DEPARTMENT OF DEFENSESmall Business Innovation Research (SBIR) Program

SBIR 25.4 Annual Program Broad Agency Announcement (BAA)

Amendment 1 (December 4, 2024)

The purpose of amendment 1 is to clarify section 2.5 Due Diligence Program to Assess Security Risks.

IMPORTANT DATES

	Pre-Release	Open	Close
Release 1	Oct 02, 2024	Oct 23, 2024	Nov 20, 2024
Release 2	Nov 06, 2024	Dec 04, 2024	Jan 08, 2025
Release 3	Dec 04, 2024	Jan 08, 2025	Feb 05, 2025
Release 4	Jan 08, 2025	Jan 29, 2025	Feb 26, 2025
Release 5	Feb 05, 2025	Feb 26, 2025	Mar 26, 2025
Release 6	Mar 05, 2025	Mar 26, 2025	Apr 23, 2025
Release 7	Apr 02, 2025	Apr 23, 2025	May 21, 2025
Release 8	May 07, 2025	May 28, 2025	Jun 25, 2025
Release 9	Jun 04, 2025	Jun 25, 2025	Jul 23, 2025
Release 10	Jul 02, 2025	Jul 23, 2025	Aug 20, 2025
Release 11	Aug 06, 2025	Aug 27, 2025	Sep 24, 2025
Release 12	Sep 03, 2025	Sep 24, 2025	Oct 22, 2025

NOTE: DoD Services and Components may elect to release topics under this BAA once a month throughout fiscal year 2025. New research topics will pre-release on the first Wednesday of each month, based on the schedule above. Each release will have corresponding open and close dates applicable only to those topics within the release. If a topic in a release deviates from the open and close dates listed above, it will be noted within the Component-specific instructions and on DSIP.

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1.0 PROGRAM DESCRIPTION

1.1 Objectives and Context

The Defense Small Business Innovation Research (SBIR) Program's objectives include stimulating technological innovation, strengthening the role of small business to meet DoD research and development (R&D) needs, fostering and encouraging minority and disadvantaged persons' participation in technological innovation, and increasing the commercial application of DoD-supported research or R&D results. DoD invites proposing SBCs with the capability to conduct R&D and commercialize the results in any of the defense-related topic areas described in this SBIR Program BAA to submit proposals.

The Small Business Administration (SBA), through its <u>SBIR/STTR Policy Directive</u>, purposely departs from normal government solicitation formats and requirements, which simplifies the SBIR/STTR award process and minimizes the regulatory burden on small business. Consistent with the SBA SBIR/STTR Policy Directive, DoD is soliciting proposals as a broad agency announcement (BAA). The guidelines in this BAA incorporate and make use of the SBA SBIR/STTR Policy Directive's flexibility to encourage scientific and technical approaches proposals most likely to yield significant results for DoD and the private sector.

This BAA is for research topics accepting Phase I or Direct to Phase II proposals. A separate BAA will not be issued requesting Phase II proposals, and unsolicited proposals will not be accepted. All proposing SBCs that receive a Phase I award from this BAA will be eligible to participate in Phase II competitions and potential Phase III awards. DoD Services/Components will notify Phase I awardees of the Phase II proposal submission requirements.

DoD is not obligated to make any awards under Phase I, Phase II, or Phase III, and all awards are subject to both a risk-based due diligence security review and funds availability. DoD is not responsible for any monies the proposing small business concern (SBC) spends before any award issuance. Proposals must conform to this announcement's terms. DoD is under no obligation to fund any proposal or any specific number of proposals in each topic. It also may elect to fund several or none of the proposed approaches to the same topic.

1.2 A Three Phased Program

The SBIR Program has three phases, Phases I, II, and III. Phase I determines, to the extent possible, an idea's scientific, technical, and commercial merit and feasibility within the SBIR program. Phase I and II awards are made adhering to current SBA Policy Directive guidelines.

The Phase I period of performance is generally between six to twelve months. Proposals should focus on Research or Research & Development (R/R&D)to prove the proposed effort's scientific and technical feasibility, and commercialization potential, the successful completion of which is a prerequisite for further DoD support in Phase II. Proposing SBCs are encouraged to consider whether the research or R&D being proposed to DoD Services/Components also has private sector potential, either for the proposed application or as a base for other applications.

Phase II awards will be made to proposing SBCs based on results of Phase I awards and the Phase II proposal's scientific merit, technical merit, and commercialization potential. The period of performance is generally 24 months. The objective of Phase II is to continue and further develop the R/R&D effort from the completed Phase I award.

Phase III refers to work that derives from, extends, or completes an effort made under prior SBIR funding agreements, but is funded by sources other than the SBIR Program. Under Phase III, the SBC should

focus on commercializing previously SBIR-funded technology and is required to obtain funding from either the private sector, a non-SBIR federal source, or both, to develop the prototype into a viable product or non-R&D service for sale in military or private sector markets.

1.3 OUSD(R&E) Critical Technology Areas

Although each DoD Service/Component develops SBIR and STTR topics tailored to their mission needs, topics generally align with the Office of the Under Secretary of Defense, Research & Engineering (OUSD(R&E)) critical technology areas. While many technologies may cross between these categories, these areas represent the broad and different approaches required to advance technologies crucial to the Department, with a focus on accelerating key capabilities' transitions to the Military Services and Combatant Commands.

OUSD(R&E) critical technology areas include:

- FutureG
- Trusted AI and Autonomy
- Biotechnology
- Advanced Computing and Software
- Integrated Sensing and Cyber
- Directed Energy (DE)
- Hypersonics

- Microelectronics
- Integrated Network Systems-of-Systems
- Quantum Science
- Space Technology
- Renewable Energy Generation and Storage
- Advanced Materials
- Human-Machine Interfaces

Below are additional technology areas supporting DoD Services/Component-specific mission-critical areas:

- Advanced Infrastructure & Advanced Manufacturing
- Combat Casualty Care
- Emerging Threat Reduction
- Military Infectious Diseases

- Military Operational Medicine
- Mission Readiness & Disaster Preparedness
- Nuclear
- Sustainment & Logistics

Full descriptions of the above technology areas can be reviewed here.

1.4 Eligibility and Performance Requirements

Each proposing SBC must qualify as an SBC as defined in 13 C.F.R §§ 701-705 at time of award and certify to this in the proposal's cover sheet. The eligibility requirements for the SBIR/STTR programs are unique and do not correspond to those of other small business programs.

- a. Proposing SBC must meet eligibility requirements for Small Business Ownership and Control (see 13 CFR § 121.702).
- b. The proposing SBC must conduct a minimum of two-thirds of the Phase I research and/or analytical work. For Phase II, the proposing SBC must perform no less than 50 percent of the research and/or analytical work. The work percentage is measured via direct and indirect costs. Occasionally, deviations from these SBIR requirements may occur with the Funding Agreement officer's written approval after consultation with the agency SBIR/STTR program manager/coordinator. For more information on the percentage of work calculation during proposal submission, refer to section 3.7.
- c. For both Phase I and II, the principal investigator's <u>primary employment</u> must be with the proposing SBC at the time of the award and during the conduct of the proposed effort. Primary employment means that more than <u>one-half</u> of the principal investigator's time is spent with the

- small business (based on a 40-hour work week). Primary employment with an SBC precludes full-time employment at another organization. Deviations from this requirement or changes to the principal investigator are subject to the Funding Agreement officer approval.
- d. For both Phase I and Phase II, the SBC and its subcontractors must perform all research or R&D work in the United States.
- e. Joint ventures and limited partnerships are permitted, provided that the entity qualifies as small business in accordance with the ownership requirements in 13 CFR 121.702(a)(1)(iii) and the size requirements in 13 CFR 121.702(c)(6). Proposing SBC must disclose joint ventures with existing (or planned) relationships/partnerships with any foreign entity or any foreign government-controlled companies. See sections 2.6 and 3.7 for more detail.

1.5 Majority Ownership in Part by Multiple Venture Capital, Hedge Fund, and Private Equity Firms

Unless otherwise noted in the participating Service/Component instructions, proposing SBCs that are multiple venture capital operating companies (VCOCs), hedge funds, or private equity funds majority owned are **ineligible** to submit applications to or receive awards under this BAA. If a Service/Component authorizes such participation, any proposing VCOC, hedge fund, and/or private equity fund-owned SBC, whether in part or in whole, must identify each foreign national, foreign entity, or foreign government holding or controlling greater than a 5 percent, either directly or indirectly held, equity stake in the proposing SBC. The proposing SBC must also identify any ultimate parent owner(s) and other entities and/or individuals owning more than a 5 percent equity stake in its ownership chain.

In accordance with the requirements of 13 CFR 121.702(a)(2), no single venture capital operating company, hedge fund, or private equity firm may own more than 50 percent of the concern unless that single venture capital operating company, hedge fund, or private equity firm qualifies as a small business concern that is more than 50 percent directly owned and controlled by individuals who are citizens or permanent resident aliens of the United States.

1.6 Performance Benchmark Requirements/Increased Minimum Performance Standards for Experienced Firms

Proposing SBCs with multiple prior SBIR/STTR awards must meet minimum performance requirements to be eligible to apply for a new Phase I or Direct-to-Phase II award. The Phase I to Phase II Transition Rate addresses the extent to which an awardee progresses a project from Phase I to Phase II. The Commercialization Benchmark addresses the extent to which an awardee has moved past Phase II work towards commercialization.

The SBIR and STTR Extension Act of 2022 (Pub. L. 117-183) amended the benchmarks' application for more experienced firms. Find detailed information on benchmark calculations, increased performance standards for more experienced firms and consequence of failure to meet benchmarks here. SBA will notify companies failing either benchmark and the relevant officials at the participating agencies.

The SBIR/STTR Policy Directive defines the Departments of the Army, Navy, and Air Force each as its own federal agency, and the remaining DoD Components as an executive agency of the Department of Defense. Therefore, companies that fail to meet either of the benchmarks under the Increased Performance Standards for More Experienced Firms may not receive more than an overall total of 80 awards from DoD, as detailed in the breakdown below:

Army – 20 total Phase I and Direct to Phase II awards Navy – 20 total Phase I and Direct to Phase II awards Air Force – 20 total Phase I and Direct to Phase II awards All other DoD Components combined – 20 total Phase I and Direct to Phase II awards

1.7 Direct to Phase II Program

15 U.S.C. §638 (cc), as amended by NDAA FY2012, Sec. 5106, and further amended by NDAA FY2019, Sec. 854, PILOT TO ALLOW PHASE FLEXIBILITY, allows DoD to make a SBIR Phase II award to an SBC with respect to a project, without regard to whether the SBC was provided a SBIR program Phase I award with respect to such project. DoD does not guarantee Direct to Phase II opportunities will be offered in future BAAs.

Each eligible topic requires proposing SBCs provide documentation to demonstrate feasibility described in the Phase I section of the topic has been met. Feasibility documentation cannot be based upon or logically extend from any prior or ongoing federally funded SBIR or STTR work. The proposing SBC and/or the principal investigator must have substantially performed the work submitted in the feasibility documentation. If technology in the feasibility documentation is subject to intellectual property (IP), the proposing SBC must demonstrate ownership or licensure of the IP associated with such technology prior to proposal submission to enable it and its subcontractors to legally carry out the proposed work.

If the proposing SBC fails to demonstrate technical merit and feasibility equivalent to the Phase I level as described in the associated topic, the related Phase II proposal will not be accepted or evaluated, in accordance with the Service/Component-specific Direct to Phase II instructions.

Please refer to the Service/Component-specific Direct to Phase II instructions for full details regarding Service/Component Direct to Phase II processes and proposal preparation requirements.

1.8 Program on Innovation Open Topics

15 U.S.C. §638 (ww) requires DoD establish innovation open topic activities to:

- a. increase the transition of commercial technology to the DoD;
- b. expand the small business nontraditional industrial base;
- c. increase commercialization derived from DoD investments; and
- d. expand the ability for qualifying SBCs to propose technology solutions to meet DoD needs.

Unlike conventional topics, which specify the desired technical objective and output, open topics use generalized mission requirements or specific technology areas to adapt commercial products or solutions to close capability gaps, improve performance, or provide technological advancements in existing capabilities.

Open topics released under this BAA will be clearly identified as such in the title and topic objective. Proposal preparation instructions for open topics may vary significantly across DoD Services/Components. Proposing SBCs must carefully read and follow all instructions from the DoD Service/Component for the open topic of interest. Unless specifically noted in the Service/Component instructions, all requirements outlined in this BAA remain in effect for open topics.

An SBC may only submit one proposal to each open topic. If an SBC submits more than one proposal for a single open topic, only the most recent certified proposal submitted prior to the submission deadline will receive an evaluation. All previously submitted proposals for the same open topic will be marked nonresponsive and will not receive an evaluation.

1.9 Discretionary Technical and Business Assistance (TABA)

DoD has not mandated the use of discretionary technical and business assistance (TABA). The proposing SBCs should review individual Service/Component-specific instructions to determine if TABA is offered by the Service/Component and follow instructions for requesting TABA funding.

1.10 Phase II Enhancement Policy

To further encourage the transition of SBIR research into both DoD acquisition programs and the private sector, certain DoD Services/Components developed their own Phase II Enhancement policies. Under this policy, the Service/Component will provide a Phase II awardee with additional Phase II SBIR funding if the proposing SBC can match the additional SBIR funds with non-SBIR funds from DoD acquisition programs or the private sector.

See Service/Component instructions for more details on Phase II Enhancement opportunities.

1.11 Commercialization Readiness Program (CRP)

The SBIR/STTR Reauthorization Act of 2011 established the Commercialization Pilot Program (CPP) as a long-term program called the Commercialization Readiness Program (CRP). Each Military Department (Army, Navy, and Air Force) has a CRP; please check the Service/Component instructions for further information.

The Defense SBIR/STTR Program also established the OSD Transitions SBIR Technology (OTST) Pilot Program as an interim technology maturity phase (Phase II) inserted into the SBIR development. For more information contact osd.ncr.ousd-r-e.mbx.sbir-sttr-tech-transition@mail.mil.

1.12 State and Other Available Assistance

Many states have established programs to provide services to those proposing SBCs and individuals wishing to participate in the Federal SBIR Program. These services vary from state to state, but may include:

- a. Information and technical assistance;
- b. Matching funds to SBIR recipients;
- c. Assistance in obtaining Phase III funding.

Contact your <u>State SBIR/STTR Support office</u> for further information. SBCs may seek general administrative guidance from small and disadvantaged business utilization specialists located in various defense contract management activities throughout the continental United States.

1.13 Fraud and Fraud Reporting

Knowingly and willfully making any false, fictitious, or fraudulent statements or representations may be a felony under the Federal Criminal False Statement Act (18 U.S.C. Sec 1001), punishable by a fine of up to \$10,000, up to five years in prison, or both.

The DoD Office of Inspector General Hotline ("Defense Hotline") is an important avenue for reporting fraud, waste, abuse, and mismanagement within the DoD. The Office of Inspector General operates this hotline to receive and investigate complaints or information from contractor employees, DoD civilians, Service members, and the public. Individuals who wish to report fraud, waste or abuse may contact the Defense Hotline at (800) 424-9098 between 8:00 a.m. and 5:00 p.m. Eastern Time or visit their website to submit a complaint. Mailed correspondence should be addressed to the Defense Hotline, The Pentagon, Washington, DC 20301-1900, or email addressed to hotline@dodig.mil.

2.0 CERTIFICATIONS AND REGISTRATIONS

2.1 System for Award Management (SAM) Registration

The System for Award Management (SAM) allows proposing SBCs to provide basic information on business structure, capabilities, and financial and payment information with the Federal Government. Proposing SBCs <u>must</u> register in SAM <u>here</u>. Registration in SAM will generate the Unique Entity ID (UEI) number and the Commercial and Government Entry (CAGE) code. The UEI is required for registration in the U.S. Small Business Administration's (SBA) Company Registry. A proposing SBC that is already registered in SAM should verify the registration is active, and its representations and certifications are current to avoid award delay.

2.2 SBA Company Registry

Proposing SBCs must be registered in the <u>SBA Company Registry</u>. SBCs will be required to verify registration by providing the SBC Control ID and Proof of Registration/Certification during proposal submission.

2.3 Defense SBIR/STTR Innovation Portal (DSIP) Registration

Individuals from proposing SBCs must be registered in the <u>DSIP</u> to prepare and submit proposals. Proposing SBCs submitting through this site for the first time will be asked to register. All users are required to have an individual user account to access DSIP. It is recommended proposing SBCs register as soon as possible upon identification of a proposal opportunity to avoid delays in the proposal submission process.

DSIP user accounts are authenticated by Login.gov. Users who do not already have a Login.gov account will be required to create one. Users who already have a Login.gov account can link their existing Login.gov account with their DSIP account. Job Aids and Help Videos to walk you through the process are in the Learning & Support section of DSIP.

Be advised the sharing of accounts and passwords is a violation of the Terms of Use for Login.gov and DoD policy.

Registered SBCs will have a designated DSIP Firm Admin responsible for creating the Firm PIN, controlling access for other users in the SBC and completing and maintaining the Firm-level forms, which must be completed before any proposals can be submitted.

<u>Users should complete their account registrations as soon as possible to avoid any delays in proposal submissions.</u>

NOTE: The DSIP application is only accessible from within the United States, which is defined as the fifty states, the territories and possessions of the Federal Government, the Commonwealth of Puerto Rico, the Republic of the Marshall Islands, the Federated States of Micronesia, the Republic of Palau, and the District of Columbia.

2.3.1 DSIP Assistance and Support

For assistance with the DSIP application, please visit the <u>Learning & Support</u> section of DSIP. Email DSIP Support at <u>DoDSBIRSupport@reisystems.com</u> only for further assistance with issues pertaining directly to the DSIP application. Questions submitted to DSIP Support will be addressed in the order received during normal operating hours (Monday through Friday, 9:00 a.m. to 5:00 p.m. ET). Please include information on your SBC, a proposal number (if applicable), and screenshots of any pertinent errors or issues encountered.

DSIP Support cannot provide updates to proposal status after submission, such as proposal selection/non-selection status or contract award status. Contact the DoD Service/Component that originated the topic following the Service/Component-specific instructions given at the beginning of that Service/Component-specific instructions.

2.4 Required Certifications

At the time of proposal submission, each SBC must certify via the Cover Sheet of the proposal that it meets the size, ownership, and other requirements of the SBIR Program. In addition, the Policy Directive includes certification requirements set forth in the SBIR and STTR Extension Act of 2022 (Public Law 117-183). SBCs are required to certify that they are meeting the Program's requirements during the life cycle of the funding agreement: at the time of the Phase I and Phase II award, prior to final payment on the Phase I award, prior to receiving 50 percent of the total Phase II award amount, and prior to final payment on the Phase II award.

2.5 Due Diligence Program to Assess Security Risks

15 U.S.C. §638 (vv) requires the DoD, in coordination with the SBA, to establish and implement a due diligence program to assess and, when possible, mitigate national security risks from SBCs seeking a federally funded award. The Department will use the proposal and information in response to the "Disclosures of Foreign Affiliations or Relationships to Foreign Countries" (proposal submission Volume 7) to conduct a risk-based due diligence review of the following areas: cybersecurity practices; patent analysis; employee analysis and foreign ownership, including the SBC's financial ties and obligations (which shall include surety, equity, and debt obligations); and SBC employees' ties to a foreign country, foreign person, or foreign entity. The Department will also assess proposals utilizing open-source analysis and analytical tools, for the purpose of confirming the accuracy of the information provided as well as determining if the proposing SBC failed to disclose the information set forth in 15 U.S.C. 638(g)(13).

After reviewing the proposing SBC's responses to the Disclosures of Foreign Affiliations or Relationships to Foreign Countries, if DoD determines it appropriate the Department may ask the SBC to provide true copies of any contractual or financial obligation or other agreement specific to a business arrangement or joint-venture like arrangement with an enterprise owned by a foreign state or any foreign entity in effect during the five-year period preceding the SBC's proposal submission.

The DoD may not make awards that pose an unacceptable risk to national security. If the risk-based due diligence review concludes that an SBC should not be eligible for the specific SBIR or STTR award due to a national security risk that cannot be adequately mitigated, the proposal will not receive consideration for possible award regardless of the results of the technical review of the proposal. Attachment 2: Defense SBIR and STTR Due Diligence Program Common Risk Matrix of the memo titled "Defense Small Business Innovation Research and Small Business Technology Transfer Due Diligence Program", dated 13 May 2024, provides details on the factors for assessing SBC risk during the due diligence review.

2.5.1 Training for Understanding FOCI

DoD has partnered with Project Spectrum to provide an online course on Understanding Foreign Ownership, Control, or Influence (FOCI). This course defines FOCI, explains what it means to be under FOCI, and details FOCI's effect on a company seeking initial or continued eligibility for access to a federally funded award. Small business concerns can register and access this course by following the instructions below:

1. Go to projectspectrum.io

- 2. Click "Profile/Dashboard" in the top right and then click "Sign Up" from the dropdown menu.
- 3. Follow the instructions to sign up for an account. Descriptions of the account types are provided below each option.
- 4. Verify your email by entering the code sent to the email address you provided when signing up.
- 5. Log in to Project Spectrum by clicking "Profile/Dashboard > Login" in the top right.
- 6. Hover over "Courses" in the Navigation Bar, and then select "FOCI" from the dropdown listing.
- 7. Copy the provided password.
- 8. Click on the "Understanding Foreign Ownership, Control, or Influence (FOCI)" course, which will open a new browser tab.
- 9. From the new tab, log in to Encite.io using your email address and the copied password.
- 10. Enroll in the course and click "Enter" to begin.

For Project Spectrum registration or access assistance, please email support@projectspectrum.io.

2.6 Joint Ventures

A small business joint venture entity must submit, with its proposal, the representation required in paragraph (c) of FAR solicitation provision 52.212-3, Offeror Representations and Certifications-Commercial Products and Commercial Services, and paragraph (c) of FAR provision 52.219-1, Small Business Program Representations, in accordance with 52.204-8(d) and 52.212-3(b) for the following categories:

- a. Small business:
- b. Service-disabled veteran-owned small business;
- c. Women-owned small business (WOSB) under the WOSB Program;
- d. Economically disadvantaged women-owned small business under the WOSB Program; or
- e. Historically underutilized business zone small business.

These representations can be found <u>here</u> and must be uploaded to Volume 5, Supporting Documents of the proposal submission in DSIP, if applicable.

2.7 Conflicts of Interest

Contract awards to an SBC owned by or employing current, or previous, Federal Government employees could create conflicts of interest for those employees, which may be a violation of federal law.

2.8 Organizational Conflicts of Interest (OCI)

FAR 9.5 Requirements

In accordance with FAR 9.5, proposing SBCs are required to identify and disclose all facts relevant to potential organizational conflicts of interest (OCIs) involving the proposing SBC's organization and any proposed team member (sub-awardee, consultant). The proposing SBC is responsible for providing this disclosure with each submitted proposal. The disclosure must include the proposing SBC's, and as applicable, proposed team member's OCI mitigation plan. The OCI mitigation plan must include a description of the actions the proposing SBC has taken, or intends to take, to prevent the existence of conflicting roles that might bias the proposing SBC's judgment, and to prevent the proposing SBC from having unfair competitive advantage. The OCI mitigation plan will specifically discuss the disclosed OCI in the context of each of the OCI limitations outlined in FAR 9.505-1 through FAR 9.505-4.

Agency Supplemental OCI Policy

DoD Services/Components also may have a supplemental OCI policy prohibiting contractors/performers from concurrently providing scientific engineering technical assistance (SETA), advisory and assistance services (A&AS), or similar support services, and being a technical performer. As part of the FAR 9.5 disclosure requirement, a proposing SBC must affirm whether the proposing SBC or any proposed team member (sub-awardee, consultant) is providing SETA, A&AS, or similar support to any DoD Service/Component office(s) under: (a) a current award or sub-award; or (b) a past award or sub-award that ended within one calendar year prior to the proposal's submission date. If SETA, A&AS, or similar support is or was provided to any DoD Service/Component office(s), the proposal must include:

- a. The name of the DoD Service/Component office receiving the support;
- b. The prime contract number;
- c. Identification of proposed team member (sub-awardee, consultant) providing the support; and
- d. An OCI mitigation plan in accordance with FAR 9.5.

Government Procedures

In accordance with FAR 9.503, 9.504 and 9.506, the Government will evaluate OCI mitigation plans to avoid, neutralize, or mitigate potential OCI issues before award and determine whether it is in the government's interest to grant a waiver. The U.S. Government will only evaluate OCI mitigation plans for proposals determined selectable under the BAA evaluation criteria and funding availability.

The government may require proposing SBCs provide additional information to support evaluation of the proposing SBC's OCI mitigation plan.

If the government determines a proposer failed to fully disclose an OCI; or failed to provide a government waiver as described above; or failed to reasonably provide additional information the government requested when evaluating the proposer's OCI mitigation plan, the government may reject the proposal and withdraw it from consideration for award.

2.9 Research Involving Human Subjects/Human Subject Research (RIHS/HSR)

All research involving human subjects, to include use of human biological specimens and human data, shall comply with the applicable federal and state laws, and agency policy/guidelines for human subject protection (see Section 5.2 and Appendix B).

Institutions receiving funding for research involving human subjects must provide documentation of a current federal assurance of compliance with federal regulations for human subject protection; for example a Department of Health and Human Services, Office for Human Research Protections federal-wide assurance (http://www.hhs.gov/ohrp). The awarding DoD Service/Component may also request additional federal assurance documentation. All institutions engaged in human subject research, to include subcontractors, must also have a valid assurance. In addition, personnel involved in human subjects research must provide documentation of completed appropriate training for the protection of human subjects. Institutions proposing to conduct human subject research that meets one of the exemption criteria in 32 CFR 219.101 are not required to have a federal assurance of compliance. Proposing SBCs should clearly segregate research activities involving human subjects from other R&D activities in their proposal.

If selected, institutions must also provide documentation of institutional review board (IRB) approval, or a determination from an appropriate official in the institution, that the work meets one of the exemption criteria with 32 CFR 219. As part of the IRB review process, evidence that all investigators are appropriately trained should accompany the protocol. The protocol, separate from the proposal, must

include a detailed description of the research plan, study population, risks and benefits of study participation, recruitment and consent process, and data collection and analysis.

The amount of time required for the IRB to review and approve the protocol will vary based on the IRB's procedures, the complexity of the research, the level of risk to study participants and the responsiveness of the investigator. The average IRB approval process can last between one and three months. Once the IRB has approved the research, the awarding DoD Service/Component will review the protocol and the IRB's determination to ensure that the research will be conducted in compliance with both DoD and Service/Component policies. The DoD review process can last between three to six months. Ample time should be allotted to complete both the IRB and DoD approval processes prior to recruiting subjects. No funding can be used towards human subject research until ALL approvals are granted. Submitters proposing research involving human and/or animal use are encouraged to separate these tasks in the technical proposal and cost proposal to avoid potential contract award delays.

2.10 Research Involving Animal Subjects

All research, development, testing, experimentation, education, or training involving the use of animals shall comply with the applicable federal and agency rules on animal acquisition, transport, care, handling, and use (see Section 5.2 and Appendix B).

For submissions containing animal use, proposals should briefly describe plans for their institutional animal care and use committee (IACUC) review and approval.

All recipients must receive their IACUC's approval, as well as secondary or headquarters-level approval from a DoD veterinarian trained or experienced in laboratory animal medicine and science. No animal research may be conducted using DoD funding until all appropriate DoD office(s) grant approval. Submitters proposing research involving human and/or animal use are encouraged to separate these tasks in the technical proposal and cost proposal to avoid potential contract award delays.

2.11 Research Involving Recombinant DNA Molecules

All research involving recombinant DNA molecules shall comply with the applicable federal and state law, regulation, and additional agency guidance. An institutional biosafety committee must approve the research.

In addition to the standard federal and DoD procurement certifications, the SBA SBIR Policy Directive requires the proposing business concerns provide certain information at time of award and during the award life cycle. Each proposing SBC must provide this additional information at the time of the Phase I and Phase II award, prior to final payment on the Phase I award, prior to receiving 50 percent of the Phase II total award amount, and prior to final payment on the Phase II award.

2.12 Federal Acquisition Supply Chain Security Act Orders

FAR 52.204-29 Federal Acquisition Supply Chain Security Act (FASCA) Orders—Representation and Disclosures and FAR 52.204-30 FASCA Orders—Prohibition are included in this solicitation. In accordance with FAR 52.204-29 and FAR 52.204-30, proposing SBCs must review FASCSA orders here for covered articles, or any products or services produced or provided by a source, that an applicable FASCSA order prohibits.

During contract performance, the contractor shall review SAM.gov at least once every three months, or as the contracting officer advises, to check for covered articles, or products or services produced subject as part of any new FASCSA order(s) that could impact their supply chain, and report to the contracting officer any covered article, or product or service produced or provided by a source provided to the

government or used during the contract performance.

The proposing SBC represents that, via proposal submission under this BAA, it conducted a reasonable inquiry, and it does not propose to provide or use any covered article, or any products or services produced or provided by a source, if an applicable FASCSA prohibited the covered article or the source effective this BAA's issue date.

3.0 PROPOSAL PREPARATION INSTRUCTIONS AND REQUIREMENTS

3.1 Introduction

The proposal must provide sufficient information to demonstrate to the evaluator(s) that the proposed work represents an innovative approach to an important scientific or engineering problem and is worthy of support under the stated criteria. The proposed research or R&D must be responsive to the chosen topic, although it does not need to use the exact approach specified in the topic. SBCs should consider the following:

- a. Does the technical approach have a reasonable chance of meeting the topic objective?
- b. Is this approach innovative, not routine, with potential for commercialization?
- c. Does the proposing SBC have the capability to implement the technical approach or can it obtain the appropriate people and equipment for the task?

DSIP provides a structure for providing the following proposal volumes:

- a. Volume 1: Proposal Cover Sheet
- b. Volume 2: Technical Volume
- c. Volume 3: Cost Volume
- d. Volume 4: Company Commercialization Report
- e. Volume 5: Supporting Documents
- f. Volume 6: Fraud, Waste and Abuse Training
- g. Volume 7: Disclosures of Foreign Affiliations or Relationships to Foreign Countries

Each Service/Component guidance on allowable proposal content may vary. A completed proposal submission in DSIP does NOT indicate that each proposal volume has been completed in accordance with the Service/Component-specific instructions. Accordingly, it is the proposing SBC's responsibility to consult the Service/Component-specific instructions for detailed guidance, including required proposal documentation and structure, cost and duration limitations, budget structure, TABA allowance and proposal page limits.

3.2 Export-Controlled Topic Requirements

For proposals submitted under export-controlled topics, either International Traffic in Arms or Export Administration Regulations (ITAR/EAR), a copy of the certified DD Form 2345, Militarily Critical Technical Data Agreement, or evidence of application submission must be included. The form, instructions and FAQs may be found at the United States/Canada Joint Certification Program website, https://www.dla.mil/Logistics-Operations/Services/JCP/DD23%2045Instructions/.

DD Form 2345 approval will be required if a proposal submitted to an ITAR/EAR-marked topic receives an SBIR award.

3.3 Classified Proposals

Classified proposals will not be accepted under the DoD SBIR Program. If topics require classified work during Phase II, the proposing SBC must have a facility clearance to perform the work. For more

information on facility and personnel clearance procedures and requirements, please visit the Defense Counterintelligence and Security Agency (DCSA) website at: https://www.dcsa.mil/mc/ctp/fc/.

3.4 Promotional Materials

Promotional and non-project related discussion is discouraged, and additional information provided via website links or on computer disks, CDs, DVDs, video tapes or any other medium will not be accepted or considered in the proposal evaluation.

3.5 Prior, Current, or Pending Support of Similar Proposals or Awards

While it is permissible, with proposal notification, to submit identical proposals or proposals containing a significant amount of essentially equivalent work for consideration under numerous federal program BAAs or solicitations, it is unlawful to enter negotiation for contracts requiring essentially equivalent effort. If there is any question concerning prior, current, or pending support of similar proposals or awards, it must be disclosed to the soliciting agency or agencies as early as possible and declared on the proposal cover sheet.

3.6 Marking Proprietary Proposal Information

Proposing SBCs that include data in their proposals they do not want disclosed to the public for any purpose, or only used for government evaluation purposes, shall:

a. Mark the first page of each volume of the proposal submission with the following legend:

"This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed-in whole or in part-for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this proposing SBC as a result of-or in connection with-the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in pages [insert numbers or other identification of sheets]"; and

b. Mark each sheet of data it wishes to restrict with the following legend:

"Use or disclosure of data contained on this page is subject to the restriction on the first page of this volume."

The DoD assumes no liability for disclosure or use of unmarked data and may use or disclose such data for any purpose.

Restrictive notices notwithstanding, support contractors may handle proposals and final reports submitted through DSIP for administrative purposes only; they are required to adhere to appropriate non-disclosure agreements.

