity) to the specific requirement.

3.7.7. Phase 3 Notifications to Offerors.

Notification of acceptance or rejection of a Phase 3 submission will be sent via email to the offeror's principal contact as entered in the BIDS registration. Acceptance of a Full Proposal does not guarantee a contract will be awarded. If the Government does not accept the Phase 3 proposal, the offeror may request a pre-award debriefing.

3.7.8. Phase 3 Protests.

Offerors are encouraged to seek resolution within the agency before filing a protest. Offerors who choose to submit any protest, must do so directly to the IWTSD Contracting Officer. All such protests will be processed under procedures that depend on whether the protest is directed to the agency, or to the Government Accountability Office (GAO) or to the Court of Federal Claims. Should the offeror choose to submit a protest, the Offeror must clearly label whether such protest is to the agency, GAO or the Court of Federal Claims. The Government will deem receipt of the protest by the Contracting Officer as constituting receipt or purposes of determining timeliness. Addresses for receipt confirmation can be requested via the BIDS Help function.

3.7.9. Phase 3 Status and Inquiries.

Phase 3 is complete when the Government concludes technical evaluations of all submissions and awards any contracts considered under this BAA. Inquiries by phone concerning the status of Full Proposals will not be accepted. After log in to the BIDS

website, submitters are able to check the status of any submission under **Previously Uploaded Proposals**.

3.8. Clarification Requests.

Should the offeror be asked to submit clarifications to a Phase 2 White Paper or a Phase 3 Full Proposal, the BIDS email from the Contracting Officer will contain instructions on the specific request and associated requirements. BIDS will use CL (Clarification) instead of WP (White Paper), or FP (Full Proposal) as the Document Identifier designation (e.g., CL CBRNE-1112-ABCORP-xxxx-CL; where xxxx-CL is the VIT entered by the submitter). The request will contain the due date and time and can be less than the standard 30-day response time depending on the nature of the request.

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

From time to time, an offeror decides not to submit a subsequent Phase 2 or Phase 3 submission. If this is the case, the offeror shall indicate in BIDS that they are not providing the subsequent submission. The offeror shall follow the steps identified in BIDS to upload a submission and attach a document to indicate the withdrawal of the previous submission(s) and the intent to not participate in further submissions. If possible, the Document Identifier should reflect the submission status (e.g., CBRNE-1112-ABCORP-xxxx-WD or xxxx-NoBid). To withdraw a submission after the due date and time, notify the contracting officer at BIDSHelp@iwtsd.gov.

4. PROPOSAL EVALUATION.

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

4.1. Evaluation Criteria.

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

4.1.1. Basic Requirement.

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

4.1.2. 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 must be complete and in a logical sequence. All proposed deliverables must clearly define a final product that meets the requirements. The proposal must identify and clearly define technical risks

and planned mitigation efforts. Those risks and the associated mitigation must be defined, feasible, and reasonable. The roles of the prime and other participants required must be clearly distinguished and pre-coordinated with all participants (including Government facilities) fully documented.

The requirement for and the anticipated use or integration of Government Furnished Equipment/Information/Property (GFE/GFI/GFP) including all equipment, facilities, and information, must be fully described including dates when such GFE/GFI/GFP will be required.

Intellectual property developed, license rights, intellectual property assertions 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.

4.1.3. Cost.

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

4.1.4. Schedule.

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

4.1.5. Contractor Past Performance.

Past performance is a confidence assessment based upon the probability of successfully performing the requirement. 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. At Phase 3, the Government's evaluation of past performance will rely on evidence provided directly by offerors as well as independent sources of information. If applicable, the offeror shall state if it has no relevant past performance.

[NOTE: Past performance information may be used in the technical evaluation if the vendor has relevant past performance with the Government. However, having no relevant past performance with the Government will not be held against a vendor.]

5. TECHNOLOGY DEVELOPMENT REQUIREMENTS AND OBJECTIVES.

This section provides the requirement descriptions and overall technical objectives.