3.7 Phase I Proposal Instructions

a. Proposal Cover Sheet (Volume 1)

The proposal cover sheet is prepared on DSIP. The cover sheet must include a brief technical abstract that describes the proposed R&D project and an anticipated benefits and potential commercial applications discussion. Each section should be no more than 3,000 characters. **Do not include proprietary or classified information in the proposal cover sheet**. If your proposal is selected for negotiation and possible award, the technical abstract and anticipated

benefits discussion may be publicly released online. DSIP will assign a proposal number once the cover sheet is saved. You may modify the cover sheet as needed until the BAA closes.

NOTE: the amounts listed in the percentage of work (POW) certification question on the proposal cover sheet are derived from SBC-entered information in the cost volume (Volume 3). Details on the calculation can be viewed in DSIP during proposal submission.

If the POW calculations fall below eligibility requirements, the funding agreement officer must upload either an explanatory letter or approval to the certification question to complete the submission. Some DoD Services/Components will not accept any deviations from the POW minimum requirements. Please refer to the Service/Component instructions regarding deviations acceptance to the POW requirements.

b. Technical Volume Format (Volume 2)

- 1. File Type. The Technical Volume must be a single PDF file, including graphics. Perform a virus check before uploading the technical volume file. If a virus is detected, the proposal may be rejected. Do not lock, password protect or encrypt the uploaded file. Do not include or embed active graphics, such as videos, moving pictures, or other similar media, in the document.
- 2. **Length.** It is the proposing SBC's responsibility to verify that the technical volume does not exceed the page limit after upload to DSIP. Please refer to Service/Component-specific instructions for how a technical volume is handled if the stated page count is exceeded. Some Services/Components will reject the entire technical proposal if the proposal exceeds the stated page count.
- 3. **Layout.** Number all proposal pages consecutively. Submit a direct, concise, and informative research or R&D proposal (no type smaller than 10-point on standard 8-1/2" x 11" paper with one-inch margins, including the header). Each header on each page in the technical volume should contain the proposing SBC's name, topic number, and the DSIP-assigned proposal number from the cover sheet.

c. Technical Volume Content (Volume 2)

The Technical Volume should cover the following items in the order given below:

- 1. Identification and Significance of the Problem or Opportunity
- 2. Phase I Technical Objectives
- 3. Phase I Statement of Work
- 4. Related Work
- 5. Relationship with Future Research or Research and Development
- 6. Commercialization Strategy
- 7. Key Personnel
- 8. Foreign Citizens
- 9. Facilities/Equipment
- 10. Subcontractors/Consultants
- 11. Prior, Current, or Pending Support of Similar Proposals or Awards
- 12. Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data or Computer Software

A Phase I technical volume template is available in Appendix A to provide details and helpful guidelines for completing each section of your Phase I technical proposal.

Refer to the Service/Component-specific Direct to Phase II instructions for details on proposal preparation and technical volume content requirements.

d. Cost Volume Content (Volume 3)

Complete the cost volume using the DSIP cost volume form. Some items in the cost breakdown may not apply to the proposed project. There is no need to provide information on each individual item; make sure to provide enough information for evaluators to understand the requested funds' planned use if a contract is awarded.

- 1. List all key personnels' names and include their individual hours dedicated to the project as direct labor.
- 2. While special tooling and test equipment and material cost may be included under Phase I, equipment and material inclusion will be carefully reviewed relative to need and appropriateness for the work proposed. Special tooling and test equipment purchases must, in the Service/Component contracting officer's opinion, be advantageous to the U.S. Government and should relate directly to the specific topic. These may include such items as innovative instrumentation or automatic test equipment. Title to property the U.S. Government furnished or acquired with government funds will be vested with the DoD Service/Component, unless it is determined that title transfer to the contractor would be more cost effective than the DoD Service/Component equipment recovery.
- 3. Cost for travel funds must be justified and related to the project needs.
- 4. Cost sharing is permitted for proposals under this BAA; cost sharing is not required, nor will it be an evaluation factor in the Phase I proposal consideration.
- 5. A Phase I option (if applicable) should be fully costed separately from the Phase I (base) approach.
- 6. All subcontractor costs and consultant costs, such as labor, travel, equipment, materials, must be detailed at the same level as prime contractor costs. Provide detailed subcontractor costs substantiation in your cost proposal. Supporting Documents (Volume 5) may be used if additional space is needed.

If a proposal is selected for negotiation and possible award, you must be prepared to submit further documentation to the Service/Component contracting officer to substantiate costs (e.g., a cost estimates explanation for equipment, materials, and consultants or subcontractors). For more information about cost proposals and accounting standards, see visit DCAA's website.

e. Company Commercialization Report (Volume 4)

The company commercialization report (CCR) allows companies to report funding outcomes resulting from prior SBIR and STTR awards. SBA requires SBIR and STTR awardees to update and maintain their organization's CCR on SBIR.gov. Commercialization information is required upon the last deliverable's completion under the funding agreement. Thereafter, SBIR and STTR awardees are requested to voluntarily update the information in the database annually for a minimum 5-year period.

If the proposing SBC has prior DoD and/or non-DoD Phase I and/or Phase II SBIR/STTR awards, regardless of whether the project has any commercialization to date, the firm admin must download the CCR's PDF copy from SBIR.gov and upload it to DSIP's "Firm Forms" section. The DSIP firm admin completes the firm forms are completed and are applies them to

all proposals the proposing SBC submits. To fulfill the DSIP CCR requirement complete the following:

- 1. Log into the firm account at https://www.sbir.gov/.
- 2. Navigate to My Dashboard > My Documents to view or print the information currently contained in the "Company Registry Commercialization Report."
- 3. Create or update the commercialization record, from the company dashboard, scroll to the "My Commercialization" section and click the "Create/Update Commercialization" tab under "Current Report Version." Please refer to the "Instructions" and "Guide" documents contained on dashboard for more detail on completing and updating the CCR. Ensure the report is certified and submitted.
- 4. Click the "Company Commercialization Report" PDF under the dashboard's "My Documents" section to download the CCR PDF.
- 5. Upload the CCR PDF (downloaded from SBIR.gov in previous step) to the "Company Commercialization Report" in DSIP's "Firm Forms" section. The firm admin must complete this upload action.

In Volume 4 of the DSIP proposal submission, the proposing SBC will be prompted to answer: "Do you have a new or revised Company Commercialization Report to upload?" There are three possible courses of action:

- a. If the proposing SBC has prior DoD and/or non-DoD Phase I and/or Phase II SBIR/STTR awards and has a new or revised CCR from SBIR.gov to upload to DSIP, select YES.
 - 1. If the user is the firm admin, they can upload the CCR PDF from SBIR.gov directly on this page. It will also be updated in the "Firm Forms" and be associated with all new or in-progress proposals the proposing SBC submitted. If the user is not the firm admin, they will receive a message that they do not have access and must contact the firm admin to complete this action.
 - 2. WARNING: Uploading a new CCR under the DSIP "Firm Forms" section or clicking "Save" or "Submit" in one proposal's Volume 4 is considered a change for ALL proposals under any open BAAs or CSOs. If a proposing SBC has previously certified and submitted any Phase I or Direct to Phase II proposals under any BAA or CSO still open, those proposals will be automatically reopened. Proposing SBCs will have to recertify and resubmit affected proposals. If a proposing SBC does not recertify or resubmit affected proposals, they will not be considered fully submitted and will not be evaluated.
- b. If the proposing SBC has prior DoD and/or non-DoD Phase I and/or Phase II SBIR/STTR awards, and **no new or revised CCR from SBIR.gov to upload to DSIP**, select NO.
 - 1. If a prior CCR was uploaded to the "Firm Forms", the proposing SBC will see a file dialog box at the bottom of the page and can view the previously uploaded CCR. This read-only access allows the proposing SBC to confirm the firm admin uploaded the CCR.
 - 2. If no file dialog box appears at the bottom of the page **there is no previously uploaded CCR in the DSIP "Firm Forms.**" To fulfill the DSIP CCR requirement the firm admin must follow steps 1-5 listed above to download a CCR PDF from SBIR.gov and upload it to the DSIP "Firm Forms" to be included with all proposal submissions.

c. If the proposing SBC has **NO** prior DoD and/or non-DoD Phase I and/or Phase II SBIR/STTR awards, the CCR upload from SBIR.gov is not required and SBC will select NO. The proposal's CCR section will be marked complete.

Please refer to the Service/Component-specific instructions for details on how the CCR information will be considered during proposal evaluations.

f. Supporting Documents (Volume 5)

Volume 5 is provided for proposing SBCs to submit additional documentation to support the Coversheet (Volume 1), Technical Volume (Volume 2), and the Cost Volume (Volume 3).

The following documents may be included in Volume 5, if applicable to the proposal. Refer to Service/Component-specific instructions for additional Volume 5 requirements. Reminder: A completed proposal submission in DSIP does NOT indicate the mandatory supporting documents have been uploaded in accordance with the Service/Component-specific instructions.

- 1. Letters of support
- 2. Additional cost information
- 3. Funding agreement certification
- 4. Technical data rights (assertions)
- 5. Lifecycle certification
- 6. Allocation of rights
- 7. <u>Verification of Eligibility of Small Business Joint Ventures</u>, if applicable
- 8. DD Form 2345, Militarily Critical Technical Data Agreement, if applicable (see section 3.2)

g. Fraud, Waste, and Abuse Training (Volume 6)

The fraud, waste, and abuse (FWA) training is **required** for DoD SBIR/STTR proposals. FWA training provides information on what represents FWA in the SBIR/STTR program, the most common mistakes that lead to FWA, as well as the penalties and ways to prevent FWA. The training currently consists of a 3-page PDF, consistent with the tutorial provided by the SBA. This training material must be thoroughly reviewed once per year and can be found <u>here</u> and in the DSIP proposal submission module for Volume 6. Plan time to review the tutorial during completion of Volume 6, prior to the proposal submission deadline. The individual designated as the Proposal Owner must complete this training on behalf of the proposing small business.

h. Disclosures of Foreign Affiliations or Relationships to Foreign Countries (Volume 7)

In accordance with 15 U.S.C. §638 (vv) and the SBA SBIR/STTR Policy Directive, the DoD will review all proposals submitted in response to this BAA to assess security risks of SBCs seeking a federally funded award. SBCs must complete the DSIP Volume 7 webform "Disclosures of Foreign Affiliations or Relationships to Foreign Countries" (NOTE: PDF uploads are no longer accepted). The corporate official cannot certify and submit the full proposal until the Volume 7 webform is fully completed and submitted.

Please be aware that the "Disclosures of Foreign Affiliations or Relationships to Foreign Countries" form WILL NOT be accepted as a supporting document in DSIP's Volume 5 proposal submission. Do not upload any previous versions of this form to Volume 5.

For additional details, please refer to Section 2.5. The disclosure questions are below:

- 1. Is any owner or covered individual of the applicant or awardee party to any malign foreign talent recruitment program? If yes, disclose the first and last name of each owner or covered individual, identify their role (i.e., owner or covered individual), and the malign foreign talent recruitment program.
- 2. Is there a parent company, joint venture, or subsidiary, of the applicant or awardee that is based in or receives funding from, any foreign country of concern? If yes, disclose the name, full address, applicant or awardee relationships (i.e., parent company, joint venture, or subsidiary) of each entity based in, or funded by, any foreign country of concern.
- 3. Does the applicant or awardee have any current or pending contractual or financial obligation or other agreement specific to a business arrangement, or joint venture-like arrangement with an enterprise owned by a foreign state or any foreign entity? If yes, disclose the name of each enterprise or foreign entity, type of obligation, agreement, or arrangement (*i.e.*, contractual, financial, or other), description of obligation, agreement, or arrangement, and the foreign state(s) and/or the country of the foreign entity (or entities).
- 4. Is the applicant or awardee wholly owned in a foreign country? If yes, disclose the foreign country.
- 5. Does the applicant or awardee have any venture capital or institutional investment? If yes, proceed to question 5a. If no, proceed to question 6.
 - 5a. Does the investing entity have a general partner or any other individual holding a leadership role who has a foreign affiliation with any foreign country of concern? If yes or unable to determine, disclose the venture capital or institutional investing entity's name, the percentage of ownership obtained by the investing entity, and the type of investment (i.e., equity, debt, or combination of equity and debt).
- 6. During the previous 5-year period, did the applicant or awardee have any technology licensing or intellectual property sales or transfers, to a foreign country of concern? If yes, disclose the name, address, and country, of the institution or entity that licensed, purchased, or received the technology or intellectual property.
- 7. Is there any foreign business entity, offshore entity, or entity outside the United States related to the applicant or awardee? If yes, disclose the entity name, relationship type (i.e., foreign business entity, offshore entity, entity outside the United States), description of the relationship to the applicant or awardee, and entity address and country.
- 8. Does the applicant or awardee have an owner, officer, or covered individual that has a foreign affiliation with a research institution located in a foreign country of concern? If yes, disclose the first and last name of each owner, officer, or covered individual that has a foreign affiliation with a foreign country of concern, identify their role (i.e., owner, officer, or covered individual), and the name of the foreign research institution and the foreign country of concern where it is located.

3.8 Phase II Proposal Information

Only Phase I awardees may submit Phase II proposals. Phase II proposals submission must follow individual Service/Component instructions. Awarding DoD Services/Component, either in the Phase I award or via subsequent notification, will provide details on Phase II proposal due date, content, and submission requirements. If a proposing SBC submits their Phase II proposal prior to the individual Service/Component's dates, it may be rejected without evaluation.

Due to specific limitations on the amount of funding and number of awards awarded to a particular proposing SBC per topic using SBIR/STTR program funds, head of agency determinations are now required before a different agency may make an award using another agency's topic. This limitation does not apply to Phase III funding. Please contact your original sponsoring agency before submitting a Phase II proposal to an agency other than the one who sponsored the original topic.

SBIR/STTR Policy Directive Section 4(b)(1)(i) allows that, at the agency's discretion, projects awarded a Phase I under a solicitation for SBIR may transition in Phase II to STTR and vice versa. A proposing SBC wishing to transfer from one program to another must contact their designated technical monitor to discuss the reasons for the request and the agency's ability to it. The transition may be proposed prior to award or during the Phase II effort performance. Agency disapproval of a request to change programs shall not be grounds for granting relief from any contractual performance requirement. All approved transitions between programs must be noted in the contracting officer-signed Phase II award or award modification that indicates the removal or addition of the research institution and the revised percentage of work requirements.

3.8.1 Phase II Commercialization Strategy

At a minimum, the commercialization strategy must address the following five questions:

- a. What will be the first product to use this technology?
- b. Who will be the customers, and what is the estimated market size?
- c. How much money is needed to bring the technology to market, and how will that money be raised?
- d. Does the proposing SBC contain marketing expertise and, if not, how will the SBC acquire that expertise?
- e. Who are the proposing SBC's competitors, and what is the price and/or quality advantage over those competitors?

The commercialization strategy must also include a schedule showing the anticipated quantitative commercialization results at 1) one year after the Phase II project starts, 2) at Phase II completion, and 3) after Phase II completion (i.e., additional investment amount, sales revenue, etc.). After Phase II award, the proposing SBC is required to report actual sales and investment data in its SBA company commercialization report via SBIR.gov's "My Dashboard" on a minimum annual basis. Please refer to the Service/Component-specific instructions for guidance on formatting, page count and other details.

3.8.2 Phase II Adequate Accounting System

To reduce the small business's risk and avoid potential contracting delays, companies interested in pursuing Phase II SBIR contracts and other contracts of similar size with the DoD, must have an adequate accounting system in place per General Accepted Accounting Principles, Generally Accepted Government Auditing Standards, Federal Acquisition Regulation (FAR) and Cost Accounting Standards. The Defense Contract Audit Agency (DCAA) will audit the accounting system. See DCAA's website for requirements and standards, the <u>audit process overview</u>, and a pre-award <u>system adequacy checklist</u>.

4.0 METHOD OF SELECTION AND EVALUATION CRITERIA

4.1 Evaluation Process

All proposals will be evaluated and judged on a competitive basis in terms of technical capability and technical value. Proposals will be initially screened to determine responsiveness to the topic objective. Proposals passing this initial screening will be technically evaluated by engineers, scientists, or subject matter experts to determine the most promising technical and scientific approaches. As a common statement of work does not exist, each proposal will be assessed on the merit of the approach in achieving the technical objectives established in the topic.

4.2 Evaluation Criteria

Proposals will be evaluated based on the criteria outlined below, unless otherwise specified in the Service/Component-specific instructions. Selections will be based on a determination of the overall technical value of each proposal and an evaluation of the cost volume, with the appropriate method of analysis given the contract type to be awarded, for selection of the proposal(s) most advantageous to the Government, considering the following factors which are listed in descending order of importance:

- a. The soundness, technical merit, and innovation of the proposed approach and its incremental progress toward topic or subtopic solution.
- b. The qualifications of the proposed principal/key investigators, supporting staff, and consultants. Qualifications include not only the ability to perform the R&D but also the ability to commercialize the results.
- c. The potential for commercial (government or private sector) application and the benefits expected to accrue from this commercialization.

Cost or budget data submitted with the proposals will be considered during evaluation.

Technical reviewers will base their conclusions only on information contained in the proposal. Do not assume reviewers are acquainted with the proposing SBC, key individuals, or any referenced experiments. Relevant supporting data such as journal articles, literature, including Government publications, etc., should be included based on requirements listed in Service/Component-specific instructions.

4.3 Proposal Status & Feedback

Proposing SBCs will be notified of selection or non-selection status for an award by the DoD Service/Component that originated the topic <u>no later than 90 days</u> of the closing date for this BAA. Please refer to the Service/Component-specific instructions for details.

After final selection decisions have been announced, the SBC may be provided proposal feedback in the form of a written debrief. This debriefing process varies across the DoD Services/Components. Please refer to the Service/Component-specific instructions for details on the debriefing processes.

4.4 Award Denials

The DoD will not make an award under the SBIR program if it determines:

- a. The SBC submitting the proposal
 - i. has an owner or covered individual that is party to a malign foreign talent recruitment program;
 - ii. has a business entity, parent company, or subsidiary located in the People's Republic of China or another foreign country of concern; or
 - iii. has an owner or covered individual that has a foreign affiliation with a foreign entity located in the People's Republic of China or another foreign country of concern; and

- b. The relationships and commitments described in clauses (i) through (iii) of subparagraph (A)
 - i. interfere with the capacity for DoD-supported activities to be carried out;
 - ii. create duplication with DoD-supported activities;
 - iii. present concerns about conflicts of interest;
 - iv. were not appropriately disclosed to the DoD;
 - v. violate Federal law or terms and conditions of DoD-awarded contracts or other agreements; or
 - vi. pose a risk to national security.

4.5 Pre-Award and Post Award BAA Protests

Interested parties have the right to protest via procedures in FAR Subpart 33.1; protests exclusively related to this BAA's terms must be served to: osd.ncr.ousd-r-e.mbx.SBIR-STTR-Protest@mail.mil

For protests filed with the Government Accountability Office (GAO), a copy of the protest shall be submitted to the email address listed above (pre-award ONLY) or DoD Service/Component POC (post-selection/award decision ONLY) within one day of filing with the GAO. Protests of small business status of a selected proposing SBC may also be made to the SBA via the procedures in FAR § 19.302.

For the purposes of a protest related to a particular topic selection, non-selection or award decision, protests should be served to the point-of-contact (POC) listed in the instructions of the DoD Component that authored the topic.

5.0 ADDITIONAL CONSIDERATIONS

5.1 Award Information

The number of awards will be consistent with the Component's RDT&E budget. No contracts will be awarded until evaluation of all qualified proposals for a specific topic is completed.

Each proposal selected for negotiation and possible award will be funded under negotiated contracts, purchase orders, or Other Transactions and will include a reasonable fee or profit consistent with normal profit margins provided to profit-making proposing SBCs for R/R&D work. Firm-Fixed-Price, Firm-Fixed-Price Level of Effort, Labor Hour, Time & Material, or Cost-Plus-Fixed-Fee type contracts can be negotiated and are at the discretion of the Component Contracting Officer.

Contract value varies among the DoD Services/Components; <u>it is important for proposing SBCs to review Service/Component-specific instructions regarding award size.</u>

The SBA SBIR/STTR Policy Directive, Section 7(c)(1)(ii), states agencies should issue the award no more than 180 days after the closing date of the BAA.

5.2 Contract Requirements

Upon contract award, the contractor will be required to make certain legal commitments through acceptance of U.S. Government contract clauses in the Phase I contract. The examples below are illustrative of the types of provisions the Federal Acquisition Regulation requires in the Phase I contract. This is not an exhaustive provisions list that could be included in Phase I contracts, nor does it contain specific clause wording. Appendix C of this BAA contains additional potential required Federal Acquisition Regulation (FAR) and Defense Federal Acquisition Regulation Supplement (DFARS) clauses. Copies of complete general provisions will be made available prior to award.

Examples of general provisions:

- a. **Standards of Work**. Work performed under the Funding Agreement must conform to high professional standards.
- b. **Inspection**. Work performed under the Funding Agreement is subject to Government inspection and evaluation at all times.
- c. **Examination of Records**. The Comptroller General (or a duly authorized representative) must have the right to examine any pertinent records of the Awardee involving transactions related to this Funding Agreement.
- d. **Default**. The Federal Government may terminate the Funding Agreement if the contractor fails to perform the work contracted.
- e. **Termination for Convenience**. The Funding Agreement may be terminated at any time by the Federal Government if it deems termination to be in its best interest, in which case the Awardee will be compensated for work performed and for reasonable termination costs.
- f. **Disputes.** Any dispute concerning the Funding Agreement that cannot be resolved by agreement must be decided by the contracting officer with right of appeal.
- g. **Contract Work Hours**. The Awardee may not require an employee to work more than 8 hours a day or 40 hours a week unless the employee is compensated accordingly (for example, overtime pay).
- h. **Equal Opportunity**. The Awardee will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin.
- i. **Equal Opportunity for Veterans**. The Awardee will not discriminate against any employee or application for employment because he or she is a disabled veteran or veteran of the Vietnam era.
- j. **Equal Opportunity for People with Disabilities**. The Awardee will not discriminate against any employee or applicant for employment because he or she is physically or intellectually disabled.
- k. **Officials Not to Benefit**. No Federal Government official may benefit personally from the SBIR/STTR Funding Agreement.
- Covenant Against Contingent Fees. No person or agency has been employed to solicit or secure the Funding Agreement upon an understanding for compensation except bona fide employees or commercial agencies maintained by the Awardee for the purpose of securing business.
- m. **Gratuities**. The Funding Agreement may be terminated by the Federal Government if any gratuities have been offered to any representative of the Government to secure the award.
- n. **Patent Infringement**. The Awardee must report each notice or claim of patent infringement based on the performance of the Funding Agreement.
- o. **American Made Equipment and Products**. When purchasing equipment or a product under the SBIR/STTR Funding Agreement, purchase only American-made items whenever possible.

5.3 Agency Recovery Authority and Ongoing Reporting

In accordance with Section 5 of the SBIR and STTR Extension Act of 2022, the DoD will:

- **a.** require an SBC receiving an award under its SBIR program to repay all amounts received from the federal agency under the award if,
 - 1. the SBC makes a material misstatement that the federal agency determines poses a risk to national security; or
 - 2. there is a change in the SBC's ownership, entity structure, or other substantial change in circumstances that the federal agency determines poses a risk to national security; and
- **b.** require an SBC receiving an award under its SBIR program to regularly report to the federal agency and the administration throughout the duration of the award on

- 1. any change to a disclosure required under the Disclosures of Foreign Affiliations or Relationships to Foreign Countries form;
- 2. any material misstatement made under paragraph (A) above; and
- 3. any change described in paragraph (B) above.

5.4 Copyrights

With prior written permission of the contracting officer, the awardee may copyright (consistent with any appropriate national security considerations) material developed with DoD support. DoD receives a royalty-free license for the Federal Government and requires that each publication contain an appropriate acknowledgment and disclaimer statement.

5.5 Patents

SBCs normally may retain the principal worldwide patent rights to any invention developed with U.S. Government support. The government receives a royalty-free license for its use, reserves the right to require the patent holder to license others in certain limited circumstances, and requires that anyone exclusively licensed to sell the invention in the United States must normally manufacture it domestically. 35 U.S.C. § 205 authorizes that the government will not make public any information disclosing a government-supported invention for a period of five years to allow the awardee to pursue a patent. See also Section 6.8, Invention Reporting.

5.6 Invention Reporting

SBIR awardees must report inventions to the Service/Component within two months of the inventor's report to the awardee, via either paper documentation submission, including fax, or through the Edison Invention Reporting System at www.iedison.gov for participating agencies.

5.7 Technical Data Rights

Rights in technical data, including software, developed under the terms of any contract resulting from proposals submitted in response to this BAA generally remain with the contractor, except that the U.S. Government obtains a royalty-free license to use such technical data only for government purposes during the period commencing with contract award and ending not less than twenty years after that date. This data should be marked with the restrictive legend specified in DFARS 252.227-7018 Class Deviation 2020-O0007. Upon expiration of the twenty-year restrictive license, the government has government purpose rights in the SBIR data. During the license period, the U.S. Government may not release or disclose SBIR data to any person other than its support services contractors except: (1) for evaluation purposes; (2) as expressly permitted by the contractor; or (3) a use, release, or disclosure that is necessary for emergency repair or overhaul government-operated items. See DFARS clause 252.227-7018 Class Deviation 2020-O0007 "Rights in Noncommercial Technical Data and Computer Software – Small Business Innovation Research (SBIR) Program."

If a proposing SBC plans to submit assertions in accordance with DFARS 252.227-7017 Class Deviation 2020-O0007, those assertions must be identified and assertion of use, release, or disclosure restriction must be included with your proposal submission, at the end of the technical volume. The contract cannot be awarded until assertions are approved.

5.8 Final Technical Reports - Phase I through Phase III

- a. **Content**: A final report is required for each project phase. The reports must contain in detail the project objectives, work performed, results obtained, and estimates of technical feasibility. A completed SF 298, "Report Documentation Page," will be used as the first page of the report. The DoD Service/Component also may require monthly status and progress reports.
- b. SF 298 Form "Report Documentation Page" Preparation:

- a. If desirable, the proposing SBC may also use language from its Phase II proposal to cover Phase I progress in the final report.
- b. For each unclassified report, the proposing SBC submitting the report should fill in Block 12 (Distribution/Availability Statement) of the SF 298, "Report Documentation Page," with the following statement: "Distribution authorized to U.S. Government only; Proprietary Information, (Date of Determination). Other requests for this document shall be referred to the Service/Component SBIR Program Office."

Note: Data developed under a SBIR contract is subject to SBIR Data Rights, under which DFARS 252.227-7018 Class Deviation 2020-O0007 (see Section 5.7, Technical Data Rights) provides protection. The sponsoring DoD activity, after reviewing the proposing SBC's entry in Block 12, has final responsibility for assigning a distribution statement.

For additional information on distribution statements see the following Defense Technical Information Center (DTIC) <u>website</u>.

- c. Block 14 (Abstract) of the SF 298, "Report Documentation Page" must include as the first sentence, "Report developed under_SBIR contract for topic [insert BAA topic number. [Follow with the topic title, if possible.]" The abstract must identify the work's purpose and briefly describe the work conducted, the findings or results, and the effort's potential applications.

 Since DoD will publish the abstract, it must not contain any proprietary or classified data, and type "UU" in Block 17.
- d. Block 15 (Subject Terms) of the SF 298 must include the term "SBIR Report".
- c. **Submission**: In accordance with DFARS 252.235-7011, submit an electronic copy of the approved final scientific or technical report, not a summary, delivered under the contract to the Defense Technical Information Center (DTIC) through the web-based input system at https://discover.dtic.mil/submit-documents/ as required by DoD Instruction 3200.12, DoD Scientific and Technical Information Program (STIP). Include a completed Standard Form (SF) 298, Report Documentation Page, in the document, or complete the web-based SF 298. Additional submission resources are available here.

Delivery will normally be within 30 days after completion of the Phase I technical effort.

Other requirements regarding reports and/or other deliverables submission will be defined in each contract's contract data requirements list (CDRL). Special instructions for submitting CLASSIFIED reports will be defined in the contract's delivery schedule.

DO NOT email classified or controlled unclassified reports, or reports containing SBIR Data Rights protected under DFARS 252.227-7018 Class Deviation 2020-O0007.

6.0 PROPOSAL SUBMISSION

6.1 Submission Details

<u>Deadline for Receipt</u>: Complete proposals must be certified and submitted in DSIP no later than the close date of the release listed on the cover page of this BAA. Proposals cannot be submitted in DSIP after the deadline is reached and will not be accepted or evaluated.

The final proposal submission includes successful completion of all firm level forms, all required proposal volumes, and electronic corporate official certification. Although signatures are not required on the electronic forms at the time of submission, the proposal must be certified electronically by the corporate official for it to be considered submitted. If the proposal is selected for negotiation and possible award, the DoD Component program will contact the proposing SBC for signatures prior to award. Please plan to submit proposals as early as possible to allow time for troubleshooting any possible issues before the BAA close. DSIP Support is unable to assist with submission issues once a deadline has passed and cannot provide submission extensions. DoD is not responsible for missed proposal submission due to system latency.

If the proposal status is "In Progress" or "Ready to Certify" it will NOT be considered submitted, even if all volumes are added prior to the BAA close date. The proposing SBC may modify all proposal volumes prior to the BAA close date.

6.2 Technical Ouestions

a. **Direct Contact with Topic Authors**. During the pre-release period, the names of the topic authors, their phone numbers and/or email addresses are published with the topic on the <u>DSIP Topics and Topic Q&A</u> page. During this time, proposing SBCs can contact topic authors via telephone or email to ask technical questions about specific BAA topics. <u>Questions must be limited to specific information related to understanding a particular topic's requirements.</u>

<u>Proposing SBCs may not ask for advice or guidance on solution approach and may not submit additional material to the topic author.</u>

If information provided during an exchange with the topic author is deemed necessary for proposal preparation, that information will be made available to all parties through DSIP Topic Q&A.

After the pre-release period, questions must be asked through DSIP Topic Q&A as described below. No further direct contact is allowed between proposing SBCs and topic authors, unless the topic author is responding to a question submitted during the pre-release period.

b. **DSIP Topic Q&A.** Proposing SBCs may submit written questions through DSIP Topic Q&A here, where all questions and answers are posted on a non-attribution basis for public viewing. DSIP Topic Q&A opens on the pre-release date and closes two weeks prior to the topic close date.

Proposing SBCs may use the topic search feature on DSIP to locate a topic of interest. Use the form at the bottom of the topic description, enter and submit the question. Answers are generally posted within seven business days of question submission and also e-mailed directly to the inquirer.

Questions submitted through the DSIP Topic Q&A are limited to technical information focused on understanding a topic's requirements. Any other questions, such as asking for advice or guidance on solution approach, or administrative questions, such as SBIR or STTR program eligibility, technical proposal/cost proposal structure and page count, budget and

duration limitations, or proposal due date <u>are not appropriate and will not receive a response</u>; for administrative questions, refer to a topic's Service/Component-specific instructions.

Once the BAA proposal submission closes, no communication of any kind is allowed either with the topic author or through topic Q&A regarding submitted proposals.

Throughout the BAA period, proposing SBCs should frequently monitor DSIP for updates and amendments to the topics and DSIP Topic Q&A for questions and answers.

7.0 Participating Component Instructions & Research Topics

The following section contains all Component-specific proposal preparation instructions and research topics under Release 5 of this BAA.

DoD SBIR 25.4 BAA Release 5

February 5, 2025: Topics Pre-release

February 26, 2025: Topics Open; DoD begins accepting proposals in DSIP March 12, 2025: DSIP Topic Q&A closes to new questions at 12:00 p.m. ET March 26, 2025: Topics Close; Deadline for receipt of proposals is 12:00 p.m. ET

Participating Services/Components:

- Department of the Army (Army)
- Department of the Navy (Navy)
- Defense Advanced Research Projects Agency (DARPA)
- Missile Defense Agency (MDA)
- United States Special Operations Command (SOCOM)

DEPARTMENT OF THE ARMY

DoD 25.4 Small Business Innovation Research (SBIR)
Annual Broad Agency Announcement (BAA)
Component-Specific Proposal Instructions
Release 5

IMPORTANT

The following topic numbers in this release are part of a prize competition, xTechIgnite:

A254-016 A254-017 A254-018 A254-019 A254-020 A254-021 A254-022 A254-023

xTechIgnite will be used to identify small business concerns that meet the criteria for award. Winners selected from the xTechIgnite prize competition will be the only firms eligible to submit an SBIR proposal under any of the topics listed above. Proposals submitted to the topics listed above by non-winners of the xTechIgnite competition will not be evaluated. See the full xTechIgnite competition RFI here: https://www.xtech.army.mil/competition/xtechignite/.

The white paper submission deadline for xTechIgnite is March 12, 2025. White papers must be submitted by following instructions provided at the xTechIgnite link above. NOTE: white papers are NOT submitted to DSIP. Small business concerns that do not submit a concept white paper to the xTechIgnite competition before the March 12, 2025 deadline will be ineligible to compete or submit a full SBIR proposal to DSIP.

The following topic numbers are NOT part of the prize competition and are subject to submission deadlines as published in the DoD SBIR 25.4 Program BAA, Release 5.

A254-014 A254-015

To the extent possible, all Department of the Army component specific text follows the same numbering as the related sections in the DOD SBIR 25.4 Program BAA. Supplemental numbering is used only when the text cannot be integrated intelligibly with the DoD SBIR 25.4 Program BAA counterpart.

Each Small Business Concern (SBC) (also referred to herein as "proposer", "offeror", and/or "firm") is encouraged to thoroughly review the DoD SBIR 25.4 Program BAA, to include any amendments/revisions, and the Army component-specific proposal instructions herein.

Please note that these instructions contain active hyperlinks. Offerors are encouraged to utilize these hyperlinks for additional information and resources. Ensure your browser or Portable Document Format viewer settings permit hyperlink access to take full advantage of these resources.

The following resources are provided to assist SBCs with SBIR Program Opportunities:

- The DoD SBIR 25.4 Program BAA is located at: https://www.dodsbirsttr.mil/submissions/solicitation-documents/active-solicitations.
- To remain apprised of important programmatic and solicitation changes, SBCs should register for the Defense SBIR / Small Business Technology Transfer (STTR) Innovation Portal (DSIP) Listserv at: https://www.dodsbirsttr.mil/submissions/login.
- Department of the Army's How to Submit a Compliant and Responsive Proposal Webinar

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1.0 PROGRAM DESCRIPTION

1.1 Objectives and Context

The future Army must be capable of conducting Multi-Domain Operations (MDO) as part of an integrated Joint Force across an array of situations in multiple theaters by 2035. The MDO concept describes how the Army will support the Joint Force in the rapid and continuous integration of all domains of warfare – land, sea, air, and cyberspace – to deter and prevail as we compete short of conflict, and fight and win if deterrence fails. The Army must provide game-changing capabilities to our Soldiers. To capitalize on small business innovation and reduce the time from solicitation to award, the Army has implemented an approach to advertise SBIR funding opportunities through the Department of Defense (DoD) Annual BAA process, outside of the three pre-determined BAA cycles.

1.4 Eligibility and Performance Requirements

Proposing SBCs may refer the DoD SBIR 25.4 Program BAA, to include any amendments/revisions, for full eligibility requirements.

Furthermore, firms must not be debarred, suspended, proposed for debarment, or excluded from Government contracting within the System for Award Management (SAM) –

- Contractors debarred, suspended, or proposed for debarment are excluded from receiving an award. Contractors that are debarred, suspended, or proposed for debarment are also excluded from conducting business with the Government as agents or representatives of other contractors.
- Contractors and other entities that have an active exclusion record in SAM because they have been declared ineligible on the basis of statutory or other regulatory procedures are excluded from receiving an award under the conditions and for the period set forth in the statute or regulation.
- The Army SBIR Program will not consent to subcontracts with these contractors.

1.5 Majority Ownership in Part by Multiple Venture Capital, Hedge Fund, and Private Equity Firms

Under the Department of the Army's SBIR Program, proposing SBCs that are owned in majority part by multiple venture capital operating companies (VCOCs), hedge funds (HF), or private equity funds (PEF) are eligible to submit applications or receive awards. Reference may be made to the DoD SBIR 25.4 Program BAA, including revisions/amendments, as well as 13 CFR 121.702, regarding eligibility standards, to include ownership and control requirements, applicable to the SBIR program.

All applicants that are majority-owned by multiple VCOC, HF or PEF, and are submitting a proposal to an Army Topic, shall complete the certification at <u>Verification of Eligibility of Small Business Joint Ventures</u>, prior to submitting an application/proposal and must include the certification with their submission.

1.7 Direct to Phase II Program

Implementing the authority granted by 15 U.S.C. §638 (cc), as amended by the SBIR AND STTR EXTENSION ACT OF 2022, the U.S. Army will be conducting 'Direct to Phase II' contract awards for eligible SBIR topics. Each eligible topic requires documentation to determine whether the feasibility requirement described in the Phase I section of the topic has been met.

1.8 Program on Innovation Open Topics

This release contains an open topic. Proposing SBCs may refer the DoD SBIR 25.4 Program BAA, to include any amendments/revisions, for additional information regarding open topic submissions.

A small business concern may only submit one (1) proposal to each open topic. If more than one proposal from a small business concern is received for a single open topic, only the most recent proposal to be certified and submitted prior to the submission deadline will receive an evaluation. All prior proposals submitted by the small business concern for the same open topic will be marked as nonresponsive and will not receive an evaluation.

1.9 Discretionary Technical and Business Assistance (TABA)

The Army's SBIR and STTR Policy Directive, Section 9(b), authorizes the provision of Technical Assistance and Business Assistance (TABA) to awardees. TABA aims to support awardees in several key areas, including making informed technical decisions, overcoming technical challenges, mitigating technical risks, and facilitating the commercialization of their SBIR|STTR projects. While participation in the Army SBIR|STTR TABA program is voluntary, the Army encourages awardees to utilize its preferred vendor, FedTech, for these services. Instructions to complete the Army's preferred vendor application will be provided upon contract award.

Alternatively, proposing SBCs may choose to contract TABA services themselves through one or more providers. To do so, the SBC must explicitly state in its Army SBIR|STTR proposal its intention to use a different TABA provider. The cost of TABA services, not exceeding the resource limitations specified below, must be included in the Cost Volume (Volume 3) of the proposal. This amount cannot include any profit/fee for the proposing SBC. Additionally, TABA costs cannot be factored into the calculation of general and administrative expenses (G&A) for the proposing SBC. The required justification for using a firm-selected TABA vendor must be provided in Supporting Documentation (Volume 5), following the instructions outlined in that section.

The Army SBIR program sponsors participation in the TABA program. The resource limitations for each firm is as follows:

Phase I Firms:

- <u>Army-Preferred Vendor</u>: If approved, the contractor may receive up to \$6,500 for assistance services
 per project (in addition to the maximum award funding guideline limitation specified in the respective
 SBIR|STTR Topic). The Army's preferred provider currently offers the following TABA services for
 Phase I awardees:
 - Commercial Pitch Deck Review
 - o Commercialization Strategy Review
- <u>Firm-Selected Vendor</u>: If approved, the contractor may receive up to \$6,500 in contract obligations per project (this amount must be included as part of the maximum award funding guideline limitation specified in the respective SBIR|STTR Topic). **Firm-Selected Vendor TABA funding will be denied** if the offeror fails to include the cost in the Phase I proposal.

Phase II Firms:

- <u>Army-Preferred Vendor</u>: If approved, the contractor may receive up to \$50,000 for assistance services
 per project (in addition to the maximum award funding guideline limitation specified in the respective
 SBIR|STTR Topic). The Army's preferred provider currently offers the following TABA services for
 Phase II awardees:
 - Customized market research and strategy
 - IP support
 - Cybersecurity Maturity Model Certification (CMMC) compliance
 - Defense Contract Audit Agency (DCAA) compliance
 - Communications and Marketing

• <u>Firm-Selected Vendor</u>: If approved, the contractor may receive up to \$50,000 in contract obligations per project (this amount must be included as part of the maximum award funding guideline limitation specified in the respective SBIR|STTR Topic). **Firm-Selected Vendor TABA funding will be denied** if the offeror fails to include the cost in the Phase II proposal.

For additional resources regarding the Army SBIR Program's TABA, please refer the following link: https://www.armysbir.army.mil/taba/

1.10.1 Department of the Army Phase II Enhancement Policy

1.10.1 Overview

To further encourage the transition of SBIR research into DoD acquisition programs as well as the private sector, the Department of the Army may offer a Phase II Enhancement that supplements and extends a Phase II SBIR/STTR contract (the initial Phase II, or the second Phase II award) for an additional period of performance of approximately 6 to 18 months. The enhancement must be matched 1:1 with non-SBIR/STTR funding. Army RDT&E funding is preferred for the matching funds, however other forms of renumeration may be considered on a case-by-case basis and must be approved by the Army SBIR Program Director and the Contracting Officer.

Enhancement funding is typically applied to an active Phase II award via a contract modification and will result in an additional period of performance that is commensurate with the total funding received, typically 6 to 18 months (18 months being the maximum). On a case-by-case basis, however, a new Phase II contract may be awarded if appropriate. The proposed Enhancement effort must develop, deliver, and integrate a technology or product into a program within a DoD component(s), Federal Agency(ies), and/or the commercial sector.

1.10.2 Application Process

Enhancement requests should be submitted at least 6 months prior to the end of the Phase II period of performance to allow adequate time to complete the contracting process. Applications to the Enhancement Program will be reviewed for overall merit, transition potential, commercialization strategy, and value to the Army mission and are typically initiated through the Contracting Officer Representative (COR), Technical Point(s) of Contact (TPOC), SBIR Coordinator, and/or the Army SBIR Program Transition Broker Team lead, with oversight and input from the Contracting Officer.

Upon Army SBIR/STTR Program's Source Selection Authority (SSA) approval to proceed, assigned contracting personnel will prepare and issue a letter request for proposal (RFP), soliciting the firm's Enhancement proposal.

1.10.3 Limitations

All Enhancement requests are subject to the approval of the Army SBIR/STTR Program's SSA, successful completion of negotiations, and the availability of funding.

"Outside investment" must meet DoD Guidelines to qualify for Phase II Enhancement matching funds.

Eligible third-party investors include:

- Non-SBIR Department of Defense funds
- Any other non-SBIR federal agency funds
- A SBC other than the eligible/performing SBC
- Venture capital firms
- Individual investors

- A non-SBIR federal, state, or local government; or
- Any combination thereof

Ineligible sources include:

- The eligible SBC's internal research and development funds
- Funding in forms other than cash (such as in-kind or other tangible assets)
- Funding from the owners of the eligible SBC, or the family members or affiliates of such owners; or
- Funding attained through loans or other forms of debt obligations

2.0 CERTIFICATIONS AND REGISTRATIONS

2.1 System for Award Management (SAM) Registration

Interested SBCs are required to be registered and active in <u>SAM</u> in accordance with <u>FAR Provision 52.204-7</u> before submitting a proposal and shall continue to be registered until time of award, during performance, and through final payment of any contract. Refer to the Eligibility section above, for information regarding firms (proposing SBC and its subcontractor(s)) who are listed as debarred, suspended, proposed for debarment, or possessing an active exclusion within the SAM.

SBCs may only submit offers using their legal business name or 'Doing Business As' (DBA) name, as indicated in the SAM registration for the provided Unique Entity Identifier (UEI). A firm submitting an offer using a DBA name shall have the DBA registered and linked to their current, active, SAM registration. Further, a firm may NOT submit an offer on behalf of another entity.

Proposing firms with no SAM registration, inactive SAM registration(s), or SAM registration(s) with improper Reps/Certs will be deemed ineligible. Additionally, an offer submitted using a DBA that is different from the firm's legal, registered name, or no longer registered and linked to SAM shall be deemed unresponsive.

2.3 Defense SBIR/STTR Innovation Portal (DSIP) Registration

It is the SBCs responsibility to ensure that the firm's DSIP account profile information correlates to the data found within the firm's SAM registration. This includes, but is not limited to the following:

- 5-Digit Commercial and Government Entity Code
- 12-Digit UEI
- Legal Business Name
- "Doing Business As" Name
- Physical Address

Failure to correlate the SBCs entity information between the DSIP application and SAM and/or submit required certifications may significantly delay funding agreement award, become grounds for cancellation of the funding agreement, or become grounds for termination of an existing funding agreement.

2.4 Required Certifications

Under a SBIR Phase I contract, the contractor shall submit a <u>SBIR Funding Agreement</u>
 <u>Certification – Life Cycle Certification</u>, certifying as to whether it is in compliance with specific
 SBIR program requirements at the time of final payment or disbursement. This form shall be
 submitted as an attachment in Wide Area Workflow (WAWF), when submitting an invoice for
 final payment or disbursement on the Phase I contract.

Under a SBIR Phase II contract, the contractor shall submit a <u>SBIR Funding Agreement</u> <u>Certification – Life Cycle Certification</u>, certifying as to whether it is in compliance with specific SBIR program requirements prior to receiving more than 50% of the total award amount and prior to final payment or disbursement. This form shall be submitted as an attachment in WAWF when submitting invoices for each of the aforementioned milestones.

3.0 PROPOSAL PREPARATION INSTRUCTIONS AND REQUIREMENTS

3.2 Export-Controlled Topic Requirements

Export of all unclassified technical data with military or space application in the possession of, or under the control of, a DoD Component information, which includes, in some circumstances, release to foreign nationals within the United States, without first obtaining approval, authorization, or license from the Department of State for items controlled by the International Traffic in Arms Regulations (ITAR), or the Department of Commerce for items controlled by the Export Administration Regulations (EAR), may constitute a violation of law.

Pursuant to DFARS Procedures Guidance and Information 225.7901-2, your firm should direct its attention to the clause at DFARS 252.225-7048, Export-Controlled Items for questions concerning compliance with ITAR/EAR.

Further, in accordance with Department of Defense Directive 5230.25, Withholding of Unclassified Technical Data from Public Disclosure, contractors or subcontractors that will handle technical data that might have military or space applications, must certify that they will comply with all applicable U.S. laws that control the export of sensitive data, as follows:

If any portion of the proposed SBIR effort is subject to ITAR your firm must complete a fully certified DD Form 2345, Military Critical Technical Data Agreement. The DD Form 2345, Military Critical Technical Data Agreement, instructions, and Frequently Asked Questions (FAQs) may be found at the United States/Canada Joint Certification Program (JCP) website, <u>JCP Portal</u>. Failure to complete the DD From 2345 in a timely manner will significantly delay contract award, become grounds for cancellation of the contract action, or become grounds for termination of an existing contract.

If any portion of the proposed SBIR effort is subject to EAR, your firm must submit for and obtain the proper export licenses through the Department of Commerce's Bureau of Industry and Security on-line system, <u>SNAP-R</u>. Failure to obtain the proper export licenses in a timely manner will significantly delay contract award, become grounds for cancellation of the contract action, or become grounds for termination of an existing contract.

Topics under this announcement may be subject to ITAR/EAR and may be identified as such. However, export control compliance statements found in this document are not meant to be all inclusive. They do not remove any liability from the applicant to comply with applicable ITAR or EAR export control restrictions.

3.7 Phase I Proposal Instructions

The following instructions supplement, and in some cases, supersede, those found within the DoD SBIR 25.4 Program BAA, including any amendments/revisions/appendices.

a. Proposal Cover Sheet (Volume 1)

The proposal cover sheet shall follow the instructions and requirements provided in the DoD SBIR 25.4 Program BAA. The offeror shall certify that to the best of its knowledge and belief, its eligibility information under the SBIR Program is accurate, complete, and current as of the date of the offer.

b. Technical Volume Format (Volume 2)

The following technical volume formatting requirements supplement those found in the DoD SBIR 25.4 Program BAA, including any revisions/amendments.

- 1. **File Type**: The Technical Volume shall be a single Adobe Acrobat (supporting Windows 10-11) Portable Document Format (.pdf) searchable text format file, including graphics. PDF files that cannot be opened using Adobe Acrobat products will not be considered by the Government.
- 2. **Length**: The Technical Volume shall not exceed five (5) pages and shall follow the formatting requirements provided in the DoD SBIR 25.4 Program BAA. It is the proposing SBC's responsibility to verify that the Technical Volume does not exceed the page limit after upload to DSIP. **Any proposals exceeding the page count limit will be deemed unresponsive.**

c. Technical Volume Content (Volume 2)

The following technical volume content instructions supersede those stated in the DoD SBIR 25.4 Program BAA, including any amendments/revisions/appendices.

The technical volume shall contain two (2) key parts: technical approach and team qualifications, described in further detail below.

<u>Volume 2, Part 1</u>. The technical approach section should be a substantial portion of the Technical Volume detailing how the offeror will address the specific technical problem or opportunity outlined in the topic, and its significance. The offeror shall include a statement of work or work-plan that describes the technical approach, including subcontractor efforts. The statement of work shall indicate what tasks are planned, how and where the work will be performed, a schedule of major events and meetings, and the final deliverables. The Phase I effort should determine the technical feasibility of the proposed concept. Methods for achieving each objective or task must be clearly explained, avoiding unnecessary technical jargon.

Additionally, the technical approach should address any inherent risks, and describe mitigation strategies. Offerors should describe any activities directly related to the proposed effort, as well as prior work that, while not directly related, is similar to the proposed effort. This includes activities and prior work conducted by the principal investigator, the proposing SBC, consultants, or others. Offerors should also describe the expected outcomes if the project is successful and explain the relevance of the Phase I effort in supporting Phase II research and development efforts.

<u>Volume 2, Part 2</u>. The team qualifications section shall identify the key personnel working on the project (including information on directly related education and experience) and the resources that will be brought to bear on solving the problem.

Identify any foreign citizens or individuals holding dual citizenship expected to be involved on this project as a direct employee, subcontractor, or consultant. For these individuals, please specify their country of origin, the type of visa or work permit under which they are performing and an explanation of their anticipated level of involvement on this project. Note: You may be asked to provide additional

information during proposal evaluation and/or negotiations in order to verify the foreign citizen's eligibility to participate on a SBIR contract. Supplemental information provided in response to this paragraph will be protected in accordance with the Privacy Act (5 U.S.C. 552a), if applicable, and the Freedom of Information Act (5 U.S.C. 552(b)(6)). The Government may withdraw from negotiations at any time for any reason to include matters of national security (foreign persons, foreign influence or ownership, inability to clear the firm or personnel for security clearances, or other related issues).

d. Cost Volume Content (Volume 3)

With the exception of the instructions provided below, Offerors must comply with all Cost Volume (Volume 3) requirements outlined in the DoD SBIR 25.4 Program BAA. **Note**: Options are not anticipated at this time. If an option is identified in the topic posting, costs for the Base and Option shall be separated and clearly identified.

In anticipation of a possible contract award, all proposed costs shall be accompanied by documentation to substantiate how the cost was derived. Failure to include supporting documentation with the proposal may delay any potential contract award, as the proposer will be asked to submit the necessary documentation to the Contracting Officer to substantiate costs. It is important to respond as quickly as possible to the Contracting Officer's request for documentation. Failure or refusal to provide documentation may result in dissolution of the contract action.

• DIRECT LABOR:

- List all key personnel by name as well as by number of hours dedicated to the project as direct labor.
- Provide a task-level, time-phased (e.g., annual) breakdown of labor hours, rates, and cost by appropriate Direct Labor category, and explain the basis of estimates. Include substantiating documentation to support the costs (e.g., payroll reports)

• MATERIAL/TOOLING/EQUIPMENT:

- O Provide a consolidated priced summary of individual raw materials, parts, components, assemblies, and services to be produced or performed by others. For all items proposed, include the item nomenclature, description, part number, quantity, unit price, extended amount, vendor name, basis of estimate, and whether the item is commercial in accordance with the definition in FAR 2.101, based on adequate price competition or non-competitive.
- Proposing firms shall provide substantiating documentation for the cost of all
 material, tooling and equipment (e.g. vendor quotes, invoice prices, competitive bids,
 etc.). If your choice isn't the lowest cost available, explain the decision to choose one
 item or supplier over another.
- Ensure all materials are American made to the maximum extent practicable. Offerors
 who propose to use a foreign-made product in its technology may be required to find
 an American-made equivalent.
- While special tooling and test equipment and material cost may be included, it will be carefully reviewed relative to need and appropriateness for the work proposed.

The purchase of special tooling and test equipment shall, in the opinion of the Procurement/Government Component Contracting Officer, be advantageous to the Government and should be related directly to the specific topic. These may include such items as innovative instrumentation or automatic test equipment. Title to property furnished by the Government or acquired with Government funds will be vested with the DoD Component, unless it is determined that transfer of title to the contractor would be more cost effective than recovery of the equipment by the DoD Component.

• SUBCONTRACTS:

- O Provide data showing the degree of Subcontractor competition and the basis for establishing the source and reasonableness of price through price analysis.
- O Provide detailed substantiation of subcontractor costs in your cost proposal. This should include a breakdown of subcontractor labor, travel, equipment, materials, etc.
- Subcontracts with Federal Laboratories As defined in 15 United States Code (U.S.C.) 3703, Federal Laboratory means any laboratory, any federally funded research and development center, or any center established under 15 U.S.C. 3705 and 3707 that is owned, leased, or otherwise used by a Federal Agency and funded by the Federal Government, whether operated by the Government or by a contractor. A waiver is no longer required for the use of federal laboratories and FFRDCs; however, Offerors must certify their use of such facilities on the Cover Sheet of the proposal. A list of eligible FFRDCs is available at: https://www.nsf.gov/statistics/ffrdclist/
- Offerors shall not propose to subcontract to any prohibited sources, as prescribed at FAR 25.7 – Prohibited Sources, and its supplements. Proposals identifying a subcontractor/vendor arrangement with a prohibited source will be deemed unresponsive.
- Considering the goals of the SBIR Program, Offerors shall ensure subcontracts (as defined in Appendix B of the overarching DoD SBIR 25.4 Program BAA) are with United States SBCs to the maximum extent practicable. Offerors proposing a subcontractor arrangement with other than a United States SBC (such as, a large business, foreign firm, foreign government, educational institution, FFRDC, unit of Federal Government, etc.) may be required to submit further explanation.

• TRAVEL:

- o Virtual meetings shall be utilized to the maximum extent practicable.
- Explain the basis of proposed travel, including to/from locations, number of trips, number of travelers per trip, and number of days/nights per trip. Include substantiating documentation for the costs (e.g. screenshots of flight cost comparison, rental car quotes, etc.).
- o In accordance with FAR 31.205-46 Travel costs incurred shall not exceed the maximum per diem rates set forth in Federal Travel Regulation, Joint Travel Regulation, or standard regulations, unless the travel is special or considered

unusual. Any special or unusual travel costs shall be supported with substantiating documentation for review and consideration. Per diem rate lookup can be located at https://www.gsa.gov/travel/plan-book/per-diem-rates?gsaredirect=perdiem.

INDIRECT COSTS:

- o Indicate how you have computed and applied your indirect costs (e.g., overhead, general & administrative, material handling, fringe, etc.), including cost breakdowns. Indicate the rates used and provide an appropriate explanation.
- o If a Defense Contract Audit Agency (DCAA) Audit has been conducted within the last five (5) years, include the audit compliance documentation in the cost proposal documents. The documentation should also include the offeror's DCAA Point of Contact (if applicable). Further, if applicable Offerors shall provide any current Forward Pricing Rate Agreements (FPRA) in effect at time of proposal submission.

e. Company Commercialization Report (Volume 4)

Completion of the Company Commercialization Report (CCR) as Volume 4 of the proposal submission in DSIP is required for prior SBIR/STTR awardees. Please refer to the DoD SBIR 25.4 Program BAA for full details on this requirement.

f. Supporting Documents (Volume 5)

Volume 5 is provided for proposers to submit additional documentation to support the Cover Sheet (Volume 1) and the Technical Volume (Volume 2), and the Cost Volume (Volume 3). A completed proposal submission in DSIP does NOT indicate that the mandatory supporting documents have been uploaded. It is the responsibility of the proposing small business concern to ensure that the mandatory documents listed above have been uploaded and included with the proposal submission.

All proposing SBCs are REQUIRED to submit the following documents to Volume 5:

- Army Commercialization Plan: Proposing SBCs shall submit their Commercialization Plan, utilizing the template found at Appendix 0001 Commercialization Plan Template attached hereto. The offeror shall convert the Commercialization Plan to a PDF prior to submitting as an attachment to Volume 5 Supporting Documents. Any proposals submitted without a Commercialization Plan, or in a format other than the template provided at Attachment 0001 Commercialization Plan Template, shall be deemed unresponsive.
 Commercialization Plan Template can also be found here: Army SBIR Forms and Templates
- 2. <u>Key Personnel Table</u>. This table must identify all key personnel expected to execute work on the project, including individuals from the prime, subcontractors, or Research Institution (as applicable). Failure to provide this information may significantly delay selection, and/or any potential contract award. The table must include the following information for each individual:
 - a. Employee Name
 - b. Labor Category
 - c. Description of Work to be Performed on the Project
 - d. Employee (Prime, Subcontractor, Consultant, Research Institution)
 - e. Country of Origin

All proposing SBCs are required to submit the following documents to Volume 5, if applicable:

- 1. Non-Proprietary Work Plan: This summary, which should be based upon the technical approach discussed in your Technical Volume (Volume 2), is subject to a two (2) page limit and should provide a clear and concise overview of the proposed project's technical objectives, key milestones and their target completion dates, associated key deliverables, and the anticipated project duration. This information will serve as the basis for publicly releasable information about the project and will serve as the basis for establishing performance requirements within the contract. Therefore, the summary should be written in a manner understandable to a technically literate audience without disclosing sensitive or proprietary information.
- 2. Verification of Eligibility of Small Business Joint Ventures
- 3. Assertion of use, release, or disclosure restriction (in accordance with DFARS 252.227-7017)
- 4. DD Form 2345, Military Critical Technical Data Agreement
- 5. Justification for SBC-selected TABA vendor
- 6. Place of Performance Ammunition and Explosives (refer to section 3.11 Arms, Ammunitions and Explosives, Paragraph (f) below)

In addition to the Volume 5 requirements, the Department of the Army may accept the following documents in Volume 5:

- 7. Cost/Pricing Information
- 8. SBIR Funding Agreement Certification
- 9. Other (only as specified in the topic)

Please only submit documents that are identified immediately above, and as required by the DoD SBIR 25.4 Program BAA. All other documents submitted will be disregarded, including but not limited to promotional and non-project related information.

g. Fraud, Waste and Abuse Training (Volume 6)

Follow instructions provided in the DoD SBIR 25.4 Program BAA for completion of the Fraud, Waste and Abuse training in DSIP.

h. Disclosures of Foreign Affiliations or Relationships to Foreign Countries (Volume 7) SBCs must complete the Disclosures of Foreign Affiliations or Relationships to Foreign Countries webform in Volume 7 of the DSIP proposal submission.

Please be aware that the Disclosures of Foreign Affiliations or Relationships to Foreign Countries WILL NOT be accepted as a PDF Supporting Document in Volume 5 of the DSIP proposal submission. <u>Do not upload any previous versions of this form to Volume 5</u>. For additional details, please refer to the DoD SBIR 25.4 Program BAA.

3.8 Phase II Proposal Information

Unless a Topic posting specifies that the DA will be accepting Direct to Phase II proposal submissions, Phase II proposals may only be submitted by Phase I awardees. Submission of Phase II proposals is not permitted at this time, and if submitted, may be rejected without evaluation. Phase II proposal preparation and submission instructions will be provided via subsequent notification.

3.9 Direct to Phase II Proposal Instructions

Offerors may submit DP2 proposals only if allowed pursuant to the topic posting. With the exception of the DP2 component specific proposal instructions for the Technical Volume (Volume 2) identified below, DP2 Proposals shall follow the Phase I Proposal Instructions described above and within in the DoD SBIR 25.4 Program BAA.

b. Technical Volume Format (Volume 2)

The following technical volume formatting requirements supplement those found within in the DoD SBIR 25.4 Program BAA, including any revisions/amendments.

- 1. **File Type**: The Technical Volume shall be a single Adobe Acrobat (supporting Windows 10-11) Portable Document Format (.pdf) searchable text format file, including graphics. PDF files that cannot be opened using Adobe Acrobat products will not be considered by the Government.
- 2. **Length**: For DP2 proposals, the Technical Volume is broken into two (2) sections: Feasibility Documentation, which is subject to a page limitation of five (5) pages; and a Technical Proposal, which is subject to a page limitation of ten (10) pages. The Technical Volume, therefore, shall not exceed fifteen (15) pages and shall follow the formatting requirements provided in the DoD SBIR 25.4 Program BAA. It is the proposing SBC's responsibility to verify that the Technical Volume does not exceed the page limit after upload to DSIP. **Any proposals exceeding the page count limit will be deemed unresponsive.**

c. Technical Volume Content (Volume 2)

The following technical volume content instructions supersede those stated in the Phase I Proposal Instruction section above, and corresponding the DoD SBIR 25.4 Program BAA, including any amendments/revisions/appendices. For DP2 proposals, the technical volume shall include two (2) sections, Feasibility Documentation and a Technical Proposal, which are further defined below.

Volume 2A, Feasibility Documentation

Feasibility documentation shall not exceed five (5) pages in length.

Proposers interested in submitting a DP2 proposal in response to these topics shall provide documentation to substantiate that the scientific and technical merit and feasibility described in the Phase I section of the topic has been met and describes the potential commercial applications. Documentation shall include all relevant information including, but not limited to: technical reports (summary and citation), test data, prototype designs/models, and performance goals/results. If references exist, the offeror shall include a reference list or works cited list as the last page of the feasibility documentation. This will count towards the total page limit.

Work submitted within the feasibility documentation must have been substantially performed by the proposer and/or the Principal Investigator. Feasibility documentation cannot be based upon any prior or ongoing federally funded SBIR or STTR work and MUST NOT logically extend from any prior or ongoing federally funded SBIR or STTR work. It is the offeror's responsibility to ensure compliance. Should the Government find a violation before contract award, the proposal will be rejected. Should the Government find a violation after contract award, the Government has the right to terminate the contract.

If technology in the feasibility documentation is subject to Intellectual Property (IP), the proposing

small business concern must either own the IP or must have obtained license rights to such technology prior to proposal submission, to enable it and its subcontractors to legally carry out the proposed work.

If the proposing SBC fails to demonstrate technical merit and feasibility equivalent to the Phase I level as described in the associated topic has been established, or the proposer has failed to demonstrate that work submitted in the feasibility documentation was substantially performed by the proposer and/or the PI the related Phase II proposal will be deemed unresponsive.

Volume 2B, Technical Proposal

The technical proposal shall contain two key parts: (1) technical approach and (2) team qualifications.

Volume 2B, Part 1 – Technical Approach. The technical approach section shall explain, in detail, how the offeror is going to solve the specific technical problem or opportunity addressed in the topic. The offeror shall include a statement of work with explicit, detailed descriptions and key elements of the technical approach (including subcontractors' efforts), any risks, relevant past work and how success was measured along with how success will be measured for this effort. Explain objectives while avoiding technical jargon. The statement of work shall indicate what tasks are planned, how and where the work will be conducted, a schedule of major events and meetings, and the final product(s) to be delivered (reference the 'Contractual Requirements' section above). The Phase II effort should attempt to provide proof of concept and prototype development. The methods planned to achieve each objective or task should be discussed explicitly and in detail. This section should be a substantial portion of the Technical Volume section. Note: If the topic allows research or activities involving Human/Animal Subjects and/or Recombinant DNA, offerors shall identify the applicable protocols and how those protocols will be followed.

<u>Volume 2B, Part 2 – Team Qualifications</u>. The team qualifications section shall highlight identify the key personnel working on the project (including information on directly related education and experience), and the resources that will be brought to bear on solving the problem.

Identify any foreign citizens or individuals holding dual citizenship expected to be involved on this project as a direct employee, subcontractor, or consultant. For these individuals, please specify their country of origin, the type of visa or work permit under which they are performing and an explanation of their anticipated level of involvement on this project. Note: You may be asked to provide additional information during proposal evaluation and/or negotiations in order to verify the foreign citizen's eligibility to participate on a SBIR contract. Supplemental information provided in response to this paragraph will be protected in accordance with the Privacy Act (5 U.S.C. 552a), if applicable, and the Freedom of Information Act (5 U.S.C. 552(b)(6)). The Government may withdraw from negotiations at any time for any reason to include matters of national security (foreign persons, foreign influence or ownership, inability to clear the firm or personnel for security clearances, or other related issues).

3.10 Expeditionary Technologies (xTech) Prize Competition Selectees

This section applies exclusively to companies selected as winners in Part 2 of the respective Expeditionary Technologies (xTech) Prize Competition. These companies, having successfully pitched their solutions to Army and DoD experts, are the only SBCs eligible to submit Army SBIR proposals under the corresponding topic area.

xTech Prize Competition selectees must follow the Army Phase I Proposal Submission Instructions, with one important exception regarding the Technical Volume (Volume 2). In lieu of submitting a full Technical Volume (Volume 2), xTech selectees shall submit the following as a single Adobe PDF document:

- Non-Proprietary Work Plan: This document should adhere to the guidelines outlined in Section f. Supporting Documents (Volume 5) of the Army Phase I Proposal Submission Instructions, including the two (2) page limitation. This waives the requirement to include the Non-Proprietary Work Plan in Volume 5 Supporting Documents.
- <u>Pitch Deck Slides from Part 2 Finals of the xTech Prize Competition</u>: This should be the final version of the slides used during your in-person (or virtual) pitch.