5.1. Expeditionary Force Protection (EFP)

R4669 Hard Target Support Vehicle-Carrier (HTSV-C)

Special Forces currently use the Exothermic Breaching Support System (EBSS) designed by Special Purpose Operations (SPO). It is a commercial-off-the-shelf (COTS) procured, single purpose, non-program of record vehicle that lacks sustainability in the environments it operates in. The SPO EBSS does not meet durability, maintenance or operational requirements of the force. Utilizing a specialized, task specific vehicle with no modularity or redundancy reduces the ability to operate in changing environments or utilize multiple insertion platforms. The HTSV-C will be used in support of Hard Target Companies (HTC) or specialized units engaging in Subterranean Operations (SbTO) to enter and defeat hardened and deeply buried targets (HDBT). The EBSS is not compatible with other Family of Special Operations Vehicles (FSOV) and does not provide the flexibility required for the Hard and Deeply Buried Targets (HDBT) and Subterranean environments.

This requirement is to develop a modular HTSV-C to support exothermic entry operations capable of being mounted into Program of Record (POR) family of vehicles (MRZR – SOF). The design of the HTSV-C carrying system provides multiple options to modify support packages to meet mission parameters. The HTSV-C container could be installed on any FSOV vehicle or non-standard vehicles that meet size and weight requirements. The current configuration of the EBSS is not air-droppable.

System specifications:

- **Modularity:** HTSV-C removable in multiple pieces by Operator (Threshold); Removable in one piece by Operator (Objective (O))
- **Adaptability:** MRZR4 compatible (T); DAGOR, LMTV, NSTV compatible (O)
- **Internal Rotary Wing Aircraft Transportable:** V-22, MH/CH47, MH/CH53 (T=O)
 - **Key System Attribute (KSA) 1** -Vehicle must be Air Droppable (T)
- **Personnel Capacity:** Two (2) x Pax (T); Four (4) x Pax (O)
- **Oxygen Capacity:** Four (4) X O2 Industrial Size 300 (K) Bottles (T); Six (6) X O2 Industrial Size 300 (K) Bottles (O)
 - **KSA 1** – POR Vehicle: MRZR
 - **KSA 2** – Payload capacity: 1500 lbs
 - **KSA 3** – Towing capacity: 1000 lbs
- **Durability:** Provide modular durable oxygen airborne capable load protection configuration and air droppable hosing system to allow oxygen filled bottles to support exothermal torch capabilities. (T=O)
- **Land Speed:** Maintain current speed capability of the MRZR with configured load (T=O)

Ancillary Equipment, Training, and Services:

- Quick Reference Guide (QRG), Graphical Training Aid (GTA), Operating and Maintenance Manual and pocket-sized weatherproof Quick Reference Manual. Operator Level Maintenance Manual to include system specification and parts list.
- Training Sustainment Video (T)
- System Maintenance Tools (T)

Government Furnished Equipment (GFE):

No GFE will be provided. List of supplemental equipment to be carried by vehicle will be furnished by the Government.

Deliverables:

Deliver four (4) HTSV-C systems configurable to be installed on MRZR4 platforms (base). With the option to deliver eighteen (18) complete HTSV-C systems.

Base contract period of performance less than eighteen (18) months (T).

R4670 Advanced Exothermic System (AES)

Recent developments in specific mission sets within Special Forces have identified requirements for specific operational upgrades to their current exothermic cutting capabilities. This will allow Special Operations Forces (SOF) to effectively conduct their missions of Hard Target Defeat (HDT) and aid in faster entry into Hardened and Deeply Buried Target (HDBT) sites, thereby providing enhanced force protection. In order for SOF to gain entry into hard multi-layered metal structures/barriers, specialized units use exothermic cutting torches which burn at very high temperatures. Higher temperatures gained by burning pure oxygen must be applied to effect entry through these barriers. This results in the heavy use of pure oxygen and the need to fill and transport approximately 1300-1500 lbs. of steel "K" bottles (industrial shop size, 220 cu ft – 240 cu ft of oxygen @ 2400 psi, 115 lbs empty, 135 lbs full) to target. This taxes the load budget and limits the Operators' cutting time as 10 steel 'K' bottles will support only 3.5 - 4 hours of exothermic cutting. Units increasingly require up to 15 hours of exothermal cutting ability.