All remaining proposal volumes, including any applicable and/or optional documents discussed in Section f. Supporting Documentation (Volume 5) must be completed according to the standard Army Phase I Proposal Submission Instructions.

NOTE: The Technical Evaluation (Section 4.1.2) and Selection (Section 4.1.3) guidance defined below do not apply to xTech Prize Competition selectees. Your proposals have already undergone a comprehensive evaluation as part of the xTech competition.

3.11 Controlled Unclassified Information (CUI)

Successful firms will be required to comply with CUI DoDI 5200.48. Firms must monitor CUI for aggregation and compilation based on the potential to generate classified information pursuant to security classification guidance addressing the accumulation of unclassified data or information. Firms shall report the potential of classification of aggregated or compiled CUI to ASA(ALT) Security Manager. Firms, pursuant to mandatory DoD contract provisions, will submit unclassified DoD information for review and approval for release and approval for release in accordance with the standard DoDI 5230.09. All CUI records must follow the approved mandatory disposition authorities whenever the DoD provides CUI to, or CUI is generated by, non-DoD entities in accordance with Section 1220-1236 of Title 36, CFR, Section 3301a of Title 44, U.S.C., DoDI 5200.48.

3.12 Arms, Ammunition, and Explosives (AA&E)

If the proposed statement of work requires the use, development, production, manufacture, purchase, or delivery of Arms, Ammunition and Explosives (AA&E) data and/or hardware, the offeror shall follow the following instructions:

- a. References:
 - 1. MIL-STD-1168 Ammunition Lot Numbering and Ammunition Data Cards
 - 2. DODM 5100.76 Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives (AA&E)
 - 3. AR 190-11 Physical Security of Arms, Ammunition, and Explosives
 - 4. Defense Transportation Regulation 4500.9-R
 - 5. Technical Bulletin (TB) 700-2
- b. The offeror, in its proposal, and resulting contractor, in performance of the work, shall comply with the requirements of the following DFARS provisions/clauses:
 - 1. 252.223-7002, Safety Precautions for Ammunition and Explosives (NOV 2023);

- 2. 252.223-7003, Change in Place of Performance-Ammunition and Explosives (DEC 1991); and
- 3. 252.223-7007, Safeguarding Sensitive Conventional Arms, Ammunition, and Explosives (NOV 2023).
- c. The offeror, in its proposal, and resulting contractor, in performance of the work, shall provide proper storage and accountability. These standards are set forth in Department of Defense (DOD) 5100.76-M, entitled "Physical Security of Sensitive Conventional Arms, Ammunition and Explosives".
- d. Prior to any contract award, the offeror must first pass a pre-award physical security inspection of its and its subcontractor's facilities, conducted by Defense Security Service (DSS). See DOD 5100.76-M, Appendix 2, Attachment 1, for a listing of DSS regions. Facilities, including any subcontractor facilities, that do not meet all of the security requirements of DOD 5100.76-M will not be awarded a contract.
- e. If the proposed statement of work requires transportation of Sensitive Conventional AA&E, the standards set forth in Defense Transportation Regulation 4500.9-R., Defense Traffic Management, shall be followed.
- f. Place of Performance: In accordance with Federal Acquisition Regulation (FAR) provision/clause 52.215-6, Place of Performance (OCT 1997), and DFARS provision/clause 252.223-7003, Change in Place of Performance—Ammunition and Explosives (DEC 1991), the offeror shall include the following information in Volume 5 of its proposal. Failure to include this information in proposals involving AA&E may result in the proposal being deemed unresponsive.
 - 1. The offeror, in the performance of any contract resulting from this solicitation, □ intends, □ does not intend [check applicable block] to use one or more plants or facilities located at a different address from the address of the offeror as indicated in its proposal.
 - 2. If the offeror or respondent checks "intends" in paragraph (a), it shall include the following required information for each and every plant or facility (including subcontractor plants or facilities) located at a different address from the address of the offeror as indicated in its proposal.
 - i. Firm Name
 - ii. Place of Performance (Street Address, City, State, County, ZIP Code)
 - iii. Name and Address of Owner and Operator of the Plant or Facility
- g. In accordance with local procedures and DFARS provision/clause 252.223-7007, Safeguarding Sensitive Conventional Arms, Ammunition, and Explosives (NOV 2023), the offeror shall include the following information in Volume 5 of its proposal for itself and for each plant or facility (including subcontractor plants or facilities) that the offeror listed as a "Place of Performance". The offeror shall include the information to the best of its ability in order to avoid delay in contract award. Do not include locations that will not use, develop, produce, manufacture, purchase, or deliver AA&E in performance of the work.
 - 1. Firm Name
 - 2. Identify if the firm is the prime-contractor or sub-contractor
 - 3. Place of Performance (Street Address, City, State, County, ZIP Code)
 - 4. Unique Entity Identification (UEI) and Cage Code
 - 5. Confirm that address and cage code match the information in SAM.gov ("unknown" is an acceptable response if unable to look up sub-contractors)
 - 6. Full name, phone number, and email address for a point of contact at this location

- 7. Description of the AA&E and/or work involving AA&E
- 8. National Stock Number (NSN) of the AA&E (if none exist, indicate "N/A")
- 9. Identify the Security Risk Classification (SRC) of the AA&E (Instructions for determining the SRC are found in Enclosure 7 (p. 40 p.46) of DODM 5100.76) (The SRC can be either I, II, III, IV or U) ("unknown" is an acceptable response if Government input is required to make this determination)
- 10. Identify the hazard classification (HC) of the AA&E (Instructions for determining the HC are found in Chapter 2 (p.2) of TB 700-2) ("unknown" is an acceptable answer if Government input is required to make this determination)
- 11. Identify whether the AA&E will be furnished by the Government as Government Furnished Property (GFP) or if it will be developed, produced, manufactured, or purchased by the prime or sub-contractor

4.0 METHOD OF SELECTION AND EVALUATION CRITERIA

4.1 Evaluation Process

4.1.1 Initial Screening

Proposals will only be evaluated in response to an active, corresponding Army topic. Proposals will be initially screened to determine responsiveness, timeliness, and SBC eligibility. Assessment of responsiveness and eligibility may continue during technical evaluation, and after selection. For purposes of this solicitation, these terms are defined as:

Responsiveness: When a proposal fails to meet a material requirement of the solicitation, to include compulsory terms and conditions, the proposal shall be deemed unresponsive.

Timeliness: A Timely Proposal is one that is received by the Government on or before the due date and prior to the established set time.

SBC Eligibility: An eligible SBC is a firm that meets all requirements identified in the "Eligibility" section herein.

4.1.2 Technical Evaluation (Not Applicable to xTech Prize Competition Selectees)

Proposals passing the initial screening will receive a technical evaluation using 'Valid Evaluation,' a software as a service analytics tool. Each proposal is assigned a cadre of evaluators (typically engineers or scientists) who perform a review based on the evaluation criteria defined in the DoD SBIR 25.4 Program BAA, as supplemented by the following Valid Evaluation criteria:

<u>Phase I Evaluation Criteria</u> Direct to Phase II Evaluation Criteria

These supplemental Army Component criteria further define the overall DoD SBIR 25.4 Program BAA evaluation criteria by breaking it down into sub-dimensions, or elements. Proposals are not evaluated against each other during the evaluation process. Proposals will not be evaluated against each other during the evaluation process. As a common statement of work does not exist, each proposal is assessed on its own individual merit to determine how well the proposal meets the criteria stated in this solicitation and the corresponding opportunity.

It is the policy of the Army to ensure equitable and comprehensive proposal evaluations based on the evaluation criteria and to select the source (or sources) whose offer meets the Government's technical, policy, and programmatic goals. Selections for further consideration of possible contract award will be based on a

determination of the overall technical value of each proposal.

Note: Designated support contractors may review submissions for the purposes of technical evaluation. All support contractors are bound by appropriate non-disclosure agreements.

4.1.3 Selection (Not Applicable to xTech Prize Competition Selectees)

Proposing firms will be notified via email of selection or non-selection status of its Phase I or DP2 proposal within 90 days of the closing date of the Topic. The notification will be sent to the Corporate Official listed on the proposal cover sheet, from the Army SBIR Program Office mailbox.

Selected proposals are not guaranteed a contract award. Proposers shall not regard the notification email (selection decision notice) as an authorization to commit or expend funds. Upon selection, proposals are forwarded to a Government Contracting Officer for further evaluation and contract negotiation. A Government Contracting Officer may contact the proposer in order to discuss and request additional information required for award. This may include representations and certifications, certified or other than certified cost data, subcontracting plan for small businesses, and/or other information as applicable to the proposed award. Proposers shall not regard these communications as an authorization to commence work or commit or expend funds.

4.1.4 Other Assessment Considerations

SBCs will be evaluated for responsibility, meaning the prospective SBC meets the standards set forth in <u>FAR 9.104</u>. A prospective contractor must affirmatively demonstrate its responsibility, including, when necessary, the responsibility of its proposed subcontractors.

Further, in accordance with FAR 15.402(a), Contracting officers shall purchase supplies and services from responsible sources at fair and reasonable prices. As a result, Contracting Officials will conduct proposal analysis in accordance with the techniques identified at FAR 15.404-1. Proposals lacking a fair and reasonable price will be deemed unsuccessful.

4.1.5 Potential Contract Award

If at any point the proposal is deemed untimely, unresponsive, or the SBC (or its subcontractors) is deemed ineligible or non-responsible, the proposal will be unsuccessful, meaning the proposal is not one that will result in an award (it is un-awardable). Successful proposals, therefore, are those that have met all stated requirements and qualifications and will receive an award.

Upon an affirmative determination of proposal timeliness, responsiveness, compliance, and price reasonableness, as well as prospective contractor eligibility and responsibility, the Contracting Officer may proceed with an award, subject to the availability of funds. Unless a Government Contracting Officer signs an award document (e.g., contract), no obligations to provide funding are made. The Government may cancel award of the contract action at any time.

If signed by the Government Contracting Officer, the award document is the official and authorizing instrument, thereafter, referred to as the "contract". The period of performance will begin upon award of the contract. The Contracting Officer will email the signed contract to the principal investigator (PI) and/or an authorized organization representative.

4.3 Proposal Status and Feedback

The Army promotes transparency regarding the technical evaluation for all Army SBIR proposals. The Army will provide feedback to offerors in accordance with the DoD SBIR 25.4 Program BAA. The selection decision notice contains instructions for obtaining feedback in the form of a ValidEval Report. The Army shall not provide any additional feedback beyond the ValidEval report. Offerors are entitled to no more than one feedback per proposal.

NOTE: Feedback is not the same as a FAR Part 15 debriefing. The competitive procedures for this solicitation are governed by the SBA SBIR/STTR Policy Directive. Therefore, offerors are neither entitled to, nor will they be provided FAR Part 15 debriefs.

4.5 Pre-Award and Post Award BAA Protests

Pre-award agency protests related to the terms of the BAA must be served to the point of contact listed in the DoD SBIR 25.4 Program BAA.

Post award agency protests related to a selection or award decision must be served to the following address:

Email: <u>usarmy.SBIRSTTR@army.mil</u>

Mailing Address:

Army SBIR Office 2530 Crystal Drive; Suite 11192 Arlington, Virginia 22202

Firms shall follow the DoD SBIR 25.4 Program BAA for protests filed with the Government Accountability Office (GAO) and size protests regarding the small business status of a selected proposing small business concern.

5.0 ADDITIONAL CONSIDERATIONS

5.1 Award Information

- a. Number of Awards. The number of awards will depend upon funds availability. The Army reserves the right to award none, one, or more than one contract under any topic. No awards will be made until evaluation of all qualified proposals for a specific topic have been made. The Army is not responsible for costs incurred before award receipt.
- b. Type of Funding Agreement. The Army plans to execute funding agreements as FAR-based, firm-fixed-price contracts. Fixed price payments shall be tied to measurable milestones or deliverables, as agreed to by the Government. Milestone schedules are used as a means to monitor technical progress, to mitigate technical and cost risk, and to address the cashflow needs of awardees. The Government Contracting Officer retains the right to negotiate a contract type and price (or estimated cost and fee) that will promote the Government's interest, result in reasonable contractor risk, and provide the contractor with the greatest incentive for efficient and economical performance (FAR Subpart 16.1 Selecting Contract Types).
- c. Dollar Value and Period of Performance. Award guideline and associative period of performance limitations have been established for each SBIR Topic. Proposals exceeding these limitations will be deemed unresponsive

5.2 Contract Requirements

In addition to the contractual requirements specified in the DoD 25.4 SBIR Program BAA, awards under the Army SBIR Program are also subject to the following:

5.2.1 Deliverable Requirements

- a. <u>Hardware (Prototype) Deliverables (if applicable)</u>: See topic for information to determine if development and delivery of prototypes is required. If your proposal identifies hardware that will be delivered to the government, be aware of the possible requirement for unique item identification in accordance with <u>DFARS Clause 252.211-7003</u>, <u>Item Unique Identification and Valuation</u>. More information regarding item identification and valuation requirements may be found at <u>DFARS Section 211.274</u>.
- b. <u>Data Deliverables (Contract Data Requirements Lists CDRLS)</u>: Data is ordered using single or multiple DD Form 1423, Contract Data Requirements Lists (CDRLS), which will be located in the contract at Section J, Exhibits. A CDRL is the "data delivery" vehicle providing the what, when, who, and how of the delivery. CDRLS require the contractor to formally deliver the data (contractual obligation) to the Government. Each CDRLS will reference a Data Item Description (DID) that describes data content, format, media, and intended use of a single data product. DIDs may be viewed using the <u>Acquisition Streamlining and Standardization Information System</u> (ASSIST).

All funding agreements executed under the Army SBIR Program shall include the following CDRL requirements:

- 1. Status Reports: Under the authority of DID number DI-MGMT-80368A, status reports are due at a specified time after contract award and periodically (e.g., Monthly, Bi-monthly, Quarterly) thereafter in accordance with the prepared DD Form 1423 that will be incorporated via Section J, Exhibits of any resultant contracts.
- 2. Scientific and Technical Report: Under the authority of DID number DI-MISC-80711A, a final report shall be delivered in accordance with the prepared DD Form 1423 that will be incorporated via Section J, Exhibits of any resultant contract (see section 12.9 below for additional information regarding the Final Technical Report).
- 3. Scientific and Technical Reports Summary: Under the authority of DID number DI-MISC-80048, a final, non-proprietary summary report shall be delivered in accordance with the prepared DD Form 1423 that will be incorporated via Section J, Exhibits, or any resultant contract.

The Army end-user or customer may require additional deliverables or documentation including Software documentation and user manuals; Engineering drawings; Operation and Maintenance documentation; Safety hazard analysis when the project will result in partial or total development/delivery of hardware; and/or updated commercialization results.

5.2.2 Meeting Requirements:

- a. Start of Work Meeting: The contractor shall hold a start of work meeting at its facility, unless some other location is designated in the contract, within 30 calendar days after contract award. The Start of Work Meeting is to assure a clear and mutual understanding of the contract terms, conditions, line items, technical requirements and sequence of events needed for successful execution of the contracted effort. The contractor shall coordinate with the Government to arrange a schedule and agenda for the meeting.
- b. Periodic (e.g., Monthly, Bi-Monthly, Quarterly) Review Meetings: Periodic review meetings shall be conducted to monitor and report on status of contractor effort towards achieving contract objectives, identify accomplishments to date and difficulties encountered, and compare the status achieved to planned goals and the resources expended.

5.6 Invention Reporting

In accordance with FAR clause 52.227-11, "Patent Rights-Ownership by the Contractor", and DFARS clause 252.227-7039, "Patents – Reporting of Subject Inventions", the contractor shall execute the following:

- a. Interim Report of Inventions and Subcontracts: Under all Phase II SBIR contracts, the contractor shall deliver an Interim Report of Inventions and Subcontracts, DD Form 882,12-months from the date of initial contract award, listing subject inventions during that period and stating that all subject inventions have been disclosed or that there are no such inventions.
- b. Final Report of Inventions and Subcontracts: Under all Phase I and Phase II SBIR contracts, the contractor shall deliver a Final Report of Inventions and Subcontracts, DD Form 882, within three (3) months after completion of the contracted work, listing all subject inventions or stating that there were no such inventions.
- c. SBIR awardees must report inventions within two months of the inventor's report to the awardee. The reporting of inventions may be accomplished by submitting paper documentation, including fax, or through the Edison Invention Reporting System at www.iedison.gov.

6.0 PROPOSAL SUBMISSION

6.3 Contact Information

SBC's may direct questions to the following Points of Contact, as described below:

a. <u>Army Component Specific Proposal Instructions</u>: General questions regarding the administration of the Army SBIR Program, and the Army Component-Specific Proposal Instructions should be submitted as soon as possible, and can be directed to the following:

Email: <u>usarmy.SBIRSTTR@army.mil</u>
Website: <u>https://www.armysbir.army.mil/</u>
Mailing Address: Army SBIR Office

2530 Crystal Drive, Suite 11192 Arlington, Virginia 22202

Appendix A <u>Army Phase I Evaluation Criteria</u>

Army SBIR STTR Phase I Evaluation Criteria v4-0



		DEFINITION
INTRODUCTION	weight 3%	Write a clear, concise description of what your innovation does or will do, and where you are in your evolution. Make clear its intended impact on the Army. Evaluators should "get it" after reading this.
ARMY BENEFITS	ALIGNMENT	Argue your technology innovation is aligned with this Army topic's priorities as defined in the solicitation.
	SOLUTION'S ADVANTAGES	Prove your prospective customers will choose you given limited resources and myriad choices. Have you accounted for indirect substitute products as well as direct competitors?
weight 15%	SOLUTION'S IMPACT	The Army seeks higher-risk, high-impact solutions through SBIR/STTR not engineering changes or incremental improvements. Use this section to describe your technology's impact and improvement upon the state of the art.
TECHNICAL APPROACH	SCIENTIFIC FEASIBILITY	Onvince readers that your innovation is built atop sound scientific and/or engineering principles. Ensure that your feasibility argument adequately responds to the requirements this Army topic.
	ENABLING TECHNOLOGIES	Do the required enabling technologies introduce added risk?
	TECHNICAL TEAM	Briefly list and describe your core scientific and technical team with an emphasis on their past accomplishments and experiences that would relate to this Army SBIR/STTR topic.
	TECHNICAL RISKS AND MITIGATION PLANS	Describe any technical risks that still exist between you and a fully mature solution. What are your plans to mitigate those risks?
weight 35%	DATA QUALITY, TECHNICAL	Use data to substantiate your claims that your Technical Approach (this section of your proposal) is credible. Provide quality data attributed to reliable, credible sources.
PROGRAMMATIC POTENTIAL	PROJECT MILESTONE SCHEDULE	Outline your execution plan. What milestones do you hope to accomplish, and what deliverables (if any) do you hope to produce during this phase and subsequent phases of the effort?
	ARMY CUSTOMER DISCOVERY & VALIDATION	Argue you are "getting out of the building" to engage in productive customer-discovery with Army stakeholders. Describe any customer validation you may have received formally or informally to date on this proposed technology.
weight 20%	ARMY TRANSITION PATHWAY	Describe the next type of deal you aim to make with the Army following this award. Briefly outline your current plan to unlock that next opportunity and/or share the biggest risks you see post this SBIR/STTR award to transition this technology to the Army.
COMMERCIAL POTENTIAL	R&D TO PRODUCT REVENUE	Argue that your team members have transitioned research and development efforts into products successfully, as evidenced by product revenue. (Product revenue is realized by directly selling a solution to solve a problem vs. selling consulting, services or research activities.)
	COMPETITIVE EDGE	Why will you win? A small company needs to have a competitive edge in the marketplace.' Something your team does very well that's difficult to match. Some examples include: well protected intellectual property, unmatched relevant expertise, a novel business model, or network effects.
weight 25%	OTHER PEOPLE'S MONEY	Make the case for the commercial market (non-DOD) potential of your technology from which the Army will benefit.
PROPOSAL QUALITY	QUALITY OF PROSE	Provide a clear, well written, and convincing proposal. Avoid jargon and define technical terms.
weight 2%	IMAGES, CHARTS, GRAPHICS	Graphics are encouraged throughout. Ensure they are logical and easy to read. Supporting images should be thoughtful and visually attractive. For plots and charts include: title, axis labels and captions. For technical images include appropriate scales or legends.

Army SBIR STTR Phase I Evaluation Criteria v4-0



		UNSATISFACTORY	MARGINAL	SATISFACTORY	SUPERIOR
INTRODUCTION	weight 3%	Ineffective introduction. Failed to provide concise innovation proposition.	Adequate introduction. Gradually conveyed innovation's purpose and value. Should be more crisp.	Effective introduction. Systematically conveys innovation's purpose and value.	Exceptional introduction. Immediately conveys innovation's purpose and value.
ARMY BENEFITS	ALIGNMENT	Not aligned with this Army topic's priorities.	Somewhat aligned with this Army topic's priorities.	Aligned with this Army topic's priorities.	Perfectly aligned with this Army topic's priorities.
	SOLUTION'S ADVANTAGES	No evidence of competitive analysis. Undifferentiated product.	incomplete or too narrow competitive analysis. Weak product differentiation.	Thorough competitive analysis. Strongly differentiated product. Accounted for most substitutes.	Persuasive competitive analysis. Highly differentiated, accounted for all substitutes, provides novel solution.
weight 15%	SOLUTION'S IMPACT	If successful, no improvement vs. the state of the art.	If successful, incremental improvement vs. the state of the art.	If successful, significant improvement vs. the state of the art.	If successful, radical improvement vs. the state of the art.
TECHNICAL APPROACH	SCIENTIFIC FEASIBILITY	No scientific basis for presented approach.	Incomplete scientific basis for presented approach.	Credible scientific basis for presented approach.	Convincing scientific basis for presented approach.
	ENABLING TECHNOLOGIES	Requires nonexistent or unavailable technology.	Requires emerging, cutting edge technology.	Requires proven technologies.	Requires Army-fielded technologies.
	TECHNICAL TEAM	Technical people lack qualifications OR have no experience.	Technical people are somewhat qualified and have some experience.	Technical people are highly qualified OR have significant experience.	Technical people are highly qualified AND have significant experience.
	TECHNICAL RISKS AND MITIGATION PLANS	Failed to present challenges and risks.	Inadequate risk analysis. Mitigation marginally addressed.	Credible risk analysis. Mitigation effectively addressed.	Highly credible risk analysis. Mitigation convincingly addressed.
weight 35%	DATA QUALITY, TECHNICAL	Poorly supported by data. Little to no data attribution.	Partially supported by data. Some data attribution.	Credibly supported by data. Adequate data attribution.	Persuasively supported by meaningful data. Comprehensive data attribution.
PROGRAMMATIC POTENTIAL	PROJECT MILESTONE SCHEDULE	Unclear or non-credible project milestones, or timing.	Mostly clear, credible project milestones and timing. Mostly appropriate level of detail.	Mostly clear, credible project milestones and timing. Appropriate level of detail.	Completely clear, credible project milestones and timing. Appropriate level of detail.
	ARMY CUSTOMER DISCOVERY & VALIDATION	No customer interviews completed. No validation.	A handful customer interviews completed. No validation.	Extensive interviews completed. Early validation beginning to inform transition strategy.	Exhaustive interviews completed. Validation informs credible transition strategy.
weight 20%	ARMY TRANSITION PATHWAY	Falls to identify next contract goal and/or falls to present a plan for near-term execution.	Identifies next contract goal. Has a plan for near- term execution.	Identifies stage- appropriate next contract goal. Credible plan for near-term execution.	identifies ideal next contract goal. Convincing plan for near term execution.
COMMERCIAL POTENTIAL	R&D TO PRODUCT REVENUE	No evidence of creating product revenue from R&D efforts.	Evidence of R&D yielding product revenue at previous company(ies).	Evidence of R&D yielding product revenue at this company.	Evidence of R&D yielding product revenue sufficient to fuel this company's growth.
	COMPETITIVE EDGE	Undifferentiated firm. Falls to argue it has an advantage.	Weakly differentiated firm. Some evidence of an advantage.	Strongly differentiated firm. Credibly argues it has durable advantage.	Highly differentiated firm. Convincingly argues it has durable advantage.
weight 25%	OTHER PEOPLE'S MONEY	Fails to present non-DoD sources for future R&D funding.	Evolving non-DoD sources of future R&D funding.	Secure non-DoD source(s) of future R&D funding.	Diverse and robust non- DoD sources of future R&D funding.
PROPOSAL QUALITY	QUALITY OF PROSE	Poorly written. Very difficult to impossible to follow argument. Several spelling or grammar errors.	Moderately written. Sometimes difficult to follow argument. A few spelling / grammar errors.	Effectively written. Convincing, easy to follow argument. No spelling or grammar errors.	Clearly and persuasively written. Compelling arguments. No spelling or grammar errors.
weight 2%	IMAGES, CHARTS, GRAPHICS	Poor visual aids. Often difficult to understand, distracting, or irrelevant.	Inadequate visual aids. Sometimes difficult to understand, distracting, or irrelevant.	Effective visual aids. Support argument in relevant ways, aiding comprehension.	Exceptional visual aids. Greatly enhance delivery and understanding.

Appendix B **Army Direct to Phase II Evaluation Criteria**

Army SBIR DP2 Evaluation Criteria



		DEFINITION
INTRODUCTION	weight 2%	Write a clear, concise description of what your innovation does or will do, and where you are in your evolution. Make clear its intended impact on the Army. Evaluators should "get it" after reading this.
ARMY BENEFITS	ALIGNMENT	Argue your technology innovation is aligned with this Army topic's priorities as defined in the solicitation.
	SOLUTION'S ADVANTAGES	Prove your prospective customers will choose you given limited resources and myriad choices. Have you accounted for indirect substitute products as well as direct competitors?
weight 15%	SOLUTION'S IMPACT	The Army seeks higher-risk, high-impact solutions through SBIR/STTR not engineering changes or incremental improvements. Use this section to describe your technology's impact and improvement upon the state of the art.
FEASIBILITY FOR DP2	PROOF OF FEASIBILITY	Provide documentation to substantiate the scientific and technical merit and feasibility has been met.
	WORK OWNERSHIP	Document the people and organizations and any intellectual property (IP) ownership responsible for the work products in this section. The work must have been at least 'substantially' performed by your organization and/or the proposed principle investigator for this research, and your firm must either own any IP discussed outright, or has appropriate and sufficient licenses thereto.
	NEW RESEARCH	Prove that the proposed DP2 research is a not in any way a logical extension of previous or ongoing federally funded SBIR or STTR research.
weight 15%	PROTOTYPE DELIVERY	Demonstrate that the research will result in appropriately mature Prototype at the conclusion of the DP2 SBIR contract.
TECHNICAL APPROACH	SCIENTIFIC FEASIBILITY	Convince readers that your innovation is built atop sound scientific and/or engineering principles. Ensure that your feasibility argument adequately responds to the requirements this Army topic.
	ENABLING TECHNOLOGIES	Do the required enabling technologies introduce added risk?
	TECHNICAL TEAM	Briefly list and describe your core scientific and technical team with an emphasis on their past accomplishments and experiences that would relate to this Army SBIR/STTR topic.
	TECHNICAL RISKS AND MITIGATION PLANS	Describe any technical risks that still exist between you and a fully mature solution. What are your plans to mitigate those risks?
weight 25%	DATA QUALITY, TECHNICAL	Use data to substantiate your claims that your Technical Approach (this section of your proposal) is credible. Provide quality data attributed to reliable, credible sources.
PROGRAMMATIC POTENTIAL	PROJECT MILESTONE SCHEDULE	Outline your execution plan. What milestones do you hope to accomplish, and what deliverables (if any) do you hope to produce during this phase and subsequent phases of the effort?
	ARMY CUSTOMER DISCOVERY & VALIDATION	Argue you are "getting out of the building" to engage in productive customer-discovery with Army stakeholders. Describe any customer validation you may have received formally or informally to date on this proposed technology.
weight 20%	ARMY TRANSITION PATHWAY	Describe the next type of deal you aim to make with the Army following this award. Briefly outline your current plan to unlock that next opportunity and/or share the biggest risks you see post this SBIR/STTR award to transition this technology to the Army.
COMMERCIAL POTENTIAL	R&D TO PRODUCT REVENUE	Argue that your team members have transitioned research and development efforts into products successfully, as evidenced by product revenue. (Product revenue is realized by directly selling a solution to solve a problem vs. selling consulting, services or research activities.)
	COMPETITIVE EDGE	Why will you win? A small company needs to have a competitive edge in the marketplace: Something your team does very well that's difficult to match. Some examples include: well protected intellectual property, unmatched relevant expertise, a novel business model, or network effects.
weight 20%	OTHER PEOPLE'S MONEY	Make the case for the commercial market (non-DOD) potential of your technology from which the Army will benefit.
PROPOSAL QUALITY	QUALITY OF PROSE	Provide a clear, well written, and convincing proposal. Avoid jargon and define technical terms.
weight 3%	IMAGES, CHARTS, GRAPHICS	Graphics are encouraged throughout. Ensure they are logical and easy to read. Supporting images should be thoughtful and visually attractive. For plots and charts include: title, axis labels and captions. For technical images include appropriate scales or legends.

Army SBIR DP2 Evaluation Criteria



		UNSATISFACTORY	MARGINAL	SATISFACTORY	SUPERIOR
INTRODUCTION	weight 2%	Ineffective introduction. Failed to provide concise innovation proposition.	Adequate introduction. Gradually conveyed innovation's purpose and value. Should be more crisp.	Effective introduction. Systematically conveys innovation's purpose and value.	Exceptional introduction. Immediately conveys innovation's purpose and value.
ARMY BENEFITS	ALIGNMENT	Not aligned with this Army topic's priorities.	Somewhat aligned with this Army topic's priorities.	Aligned with this Army topic's priorities.	Perfectly aligned with this Army topic's priorities.
	SOLUTION'S ADVANTAGES	No evidence of competitive analysis. Undifferentiated product.	Incomplete or too narrow competitive analysis. Weak product differentiation.	Thorough competitive analysis. Strongly differentiated product. Accounted for most substitutes.	Persuasive competitive analysis. Highly differentiated, accounted for all substitutes, provides novel solution.
weight 15%	SOLUTION'S IMPACT	If successful, no improvement vs. the state of the art.	If successful, incremental improvement vs. the state of the art.	If successful, significant improvement vs. the state of the art.	If successful, radical improvement vs. the state of the art.
FEASIBILITY FOR DP2	PROOF OF FEASIBILITY	Falls to demonstrate Feasibility of solution.	Partially demonstrates Feasibility of solution.	Successfully demonstrates Feasibility of solution.	Unquestionably demonstrates Feasibility of solution.
	WORK OWNERSHIP	Fails to document prior Feasibility work was substantially completed by the offerer and/or the PI, AND offer's IP rights are unclear.	Partially documents prior Feasibility work was substantially completed by the offeror and/or the PI, AND offeror's rights to any necessary IP.	Sufficiently documents prior Feasibility work was substantially completed by the offeror and/or the PI, AND offeror's rights to any necessary IP.	Persuasively documents prior Feasibility work was substantially completed by the offeror and/or the PL AND offeror's rights to any necessary IP.
	NEW RESEARCH	This research is likely a logical extension of offeror's prior SBIR / STTR work.	This research might be a logical extension of afferor's prior SBIR / STTR work.	Evidence this research is not a logical extension of offeror's prior SBIR / STTR work.	Compelling evidence this research is not a logical extension of offeror's prior SBIR / STTR work, OR offeror has no prior SBIR / STTR contracts.
weight 15%	PROTOTYPE DELIVERY	Unlikely that an appropriately mature prototype can be delivered.	Flawed argument that an appropriately mature prototype can be delivered.	Credible argument that an appropriately mature prototype can be delivered.	Convincing argument that an appropriately mature prototype can be delivered.
TECHNICAL APPROACH	SCIENTIFIC FEASIBILITY	No scientific basis for presented approach.	Incomplete scientific basis for presented approach.	Credible scientific basis for presented approach.	Convincing scientific basis for presented approach.
	ENABLING TECHNOLOGIES	Requires nonexistent or unavailable technology.	Requires emerging, cutting edge technology.	Requires proven technologies.	Requires Army-fielded technologies.
	TECHNICAL TEAM	Technical people lack qualifications OR have no experience.	Technical people are somewhat qualified and have some experience.	Technical people are highly qualified OR have significant experience.	Technical people are highly qualified AND have significant experience.
	TECHNICAL RISKS AND MITIGATION PLANS	Failed to present challenges and risks.	Inadequate risk analysis. Mtigation marginally addressed.	Credible risk analysis. Mitigation effectively addressed.	Highly credible risk analysis. Mitigation convincingly addressed.
weight 25%	DATA QUALITY, TECHNICAL	Poorly supported by data. Little to no data attribution.	Partially supported by data. Some data attribution.	Credibly supported by data. Adequate data attribution.	Persuasively supported by meaningful data. Comprehensive data attribution.
PROGRAMMATIC POTENTIAL	PROJECT MILESTONE SCHEDULE	Unclear or non-credible project milestones, or timing.	Mostly clear, credible project milestones and timing. Mostly appropriate level of detail.	Mostly clear, credible project milestones and timing. Appropriate level of detail.	Completely clear, credible project milestones and timing. Appropriate level of detail.
	ARMY CUSTOMER DISCOVERY & VALIDATION	No customer interviews completed. No validation.	A handful customer interviews completed. No validation.	Extensive interviews completed. Early validation beginning to inform transition strategy.	Exhaustive interviews completed. Validation informs credible transition strategy.
weight 20%	ARMY TRANSITION PATHWAY	Fails to identify next contract goal and/or fails to present a plan for near-term execution.	Identifies next contract goal. Has a plan for near-term execution.	Identifies stage-appropriate next contract goal. Credible plan for near-term execution.	Identifies ideal next contract goal. Convincing plan for near-term execution.
COMMERCIAL POTENTIAL	R&D TO PRODUCT REVENUE	No evidence of creating product revenue from R&D efforts.	Evidence of R&D yielding product revenue at previous company(les).	Evidence of R&D yielding product revenue at this company.	Evidence of R&D yielding product revenue sufficient to fuel this company's growth.
	COMPETITIVE EDGE	Undifferentiated firm. Fails to argue t has an advantage.	Wealdy differentiated firm. Some evidence of an advantage.	Strongly differentiated firm. Credibly argues it has durable advantage.	Highly differentiated firm. Convincingly argues it has durable advantage.
weight 20%	OTHER PEOPLE'S MONEY	Falls to present non-DoD sources for future R&D funding.	Evolving non-DoD sources of future R&D funding.	Secure non-DoD source(s) of future R&D funding.	Diverse and robust non-DoD sources of future R&D funding.
PROPOSAL QUALITY	QUALITY OF PROSE	Poorly written. Very difficult to impossible to follow argument. Several spelling or grammar errors.	Moderately written. Sometimes difficult to follow argument. A few spelling / grammar errors.	Effectively written. Convincing, easy to follow argument. No spelling or grammar errors.	Clearly and persuasively written. Compelling arguments. No spelling or grammar errors.
weight 3%	IMAGES, CHARTS, GRAPHICS	Poor visual aids. Often difficult to understand, distracting, or irrelevant.	Inadequate visual aids. Sometimes difficult to understand, distracting, or irrelevant.	Effective visual aids. Support argument in relevant ways, aiding comprehension.	Exceptional visual aids. Greatly enhance delivery and understanding.

Appendix 0001 Commercialization Plan Template

General Instructions/Guidance:

- 1. As stated above, proposing SBCs shall prepare an eight (8) slide commercialization plan, utilizing the template and format below. The commercialization plan shall be converted to a PDF and included with Volume 5 Supporting Documentation.
- 2. Font size shall be no smaller than 10-point font.
- 3. Slides should display the slide number in bottom right corner.
- 4. All text (including tables, charts, plots, axis labels, legends, captions) shall be readable without zooming and understandable without voice-over.
- 5. For plots and charts:
 - a. Include title/bullet describing importance of plot/chart, and/or data (be specific).
 - b. Axis shall be meaningfully labeled (to be understandable by non-experts) and include scale.
- 6. Avoid jargon; define technical terms.
- 7. To insert images, capture a screenshot of the image and paste it into the slide. Please do not dragdrop a file into the presentation or use the Insert Pictures menu function.
- 8. Use PowerPoint's "Compress Pictures" feature to reduce file size.
 - a. Select 96ppi resolution
 - b. Uncheck "For this picture only"
- 9. Replace the boilerplate footer below with distribution markings as appropriate, i.e. sensitive, proprietary, intellectual property.

Commercialization Plan Template can also be found here: <u>Army SBIR Forms and Templates</u>

To be considered valid proposals, Commercialization Plan submissions shall follow the number and content of each slide as contained in the attached template.

SBIR Project Title Principal Investigator Name / Title Key (or other relevant) Personnel, and Subcontractors

BLUF: Bottom Line Up Front

- BLUF:
 - **1. Company information and background**: Core competencies, significant sales, previous funding, commercialization successes.
 - **2. Customer and Competition**: Clear description of key technology objectives, current competition, and advantages.
 - 3. Market: Plan to obtain market share.
 - **4. Intellectual Property**: Patent status, technology lead, trade secrets or other demonstration of a plan to protect the company's technical advantage.
 - **5. Financing/Revenue**: Plans for securing necessary non -SBIR funding.
 - **6. Assistance and mentoring**: Plans for securing needed technical or business assistance.

Distribution markings as appropriate for your organization

Company Information and Background

- Core competencies and areas of specialization.
- · Products with significant sales.
- Concise history of previous Federal and non -Federal funding/investments.
- Regulatory experience (if applicable).
- · Past commercialization successes.
- · Past failure and how you overcame.

Distribution markings as appropriate for your organization

Customer & Competition

- · Description of key technology objectives.
- · Current competition and/or alternative solutions.
- Advantages of company's offer compared to competing products or services.
- Hurdles to acceptance of the proposed innovation.
- Description of possible areas where your technology may be utilized or is under utilized.

Distribution markings as appropriate for your organization

5

Market

- Analysis of market size and 1 and 5 year forecasted market share.
- Explanation of milestones and target dates of plan to obtain that market share.
- · What experience do you have with marketing to this target market?
- What commercialization strategy appears to be the best for bringing this product to the target market?
- What experience do you have with bringing products to market either through this company or though other companies with which you have worked.
- Does the company currently market, manufacture, or license technology? Describe what you do.

Distribution markings as appropriate for your organization

Intellectual Property

- Patent status, technology lead, trade secrets or other demonstration of a plan to achieve sufficient
 protection to realize the commercialization stage and attain at least a temporary competitive advantage.
- Describe how you will protect the intellectual property that enables commercialization of its products
 while keeping competitors at bay. Note any actions you may consider to attain at least a temporary
 competitive advantage. Also consider your company's prior record in this area. Comment on your
 company's strategy to build a sustainable business through protection of intellectual property.

Distribution markings as appropriate for your organization

7

Financing

- Plan for securing non -SBIR, private or government funding necessary to enter low rate of production of anticipated technical solution.
- Describe your revenue stream generation to include but not limited to:
 - Manufacture and direct sales
 - · Sales through value added resellers or other distributors
 - · Joint venture

Distribution markings as appropriate for your organization

Assistance & Mentoring

 Plans for securing needed technical or business assistance through mentoring, partnering, or arrangements with government sponsored (e.g., SBIR funded Discretionary Technical and Business Assistance (TABA), State assistance programs, Federally-funded research laboratories, Manufacturing Extension Partnership centers), not-for-profits (e.g., Small Business Development Center (SBDC) or Small Business Technical Development Center (SBTDC)), commercial accelerators, DOD Prime Contractors, SBA Mentor - Protégé program, Procurement Technical Assistance Center (PTAC) or other assistance provider.

Distribution markings as appropriate for your organization

9

Army SBIR 25.4 Topic Index Release 5

The following dates are only applicable to topics A254-014 and A254-015:

February 5, 2025: Topics Pre-release
February 26, 2025: Topics Open; DoD begins accepting proposals in DSIP
March 12, 2025: DSIP Topic Q&A closes to new questions at 12:00 p.m. ET
March 26, 2025: Topics Close; Deadline for receipt of proposals is 12:00 p.m. ET

A254-014	Cognitive Terrain Flight Assistance
A254-015	Adaptive Filtering Techniques for Low-Cost RF Emitters

A254-014 TITLE: Cognitive Terrain Flight Assistance

OUSD (R&E) CRITICAL TECHNOLOGY AREA(S): Trusted AI and Autonomy; Advanced Computing and Software

OBJECTIVE: Development of cognitive decision aiding logic, utilizing machine learning and artificial intelligence constructs, to assist aviators in safely performing tactical flight very close to terrain.

DESCRIPTION: Flying close to terrain and obstacles (i.e. hills, trees, wires, and buildings) is essential for Army Aviation's survivability against modern anti-aircraft threat systems. Best available aircraft piloting sensors and pilot training can only help to a limited extent because aircrews cannot react to terrain and obstacles they cannot yet perceive. Today, this capability is limited to what the aviators can see ahead of them (including with sensor assistance) or perceive from a map and hazards overlay. It takes significant resources to train Army Aviators to maneuver helicopters low and fast, but even with the best training they cannot replicate the performance achievable in their local well-understood training area when flying in unfamiliar locations. In a high threat environment, with improvements to traditional threat systems and the advent of emerging threat systems, tens of feet make a significant survivability difference in threat exposure. Without solving the problem of flying fast and low over unfamiliar terrain, Army combat aircraft may not be able to accomplish their required missions. This challenge extends to the Army's Uncrewed Aircraft Systems (UAS) which will similarly need to avoid exposures to reduce attritions.

PHASE I: This topic is only accepting Phase I proposals for a cost up to \$250,000 for a 6-month period of performance.

Phase I will demonstrate the feasibility to capture the required digital twin terrain at the fidelity required for accurate manned helicopter flight near terrain and obstacles, to integrate the digital terrain into a simulation flight model and be prepared to begin terrain flight cognitive machine learning to be accomplished in Phase II.

PHASE II: Phase II will develop a prototype Cognitive Terrain Flight Assistance capability, most likely through machine reinforcement learning, that will reduce risk of terrain and obstacle impacts through cognitive understanding of its terrain flight environment and aircraft performance. This terrain flight assistance model must show promise for continued maturation into the MAS 6.3 program. To accomplish this, the SBIR will demonstrate the improvement of the model first in a simulation environment with pilots flying without and then with the cognitive machine assistance of displaying safe flight paths. If proven in simulation, the terrain flight assistance model will then prove its ability in flight demonstration tests on the actual same terrain in real world conditions. This will most likely be accomplished with uncrewed aircraft controlled by pilots.

PHASE III DUAL USE APPLICATIONS:

- Air Travel: Pilots/airlines, helicopters, and air traffic control are likely adopters of said technology for various use cases
- **Drone Economy:** From delivery to eVTOL taxis, drones need to navigate difficult terrain in diverse environments (e.g., urban versus rural) that will require said co-pilot technology.
- Agriculture, Forestry, and Energy/Critical Minerals: AI/ML systems can help navigate complex landscapes, avoiding obstacles while performing tasks like crop monitoring or forest fire detection. Moreover, this offering can aid mapping key areas rich in natural resources.

REFERENCES:

- 1. https://arxiv.org/pdf/2402.03947
- 2. https://armypubs.army.mil/epubs/DR_pubs/DR_a/ARN35749-TC_3-04.4-000-WEB-1.pdf
- 3. https://wingtra.com
- 4. https://ageagle.com

KEYWORDS: Cognitive terrain flight model; machine reinforcement learning; terrain and obstacle avoidance; army helicopter; low and fast; Nap-of-the-earth (NOE); multi-aircraft coordinated flight; digital twin terrain

A254-015 TITLE: Adaptive Filtering Techniques for Low-Cost RF Emitters

OUSD (R&E) CRITICAL TECHNOLOGY AREA(S): Future Generation Wireless Technology (FutureG); Integrated Network Systems-of-Systems

OBJECTIVE: Develop an emitter system-agnostic solution for threat representative waveform generation and validation.

DESCRIPTION: Deployed T&E threat representative systems are currently not capable of validating that the emitted signal is representative of the source threat waveform. Low-cost open-air RF emitters using commercially available components creates perturbations as the signal moves through the various RF components causing a delta between the theoretical and the open-air signal. Adaptive filtering will demonstrate that any low-cost RF system (RF band agnostic) can be trained through an iterative process to produce the theoretical or known waveform.

PHASE I: This topic is only accepting Phase I proposals for a cost up to \$250,000 for a 6-month period of performance.

Government and Industry will work collaboratively to refine topic objectives to reach a feasible commercial product. The work will entail detailed studies on M&S simulation environment integration, adaptive filtering, AI/ML signal conditioning, and system integration requirements. By the end of Phase I, the deliverable will be a well-documented research report that outlines the steps needed to move forward with prototype development, including risk assessments, technical challenges, and a proposed plan for Phase II.

PHASE II: A prototype design will be completed for production. A prototype will be delivered for demonstration. The prototype will be tested to validate the design against the thresholds identified.

PHASE III DUAL USE APPLICATIONS: In the private sector, companies are increasingly applying artificial intelligence (AI) and machine learning (ML) to solve complex signal processing challenges, particularly in telecommunications [e.g., cognitive 5G/6G networks, distributed microcell technology, swarm drone cognitive communications systems, etc.]. AI/ML is used to optimize signal integrity, detect anomalies, and adapt in real-time to fluctuating environments. These approaches could be applied to the problem of validating RF emissions by using AI/ML algorithms to dynamically filter and correct waveform distortions, ensuring that live signals accurately reflect digital models.

REFERENCES:

- Phartiyal, Deepmala, and Meenakshi Rawat. "LSTM-deep neural networks based predistortion linearizer for high power amplifiers." 2019 National Conference on Communications (NCC). IEEE, 2019. <u>LSTM-Deep Neural Networks based Predistortion Linearizer for High Power</u> <u>Amplifiers | IEEE Conference Publication | IEEE Xplore</u>
- 2. López Bueno, David. "Machine learning techniques for adaptive polynomial and neural network digital predistorters." (2023). <u>Machine learning techniques for adaptive polynomial and neural network digital predistorters (upc.edu)</u>

KEYWORDS: Machine learning; adaptive filtering; Artificial Intelligence; RF emitters; signal conditioning

<u>xTechIgnite Prize Competition Topics</u>

Note: Topics listed below are part of the xTechIgnite Prize Competition. See the full xTechIgnite competition RFI here: https://www.xtech.army.mil/competition/xtechignite/.

March 12, 2025: White paper submission deadline via link above

A254-016	Innovative Operations for Treatment and Processing of Wastewater
A254-017	Bridge Health Monitoring System
A254-018	Novel AI Techniques for Insights in Various Environments (NATIVE)
A254-019	Generative AI Enabled Tactical Network
A254-020	Artificial Intelligence for Aided Driving of Ground Combat Vehicles
A254-021	Ruggedized Sensors to Increase Driving Visibility and Vehicle Safety
A254-022	AI Enabled Source Selection for Contract Proposal Evaluation
A254-023	AI Enabled Portfolio Management

A254-016 TITLE: Innovative Operations for Treatment and Processing of Wastewater

OUSD (R&E) CRITICAL TECHNOLOGY AREA(S): Biotechnology; Advanced Materials

OBJECTIVE: The Ammonium Perchlorate Rocket Motor Destruction (ARMD) is designed for the closed disposal thermal treatment of Ammonium Perchlorate (AP) based rocket motors. Innovative approaches are required to reduce process time and volumes associated with wastewater/effluents generated from the ARMD operations. The main objectives of the industrial wastewater treatment is to boost their operational throughput, reduce costs, and improve their overall environmental posture which will increase process efficiency in solid and liquid waste processing.

DESCRIPTION: Through the support of the Product Director for Demilitarization (PD Demil), the US Army Aviation and Missile Command (AMCOM) Missile Demil Office and the Combat Capabilities Development Command (DEVCOM) Aviation and Missile Research Center (AvMC) have been implementing the Ammonium Perchlorate Rocket Motor Destruction (ARMD) capability at the Letterkenny Munitions Center (LEMC). The ARMD is designed for the closed disposal of Ammonium Perchlorate (AP) based rocket motors. The destruction of rocket motors consists of enclosed firing of the rocket into a chamber, processing of the combustion gasses through a pollution abatement system (PAS), and disposal of the combustion solids and PAS brine materials. The confined burn of rocket motors allows for the combustion exhaust products to be captured and treated rather than being released directly into the environment. The ARMD is designed to process a wide range of rocket motors of various sizes. The PAS is designed to remove greater than 98% of the acid gasses and greater than 99% of the solid particulates from the exhaust stream.

The ARMD transitioned to Full Rate Production (FRP) operations in 2022. However, one of the limiting factors in production throughput is the processing and handling of the combustion effluents/brine water. The ARMD system requires large amounts of water to neutralize the combustion gasses and to wash out the solid particulates for each motor burn cycle. The solid particulates are removed through a series of settling tanks and filter presses. The ARMD recycles the water in the system, but the filter press system is slow, cumbersome and requires considerable maintenance. The solids are removed from the filter presses through manual operations. The ARMD system is paused numerous times throughout the operational day waiting on the system to "catch up" and process enough water to use on the subsequent cycles. It is also paused to remove the solids from the filter presses and the catch bins.

Additionally, large amounts of neutralized brine water (magnesium salt water) are generated from the combustion process. This salt water is reutilized in the system up to ~20% salt content. Once the water reaches the salt limit it is transferred to holding tanks. Trucks are required to pump the wastewater out of the holding tanks for eventual disposal at a commercial water treatment facility as non-hazardous waste. The ARMD operations must be halted when the trucks arrive to transfer the water. Additionally, costs for disposal of this water continue to increase due to pressures from inflation.

The DEVCOM AvMC seeks innovative approaches related to operational processing and chemical treatment of the wastewater. Operational improvements of interest include overall processing efficiency optimization and methods to remove manual processes related to filter press clean up. Chemical treatment areas of interest include novel Brine Concentration Technologies (BCT) to improve filtering of solid particulates and novel treatment methods that can reduce the amount of wastewater that is sent for offsite disposal.

IMPORTANT: A prize competition, xTechIgnite, will be used to identify small business concerns that meet the criteria for award for this topic. Winners selected from the xTechIgnite prize competition will be the only firms eligible to submit a SBIR proposal under this topic. All other proposals will not be evaluated. See the full xTechIgnite competition details here: https://www.xtech.army.mil/competition/xtechignite/.

PHASE I: This topic is only accepting Phase I proposals for a cost up to \$250,000 for a 6-month period of performance.

During the Phase 1 SBIR project, a feasibility study will be conducted on options for upgrading the ARMD wastewater processing system. The Phase 1 study should include a review of available equipment/capability to address the wastewater processing inefficiencies at the ARMD and a recommended down select of the proposed equipment. The study should also include costs and timelines for implementation of a prototype/production system.

PHASE II: The Phase 2 SBIR project is expected to result in a prototype capability for the upgraded wastewater processing at the ARMD. The upgraded system will be based on the results of the Phase 1 study. The prototype capability is expected to be procured and installed at the LEMC ARMD. (Note: Equipment potentially could be installed at AvMC for testing. However, final decision would depend on results of Phase 1 study/analysis.

PHASE III DUAL USE APPLICATIONS:

- Municipal Services: Municipalities, especially densely populated ones, need improved and more efficient water management/treatment and waste disposal systems
- Industrial Sectors: Industries like mining, oil & gas, manufacturing, etc., produce water runoff that requires efficient BCT.
- Soft Beverage Industry: The demand for fresh water and desalination can provide benefits to water bottling companies via improved BCT.

REFERENCES:

- 1. https://www.jmc.army.mil/Installations.aspx?id=LetterkennyOverview
- 2. https://www.army.mil/article/249078/ribbon_cutting_ceremony_at_the_letterkenny_munitions_c enter highlights armys environmentally sustainable demilitarization efforts
- 3. https://sciforschenonline.org/journals/water-and-waste/index.php
- 4. https://www.epa.gov/sites/default/files/2016-03/documents/industrial-waste-guide.pdf
- 5. https://files.dep.state.pa.us/water/bsdw/operatorcertification/TrainingModules/ww08_advanced_wastewater wb.pdf
- 6. https://books.google.com/books?hl=en&lr=&id=Ww_2DwAAQBAJ&oi=fnd&pg=PA1&dq=related:107JeNaxycAJ:scholar.google.com/&ots=UKoojSarAp&sig=ACIQDgJAadHgSPS7ZEn8NXtkLKs#v=onepage&q&f=false

KEYWORDS: Closed disposal; Wastewater; water treatment; salt neutralization; solids filtration; wastewater reduction; salinity reduction; water recycling

A254-017 TITLE: Bridge Health Monitoring System

OUSD (R&E) CRITICAL TECHNOLOGY AREA(S): Sustainment & Logistic; Human-Machine Interfaces

OBJECTIVE: The current methods for assessing military bridges rely on Preventative Maintenance Check and Services (PMCS) combined with fatigue monitoring crack gauges, which have proven insufficient for accurately determining a bridge's remaining service life. This inaccuracy forces the Army to maintain a surplus of bridges to mitigate the risk of unexpected failures. Research highlights that vehicle crossings, rather than environmental factors, are the primary determinants of bridge health, with the impact varying significantly by vehicle type.

To address this, the Bridge Health Monitoring (BHM) system seeks to revolutionize bridge assessment and management through an integrated approach combining advanced sensor technology, onboard data storage, and adaptable communication capabilities. By continuously monitoring and recording vehicle traffic, structural stress, and environmental conditions, the BHM system will enable precise predictions of a bridge's remaining service life. This innovation promises to reduce reliance on manual inspections, enhance situational awareness for battlefield commanders, and optimize bridge asset utilization, ensuring military readiness and operational efficiency.

DESCRIPTION: The Bridge Health Monitoring (BHM) project will develop a robust, modular, and scalable technology suite for real-time monitoring and assessment of military and commercial bridge health. This integrated system will empower battlefield commanders and sustainers by providing actionable insights into bridge readiness and lifespan. The proposed solution should address a combination of advanced sensors, onboard storage systems, and secure communication technologies to achieve the following objectives:

1. Types of Bridges

The BHM system must prioritize adaptability to a variety of bridge types. These include:

- Portable All-Metal Bridges: Commonly used in military operations, these structures require rapid deployment capabilities and sensors that can withstand frequent assembly, disassembly, and storage.
- Composite Bridges: Combining concrete and metal, these structures are often used for their durability and lightweight properties.
- Reinforced Concrete Bridges: Found in both military and civilian applications, these bridges are vulnerable to environmental factors such as corrosion and require monitoring for cracks and stress.
- Suspension and Cable-Stayed Bridges: Complex commercial structures where cable tension and tower integrity are critical monitoring points.
- Precast Modular Bridges: Often used for temporary or emergency infrastructure, these bridges benefit from scalable monitoring solutions for varying sizes and configurations.

2. Real-time and Periodic Monitoring

The BHM system will monitor key indicators of structural integrity, including stress, fatigue, and damage, through a modular sensor suite. While real-time communication may be beneficial for specific use cases (e.g., commercial highway bridges), the primary focus is on:

• Onboard Storage: Capturing and securely storing critical data directly on the bridge.

- Periodic Data Retrieval: Allowing personnel, vehicles, or UAVs to retrieve stored data as needed, minimizing security risks and operational costs associated with trackable continuous transmissions.
- Future Adaptability: Ensuring the system design allows for the potential of wireless communication integration in future phases if operational needs evolve.

3. Predictive Analytics and Storage Monitoring

In addition to operational bridges, the BHM system must maintain information on the health of portable bridges during storage. This capability ensures readiness for deployment. Predictive analytics should incorporate:

- Usage data, including crossings and load impacts, are recorded before storage.
- Modular components enable cost-effective monitoring and allow reusable components to be deployed elsewhere once the portable bridge is stored.

4. Indefinite Data Storage and Management

The system must include a robust mechanism for the indefinite storage of bridge health data. This includes maintaining detailed historical records of usage, environmental exposure, and maintenance activities. The solution should employ secure, scalable storage systems, ensuring data integrity and accessibility for lifecycle management and continuous improvement.

5. Sensor Suite Requirements

The sensor package must be:

- Modular: Adaptable to different bridge designs and operational needs.
- Scalable: Capable of monitoring bridges of various sizes, materials, and load capacities.
- Durable: Resistant to environmental stresses such as extreme temperatures, corrosion, and vibration.
- Comprehensive: Equipped with advanced tools, such as strain gauges, ultrasonic sensors, fiber-optic monitoring systems, RFID readers, and AI-powered traffic classification capabilities.
- Focused on Storage Data: Ensuring essential data components and other non-removable components remain with the bridge while advanced systems (e.g. communications, power) can be redeployed to other bridges still in use.

6. Energy Efficiency and Environmental Resilience

The solution must function autonomously with portable power sources for mobile bridges and integrate with fixed power systems for stationary bridges. Sensors must operate reliably in diverse and challenging environments, from combat zones to urban areas.

7. Secure, Adaptable Data Communication

Data collected by the system will be securely transmitted when necessary. For initial feasibility, the focus is on:

- Localized, onboard data storage with retrieval options for personnel or vehicles.
- Secure communication mechanisms for direct connection, selective transmission, including burst transmissions or UAV retrieval.
- Flexibility for future enhancements to support continuous or real-time monitoring if required.

IMPORTANT: A prize competition, xTechIgnite, will be used to identify small business concerns that meet the criteria for award for this topic. Winners selected from the xTechIgnite prize competition will be the only firms eligible to submit a SBIR proposal under this topic. All other proposals will not be evaluated. See the full xTechIgnite competition details here: https://www.xtech.army.mil/competition/xtechignite/.

PHASE I: This topic is only accepting Phase I proposals for a cost up to \$250,000 for a 6-month period of performance.

Phase I of the Bridge Health Monitoring (BHM) project will culminate in a comprehensive report that explores the various aspects of the system. The report will provide an in-depth analysis of the sensor technologies evaluated for potential use in the solution, including the selected sensors and the rationale behind their choice.

The study will also delve into the critical aspects of bridge health communication, power supply, and data management. Specifically, it will address how bridge health information will be transmitted to Commanders and Maintainers in an electronically monitored environment, ensuring seamless integration and situational awareness without undue risk. Additionally, the report will outline the power supply requirements for the BHM system and propose a solution for maintaining bridge health data continuity, regardless of whether the bridge is deployed or stored in a facility.

While the primary focus of the SBIR is on developing a BHM solution for the Heavy Assault Scissor Bridge (HASB), the Phase I investigation will also examine the potential for commonality across Army Bridge systems. The study will identify the essential components that must remain with a bridge and those that could be removed and adapted for use on other bridge types, thereby promoting a level of standardization and interoperability across the Army's bridge inventory.

The Phase I report will provide a thorough understanding of the BHM system's requirements, capabilities, and potential for scalability, laying the foundation for the development of a robust and effective bridge health monitoring solution.

PHASE II: Phase II of the Bridge Health Monitoring (BHM) project will focus on the fabrication and testing of a prototype system, building on the research and analysis conducted in Phase I. A key aspect of this phase will be the implementation of robust cyber security measures to ensure the system's integrity and protect against potential threats.

In addition to prototype development, the vendor will conduct a comprehensive sustainability assessment of the selected components to guarantee a viable path for long-term support and maintenance. This assessment will ensure that the chosen technical solutions can be supported and upgraded over time, minimizing the risk of obsolescence and ensuring the system's continued effectiveness.

The prototype development process will involve the creation of off-bridge components and breadboard systems, which will be thoroughly tested and optimized to ensure seamless integration and performance. The final prototype will be designed to be compatible with the Heavy Assault Scissor Bridge (HASB) and will include all necessary equipment to function as proposed.

In collaboration with the PdM Bridging team and the GVSC Bridge Technology Lab, the prototype will undergo rigorous validation and testing on a HASB to ensure its performance and accuracy. The vendor

will also conduct a live demonstration of the solution at Fort Leonard Wood, showcasing its capabilities on a local bridge.

The deliverables for Phase II will include two complete systems, which will support additional field evaluations and testing. These systems will provide the Army with a tangible, functional solution for monitoring bridge health, enabling more informed decision-making and improved maintenance practices.

PHASE III DUAL USE APPLICATIONS:

- Critical Infrastructure: This full stack option can be fitted to provide the same real-time, non-invasive analysis.
- Predictive Maintenance: Can provide real-time feedback on the performance of a vehicle, equipment part, etc., to save time on repairs.
- Smart Cities: Allows for various sensors to track various assets at once in one single "pane of glass."

REFERENCES:

- 1. Structural Health Monitoring key to a more resilient, modern infrastructure network
- 2. https://www.usace.army.mil/Media/News/NewsSearch/Article/3276980/structural-health-monitoring-key-to-a-more-resilient-modern-infrastructure-netw/
- 3. State of the Practice and Art for Structural Health Monitoring of Bridge Substructures https://www.fhwa.dot.gov/publications/research/infrastructure/structures/bridge/09040/09040.pdf

KEYWORDS: Bridge Health Monitoring; gap crossing; assault bridging; military bridging; Heavy Assault Scissor Bridge; HASB; Medium Assault Bridge; MAB; Heavy Support Bridge; HSB; sustainment cost reduction

A254-018 TITLE: Novel AI Techniques for Insights in Various Environments (NATIVE)

OUSD (R&E) CRITICAL TECHNOLOGY AREA(S): Advanced Computing and Software; Trusted AI and Autonomy

OBJECTIVE: Organizations across various sectors are increasingly inundated with vast amounts of data, making it challenging to identify and analyze anomalies and patterns effectively. Traditional methods often fall short in handling the scale and complexity of modern datasets, leading to missed opportunities and potential risks.

DESCRIPTION: In today's data-driven world, organizations, including the Army, face the challenge of managing and making sense of vast amounts of diverse data. This data comes from various sources, such as sensors, communication systems, operational logs, and more. The sheer volume and complexity of this data make it difficult to identify critical anomalies and patterns that could impact decision-making and operational effectiveness.

The desired outcome of this topic is to develop and implement innovative AI technologies that can efficiently process and analyze terabytes of data, including imagery, text, and signals, to detect anomalies and uncover patterns. Anomalies are deviations from the norm that could indicate potential issues, threats, or opportunities. This effort will also involve detecting biases and deficiencies within the datasets, ensuring that relevant data is identified for labeling, so that the AI models built from the SBIRs are not only accurate but also fair and reliable.

By leveraging advanced AI techniques, such as machine learning, deep learning, and natural language processing, we aim to create AI models that can automatically and accurately identify these anomalies and patterns.

IMPORTANT: A prize competition, xTechIgnite, will be used to identify small business concerns that meet the criteria for award for this topic. Winners selected from the xTechIgnite prize competition will be the only firms eligible to submit a SBIR proposal under this topic. All other proposals will not be evaluated. See the full xTechIgnite competition details here: https://www.xtech.army.mil/competition/xtechignite/.

PHASE I: This topic is accepting Direct to Phase II proposals for a cost up to \$2,000,000 for an 18-month period of performance.

Proposers interested in submitting a DP2 proposal must provide documentation to substantiate that the scientific and technical merit and feasibility equivalent to a Phase I project has been met. Documentation can include data, reports, specific measurements, success criteria of a prototype, etc.

(DIRECTTO) PHASE II: During Phase II, firms should expect to engage in a research and development effort focused on refining and validating their AI capabilities for identifying and analyzing anomalies and patterns in large datasets. The goal is to develop a robust, scalable, and secure prototype that can be packaged and transition to Project Linchpin's model marketplace. This phase will involve extensive testing and iteration to ensure the AI models meet performance, accuracy, and security standards. Firms will also collaborate closely with Project Linchpin to access operational data at the and onboard their solutions onto the Impact Level 5 (IL5) environment. By the end of Phase II, the expectation is to deliver a well-defined, functional prototype that demonstrates the AI technology's effectiveness.

PHASE III DUAL USE APPLICATIONS: The AI technologies being developed for anomaly detection and pattern recognition have numerous commercial applications across a wide range of industries. In financial services, they can be used for fraud detection, risk management, and compliance monitoring, helping to prevent financial losses and reputational damage. Healthcare institutions can employ them for real-time patient monitoring, disease outbreak detection, and personalized medicine, leading to improved patient outcomes and more efficient resource allocation. Retailers can benefit from improved inventory management, customer behavior analysis, and demand forecasting, enabling them to optimize supply chains and enhance the customer experience. Manufacturers can utilize AI for predictive maintenance, quality control, and supply chain optimization, reducing downtime and improving overall efficiency. Cybersecurity firms can enhance intrusion detection, threat intelligence, and incident response, helping to protect against increasingly sophisticated cyber threats. Transportation and logistics companies can optimize routes, vehicle maintenance, and cargo management, reducing costs and improving delivery times. Energy companies can manage grids, forecast demand, and optimize energy distribution, leading to a more sustainable and reliable energy supply. Additionally, AI-powered anomaly detection and pattern recognition can be applied in various other industries, such as:

- 1. Media and entertainment: content recommendation, audience analysis, and piracy detection
- 2. Education: personalized learning, student performance analysis, and academic integrity monitoring
- 3. Real estate: property valuation, market trend analysis, and predictive maintenance
- 4. Environmental monitoring: climate modeling, air quality monitoring, and wildlife conservation

These applications demonstrate the broad impact of AI in enhancing operational efficiency, decision-making, and innovation across various industries, ultimately leading to increased productivity, competitiveness, and economic growth.