This requirement seeks the development of a stand-alone oxygen supply system that is capable of providing 12 hours of exothermic cutting capability, being MRZR transportable, lightweight, supply of high-capacity Oxygen and use existing program of record (POR) BR-24 handle/exothermic torch.

Liquid Oxygen (LOX) being denser and therefore, needing smaller containment systems is one possible solution. Onsite Oxygen Generation is another potential solution.

The scope of work for this requirement is to provide an oxygen source system that will significantly increase the cutting time over that achieved with 10 steel 'K' bottles and reduce the Operators' load compared to the amount of 'K' bottles being transported for comparable performance (12 hours cutting being approximately 30 'K' bottles; 4,050 lbs, 150 cu ft.).

The performance objective is an equipment package for SOF to deliver sufficient oxygen to support 12 hours of exothermic cutting with additional benefits of a decrease in the load weight

by 40-70% and reduced load volume by 20% - 60%, compared to steel cylinders necessary to sustain the same cutting duration, reducing the overall logistical requirements for more oxygen on mission. Development of the torch handle is not required. The BR-24 torch handle shall be capable of connecting to the oxygen system. Developmental item shall be cutting oxygen supply containment, conversion or generation.

System specifications:

- **Overall Performance:** Stand-alone oxygen supply system providing up to 12 hours (Threshold (T)); 15 hours (Objective (O)) of exothermic cutting support.
- **Adaptability:** Use existing POR BR-24 handle/exothermic torch to configure to oxygen system (T=O)
- **Ground Transportable:** Compatible to be transported by one MRZR with trailer (T); or two MRZR (T)
- **Air Transportable:** Internal load capable on rotary wing aircraft V-22, MH/CH47, MH/CH53 and fixed wing aircraft C130, C17, C160. (T=O)
- **Reduce Load Budget**
 - **KSA 1** - Total System Load Weight: 2,430 lbs (T); 1,215 lbs (O)
 - **KSA 2** – Total System Volume: 130 cu ft (T); 60 cu ft (O)

Ancillary Equipment, Training, and Services:

- Quick Reference Guide (QRG), Graphical Training Aid (GTA), Operating and Maintenance Manual and pocket-sized weatherproof Quick Reference Manual. Operator Level Maintenance Manual to include system specification and parts list (T).
- Training Sustainment Video (T)
- System Maintenance Tools (T)

Government Furnished Equipment (GFE):

There is no necessity for GFE for vendor to meet this requirement

Deliverables:

Deliver six (6) complete AES systems (base).

With the option to deliver twenty-one (21) complete AES systems.

Base contract period of performance less than eighteen (18) months (T).

5.2. Protection, Survivability, and Recovery (PSR)

FY22 Counter UAS Unspecified Requirement

Unmanned Aerial Systems (UASs) or “drones” have entered the commercial marketplace and are readily available for consumers to purchase at affordable prices. The ease of use and accessibility to this powerful technology has drawn attention to the potential harmful uses of UASs against U.S. and Israeli interests. Technologies have been successfully developed to detect, identify, and mitigate these commercially available, DoD Group 1 UAS threats at large facilities and man-portable technologies to protect temporary/dismounted operations. As drones with greater sophistication, speed, and size become more prevalent, it is imperative to stay ahead of the threat by developing new detection and mitigation technologies and delivering new capabilities to U.S. and Israeli warfighters.