REFERENCES:

- 1. https://dinov2.metademolab.com/
- 2. https://huggingface.co/models

KEYWORDS: Self Supervised Vision Transformer Models; Foundational Models; Visual Search; Generative Models; Retrieval-augmented generation

A254-019 TITLE: Generative AI Enabled Tactical Network

OUSD (R&E) CRITICAL TECHNOLOGY AREA(S): Advanced Computing and Software; Trusted AI and Autonomy

OBJECTIVE: The objective of this topic is to create a realistic modeling and simulation environment using Generative AI for NGC2, the Army's new approach to a data-centric C2 architecture.

DESCRIPTION: GenAI would be used to create realistic tactical data streams to create a diverse set of scenarios representing current threat, blue force, and logistics Command and Control and maneuver operations. The environment should reflect a realistic tactical network (DDIL environment) with multiple data access and delivery demands in real time. The generated data would be at scale and based on realistic models (e.g. tracks should be following likely routes/roads based on local terrain at a realistic pace and elevation vs randomly placed on a map at a random time and space).

Another objective is the use AI (or some other technique) to simulate limited bandwidth as data is 'exchanged' from producer to consumer to model a DDIL environment that logically aligns to the scenario fed by the GenAI data.

The Army's Next Gen Command and Control program is a large part of the effort to modernize the Army's network. It will provide commanders with the adaptive C2 architecture needed to make rapid decisions in a contested environment. NGC2 is the Army's joint effort with industry to build a "datacentric" command and control system enabled through network transport. The goal is to recreate the service's enterprise data architecture and renew its operational software framework.

IMPORTANT: A prize competition, xTechIgnite, will be used to identify small business concerns that meet the criteria for award for this topic. Winners selected from the xTechIgnite prize competition will be the only firms eligible to submit a SBIR proposal under this topic. All other proposals will not be evaluated. See the full xTechIgnite competition details here: https://www.xtech.army.mil/competition/xtechignite/.

PHASE I: This topic is only accepting Phase I proposals for a cost up to \$250,000 for a 6-month period of performance.

Firms should expect to deliver a feasibility study around producing software that when run, creates and exposes an API that delivers tactically relevant data at scale following a logical scenario given near peer threat behavior today. Ideally, users should be able to toggle features to affect the volume and or velocity of the data generated and the ability to artificially interrupt the data or lose packets to simulate a DDIL environment or the loss of network transport. The study should address deployment options and impacts of the software being used in both a LAN and cloud environments.

PHASE II: Firms will produce and deliver software that when run, creates and exposes an API that delivers tactically relevant data at scale following a logical scenario given near peer threat behavior today. The application should allow users to toggle features to affect the volume and or velocity of the data being generated and the ability to artificially interrupt the data flow or lose packets to simulate a DDIL environment or the loss of network transport. Users should be able to define the data types, data fields, size, and other data attributes as desired or simply allow the software to 'decide' the generated data ontologies.

PHASE III DUAL USE APPLICATIONS: GenAI has many commercial use cases. It applies in all big data industries like healthcare, social media, advertising, and investing.

- **Financial Services:** Leverage GenAI synthetic data for modeling of stocks, market movement, and risk assessments.
- **Healthcare & Life Sciences:** Synthetic data for research/drug development as well as patient simulations.
- **Autonomous Vehicles:** Synthetic data can be used to model real-world situations for autonomous driving, flight, and more in a 3D environment.

REFERENCES:

- 1. https://federalnewsnetwork.com/army/2024/09/armys-demand-for-genai-surging-with-focus-on-integration/
- 2. https://www.defenseadvancement.com/news/british-army-training-simulations-to-be-enhanced-by-generative-ai/

KEYWORDS: Generative AI; Modeling and Simulation Data; Training Data; Artificial Intelligence

A254-020 TITLE: Artificial Intelligence for Aided Driving of Ground Combat Vehicles

OUSD (R&E) CRITICAL TECHNOLOGY AREA(S): Trusted AI and Autonomy, Advanced Computing and Software

OBJECTIVE: Develop and integrate Artificial Intelligence (AI) technology that can augment current and future sensor hardware enhancing the ability of the driver to maneuver and operate large, heavy, ground combat vehicles. These vehicles typically weigh 40 to 80 tons and have limited to zero direct line of sight making it difficult for the driver to safely maneuver the vehicle.

DESCRIPTION: Develop and integrate Artificial Intelligence and Machine Learning technology that can augment current and future sensor hardware enhancing the ability of the driver to maneuver and operate large, heavy, ground combat vehicles. This can be done by improving driver vision and situation awareness with AI/ML based crew aids such as using AI for computer vision and object detection and/or using a large language model AI. This capability will support an AI Driver Assist System similar to Apple's Siri or Amazon's Alexa that is tailored toward driver combat scenarios. This capability will provide the foundation towards partial autonomy and could also lead to a fully autonomous system in the future.

IMPORTANT: A prize competition, xTechIgnite, will be used to identify small business concerns that meet the criteria for award for this topic. Winners selected from the xTechIgnite prize competition will be the only firms eligible to submit a SBIR proposal under this topic. All other proposals will not be evaluated. See the full xTechIgnite competition details here: https://www.xtech.army.mil/competition/xtechignite/.

PHASE I: This topic is accepting Direct to Phase II proposals for a cost up to \$2,000,000 for a 24-month period of performance.

Proposers interested in submitting a DP2 proposal must provide documentation to substantiate that the scientific and technical merit and feasibility equivalent to a Phase I project has been met. Documentation can include data, reports, specific measurements, success criteria of a prototype, etc.

(DIRECT TO) PHASE II: To develop, integrate, and demonstrate AI/ML technologies to enhance the driver's ability to maneuver and operate the vehicle.

PHASE III DUAL USE APPLICATIONS: Analysis shows commercial potential across multiple fields including the automotive industry, security and law enforcement, and logistics and fleet management. Specific examples of potential dual-use could include: Advanced Driver Assistance systems that employ AI/ML and sensor fusion technologies for obstacle detection, lane keeping, and semi-autonomous driving features, AI-enabled route optimization, surveillance of vehicle surroundings, and real-time threat assessment.

REFERENCES:

- 1. https://aimagazine.com/articles/the-power-of-advanced-ai-assisted-driving-systems
- 2. https://www.contents.com/magazine/artificial-intelligence/revolutionising-the-road-how-ai-is-transforming-driving-experiences/

KEYWORDS: Driver Assist System; Partial Autonomy; Detection Algorithms; Hazard Detection

A254-021 TITLE: Ruggedized Sensors to Increase Driving Visibility and Vehicle Safety

OUSD (R&E) CRITICAL TECHNOLOGY AREA(S): Integrated Sensing and Cyber

OBJECTIVE: Vehicle drivers could benefit from sensor systems that provide enhanced awareness of the vehicle surroundings and improve the driver's ability to operate the vehicle in Degraded Visual Environments (DVE), such as nighttime or low-visibility weather conditions. This topic seeks to provide ruggedized sensor systems that can integrate into vehicles to increase driving visibility and vehicle safety by enabling ADAS capabilities such as Forward/Reverse Collision Warning, Blind Spot Warnings, Automatic Brake Assist, and Road Departure Mitigation. These sensor systems could also enhance visibility of the vehicle's exterior for situational awareness, such as vehicle security or visibility of the rear exterior during towing operations.

DESCRIPTION: The objective of this topic is to develop and integrate or ruggedize commercial sensor technology that could enhance the ability of a driver to maneuver and operate ground combat vehicles. This sensor technology will help increase the driver's awareness of the vehicle surroundings, enable advanced driver-assistance systems (ADAS) for improved vehicle safety and maneuverability, and enhance overall visibility while driving during daytime, nighttime, or combat operations.

IMPORTANT: A prize competition, xTechIgnite, will be used to identify small business concerns that meet the criteria for award for this topic. Winners selected from the xTechIgnite prize competition will be the only firms eligible to submit a SBIR proposal under this topic. All other proposals will not be evaluated. See the full xTechIgnite competition details here: https://www.xtech.army.mil/competition/xtechignite/.

PHASE I: This topic is accepting Direct to Phase II proposals for a cost up to \$2,000,000 for an 18-month period of performance.

Proposers interested in submitting a DP2 proposal must provide documentation to substantiate that the scientific and technical merit and feasibility equivalent to a Phase I project has been met. Documentation can include data, reports, specific measurements, success criteria of a prototype, etc.

(DIRECT TO) PHASE II: To develop, harden, integrate, and demonstrate technologies to enhance the driver's ability to maneuver and operate the vehicle.

PHASE III DUAL USE APPLICATIONS: The technologies developed under this topic are directly applicable to advanced driver assistance systems (ADAS) that are common throughout the commercial automobile industry. ADAS improves the driving experience and provides vehicle operation/safety benefits from improved LiDAR, radar, and camera sensor technologies.

REFERENCES:

- 1. https://na.develon-ce.com/en/news-stories/the-cutting-edge/top-safety-features-heavy-equipment
- 2. https://www.forconstructionpros.com/construction-technology/construction-safety-technology/article/22131512/improved-safety-through-advancements-in-object-detection

KEYWORDS: Driving Sensors, Driver Assist System; ADAS; Advanced Driver Assistance Systems; Forward Collison Warning; Reverse Collision Warning; Backup Camera; Autonomous Vehicle; Vehicle Sensors

A254-022 TITLE: AI Enabled Source Selection Solution for Contract Proposal Evaluation

OUSD (R&E) CRITICAL TECHNOLOGY AREA(S): Trusted AI and Autonomy

OBJECTIVE: Provide a comprehensive software-as-a-service (SaaS) solution that automates and standardizes the evaluation and source selection processes while tailoring the user experience to the Army's unique conditions/constraints.

DESCRIPTION: This solution should address principal challenges experienced during the evaluation and source selection processes including length of time required to conduct evaluations; varying levels of experience possessed by evaluators; inconsistent treatment of Offerors by evaluators; and deviation from solicitation instructions and evaluation criteria, potentially leading to protest. This solution is critical to accelerate the overall acquisition process, field capabilities more rapidly to the Soldier, and significantly improve contract outcomes including fewer successful protests.

The Army's pursuit of a software solution to automate, standardize, and accelerate the evaluation and source selection processes represents a novel and innovative approach to a challenge traditionally addressed using general-purpose capabilities such as Microsoft Word and Excel or outmoded procurement systems. Additionally, the current processes are heavily error-prone due to individual evaluator inexperience, human mistakes, and evaluator fatigue.

The envisioned solution seeks to transform this process by harnessing of the power of AI and related private sector innovations to perform many functions traditionally performed manually by human staff. Many activities in the areas of review, analysis, and quality assurance can be performed at scale by AI and related commercial technologies. Reviewing and analyzing large amounts of evaluation data for inconsistencies, traditionally performed by humans over many weeks, can now be performed at scale through AI tools that perform these functions in just seconds.

IMPORTANT: A prize competition, xTechIgnite, will be used to identify small business concerns that meet the criteria for award for this topic. Winners selected from the xTechIgnite prize competition will be the only firms eligible to submit a SBIR proposal under this topic. All other proposals will not be evaluated. See the full xTechIgnite competition details here: https://www.xtech.army.mil/competition/xtechignite/.

PHASE I: This topic is accepting Direct to Phase II proposals for a cost up to \$2,000,000 for an 18-month period of performance.

Proposers interested in submitting a DP2 proposal must provide documentation to substantiate that the scientific and technical merit and feasibility equivalent to a Phase I project has been met. Documentation can include data, reports, specific measurements, success criteria of a prototype, etc.

(DIRECT TO) PHASE II: The successful small business should be prepared to rapidly deliver, due to the urgent need for this capability, an initial focused Minimum Viable Product (MVP) thirty (30) calendar days following D2P2 award to demonstrate the maturity and feasibility of their concept. Subsequent to this initial MVP, a series of additional related MVPs in response to additional features requirements will be built to constitute an initial release. During this major research and development effort, the successful small business should demonstrate expert level knowledge of Army acquisition processes, standards, and practices in building a well-defined prototype software product. The desired result at the end of the Phase

2 effort is well-defined prototype of an AI-enabled source selection software solution which automates and streamlines the source selection process from issuance of a solicitation through contract award.

PHASE III DUAL USE APPLICATIONS: Currently available private sector solutions applicable to this challenge emanate from large firms such as Appian, CACI, Mantech, and Noblis. In all cases, the evaluation and source selection software market represents a small portion of the large businesses portfolio raising concerns about commitment to the solution. Current commercially available solutions are not tailored to the Federal processes or regulations, and do not leverage the power of an AI-enabled evaluation and source section system and thereby are unsuitable for this challenge. The framework for developing an AI-enabled source selection and evaluation tool in the defense space that is compliant with stringent federal regulations could be applicable to other highly regulated sectors that rely heavily on federal contracts.

REFERENCES:

- 1. https://www.dau.edu/acquipedia-article/source-selection
- 2. https://ncmahq.org/Web/Shared_Content/CM-Magazine/CM-Magazine-February-2023/AI-Is-Coming-For-Contracting.aspx

KEYWORDS: Artificial Intelligence (AI); Evaluation; Federal Acquisition Regulation; Organizational Conflict of Interest (OCI); Blockchain; Neural Networks

A254-023 TITLE: AI-enabled Portfolio Management

OUSD (R&E) CRITICAL TECHNOLOGY AREA(S): Trusted AI and Autonomy

OBJECTIVE: This platform will integrate tools and best practices in a central portal to modernize the Army's acquisition process, supporting both Business-to-Business (B2B) and Business-to-Consumer (B2C) needs. The envisioned solution for this topic is an IT Acquisition Requirements Intake and Portfolio Management solution that will serve as the front-end to the Army's modernized acquisition process, assessing new software, hardware, and services requirements against qualification criteria and against existing capabilities. Without this, the Army risks creating unnecessary contracts, developing redundant systems, and wasting resources on needs that could be met with existing capabilities or contracts.

DESCRIPTION: This solution will address key challenges in Acquisition requirements intake and portfolio management including:

- 1. Lack of consistent processes and templates for intake, review, analysis, and acceptance of new IT Acquisition requirements;
- 2. Inconsistent governance for prioritizing and sequencing new Acquisition requirements;
- 3. Limited visibility into the status of approved requirements during the acquisition process;
- 4. Insufficient visibility into the Army's portfolio of services, contracts, and hardware/software assets; and
- 5. Inadequate scanning of available contracts and hardware/software during portfolio review and requirements approval.

Each of the above challenges is addressed by development of a modern Acquisition requirements intake and portfolio management capability built on advanced AI capabilities and leveraging commercial market research and development (R&D).

IMPORTANT: A prize competition, xTechIgnite, will be used to identify small business concerns that meet the criteria for award for this topic. Winners selected from the xTechIgnite prize competition will be the only firms eligible to submit a SBIR proposal under this topic. All other proposals will not be evaluated. See the full xTechIgnite competition details here: https://www.xtech.army.mil/competition/xtechignite/.

PHASE I: This topic is accepting Direct to Phase II (DP2) proposals for a cost up to \$2,000,000 for an 18-month period of performance.

Proposers interested in submitting a DP2 proposal must provide documentation to substantiate that the scientific and technical merit and feasibility equivalent to a Phase I project has been met. Documentation can include data, reports, specific measurements, success criteria of a prototype, etc.

(DIRECT TO) PHASE II: The successful small business should be prepared to deliver, due to the time-sensitive need for this capability, an initial Minimum Viable Product (MVP) one hundred and twenty (120) calendar days following DP2 award to demonstrate the maturity and feasibility of their concept.

Subsequent to this initial MVP, a series of additional related MVPs in response to additional features requirements will be built to constitute an initial release.

The desired outcome for this DP2 topic is the development of a well-defined prototype software product that demonstrates that artificial intelligence and machine learning can be used to effectively and efficiently manage an acquisition and contracts portfolio. An additional desired outcome is an automated and streamlined acquisition requirements intake process, integrated with external systems to scan the external environment for duplication and redundancy across the portfolio.

PHASE III DUAL USE APPLICATIONS: Currently available private sector solutions applicable to this challenge are limited due to the unique nature of the Federal Government's budget and appropriations processes. Commercially available Acquisition requirements intake and portfolio management solutions such as Plainview, Smartsheet, Microsoft Project, Zoho Projects, and Monday.com are not tailored to the Federal process or regulation, and do not leverage the power of an AI-enabled Acquisition requirements intake and portfolio management system and thereby are unsuitable for this challenge. A new AI-enabled solution that is tailored to Federal Acquisition processes and regulations is needed. The framework for developing an AI-enabled portfolio management tool that is compliant with stringent federal regulations could be applicable to other highly regulated industries such as Finance and Healthcare.

REFERENCES:

1. https://www.pmi.org/disciplined-agile/the-importance-of-having-an-intake-process#:~:text=An%20%E2%80%9Cintake%20process%E2%80%9D%20refers%20to,is%20picked%20up%20by%20development.

KEYWORDS: Portfolio Optimization; Business Process Redesign; Lean Six Sigma; Organizational Change Management; Communications Planning

DEPARTMENT OF THE NAVY (DON) 25.4 Small Business Innovation Research (SBIR) Release 5

Direct to Phase II (DP2) Announcement and Proposal Submission Instructions

IMPORTANT

- The following dates apply to Direct to Phase II (DP2) topic N254-D08 only:
 - 5 February 2025: Topic issued for pre-release
 - o 26 February 2025: DON begins accepting Phase I Feasibility Proposals
 - o 12 March 2025: Topic Q&A closes to new questions
 - o 26 March 2025: Phase I Feasibility Proposals due no later than 12:00 p.m. ET
- Submitting small business concerns are encouraged to thoroughly review the DoD SBIR/STTR
 Program Broad Agency Announcement (BAA) and register for the DSIP Listserv to remain
 apprised of important programmatic changes.
 - o The DoD Program BAA is located at: https://www.defensesbirsttr.mil/SBIR-STTR/Opportunities/#announcements. Select the tab for the appropriate BAA cycle.
 - Register for the DSIP Listserv at: https://www.dodsbirsttr.mil/submissions/login.
- The information provided in the DON Proposal Submission Instructions takes precedence over the DoD Instructions posted for this BAA.
- A submitting small business concern **MUST** use the DP2 Phase I Feasibility proposal template for Volume 2. This template is specific to DON DP2 topics and meets DP2 submission requirements. The DP2 Phase I Feasibility proposal template can be found at https://navysbir.com/links forms.htm.
- Proposing small business concerns that are more than 50% owned by multiple venture capital operating companies (VCOC), hedge funds (HF), private equity firms (PEF) or any combination of these are eligible to submit proposals in response to DON topics advertised in this BAA. Information on Majority Ownership in Part and certification requirements at time of submission for these proposing small business concerns are detailed in the section titled ADDITIONAL SUBMISSION CONSIDERATIONS.
- DON provides notice that Basic Ordering Agreements (BOAs) or Other Transaction Agreements (OTAs) may be used for Phase II awards.
- This BAA is issued under regulations set forth in Federal Acquisition Regulation (FAR) 35.016 and awards will be made under "other competitive procedures". The policies and procedures of FAR Subpart 15.3 shall not apply to this BAA, except as specifically referenced in it. All procedures are at the sole discretion of the Government as set forth in this BAA. Submission of a proposal in response to this BAA constitutes the express acknowledgement to that effect by the proposing small business concern.

INTRODUCTION

The DON SBIR/STTR Programs are mission-oriented programs that integrate the needs and requirements of the DON's Fleet through research and development (R&D) topics that have dual-use potential, but primarily address the needs of the DON. More information on the programs can be found on the DON SBIR/STTR website at www.navysbir.com. Additional information on DON's mission can be found on the DON website at www.navy.mil.

The Department of Defense (DoD), including the Department of the Navy (DON), may issue an SBIR award to a small business concern under Phase II, without regard to whether the small business concern received a Phase I award for such project. Prior to such an award, the head of the agency, or their designee, must issue a written determination that the small business concern has demonstrated the scientific and technical merit and feasibility of the technology solution that appears to have commercial potential (for use by the government or in the public sector). The determination must be submitted to the Small Business Administration (SBA) prior to issuing the Phase II award. As such, DON issues this portion of the BAA in accordance with the requirements of the Direct to Phase II (DP2) authority. Only those proposing small business concerns that are capable of meeting the DP2 proposal requirements may participate in this DP2 BAA. No Phase I awards will be issued to the designated DP2 topic.

For questions regarding this BAA, use the information in Table 1 to determine who to contact for what types of questions.

TABLE 1: POINTS OF CONTACT FOR QUESTIONS REGARDING THIS BAA

Type of Question	When	Contact Information	
Program and administrative	Always	DON SBIR/STTR Program Management Office usn.pentagon.cnr-arlington-va.mbx.navy-sbir- sttr@us.navy.mil or appropriate Program Manager listed in Table 2 (below)	
Topic-specific technical questions	BAA Pre-release	Technical Point of Contact (TPOC) listed in each topic on the DoD SBIR/STTR Innovation Portal (DSIP). Refer to the Proposal Submission section of the DoD SBIR/STTR Program BAA for details.	
	BAA Open	DoD SBIR/STTR Topic Q&A platform (https://www.dodsbirsttr.mil/submissions) Refer to the Proposal Submission section of the DoD SBIR/STTR Program BAA for details.	
Electronic submission to the DoD SBIR/STTR Innovation Portal (DSIP)	Always	DSIP Support via email at dodsbirsupport@reisystems.com	
Navy-specific BAA instructions and forms	Always	DON SBIR/STTR Program Management Office usn.pentagon.cnr-arlington-va.mbx.navy-sbir-sttr@us.navy.mil	

TABLE 2: DON SYSTEMS COMMAND (SYSCOM) SBIR PROGRAM MANAGERS

Topic Numbers	Point of Contact	<u>SYSCOM</u>	<u>Email</u>
N254-D08	Mr. Shadi Azoum	Naval Information Warfare Systems Command (NAVWAR)	info@navwarsbir.com

Each DON SBIR DP2 topic requires documentation to determine that Phase I feasibility, described in the Phase I section of the topic, has been met.

The DON SBIR DP2 is a two-step process:

STEP ONE: Prepare and Submit a Phase I Feasibility Proposal (instructions and link to template provided below). The purpose of the Phase I Feasibility Proposal is for the proposing small business concern to provide documentation to substantiate that both Phase I feasibility and the scientific and technical merit described in the topic have been met. The Phase I Feasibility Proposal must: demonstrate that the proposing small business concern performed Phase I-type research and development (R&D) and provide a concise summary of Phase II objectives, work plan, related research, key personnel, transition/commercialization plan, and estimated costs. Feasibility documentation MUST NOT be solely based on work performed under prior or ongoing federally funded SBIR/STTR work. The government will evaluate Phase I Feasibility Proposals and select small business concerns to submit a Full DP2 Proposal. Demonstrating proof of feasibility is a requirement for a DP2 award. The small business concern must submit a Phase I Feasibility Proposal to be considered for selection to submit a Full DP2 Proposal.

<u>STEP TWO</u>: If selected, the cognizant SYSCOM Program Office will contact the small business concern directly to provide instructions on how to submit a Full DP2 Proposal.

DON SBIR reserves the right to make no awards under this DP2 BAA. All awards are subject to availability of funds and successful negotiations. Proposing small business concerns must read the topic requirements carefully. The Government is not responsible for expenditures by the proposing small business concern prior to award of a contract. For 25.4 Release 5 topics designated as DP2, DON will accept only Phase I Feasibility Proposals (described below).

DP2 PROPOSAL SUBMISSION REQUIREMENTS

The following section details requirements for submitting a compliant DON SBIR DP2 Proposal to the DoD SBIR/STTR Programs.

(NOTE: Proposing small business concerns are advised that support contract personnel will be used to carry out administrative functions and may have access to proposals, contract award documents, contract deliverables, and reports. All support contract personnel are bound by appropriate non-disclosure agreements.)

DoD SBIR/STTR Innovation Portal (DSIP). Proposing small business concerns are required to submit proposals via the DoD SBIR/STTR Innovation Portal (DSIP); and follow proposal submission instructions in the DoD SBIR/STTR Program BAA on the DSIP at https://www.dodsbirsttr.mil/submissions.. Proposals submitted by any other means will be disregarded. Proposing small business concerns submitting through DSIP for the first time will be asked to register. It is recommended that proposing small business concerns

register as soon as possible upon identification of a proposal opportunity to avoid delays in the proposal submission process. Proposals that are not successfully certified electronically in DSIP by the Corporate Official prior to BAA Close will NOT be considered submitted and will not be evaluated by DON. Proposals that are encrypted, password protected, or otherwise locked in any portion of the submission will be REJECTED unless specifically directed within the text of the topic to which you are submitting. Please refer to the DoD SBIR/STTR Program BAA for further information.

Eligibility. Each proposing small business concern must:

- Have demonstrated feasibility of Phase I-type R&D work
- Have submitted a Phase I Feasibility Proposal for evaluation
- Meet Offeror Eligibility and Performance Requirements as defined in the Proposal Fundamentals section of the DoD SBIR/STTR Program BAA
- Comply with primary employment requirements of the principal investigator (PI) during the Phase II award including, employment with the small business concern at the time of award and during the conduct of the proposed project. Primary employment means that more than one-half of the PI's time is spent in the employ of the small business concern
- Register in the System for Award Management (SAM) as defined in the Certifications and Registrations section of the DoD SBIR/STTR Program BAA. To register, visit https://sam.gov/

Proposal Volumes. The following seven volumes are required.

- Proposal Cover Sheet (Volume 1). As specified in DoD SBIR/STTR Program BAA.
- Technical Volume (Volume 2).
 - Technical Proposal (Volume 2) must meet the following requirements or the proposal will be REJECTED:
 - A submitting small business concern MUST use the DP2 Phase I Feasibility proposal template for Volume 2. The DP2 Phase I Feasibility proposal template can be found at https://navysbir.com/links_forms.htm.

This template is specific to DON DP2 topics and meets DP2 submission requirements:

Not to exceed 30 pages, regardless of page content; Phase I Proof of Feasibility portion not
to exceed 20 pages, Snapshot of Proposed Phase II Effort portion not to exceed 10 pages
Single column format, single-spaced typed lines
Standard 8 ½" x 11" paper
Page margins one inch on all sides. A header and footer may be included in the one-inch
margin.
No font size smaller than 10-point

Additional information:

- A font size smaller than 10-point is allowable for headers, footers, imbedded tables, figures, images, or graphics that include text. However, proposing small business concerns are cautioned that if the text is too small to be legible it will not be evaluated.
- Cost Volume (Volume 3). The text fields related to costs for the proposed effort must be answered in the Cost Volume of the DoD Submission system (at https://www.dodsbirsttr.mil/submissions/), however, proposing small business concerns DO NOT need to download and complete the separate cost volume template when submitting the DON SBIR Phase I Feasibility Proposal. Proposing small business concerns are to include a cost estimate in the Order of Magnitude Cost Estimate Table (example below) within the Snapshot of Proposed Phase II Effort portion of the Technical Volume (Volume 2). Please refer to Table 3 below for guidance on cost and period of performance. Costs for

the Base and Option are to be separate and identified on the Proposal Cover Sheet and in the Order of Magnitude Cost Estimate Table in the Technical Volume (Volume 2).

Order of Magnitude Cost Estimate Table						
Line Item – Details	Estimated Base Amount	Estimated Option Amount	Total Estimated Amount Base + Option			
Direct Labor (fully burdened)						
– Prime						
Subcontractors/Consultants						
Material						
Travel & ODC						
G&A						
FCCM						
Fee/Profit						
TABA (NTE \$25K, included						
in total amount)						
Total Estimated Costs						

TABLE 3: COST & PERIOD OF PERFORMANCE

Topic	Base		Option		Total
Number	Cost (NTE)	POP (NTE)	Cost (NTE)	POP (NTE)	(NTE)
N254-D08	\$750,000	18 mos.	\$1,000,000	24 mos.	\$1,750,000*

^{*} Step Two: for the Full Phase II submission, if selected, N254-D08 will require the Phase II Option 1 and Phase II Option 2 to be detailed separately:

- Phase II Option 1: Cost \$500,000, Period of Performance 12 months
- Phase II Option 2: Cost \$500,000, Period of Performance 12 months

o Additional information:

- For Phase II a minimum of 50% of the work is performed by the proposing small business concern. The percentage of work requirement must be met in the Base costs as well as in the Option costs. The percentage of work is measured by both direct and indirect costs. To calculate the minimum percentage of work for the proposing small business concern the sum of all direct and indirect costs attributable to the proposing small business concern represent the numerator and the total cost of the proposal (i.e., Total Cost before Profit Rate is applied) is the denominator. The subcontractor percentage is calculated by taking the sum of all costs attributable to the subcontractor as the numerator and the total cost of the proposal (i.e., Total Cost before Profit Rate is applied) as the denominator. **NOTE:** G&A, if proposed, will only be attributed to the proposing small business concern.
- Provide sufficient detail for subcontractor, material, and travel costs. Subcontractor costs must be detailed to the same level as the prime contractor. Material costs must include a listing of items and cost per item. Travel costs must include the purpose of the trip, number of trips, location, length of trip, and number of personnel.
- Inclusion of cost estimates for travel to the sponsoring SYSCOM's facility for one day of meetings is recommended for all proposals.

- The "Additional Cost Information" of Supporting Documents (Volume 5) may be used to provide supporting cost details for Volume 3.
- Company Commercialization Report (Volume 4). DoD collects and uses Volume 4 and DSIP requires Volume 4 for proposal submission. Please refer to the Proposal Preparation Instructions and Requirements section of the DoD SBIR/STTR Program BAA for details to ensure compliance with DSIP Volume 4 requirements.
- Supporting Documents (Volume 5). Volume 5 is for the submission of administrative material that DON may or will require to process a proposal, if selected, for contract award.

All proposing small business concerns must review and submit the following items, as applicable:

— **Majority Ownership in Part.** Proposing small business concerns which are more than 50% owned by multiple venture capital operating companies (VCOC), hedge funds (HF), private equity firms (PEF), or any combination of these as set forth in 13 C.F.R. § 121.702, are eligible to submit proposals in response to DON topics advertised within this BAA. Complete the certification as detailed under ADDITIONAL SUBMISSION CONSIDERATIONS.

Additional information:

- Proposing small business concerns may include the following administrative materials in Supporting Documents (Volume 5); a template is available at https://navysbir.com/links_forms.htm to provide guidance on optional material the proposing small business concern may want to include in Volume 5:
 - o Additional Cost Information to support the Cost Volume (Volume 3)
 - o SBIR/STTR Funding Agreement Certification
 - Data Rights Assertion
 - o Allocation of Rights between Prime and Subcontractor
 - o Disclosure of Information (DFARS 252.204-7000)
 - o Prior, Current, or Pending Support of Similar Proposals or Awards
 - Foreign Citizens
- Details of Request for Discretionary Technical and Business Assistance (TABA), if proposed, is to be included under the Additional Cost Information section if using the DON Supporting Documents template.
- Do not include documents or information to substantiate the Technical Volume (Volume 2) (e.g., resumes, test data, technical reports, or publications). Such documents or information will not be considered.
- A font size smaller than 10-point is allowable for documents in Volume 5; however, proposing small business concerns are cautioned that the text may be unreadable.
- Fraud, Waste and Abuse Training Certification (Volume 6). DoD requires Volume 6 for submission. Please refer to the Proposal Preparation Instructions and Requirements section of the DoD SBIR/STTR Program BAA for details.
- Disclosures of Foreign Affiliations or Relationships to Foreign Countries (Volume 7). In accordance with Section 4 of the SBIR and STTR Extension Act of 2022 and the SBA SBIR/STTR Policy Directive, the DoD will review all proposals submitted in response to this BAA to assess security risks presented by small business concerns seeking a Federally funded award. Small business concerns must complete the Disclosures of Foreign Affiliations or Relationships to Foreign Countries webform in Volume 7 of the DSIP proposal submission. Please refer to the Proposal Preparation Instructions and Requirements section of the DoD SBIR/STTR Program BAA for details.

DP2 EVALUATION AND SELECTION

The following section details how the DON SBIR/STTR Programs will evaluate Phase I Feasibility proposals.

Proposals meeting DSIP submission requirements will be forwarded to the DON SBIR/STTR Programs. Prior to evaluation, all proposals will undergo a compliance review to verify compliance with DoD and DON SBIR/STTR proposal eligibility requirements. Proposals not meeting submission requirements will be REJECTED and not evaluated.

- **Proposal Cover Sheet (Volume 1).** The Proposal Cover Sheet (Volume 1) will undergo a compliance review to verify the proposing small business concern has met eligibility requirements and followed the instructions for Proposal Cover Sheet as specified in the DoD SBIR/STTR Program BAA.
- Technical Volume (Volume 2). The DON will evaluate and select Phase I Feasibility proposals using the evaluation criteria specified in the Method of Selectin and Evaluation Criteria section of the DoD SBIR/STTR Program BAA, with technical merit being most important, followed by qualifications of key personnel and commercialization potential of equal importance. The information considered for this decision will come from Volume 2. This is not a FAR Part 15 evaluation and proposals will not be compared to one another. Cost is not an evaluation criterion and will not be considered during the evaluation process; the DON will only do a compliance review of Volume 3. Due to limited funding, the DON reserves the right to limit the number of awards under any topic.