Develop novel solutions to enhance C-UASs to improve detection, identification, tracking, and mitigation. Specifically, increase capability in urban areas and against DoD Group 1 to Group 3 UAS, while minimizing collateral damage to citizens, property, or commercial electronic spectrum in the immediate area of the mitigation of the threat UAS. Solutions to address Group 3 UAS are a priority. Specific areas of interest for the PSR subgroup are listed below but not limited to:

R000-PSR-FY22DET Detection

- Acoustic Detection of UAS
 - Adversary UAS operations are a present and ongoing threat to U.S. forces around the world. Acoustic signatures are the one detectable signature created by all UAS devices. Develop an open architecture, UAS acoustic signature detection system capable of being integrated in current DoD RF/optical detection systems. The system shall provide 360-degree coverage.
- Unintended Emissions Detection of UAS
 - Small UAS operating without control links pose challenges to traditional C-UAS detection technologies. Develop a system capable of detecting and tracking unintended emissions inherent to UAS operation. Unintended emission sources may include electrical components and wiring. The system shall provide detection capability at a tactically relevant range.
- Passive Radar Detection
 - The ability to detect and track Group 1-3 UAS with radar-like accuracy without emitting RF signatures. The system shall offer 360-degree coverage and provide enough track fidelity to successfully slew and target a detected UAS with a narrow field of view camera without operator involvement.

R000-PSR-FY22MIT Mitigation

- Mitigation of Inertia Navigation / Way Point Dependent UAS
 - Adversary use of inertia based systems and pre-programmed way points for operations of DoD Group 1 to Group 3 UAS is near impossible to defeat (non-kinetic). Although detection by other means (radar/acoustic) may identify the threat, non-kinetic countermeasures have been unsuccessful in defeating this threat.
- UAS Cyber Mitigation
 - As UAS technologies progress and become more sophisticated, the methods to protect against potential threats need to become more sophisticated. The more surgically threats can be addressed, the lower potential for collateral damage. Develop a system that can defeat individual UAS threats with minimal/no effect on the surrounding environment.
- Payload Detection and Mitigation
 - As UAS technology progresses, so does their ability to carry kinetic and non-kinetic (cyber or other) payloads or to disperse agents. The ability to identify, assess threat level, and prevent employment of nefarious payloads in addition to,

or in lieu of, mitigation of the UAS should be considered. Where possible, mitigation should result in the threat UAS, or significant parts of the threat UAS, be recoverable by U.S. defenders. Mitigation options should not be limited to kinetic actions against threat UAS or controller signal interruption.

- Group 2-3 UAS Mitigation
 - Ability to mitigate or defeat Group 2-3 UAS in a Special Operations Forces (SOF) Size, Weight, and Power (SWaP) form factor that can be employed by small teams in austere and sensitive environments. The system shall provide greater range than solutions currently available. Kinetic or directed energy defeat solutions in a dismounted form factor (can be carried and operated by a single operator) that offer superior range and accuracy than current solutions, are also of interest.

R000-PSR-FY22OT Other Technologies

- Operations in GPS Disadvantaged/Denied Areas
 - Many C-UASs require GPS signals for proper system operations. Various methods exist to spoof and/or deny GPS signals. Develop a system/methodology to reduce the reliance on GPS signals for proper C-UAS function.
- UAS Swarms
 - The use of multiple UAS working in coordination (swarms) has been demonstrated at events such as the opening ceremony at the Tokyo Olympics. The nefarious use of swarms can cause significant disruption. Develop a solution that can identify, track, prioritize, and address multiple UAS threats simultaneously.
- Identification Friend or Foe (IFF) Capability
 - Ability to identify friendly, hostile, and neutral unmanned systems with accuracy in order to prevent fratricide and expedite the initiation of mitigation techniques. The system shall offer 360-degree coverage with an emphasis on accuracy and range. Ideal solutions will be ground-based IFF systems. IFF options should be logistically feasible to distribute and have a low probability of intercept by enemy forces.
- Radar Discrimination Techniques
 - Novel techniques that effectively reduce radar clutter and discriminates UAS and non-UAS (i.e., birds). Techniques shall offer greater accuracy and/or require less time to discriminate a target than current solutions while adding little to no additional computing hardware.