The Technical Volume (Volume 2) will undergo a compliance review (prior to evaluation) to verify the proposing small business concern has met the following requirements or the proposal will be REJECTED:

 A submitting small business concern MUST use the DP2 Phase I Feasibility proposal template for Volume 2. The DP2 Phase I Feasibility proposal template can be found at https://navysbir.com/links_forms.htm.

This template is specific to DON DP2 topics and meets DP2 submission requirements:

- □ Not to exceed 30 pages, regardless of page content; Phase I Proof of Feasibility portion not to exceed 20 pages, Snapshot of Proposed Phase II Effort portion not to exceed 10 pages
- ☐ Single column format, single-spaced typed lines
- □ Standard 8 ½" x 11" paper
- □ Page margins one inch on all sides. A header and footer may be included in the one-inch margin.
- □ No font size smaller than 10-point, except as permitted in the instructions above.
- Cost Volume (Volume 3). The Cost Volume (Volume 3) will not be considered in the selection process and will undergo a compliance review to verify the proposing small business concern has met the following requirements or the proposal will be REJECTED:
 - Must not exceed values for the Base and Option (refer to Table 3).
 - Must meet minimum percentage of work; a minimum of 50% of the work is performed by the proposing small business concern. The percentage of work requirement must be met in the Base costs as well as in the Option costs.
- Company Commercialization Report (Volume 4). The CCR (Volume 4) will not be evaluated by the DON nor will it be considered in the award decision. However, all proposing small business concerns must refer to the DoD SBIR/STTR Program BAA to ensure compliance with DSIP Volume 4 requirements.

- Supporting Documents (Volume 5). Supporting Documents (Volume 5) will not be considered in the selection process and will only undergo a compliance review to ensure the proposing small business concern has included items in accordance with the DP2 SUBMISSION INSTRUCTIONS section above.
- Fraud, Waste, and Abuse Training Certificate (Volume 6). Not evaluated.
- Disclosures of Foreign Affiliations or Relationships to Foreign Countries (Volume 7).

 Disclosures of Foreign Affiliations or Relationships to Foreign Countries (Volume 7) will be assessed as part of the Due Diligence Program to Assess Security Risks. Refer to the DoD SBIR/STTR Program BAA to ensure compliance with Volume 7 requirements.

ADDITIONAL SUBMISSION CONSIDERATIONS

This section details additional items for proposing small business concerns to consider during proposal preparation and submission process.

Due Diligence Program to Assess Security Risks. The SBIR and STTR Extension Act of 2022 (Pub. L. 117-183) requires the Department of Defense, in coordination with the Small Business Administration, to establish and implement a due diligence program to assess security risks presented by small business concerns seeking a Federally funded award. Please review the Certifications and Registrations section of the DoD SBIR/STTR Program BAA for details on how DoD will assess security risks presented by small business concerns. The Due Diligence Program to Assess Security Risks will be implemented for all Phases.

Discretionary Technical and Business Assistance (TABA). The SBIR and STTR Policy Directive section 9(b) allows the DON to provide TABA (formerly referred to as DTA) to its awardees. The purpose of TABA is to assist awardees in making better technical decisions on SBIR/STTR projects; solving technical problems that arise during SBIR/STTR projects; minimizing technical risks associated with SBIR/STTR projects; and commercializing the SBIR/STTR product or process, including intellectual property protections. Proposing small business concerns may request, in their Cost Volume (Volume 3), to contract these services themselves through one or more TABA providers in an amount not to exceed the values specified below. The Phase II TABA amount is up to \$25,000 per award, is to be included as part of the award amount and is limited by the established award values for Phase II by the SYSCOM (i.e., within the \$2,000,000 or lower limit specified by the SYSCOM). The amount proposed for TABA cannot include any profit/fee by the proposing small business concern and must be inclusive of all applicable indirect costs. TABA cannot be used in the calculation of general and administrative expenses (G&A) for the SBIR proposing small business concern. A Phase II project may receive up to an additional \$25,000 for TABA as part of one additional (sequential) Phase II award under the project for a total TABA award of up to \$50,000 per project. A TABA Report, detailing the results and benefits of the service received, will be required annually by October 30.

Request for TABA funding will be reviewed by the DON SBIR/STTR Program Management Office.

If the TABA request does not include the following items the TABA request will be denied.

- TABA provider(s) (firm name)
- TABA provider(s) point of contact, email address, and phone number
- An explanation of why the TABA provider(s) is uniquely qualified to provide the service
- Tasks the TABA provider(s) will perform (to include the purpose and objective of the assistance)
- Total TABA provider(s) cost, number of hours, and labor rates (average/blended rate is acceptable)

TABA must NOT:

- Be subject to any indirect costs, profit, or fee by the SBIR proposing small business concern
- Propose a TABA provider that is the SBIR proposing small business concern
- Propose a TABA provider that is an affiliate of the SBIR proposing small business concern
- Propose a TABA provider that is an investor of the SBIR proposing small business concern
- Propose a TABA provider that is a subcontractor or consultant of the requesting small business concern otherwise required as part of the paid portion of the research effort (e.g., research partner, consultant, tester, or administrative service provider)

TABA requests must be included in the proposal as follows:

- Phase II:
 - DON Phase II Cost Volume (provided by the DON SYSCOM) the value of the TABA request.
 - Supporting Documents (Volume 5) a detailed request for TABA (as specified above) specifically identified as "TABA" in the section titled Additional Cost Information when using the DON Supporting Documents template.

Proposed values for TABA must <u>NOT</u> exceed:

• Phase II: A total of \$25,000 per award, not to exceed \$50,000 per Phase II project

If a proposing small business concern requests and is awarded TABA in a Phase II contract, the proposing small business concern will be eliminated from participating in the Navy SBIR Transition Program (STP), the DON Forum for SBIR/STTR Transition (FST), and any other Phase II assistance the DON provides directly to awardees.

All Phase II awardees not receiving funds for TABA in their awards must participate in the virtual Navy STP Kickoff during the first or second year of the Phase II contract. While there are no travel costs associated with this virtual event, Phase II awardees should budget time of up to a full day to participate. STP information can be obtained at: https://navystp.com. Phase II awardees will be contacted separately regarding this program.

Disclosure of Information (DFARS 252.204-7000). In order to eliminate the requirements for prior approval of public disclosure of information (in accordance with DFARS 252.204-7000) under this award, the proposing small business concern shall identify and describe all fundamental research to be performed under its proposal, including subcontracted work, with sufficient specificity to demonstrate that the work qualifies as fundamental research. Fundamental research means basic and applied research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community, as distinguished from proprietary research and from industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary or national security reasons (defined by National Security Decision Directive 189). A small business concern whose proposed work will include fundamental research and requests to eliminate the requirement for prior approval of public disclosure of information must complete the DON Fundamental Research Disclosure and upload as a separate PDF file to the Supporting Documents (Volume 5) in DSIP as part of their proposal Fundamental submission. The DON Research Disclosure is available https://navysbir.com/links forms.htm and includes instructions on how to complete and upload the completed Disclosure. Simply identifying fundamental research in the Disclosure does NOT constitute acceptance of the exclusion. All exclusions will be reviewed and, if approved by the Government Contracting Officer, noted in the contract.

Majority Ownership in Part. Proposing small business concerns that are more than 50% owned by multiple venture capital operating companies (VCOC), hedge funds (HF), private equity firms (PEF), or

any combination of these as set forth in 13 C.F.R. § 121.702, **are eligible** to submit proposals in response to DON topics advertised within this BAA.

For proposing small business concerns that are a member of this ownership class the following <u>must</u> be satisfied for proposals to be accepted and evaluated:

- a. Prior to submitting a proposal, proposing small business concerns must register with the SBA Company Registry Database.
- b. The proposing small business concern within its submission must submit the Majority-Owned VCOC, HF, and PEF Certification. A copy of the SBIR VC Certification can be found on https://navysbir.com/links_forms.htm. Include the SBIR VC Certification in the Supporting Documents (Volume 5).
- c. Should a proposing small business concern become a member of this ownership class after submitting its proposal and prior to any receipt of a funding agreement, the proposing small business concern must immediately notify the Contracting Officer, register in the appropriate SBA database, and submit the required certification, which can be found on https://navysbir.com/links_forms.htm.

System for Award Management (SAM). It is strongly encouraged that proposing small business concerns register in SAM, https://sam.gov, by the Close date of this BAA, or verify their registrations are still active and will not expire within 60 days of BAA Close. Additionally, proposing small business concerns should confirm that they are registered to receive contracts (not just grants) and the address in SAM matches the address on the proposal. A small business concern selected for an award MUST have an active SAM registration at the time of award or they will be considered ineligible.

Notice of NIST SP 800-171 Assessment Database Requirement. The purpose of the National Institute of Standards and Technology (NIST) Special Publication (SP) 800-171 is to protect Controlled Unclassified Information (CUI) in Nonfederal Systems and Organizations. As prescribed by DFARS 252.204-7019, in order to be considered for award, a small business concern is required to implement NIST SP 800-171 and shall have a current assessment uploaded to the Supplier Performance Risk System (SPRS) which provides storage and retrieval capabilities for this assessment. The platform Procurement Integrated Enterprise Environment (PIEE) will be used for secure login and verification to access SPRS. For brief instructions on NIST SP 800-171 assessment, SPRS, and PIEE, please visit https://www.sprs.csd.disa.mil/nistsp.htm. For in-depth tutorials on these items please visit https://www.sprs.csd.disa.mil/webtrain.htm.

Human Subjects, Animal Testing, and Recombinant DNA. If the use of human, animal, and recombinant DNA is included under a DP2 proposal, please carefully review the requirements at: https://www.nre.navy.mil/work-with-us/how-to-apply/compliance-and-protections/research-protections. This webpage provides guidance and lists approvals that may be required before contract/work can begin.

International Traffic in Arms Regulation (ITAR). For topics indicating ITAR restrictions or the potential for classified work, limitations are generally placed on disclosure of information involving topics of a classified nature or those involving export control restrictions, which may curtail or preclude the involvement of universities and certain non-profit institutions beyond the basic research level. Small businesses must structure their proposals to clearly identify the work that will be performed that is of a basic research nature and how it can be segregated from work that falls under the classification and export control restrictions. As a result, information must also be provided on how efforts can be performed in later phases if the university/research institution is the source of critical knowledge, effort, or infrastructure (facilities and equipment).

SELECTION, AWARD, AND POST-AWARD INFORMATION

Notifications. Email notifications for proposal receipt (approximately one week after the Phase I BAA Close) and selection are sent based on the information received on the proposal Cover Sheet (Volume 1). Consequently, the e-mail address on the proposal Cover Sheet must be correct.

Debriefs. Requests for a debrief must be made within 15 calendar days of select/non-select notification via email as specified in the select/non-select notification. Please note debriefs are typically provided in writing via email to the Corporate Official identified in the proposal of the proposing small business concerns within 60 days of receipt of the request. Requests for oral debriefs may not be accommodated. If contact information for the Corporate Official has changed since proposal submission, a notice of the change on company letterhead signed by the Corporate Official must accompany the debrief request.

Protests. Interested parties have the right to protest in accordance with the procedures in FAR Subpart 33.1.

Pre-award agency protests related to the terms of the BAA must be served to: osd.ncr.ousd-r-e.mbx.SBIR-STTR-Protest@mail.mil. A copy of a pre-award Government Accountability Office (GAO) protest must also be filed with the aforementioned email address within one day of filing with the GAO.

Protests related to a selection or award decision should be filed with the appropriate Contracting Officer for an Agency Level Protest or with the GAO. Contracting Officer contact information for specific DON Topics may be obtained from the DON SYSCOM Program Managers listed in Table 2 above. For protests filed with the GAO, a copy of the protest must be submitted to the appropriate DON SYSCOM Program Manager and the appropriate Contracting Officer within one day of filing with the GAO.

Awards. Due to limited funding, the DON reserves the right to limit the number of awards under any topic. Any notification received from the DON that indicates the proposal has been selected does not ultimately guarantee an award will be made. This notification indicates that the proposal has been selected in accordance with the evaluation criteria and has been sent to the Contracting Officer to conduct cost analysis, confirm eligibility of the proposing small business concern, and to take other relevant steps necessary prior to making an award.

Contract Types. In addition to the negotiated contract award types listed in the section of the DoD SBIR/STTR Program BAA titled Additional Considerations, for Phase II awards the DON may (under appropriate circumstances) propose the use of an Other Transaction Agreement (OTA) as specified in 10 U.S.C. 4021/10 U.S.C. 4022 and related implementing policies and regulations. The DON may choose to use a Basic Ordering Agreement (BOA) for Phase I and Phase II awards.

Contract Deliverables. Contract deliverables are typically progress reports and final reports. Required contract deliverables must be uploaded to https://www.navysbirprogram.com/navydeliverables/.

Transfer Between SBIR and STTR Programs. Section 4(b)(1)(i) of the SBIR and STTR Policy Directive provides that, at the agency's discretion, projects awarded a Phase I under a BAA for SBIR may transition in Phase II to STTR and vice versa.

PHASE III GUIDELINES

A Phase III SBIR/STTR award is any work that derives from, extends, or completes effort(s) performed under prior SBIR/STTR funding agreements, but is funded by sources other than the SBIR/STTR programs. This covers any contract, grant, or agreement issued as a follow-on Phase III award or any contract, grant, or agreement award issued as a result of a competitive process where the awardee was an SBIR/STTR firm

that developed the technology as a result of a Phase I or Phase II award. The DON will give Phase III status to any award that falls within the above-mentioned description. Consequently, DON will assign SBIR/STTR Data Rights to any noncommercial technical data and noncommercial computer software delivered in Phase III that were developed under SBIR/STTR Phase I/II effort(s). Government prime contractors and their subcontractors must follow the same guidelines as above and ensure that companies operating on behalf of the DON protect the rights of the SBIR/STTR firm.

Navy SBIR 25.4 Topic Index Release 5

N254-D08 DIRECT TO PHASE II: Enhanced Language-oriented Data for Track Management and Data Analytics

N254-D08 DIRECT TO PHASE II: Enhanced Language-oriented Data for Track Management and Data Analytics

OUSD (R&E) CRITICAL TECHNOLOGY AREA(S): Advanced Computing and Software

The technology within this topic is restricted under the International Traffic in Arms Regulation (ITAR), 22 CFR Parts 120-130, which controls the export and import of defense-related material and services, including export of sensitive technical data, or the Export Administration Regulation (EAR), 15 CFR Parts 730-774, which controls dual use items. Offerors must disclose any proposed use of foreign nationals (FNs), their country(ies) of origin, the type of visa or work permit possessed, and the statement of work (SOW) tasks intended for accomplishment by the FN(s) in accordance with the Announcement. Offerors are advised foreign nationals proposed to perform on this topic may be restricted due to the technical data under US Export Control Laws.

OBJECTIVE: Develop non-traditional capabilities where data can be represented in a structured natural language rather than extraneous languages like SQL, XML, JSON, RDF, and the like to democratize data such that custody is maintained by operators.

DESCRIPTION: The Maritime Tactical Command and Control (MTC2) system is the Navy's next generation command and control platform providing modernized, robust, secure, integrated, and interoperable network-centric capabilities. MTC2 will replace the legacy planning, introduce new decision aid systems, and provide a Common Operational Picture (COP) in a geospatial display to visualize an operational environment to maintain Command and Control (C2) Situational Awareness (SA) and understanding in realtime. The Command and Control Acquisition Program Office, PMW 150, currently fields MTC2 supporting planning and decision analytics for developing a Joint Integrated Command and Control (JIC2) in support of Fires.

Data is a warfighting asset. Converting data into information that informs warfighters is a critical enabler in the ability to fight and win. Achieving data dominance requires new thinking and methods to process and represent data in a way that quickly creates understanding. Data needs to evolve from standards-based schemas, which are Information Technology (IT) assets, to a dynamic representation expressed in a universal, human, and machine-readable schema-less form for all types of data, including Over-The-Horizon Targeting GOLD (OTH-Gold), AIS, Modernized Integrated Database (MIDB), Military Equipment and Parametrics Engineering Database (MEPED), Optimized Organizational Maintenance Activity/Naval Research & Development (OOMA/NARD), AEGIS Combat System, United States Marine Corps (USMC) and United States Army (USA) ground systems, and United States Navy (USN), USMC, USA, and United States Air Force (USAF) aircraft. Data must be a collection of facts, able to be individually disseminated across networks, and immutable when stored in repositories.

MTC2 requires the development of a robust technology supporting both geospatial and non-geospatial data for not only display of the COP, but to also inform analytics. The current technology is extremely dated and only provides tracks on a map for viewing with some overlays. Modern, state-of-the-art technologies are providing greater depth, analysis, interpretation, and understanding for the warfighter. MTC2 also requires greater speed of analysis in support of Kill Chain requirements for greater assessment of the environment, positive Identification of threats, and predictive capability to meet growing threat challenges in theater. To meet these growing demands, the development of robust technologies for smart geospatial analytics and the use of modern and non-traditional low code/no code data analytics is needed.

Key capabilities and use cases must include:

- Ability to represent any kind of data, associations, and structures in a restricted natural language
- A client application to be used by warfighting operators, with low and no-code customization

- Realtime fact routing and processing capability for applications including:
 - o Near-realtime platform and weapons suitability determination
 - o Track management and analysis including geo-fencing, routing and association between applications and services
 - o Artificial Intelligence/Machine Learning (AI/ML) and graph-based analytics

These analytics will feed into an Optimization stack supporting realtime decision aids and COP representation for the warfighter, headed by the Maritime Tactical Command and Control (MTC2) system.

Work produced in Phase II may become classified. Note: The prospective contractor(s) must be U.S. owned and operated with no foreign influence as defined by 32 U.S.C. § 2004.20 et seq., National Industrial Security Program Executive Agent and Operating Manual, unless acceptable mitigating procedures can and have been implemented and approved by the Defense Counterintelligence and Security Agency (DCSA) formerly Defense Security Service (DSS). The selected contractor must be able to acquire and maintain a secret level facility and Personnel Security Clearances. This will allow contractor personnel to perform on advanced phases of this project as set forth by DCSA and NAVWAR in order to gain access to classified information pertaining to the national defense of the United States and its allies; this will be an inherent requirement. The selected company will be required to safeguard classified material during the advanced phases of this contract IAW the National Industrial Security Program Operating Manual (NISPOM), which can be found at Title 32, Part 2004.20 of the Code of Federal Regulations.

PHASE I: For a Direct to Phase II topic, the Government expects that the small business would have accomplished the following in a Phase I-type feasibility effort: developed a concept for a workable prototype or design to address, at a minimum, the basic requirements for enhanced language-oriented data for track management and data analytics.

FEASIBILITY DOCUMENTATION: Offerors interested in proposing to this Direct to Phase II topic must include in their response Phase I feasibility documentation that substantiates the scientific and technical merit; proof that Phase I feasibility (described in Phase I above) has been met (i.e., the small business must have performed Phase I-type research and development related to the topic, but feasibility documentation must not be solely based on work performed under prior or ongoing federally funded SBIR/STTR work.); and describe the potential commercialization applications. The documentation provided must validate that the proposer has completed Phase I-type development of technology as stated above. Documentation should include all relevant information including, but not limited to: technical reports, test data, prototype designs/models, and performance goals/results. Work submitted within the feasibility documentation must have been substantially performed by the offeror and/or the principal investigator (PI).

PHASE II: Develop a software prototype that is capable of ingesting various data sources and types, including textual and abstract such as Joint Message Handling System (JMHS) for textual and map representations for abstract data types; to include geospatial and non-geospatial; and evaluate the data with algorithms identified in Phase I or equivalent efforts. Ensure that the software prototype is deployable and used for concept validation, allowing users to interact under operational condition. Ensure that the prototype runs in a DEVSECOPS environment, gathering data from the users to feed into requirements for the Program of Record to validate concepts.

Implement source data representations that can assess renderings, formulate understanding, and provide the information directly to the user. Investigate themes like fact-oriented formatting for incorporating

attribute and computed values within filter criteria. Provide dynamic filtering and linkback to external data sources, and automated drill down and queries based on user history.

This fact-oriented data format will be agnostic to the type of DB technologies used to repose the data (e.g., flat files, relational DBs, big data, noSQL, and graph datastores). Facts must include descriptive phrases that can be browsed as indexes (e.g., in a book), and as graphical views like trees or word clouds, to enable operators to discover and directly interact with the data. In other words, data itself should be a user-interface, allowing operators to dynamically enrich data by adding tags to facts or writing new facts, e.g., annotations descriptive of status, provenance, pedigree, validity, ontological references, or references back to the origination schema it was extracted from.

It is probable that the work under this effort will be classified under Phase II (see Description section for details).

PHASE III DUAL USE APPLICATIONS: Conduct further testing of the prototype on experimentation venues, such as Trident Warrior. Integration will be conducted by NIWC Pacific/Atlantic engineers. Initially, the technology will reside in the C2X environment being developed and fielded for test and evaluation. Once testing is completed, integrate the technology into the existing MTC2 Configuration Management (CM) environment for inclusion in the MTC2 normal release update schedule to provide the warfighter the capability to have information analyzed continuously as the representation changes in the COP.

The Enhanced Language Oriented Data for Track Management and Data analytics will provide significant increase in speed of understanding and will allow decisions to be more informed and analyzed to support the Kill Chain process. Commercially, these capabilities can be applied to current Geospatial Information Systems (GIS) and decision analytics to increase capability for industry use.

REFERENCES:

- 1. "NWP 3-56 COMPOSITE WARFARE: MARITIME OPERATIONS AT THE TACTICAL LEVEL OF WAR." https://apps.dtic.mil/dtic/tr/fulltext/u2/a575608.pdf
- 2. "NTTP 3-32 Navy Tactics Techniques and Procedures." www.navybmr.com/study material/NTTP_3-32-1 MOC (Apr 2013).pdf
- 3. "NWP 3-32 MARITIME OPERATIONS AT THE OPERATIONAL LEVEL OF WAR." https://docplayer.net/44980043-Maritime-operations-at-the-operational-level-of-war-nwp-3-32.html
- 4. "JP 3-32 COMMAND AND CONTROL FOR JOINT MARITIME OPERATIONS." https://fas.org/irp/doddir/dod/jp3_32ch1.pdf
- 5. "JP 3.0 DOCTRINE FOR JOINT OPERATIONS." https://docplayer.net/17806770-Joint-publication-3-0-doctrine-for-joint-operations.html
- 6. National Industrial Security Program Executive Agent and Operating Manual (NISP), 32 U.S.C. § 2004.20 et seq. (1993). https://www.ecfr.gov/current/title-32/subtitle-B/chapter-XX/part-2004

KEYWORDS: Geospatial; analytics; Artificial Intelligence; AI; Machine Learning; ML; Enhanced situational awareness; SA; comparative analysis; Common Operational Picture; COP; Maritime Operations

The purpose of Amendment 1 to DARPA 25.4 Release 5 is to update the white paper page count to 10 pages from 15 pages (changes highlighted)

Defense Advanced Research Projects Agency (DARPA)
DoD 25.4 Small Business Innovation Research (SBIR)
Annual Broad Agency Announcement (BAA)
Release 5

INTRODUCTION

DARPA's mission is to create technological surprise for U.S. national security. To achieve this mission, the agency makes strategic, early investments in breakthrough science and technology that will have long-term positive impacts on our national security. The pace of discovery in both science and technology is accelerating worldwide, resulting in new fields of study and the identification of scientific areas ripe for small business utilization through the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs. Small businesses are critical for developing technology to support national security. Proposers are encouraged to consider whether the Research/Research and Development (R/R&D) being proposed to Department of Defense (DoD) Components also has private sector potential, either for the proposed application or as a base for other applications. The topics below focus on technical domains important to DARPA's mission, pursuing innovative research concepts that fall within one of its technology offices. More information about DARPA's technical domains and research topics of interest may be found at: http://www.darpa.mil/about-us/offices.

Proposers responding to a topic in this BAA must follow all general instructions provided in the DoD SBIR Program BAA. DARPA requirements in addition to or deviating from the DoD Program BAA are provided in the instructions below. All DARPA SBIR and STTR proposals must be submitted electronically through the Defense SBIR/STTR Innovation Portal (DSIP) as described in the Proposal Preparation and Submission sections of these instructions. It is recommended that firms register as soon as possible upon identification of a proposal opportunity to avoid delays in the proposal submission process. Proposers are encouraged to submit proposals as early as possible to avoid unexpected delays due to a high volume of traffic during the final hours before a BAA closes. *DARPA is unable to accept any late proposals/white papers*.

Proposers are encouraged to thoroughly review the DoD Program BAA and register for the Defense SBIR/STTR Innovation Portal (DSIP) Listserv to remain apprised of important programmatic and contractual changes.

- The DoD Program BAA is located at: https://www.dodsbirsttr.mil/submissions/solicitation-documents/active-solicitations. Be sure to select the tab for the appropriate BAA cycle.
- Register for the DSIP Listserv at: https://www.dodsbirsttr.mil/submissions/login.

Specific questions pertaining to the administration of the DARPA Program and these proposal preparation instructions should be directed to: DARPA Small Business Programs Office at SBIR_BAA@darpa.mil. DSIP Topic Q&A will NOT be available for these DARPA topics. Technical questions related to improving the understanding of a topic's requirements must be submitted to SBIR_BAA@darpa.mil by March 19, 2025. All white papers are due at 12:00 pm ET on the closing date for this release.

This release contains an open topic. As outlined in section 7 of the SBIR and STTR Extension Act of 2022, innovation open topic activities—

- (A) Increase the transition of commercial technology to the Department of Defense;
- (B) Expand the small business nontraditional industrial base;

- (C) Increase commercialization derived from investments of the Department of Defense; and
- (D) Expand the ability for qualifying small business concerns to propose technology solutions to meet the needs of the Department of Defense.

Unlike conventional topics, which specify the desired technical objective and output, open topics can use generalized mission requirements or specific technology areas to adapt commercial products or solutions to close capability gaps, improve performance, or provide technological advancements in existing capabilities.

A small business concern may submit only one (1) whitepaper to this open topic. If more than one whitepaper from a small business concern is received for this open topic, only the most recent whitepaper to be certified and submitted prior to the submission deadline will receive an evaluation. All prior whitepapers submitted by the small business concern for this open topic will be marked as nonresponsive and will not receive an evaluation.

Proposals submitted in response to this topic will follow a two-step submission process.

STEP ONE- White paper submission: Proposing small business concerns must certify and submit, by the deadline listed above, the following proposal volumes in DSIP:

- 1. <u>All Firm-level Forms</u>. On the Defense SBIR/STTR Innovation Portal (DSIP) at https://www.dodsbirsttr.mil/submissions/, prepare the Firm-level Forms Firm Certifications, Audit Information, and Company Commercialization Report (CCR).
- 2. Supporting Documents (Volume 5). A white paper must be uploaded to Volume 5 outlining the proposed effort. The white paper must not exceed three (3) pages in length. The header on each page of the white paper should contain your company name, topic number, and proposal number assigned by DSIP when the proposal was created. The header may be included in the one-inch margin. Content requirements of the white paper are provided in the Description section of the topic.

NOTE: At step one of this process, proposers will NOT complete Volume 1 (Proposal Coversheet), Volume 2 (Technical Volume), Volume 3 (Cost Volume), or Volume 6 (Fraud, Waste and Abuse training). The Company Commercialization Report will be required in the Firm-level Forms but will not be provided in Volume 4.

White papers will be screened by DARPA to determine suitability for full proposal submission, based on responsiveness to the requirements outlined in the Description section of the topic, and an understanding of the capability gap.

STEP TWO: Firms that have submitted white papers will be notified of recommendation for a full Phase I proposal submission within 30 days of the deadline for white papers. Full Phase I proposals will follow the guidelines provided in the DoD Program BAA, with additional details and deviations below.

PHASE I PROPOSAL GUIDELINES

Phase I proposals will be accepted *only* from firms that have submitted a white paper that DARPA has determined meets the requirements of the Description section of the topic. Proposals from firms that have not been recommended for Phase I submission will be marked non-responsive and will not be evaluated.

The Defense SBIR/STTR Innovation Portal (DSIP) is the official portal for DoD SBIR/STTR proposal submission. Proposers are required to submit proposals via DSIP; proposals submitted by any other means will be disregarded. Detailed instructions regarding registration and proposal submission via DSIP are provided in Appendix A.

Current Release Award Structure by Topic

White Paper & Slide Deck Proposal

	Phase I			
	Technical Volume			
Topic Number				
	White	Slide	Award	Period of Performance
	Paper	Deck	Amount	(PoP)
HR0011ST20254-P01	10 pages	5 slides	\$150,000	6 months

Note: Please see Appendix A for complete instructions on the White Paper/Slide Deck technical volume format and content.

Technical Volume (Volume 2) – White Paper & Slide Deck Format

The white paper shall not exceed 10 pages, and the slide deck shall not exceed 5 pages. For information on the content of these elements of the technical proposal and the commercialization strategy, please see Attachment A: DARPA Phase I Instructions.

Content of the Technical Volume

Proposers should refer to the DARPA Phase I Proposal Instructions in Appendix A of these Instructions.

Cost Volume (Volume 3)

Please see the chart above for award amounts listed by topic. Proposers are required to use the Phase I Cost Proposal template (Excel Spreadsheet) provided on the DARPA Small Business site (https://www.darpa.mil/work-with-us/communities/small-business/fy25-topics). Please be sure to complete both tabs of the Cost Proposal Template (Cost Model & Milestone Chart).

Content of the Cost Volume

Proposers should refer to the DARPA Phase I Proposal Instructions, provided in Appendix A Please review the updated Percentage of Work (POW) calculation details included in the DoD Program BAA. DARPA will occasionally accept deviations from the POW requirements with written approval from the Funding Agreement officer.

Company Commercialization Report (CCR) (Volume 4)

Completion of the CCR as Volume 4 of the proposal submission in DSIP is required. Please refer to the DoD SBIR Program BAA for full details on this requirement. Information contained in the CCR will not be considered by DARPA during proposal evaluations.

Supporting Documents (Volume 5)

In addition to the documents required by DoD, small businesses may also submit additional documentation to support the Technical Volume (Volume 2) and the Cost Volume (Volume 3) in Volume 5. See Appendix A Introduction for required certifications that must be included in Volume 5. For additional information, see the SBIR 25.4 Annual Program BAA at https://www.dodsbirsttr.mil/submissions/solicitation-documents/active-solicitations, under Release 5.

Fraud, Waste and Abuse Training (Volume 6)

Fraud, Waste and Abuse training material can be found in the Volume 6 section of the proposal submission module in DSIP and must be thoroughly reviewed once per year to proceed with proposal submission.

Disclosures of Foreign Affiliations or Relationships to Foreign Countries (Volume 7)

Small business concerns must complete the Disclosures of Foreign Affiliations or Relationships to Foreign Countries webform in Volume 7 of the DSIP proposal submission. Please be aware that the Disclosures of Foreign Affiliations or Relationships to Foreign Countries WILL NOT be accepted as a PDF Supporting Document in Volume 5 of the DSIP proposal submission. <u>Do not upload any previous versions of this form to Volume 5</u>. For additional details, please refer to the DoD Program BAA.

PHASE II PROPOSAL GUIDELINES

Phase II proposals may only be submitted by Phase I awardees. Should DARPA have funding available and decide to proceed with a Phase II, proposers awarded a Phase I contract will be eligible to submit a proposal for Phase II and will be contacted by the DARPA Small Business Programs Office at the appropriate time during their Phase I period of performance. Phase II proposals will be evaluated in accordance with the applicable DoD or DARPA SBIR/STTR BAA. Phase II selection(s) are at the sole discretion of the Government and are subject to funding availability and Phase I performance. Phase II Instructions are available at https://www.darpa.mil/work-with-us/communities/small-business/fy25-topics.

Current Release Award Structure by Topic

	Phase II				
Topic Number			Period of		
	Technical	Award	Performance	Option	Option
	Volume	Amount	(PoP)	Amount	PoP
HR0011SB20254-P01	25 pages	\$1,000,000	18 months	\$800,000	12 months

Technical Volume (Volume 2)

The technical volume is not to exceed 20 pages. The Phase II commercialization strategy shall not exceed 5 pages. This should be the last section of the Technical Volume and is included in the 20-page total. Any pages in the technical volume over 25 pages will not be considering in proposal evaluations.

DISCRETIONARY TECHNICAL AND BUSINESS ASSISTANCE (TABA)

DARPA does not offer TABA funding.

EVALUATION AND SELECTION

All proposals will be evaluated in accordance with the evaluation criteria listed in the DoD SBIR 25.4 BAA. DARPA will conduct an evaluation of each conforming proposal. Proposals that do not comply with the requirements detailed in this BAA and the research objective(s) of the corresponding topic are considered non-conforming and therefore will not be evaluated nor considered for award.

Using the evaluation criteria, the Government will evaluate each proposal in its entirety, documenting the strengths and weaknesses relative to each evaluation criterion, and based on these identified strengths and weaknesses, determine the proposal's overall selectability. Proposals will not be evaluated against each other during the evaluation process, but rather evaluated on their own individual merit to determine how well the proposal meets the criteria stated in this BAA and the corresponding topic.

Awards will be made to proposers whose proposals are determined to be the most advantageous to the Government, consistent with instructions and evaluation criteria specified in the DoD SBIR 25.4 BAA and availability of funding.

For the purposes of this proposal evaluation process, a selectable proposal is defined as follows:

<u>Selectable</u>: A selectable proposal is a proposal that has been evaluated by the Government against the evaluation criteria listed in the BAA and topic, and the strengths of the overall proposal outweigh its weaknesses. Additionally, there are no accumulated weaknesses that would require extensive negotiations and/or a resubmitted proposal.

For the purposes of this proposal evaluation process, a non-selectable proposal is defined as follows:

<u>Non-Selectable</u>: A proposal is considered non-selectable when the proposal has been evaluated by the Government against the evaluation criteria listed in the BAA and topic, and the strengths of the overall proposal do not outweigh its weaknesses.

Proposing firms will be notified of selection or non-selection status for a Phase I award within 90 days of the closing date of the BAA. It is the policy of DARPA to treat all proposals as source selection information and to disclose their contents only for the purpose of evaluation. Restrictive notices notwithstanding, during the evaluation process, submissions may be handled by support contractors for administrative purposes and/or to assist with technical evaluation. All DARPA support contractors are expressly prohibited from performing DARPA-sponsored technical research and are bound by appropriate nondisclosure agreements. Input on technical aspects of the proposals may be solicited by DARPA from other Government and/or non-Government consultants/experts who are strictly bound by the appropriate non-disclosure requirements. No submissions will be returned. Upon completion of the evaluation and selection process, an electronic copy of each proposal received will be retained at DARPA.

Proposal titles, abstracts, anticipated benefits, and keywords of proposals that are selected for contract award will undergo a DARPA Policy and Security Review. Proposal titles, abstracts, anticipated benefits, and keywords are subject to revision and/or redaction by DARPA. Final approved versions of proposal titles, abstracts, anticipated benefits, and keywords may appear on the DoD SBIR/STTR awards website and/or the Small Business Administration's (SBA's) SBIR/STTR award website (https://www.sbir.gov/sbirsearch/award/all).

Refer to the DoD SBIR 25.4 Program BAA for procedures to protest the Announcement. As further prescribed in FAR 33.106(b), FAR 52.233-3, Protests regarding the selection decision should be submitted to:

DARPA Contracts Management Office (CMO) 675 N. Randolph Street Arlington, VA 22203

E-mail: CMO SBIRProtests@darpa.mil and sbir@darpa.mil

AWARD AND CONTRACT INFORMATION

1. General Award Information

Multiple awards are anticipated. DARPA may award Federal Acquisition Regulation (FAR)-based Government contracts (Firm-Fixed Price or Cost-Plus Reimbursement) or Other Transactions (OT) for Prototypes agreement (under the authority of 10 U.S.C. § 4022) subject to approval of the Contracting Officer or Agreements Officer, respectively. Phase I awards will most likely be issued as Purchase Orders per FAR Part 13. The resources made available under each topic issued under this BAA will depend on the quality of the proposals received and the availability of funds.

The Government reserves the right to select for negotiation all, some, one, or none of the proposals received in response to this announcement and to make awards with or without communications with proposers. Additionally, the Government reserves the right to award all, some, one, or none of the options on the contract(s)/agreement(s) of the performers based on available funding and technical performance. If warranted, portions of resulting awards may be segregated into pre-priced options. Additionally, DARPA reserves the right to accept proposals in their entirety or to select only portions of proposals for award. Should DARPA desire to award only portions of a proposal, negotiations may be opened with that proposer. The Government reserves the right to fund proposals in phases with options for continued work, as applicable.

The Government reserves the right to request any additional, necessary documentation once it makes the award instrument determination. The Government reserves the right to remove a proposal from award consideration should the parties fail to reach agreement on award terms, conditions, and price within a reasonable time, and/or the proposer fails to provide requested additional information within three business days.

In all cases, the Government Contracting Officer reserves the right to select award instrument type, regardless of instrument type proposed, and to negotiate all instrument terms and conditions with selectees. DARPA will apply publication or other restrictions, as necessary, if it determines that the research resulting from the proposed effort will present a high likelihood of disclosing performance characteristics of military systems or manufacturing technologies that are unique and critical to defense. Any award resulting from such a determination will include a requirement for DARPA permission before publishing any information or results on the program. For more information on publication restrictions, see the DoD SBIR 25.4 Program BAA.

It is DARPA's goal to award SBIRs and STTRs as expeditiously as possible. In an effort to do so, please review and ensure the DARPA SBIR/STTR Pre-Award Checklist located on the DARPA Small Business website at https://www.darpa.mil/work-with-us/communities/small-business/sbir-sttr-overview/ is completed prior to being selected for award.

Because of the desire to streamline the award negotiation and program execution process, proposals identified for negotiation will result in negotiating a type of instrument for award that is in the best interest of the Government. In the case of an OT for Prototype agreement under DARPA's authority to award OTs for prototype projects, 10 U.S.C. § 4022, use of an OT provides significant opportunities for flexible execution to assist in meeting DARPA's aggressive SBIR/STTR program goals.

All proposers that wish to consider an OT award should carefully read the following:

The flexibility of the OT award instrument is beneficial to the program because the Performer will be able to apply its best practices as required to carry out the research project that may be outside of the FAR process-driven requirements. Streamlined practices will be used, such as milestone-driven performance, intended to reduce time and effort on award administration tasks and permit performers to focus on the research effort and rapid prototyping. Because of this ability, OTs provide the Agreements Officer the flexibility to create an award instrument that contains terms and conditions that promote commercial transition, reduce some administratively burdensome acquisition regulations, and meet SBIR/STTR program goals.

Proposers must only propose an OT agreement with fixed payable milestones. Fixed payable milestones are fixed payments based on successful completion of the milestone accomplishments agreed to in the milestone plan. Refer to the Other Transactions for Prototypes Fact Sheet and Other Transaction for Prototype Agreement, available at https://www.darpa.mil/work-with-us/communities/small-business/sbir-sttr-overview/ for more information on OTs.

2. Transition and Commercialization Support Program (TCSP)

DARPA will provide services to Phase II awardees upon contract execution through the Transition and Commercialization Support Program (TCSP) at no cost to awardees. The TCSP goal is to maximize the potential for SBIR/STTR companies to move their technology beyond Phase II and into other research and development programs for further maturity or into solutions or products for DoD acquisition programs, other Federal programs, and/or the commercial market. Please visit https://www.darpa.mil/work-with-us/communities/small-business/transition-commercialization/ for more information on DARPA TCSP.

3. Embedded Entrepreneurship Initiative (Phase II only)

Awardees of SBIR funding pursuant to this BAA may be eligible to participate in the DARPA Embedded Entrepreneurship Initiative (EEI). Invitation to participate in EEI is at the sole discretion of the Government based on evaluation of technical and commercial factors and subject to program balance and the availability of funding. EEI is a limited scope program offered by DARPA, at DARPA's discretion, to a small subset of awardees. The goal of DARPA's EEI is to increase the likelihood that DARPA-funded technologies take root in the U.S. and provide new capabilities for national defense. EEI supports DARPA's mission "to make pivotal investments in breakthrough technologies and capabilities for national security" by accelerating the transition of innovations out of the lab and into new capabilities for the Department of Defense (DoD). EEI investment supports development of a robust and deliberate Goto-Market strategy for DARPA-funded advanced technology, into high-value products and capabilities for the government and commercial markets, and positions DARPA awardees to attract U.S. private investment. The following is for informational and planning purposes only and does not constitute solicitation of proposals to the EEI.

There are three elements to DARPA's EEI: (1) A Senior Commercialization Advisor (SCA) from DARPA who works with the Program Manager (PM) to examine the business case for the awardee's technology and uses commercial methodologies to identify steps toward achieving a successful transition of technology to the government and commercial markets; (2) Connections to potential U.S. industry and private investor partners via EEI's Investor Working Groups; and (3) Additional funding to hire an embedded entrepreneur to achieve specific milestones in a Go-to-Market strategy for transitioning the technology into products that serve both defense and commercial markets. This embedded entrepreneur's qualifications should include business experience within the target industries of interest, experience in commercializing early-stage technology, and the ability to communicate and interact with technical and non-technical stakeholders, and customers. Funding for EEI is typically no more than \$310,000 per

awardee over the duration of the award. An awardee will attend one commercialization workshop, and also may apportion EEI funding to hire more than one embedded entrepreneur, if achieving the milestones requires a unique expertise that can be obtained without exceeding the awardee's total EEI funding.

EEI Application Process:

After receiving an SBIR/STTR award, awardees interested in being considered for EEI should notify their DARPA Program Manager (PM) during the period of performance. If the DARPA PM determines that EEI could be of benefit to transition the technology to product(s) the Government needs, the PM will refer the performer to the DARPA Commercial Strategy Team. A Senior Commercial Advisor will then contact the performer, assess fitness for EEI and determine, in consultation with the PM, and Commercial Strategy Team, whether or not to invite the performer to participate in the EEI. Factors that are considered in determining fitness for EEI include DoD/Government need for the technology; competitive approaches to enable a similar capability or product; risks and impact of the Government's being unable to access the technology from a sustainable source; Government and commercial markets for the technology; cost and affordability; manufacturability and scalability; supply chain requirements and barriers; regulatory requirements and timelines; Intellectual Property and Government Use Rights, and available funding.

After SCA review, the Commercial Strategy Team may request the SBIR/STTR awardee to submit additional tasks for review and/or apply separately to the Commercial Strategy "Commercial Solutions Opening" for additional review at https://sam.gov/opp/0b1cda40f5f0486a9180649312107987/view.

EEI awards are at the sole discretion of DARPA and subject to program balance and the availability of funding. For more information, please refer to the EEI website https://eei.darpa.mil/.

ADDITIONAL INFORMATION

DARPA intends to use electronic mail for all correspondence regarding these topics. Questions related to the technical aspect of the research objectives and awards specifically related to a topic should be emailed to SBIR_BAA@darpa.mil. Please reference the topic number in the subject line. All questions must be in English and must include the name, email address, and the telephone number of a point of contact.

DARPA will attempt to answer questions in a timely manner; however, questions submitted within seven (7) calendar days of the proposal due date listed herein may not be answered. DARPA will post a consolidated Frequently Asked Questions (FAQ) document. To access the posting please visit: https://www.darpa.mil/work-with-us/communities/small-business/fy25-topics. Under the topic number summary, there will be a link to the FAQ. The FAQ will be updated on an ongoing basis until one week prior to the proposal due date.

Technical support for the Defense SBIR/STTR Innovation Portal (DSIP) is available Monday through Friday, 9:00 a.m. – 5:00 p.m. ET. Requests for technical support must be emailed to DoDSBIRSupport@reisystems.com with a copy to SBIR_BAA@darpa.mil.

DARPA SBIR 25.4 Topic Index Release 5

HR0011SB20254-P01 Spectrum Monitoring and Awareness in Real-Time (SMART) - Open Topic

HR0011SB20254-P01 TITLE: Spectrum Monitoring and Awareness in Real-Time (SMART) - Open Topic

OUSD (R&E) CRITICAL TECHNOLOGY AREA(S): Advanced Computing and Software, Integrated Sensing and Cyber

The technology within this topic is restricted under the International Traffic in Arms Regulation (ITAR), 22 CFR Parts 120-130, which controls the export and import of defense-related material and services, including export of sensitive technical data, or the Export Administration Regulation (EAR), 15 CFR Parts 730-774, which controls dual use items. Offerors must disclose any proposed use of foreign nationals (FNs), their country(ies) of origin, the type of visa or work permit possessed, and the statement of work (SOW) tasks intended for accomplishment by the FN(s) in accordance with the Announcement. Offerors are advised foreign nationals proposed to perform on this topic may be restricted due to the technical data under US Export Control Laws.

OBJECTIVE: The objective of the Spectrum Monitoring and Awareness in Real-Time Open SBIR is to develop advanced capabilities that provide military dismounted ground tactical units real-time awareness of the radio frequency (RF) spectrum.

DESCRIPTION: In an increasingly complex operational environment, it is imperative that military dismounted ground tactical units have real-time awareness of the RF spectrum. This awareness is critical to build an actionable picture of the threat environment and adhere to blue force emissions control (EMCON) procedures. To enable this awareness, ground units must have the technical capability to:

- 1. Detect, separate from background noise, and characterize signals of interest, including identifying the communications protocol for signals within the RF communications band
- 2. Build a pattern of life (POL) of the RF spectrum over time
- 3. Localize and/or geolocate emitters

Currently, dismounted tactical ground units are limited in their ability to accomplish all tasks in real-time. Although specialized units may be capable of doing one or more of these tasks, often characterization and identification of signals are done via reach-back organizations, and ground units won't get feedback for hours or days later, if at all. This greatly reduces survivability and inhibits the unit's ability to adapt to a complex, agile threat by maneuvering effectively through the RF spectrum.

Dismounted tactical ground units are equipped with man-portable software defined radios (SDRs) like the L3Harris AN/PRC-117G or AN/PRC-152A. Unfortunately, these SDRs are designed for communications and data sharing, and despite many advances in RF processing and management, they have limited ability to contribute to the technical capabilities described above. In addition to SDRs, warfighters are often equipped with Android tablets running the Android Tactical Assault Kit (ATAK) [1]. These Android tablets are very flexible for rapid implementation of new capabilities (e.g., incorporating AI/ML into existing plugins, new mission/domain-specific plugins). Unfortunately, the limiting factor is often the use of proprietary hardware (i.e., SDR) which prevents industry and academia from demonstrating novel technological developments that would require the manufacturer to modify/adapt their hardware.

Recently, there have been significant developments in SDR technology that facilitate rapid reconfiguration and/or adaptation for various tasks (e.g., Hedgehog SDR [2]). Additionally, there have been significant enhancements in handheld compute capabilities procured by the DoD. These enhancements include longer battery life; central processing unit (CPU), graphics processing unit (GPU), and neural processing unit (NPU) capacity; memory; and improved durability.

The Defense Advanced Research Projects Agency (DARPA) solicits technologies that, leveraging advancements in SDR technology, and handheld or tablet-based compute, optimize warfighter capabilities in one or more of the three technical capability areas described above.

A successful proposal should specify which of the three technical capability areas is being targeted. Proposals should include the RF bandwidth covered by the proposed solution and, if targeting the POL technical capability, the timeframe for POL required to gain specific insights. Solutions can be algorithmic, software, hardware, and/or material in nature; however, hardware/material solutions should not introduce a new physical burden on the warfighter (i.e., modifying or replacing an antenna/SDR is acceptable, but introducing an additional sensor/antenna/radio/tablet is not). Moreover, proposed solutions should not interfere with the primary function of the equipment (i.e., warfighter communication capability must not be degraded). Additionally, information should be presented in an intuitive manner that enhances situational awareness and does not impose an additional cognitive burden on the warfighter who does not have expertise in the field of RF spectrum operations.

An initial white paper describing the technical approach is required and will be evaluated. If DARPA selects a white paper for evaluation, the Government will issue an invitation to submit a full proposal. The technical white paper should include an overview of the proposed concept with details to support feasibility. The overview should address the bullets below listed in order of importance:

- Proposed system: Describe the proposed solution. Outline the design and operation of the main hardware and software components that are being proposed for development. Specify which parts of the solution require modification or replacement of fielded hardware.
- Concept of employment: Identify how the proposed solution could be employed. Provide details about which of the three technical capability areas are being addressed, and the specific capabilities and limitations of the proposed solution. For example, a proposal targeting the POL technical capability area should specify the observation timeframe required to gain specific insights, what insights would be provided, and RF bandwidth of the proposed solution. Also identify potential new tactics, techniques, or procedures that are required for warfighters to employ the system appropriately.
- Interoperability: Provide a brief analysis on how the proposed system will integrate with existing communications equipment fielded to ground tactical units. Identify potential risks that are introduced to the warfighter to include increased cognitive tasks, training requirements, potential degradation of communication, increased weight, etc.
- Scalability: Provide a brief analysis of the viability of scaling the technology across both the DoD and industry. What are the non-DoD uses of the technology? Are the production costs low enough to merit widespread adoption? What are the projected maintenance and storage requirements, operational availabilities, and service lifetimes?

PHASE I: During Phase I, the company shall research and develop innovative solutions in one or more of the three technical capability areas described above. The company shall develop novel technology that demonstrates the technical capability to provide real-time RF situational awareness to the dismounted tactical ground user without introducing a new physical or cognitive burden to the warfighter, and without interfering with the primary function of their equipment. Proposers should recommend quarterly technical milestones that will be used to demonstrate their progress to DARPA throughout Phase I. These milestones will also be accompanied by monthly financial and technical summary reports. At the end of Phase I, the company shall provide a formal written technical report including calculations, test data, analysis, and any relevant details from intermediate milestones. The report should also set the stage for Phase II by detailing the expected performance (i.e., RF bandwidth, timeframe for POL with expected

insights, etc.) of the technology and comparing the technology to existing specialized solutions. Documentation must also include refined insights and analysis related to the previously mentioned concept of employment, interoperability, and scalability sections. A commercialization roadmap will also be required to demonstrate a high probability that continued design and development should result in a Phase II mature product.

PHASE II: Produce prototype solutions that enable mission essential tasks in more complex field conditions. Products will be provided to select DoD units for further evaluation. In addition, companies will provide a technology transition and commercialization plan for DoD and commercial markets.

PHASE III DUAL USE APPLICATIONS: Potential dual-use applications include RF detection, spectrum analysis, and localization of RF interference sources in support of first responder operations as described in the Radio Frequency Detection, Spectrum Analysis, and Direction-Finding Equipment Market Survey Report [3]. These technologies could be used to "detect, identify, and locate RF interference sources that may be disrupting first responder communications systems" [3].

REFERENCES:

- [1] Air Force Research Laboratory, "Tactical Assault Kit (TAK)." Accessed: Nov. 12, 2024. Available: https://afresearchlab.com/technology/information-technology/tactical-assault-kit-tak/
- [2] BAE Systems, Hedgehog multifunction, multichannel software-defined radio, CS-19-A35-01-Hedgehog. 2019. Available: https://www.baesystems.com/en-media/uploadFile/20210404060814/1434640495846.pdf
- [3] H. Shahid, "Radio Frequency Detection, Spectrum Analysis, and Direction Finding Equipment: Market Survey Report," National Urban Security Technology Laboratory (NUSTL) U.S. Department of Homeland Security Science and Technology Directorate, New York, NY, USA, SAVER-T-MSR-19, April 2019.

KEYWORDS: radio frequency detection, radio frequency classification, radio frequency spectrum analysis, electronic warfare (EW), electronic support (ES), emitter localization, artificial intelligence, machine learning

Appendix A: DARPA PHASE I PROPOSAL INSTRUCTIONS

I. Introduction

A complete proposal submission consists of:

Volume 1: Proposal Cover Sheet

Volume 2: Technical Volume

Volume 3: Cost Volume

Volume 4: Company Commercialization Report

Volume 5: Supporting Documents

- a. Verification of Eligibility of Small Business Joint Ventures (DoD Attachment 3), if applicable
- b. Data Rights Assertions (if applicable)
- c. Other supporting documentation

A completed proposal submission in DSIP does NOT indicate that the mandatory supporting documents have been uploaded. It is the responsibility of the proposing small business concern to ensure that the mandatory documents listed above have been uploaded and included with the proposal submission.

Volume 6: Fraud, Waste and Abuse Training

The Defense SBIR/STTR Innovation Portal (DSIP) provides a structure for building the proposal volumes and submitting a consolidated proposal package. If this is your first time submitting an SBIR proposal using DSIP, please review detailed training guides at https://www.dodsbirsttr.mil/submissions/learning-support/training-materials. It is the responsibility of the proposing firm to ensure that a complete proposal package is certified and submitted by the close date listed in the topic to which they are responding. *DARPA cannot accept late proposals*.

To assist in proposal development, templates for Volume 2: Technical Volume and Volume 3: Cost Volume have been provided as attachments on the DARPA Small Business website at https://www.darpa.mil/work-with-us/communities/small-business/fy25-topics. Use of the DARPA Cost Proposal template is mandatory.

II. Proprietary Information

Proposers that include in their proposals data that they do not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes, shall follow instructions in the DoD SBIR 25.4 BAA regarding marking propriety proposal information.

III. Phase I Proposal Instructions

a. Proposal Cover Sheet (Volume 1)

The Cover Sheet must include a brief technical abstract of no more than 3000 characters that describes the proposed R&D project with a discussion of anticipated benefits and potential commercial applications. **Do not include proprietary or classified information in the Proposal Cover Sheet**. If your proposal is selected for award, the technical abstract and discussion of anticipated benefits may be publicly released.

a. Format of the Technical Volume (Volume 2) – White Paper & Slide Deck

- 1. The Technical Volume must include two parts, PART ONE: white paper, and PART TWO: slide deck, combined as a single Portable Document Format (PDF) for upload to DSIP.
- 2. Type of File: The Technical Volume must be a single PDF file, including graphics. Perform a virus check before uploading the Technical Volume file. If a virus is detected, it may cause rejection of the proposal. Do not lock or encrypt the uploaded file. Do not include or embed active graphics such as videos, moving pictures, or other similar media in the document.
- 3. Length: The length of the white paper shall not exceed 15 pages, and the slide deck shall not exceed 5 pages/slides. The Government will not consider pages in excess of the page count limitations.
- 4. Layout: Number all pages of your proposal consecutively. Font size should not be smaller than 10-point on standard 8-1/2" x 11" paper with one-inch margins. The header on each page of the Technical Volume should contain your company name, topic number, and proposal number assigned by DSIP when the Cover Sheet was created. The header may be included in the one-inch margin.

b. Content of the Technical Volume (Volume 2) – White Paper & Slide Deck

White Paper (NTE 10 pages). Provide the following information: Goals and Impact: Clearly describe what is being proposed and what difference it will make (qualitatively and quantitatively), including a brief discussion on how this directly relates to the topic.

- 1. Technical Plan: Provide an explicit, detailed description of the Phase I approach. The Statement of Work should indicate what tasks are planned, how and where the work will be conducted, a schedule of major events, and the final product(s) to be delivered. The Phase I effort should attempt to determine the technical feasibility of the proposed concept. The methods planned to achieve each objective or task should be discussed explicitly and in detail.
- 2. Management and Capabilities: Designate key personnel who will be involved in the Phase I effort. Provide a brief summary of the expertise of the team, including subcontractors and key personnel. Describe the organizational experience in this technology area, previous work not directly related to the proposed effort but similar, existing intellectual property required to complete the project, and any specialized facilities to be used as part of the project. List Government-furnished materials or data assumed to be available. Describe any specialized facilities to be used as part of the project, the extent of access to these facilities, and any biological containment, biosafety, and certification requirements.
- 3. Transition and Commercialization Plan (not to exceed 5 pages):
 - a) Describe the commercial product or DoD system to be developed.
 - b) Discuss the potential end users DoD, Federal, and/or private sector customers. Discuss your business model for this technology (i.e., how to you anticipate generating revenue with this technology?). Who are you selling to directly or indirectly, a supplier, an integrator, or an end user?
 - c) Describe your company's funding history. Discuss how much additional funding above this proposed effort (include additional required technology development, staffing requirements, infrastructure requirements, IP strategy costs, etc.) that will

- be required to bring this technology to market and how you anticipate going about getting that funding (e.g., Govt S&T contracts, investment).
- d) Describe the timeline to maturity for sales or transition to an end user. Describe your IP strategy.
- e) Describe the technology, market, team, and business risks associated with this proposed effort and your plan to mitigate these risks.

Slide Deck (not to exceed 5 slides). Provide the following information (convert the completed deck to a pdf and attach it to the white paper):

- 1. What are you trying to do and how does this directly relate to the topic?
- 2. Technology and commercial product: Specifically, what are you proposing to produce software, system, application? Be specific on what your proposed technology development is targeting as an end state.
- 3. How is the technology approached today? Who is doing the research, development and delivering products/services? What are the current limitations in the technology and commercial marketplaces?
- 4. Management: Overview of team, facilities, and qualifications.
- 5. Technical summary quad chart: Use template provided at https://www.darpa.mil/work-with-us/communities/small-business/fy25-topics.

NOTE: All letters of recommendation and CVs can be loaded in Volume 5: Supporting Documents. In accordance with section 3-209 of DOD 5500.7-R, Joint Ethics Regulation, letters from government personnel will NOT be considered during the evaluation process.

c. Format of Cost Volume (Volume 3)

Proposers are required to use the Phase I Cost Proposal Template (Excel Spreadsheet) provided at https://www.darpa.mil/work-with-us/communities/small-business/fy25-topics.

d. Content of the Cost Volume (Volume 3)

Some items in the Cost Breakdown Guidance below may not apply to the proposed project. If such is the case, there is no need to provide information on every item.

For Phase I proposals, proposers should NOT provide documentation to substantiate how all proposed costs were derived. However, proposers should be prepared to provide such documentation should the Contracting Officer request this documentation. If any substantiating documentation is requested by the Contracting Officer, it is important to respond as quickly as possible to the request as to not delay contract negotiation.

Examples of substantiating documentation are as follows, if you proposed travel cost to attend a project-related meeting or conference, and used a travel website to compare flight costs, include a screen shot of the comparison. Similarly, if you proposed to purchase materials or equipment, and used the internet to search for the best source, include your market research for those items. You do not necessarily have to propose the cheapest item or supplier, but you

should be able to explain your decision to choose one item or supplier over another. It's important to provide enough information to allow contracting personnel to understand how the proposer plans to use the requested funds.

Cost Breakdown Guidance:

- List all key personnel by name as well as by number of hours dedicated to the project as direct labor.
- Special tooling and test equipment and material cost may be included. The inclusion of equipment and material will be carefully reviewed relative to need and appropriateness for the work proposed. The purchase of special tooling and test equipment must, in the opinion of the Contracting Officer, be advantageous to the Government and should be related directly to the specific topic. These may include such items as innovative instrumentation and/or automatic test equipment. Title to property furnished by the Government or acquired with Government funds will be vested with DARPA; unless it is determined that transfer of title to the contractor would be more cost effective than recovery of the equipment by the DARPA.
- Cost sharing is permitted for proposals under this announcement; however, cost sharing is not required, nor will it be an evaluation factor in the consideration of a proposal.
- If Subcontractors will be performing Fundamental Research under the effort, please incorporate the following into proposal: 1) a separate SOW outlining the specific work that the proposer finds to qualify as Fundamental Research; OR 2) Within Prime contractor SOW identify which tasks are to be performed that are fundamental research.
- Proposers should complete both tabs within the Cost Proposal Spreadsheet (Cost Model & Milestone Chart)

For more information about cost proposals and accounting standards associated with contract awards, see the Defense Contract Audit Agency (DCAA) publication titled "Audit Process Overview – Information for Contractors" available at http://www.dcaa.mil.

Please note, a separate, more detailed cost proposal spreadsheet will be provided for any Phase II Proposals.

e. Company Commercialization Report (Volume 4)

The Company Commercialization Report (CCR) allows companies to report funding outcomes resulting from prior SBIR and STTR awards. The Company Commercialization Report (CCR) is required for Phase I and Direct to Phase II proposals. Please refer to the DoD SBIR Program BAA for full details on this requirement. Information contained in the CCR will not be considered by DARPA during proposal evaluations.

f. Supporting Documents (Volume 5)

In addition to required DoD documentation and certifications, small businesses may also submit additional documentation to support the Technical Volume (Volume 2) and the Cost Volume (Volume 3) in Volume 5. See Introduction for **required** certifications that must be included in Volume 5. For additional information, see the SBIR 25.4 Annual Program Broad Agency Announcement (BAA) at

https://www.dodsbirsttr.mil/submissions/solicitation-documents/active-solicitations.

g. Fraud Waste and Abuse (Volume 6)

The Fraud, Waste and Abuse (FWA) training is required for Phase I and Direct to Phase II proposals. FWA training provides information on what represents FWA in the SBIR/STTR program, the most common mistakes that lead to FWA, as well as the penalties and ways to prevent FWA in your firm. This training material must be thoroughly reviewed once per year. Plan ahead and leave ample time to complete this training based on the proposal submission deadline. Knowingly and willfully making any false, fictitious, or fraudulent statements or representations may be a felony under the Federal Criminal False Statement Act (18 U.S.C. Sec 1001), punishable by a fine of up to \$10,000, up to five years in prison, or both. Understanding the indicators and types of fraud, waste, and abuse that can occur is critical for the SBIR/STTR awardees' role in preventing the loss of research dollars.

Missile Defense Agency 25.4 Small Business Innovation Research (SBIR) Release 5 Direct to Phase II Proposal Instructions

Introduction

The Missile Defense Agency's (MDA) mission is to develop and deploy a layered Missile Defense System (MDS) to defend the United States, its deployed forces, allies, and friends from missile attacks in all phases of flight.

The MDA Small Business Innovation Research (SBIR) Program is implemented, administered, and managed by the MDA SBIR/Small Business Technology Transfer (STTR) Program Management Office (PMO), located within the Innovation, Science, & Technology directorate.

The topic published in the MDA SBIR 25.4 Release 5 Broad Agency Announcement (BAA) is a Direct to Phase II (DP2). Offerors responding to the topic in this BAA must follow all general instructions provided in the Department of Defense (DoD) SBIR Program BAA. MDA requirements in addition to or deviating from the DoD Program BAA are provided in the instructions below.

<u>Proposers are encouraged to thoroughly review the DoD Program BAA and register for the Defense SBIR/STTR Innovation Portal (DSIP) Listserv to remain apprised of important programmatic and contractual changes.</u>

- Full component-specific instructions and topic descriptions are available on DSIP at https://www.dodsbirsttr.mil/submissions/solicitation-documents/active-solicitations. Be sure to select the tab for the appropriate BAA cycle.
- Register for the DSIP Listserv at: https://www.dodsbirsttr.mil/submissions/login.

Specific questions pertaining to the administration of the MDA SBIR Program and these proposal preparation instructions should be directed to:

Missile Defense Agency SBIR/STTR Program Management Office MDA/AC Bldg. 5224, Martin Road Redstone Arsenal, AL 35898

Email: sbirsttr@mda.mil

PLEASE NOTE: Please read the following MDA DP2 proposal instructions carefully prior to submitting your proposal. Proposals not conforming to the terms of this announcement will not be considered for negotiation and/or award. MDA reserves the right to limit awards under any topic, and only those proposals of superior scientific and technical quality as determined by MDA will be funded. MDA reserves the right to withdraw from negotiations at any time prior to contract award. The Government may withdraw from negotiations at any time for any reason to include, but not limited to, matters of national security (foreign persons, foreign influence or ownership, inability to clear the firm or personnel for security clearances, or other related issues).

Please read the entire DoD Announcement and MDA instructions carefully prior to submitting your proposal. Please go to https://www.sbir.gov/about/policies to read the SBIR/STTR Policy Directive issued by the Small Business Administration.

Federally Funded Research and Development Centers (FFRDCs) and Support Contractors

Only Government personnel with active non-disclosure agreements will <u>evaluate</u> proposals. Non-Government technical support contractors and FFRDCs (consultants) to the Government may review and provide <u>support</u> in proposal evaluations during source selection. Consultants may have access to the offeror's proposals, may be utilized to review proposals, and may provide comments and recommendations to the Government's decision makers. Consultants will not establish final assessments of risk and will not rate or rank offerors' proposals. They are also expressly prohibited from competing for MDA SBIR/STTR awards in the SBIR/STTR topics they review and/or on which they provide comments to the Government.

All consultants are required to comply with procurement integrity laws. Consultants will not have access to proposals that are labeled by the offerors as "Government Only." Pursuant to FAR 9.505-4, the MDA contracts with these organizations include a clause which requires them to (1) protect the offerors' information from unauthorized use or disclosure for as long as it remains proprietary and (2) refrain from using the information for any purpose other than that for which it was furnished. In addition, MDA requires the employees of those support contractors that provide technical analysis to the SBIR/STTR Program to execute non-disclosure agreements. These agreements will remain on file with the MDA SBIR/STTR PMO.

Non-Government consultants will be authorized access to only those portions of the proposal data and discussions that are necessary to enable them to perform their respective duties. In accomplishing their duties related to the source selection process, employees of the aforementioned organizations may require access to proprietary information contained in the offerors' proposals.

Offeror Small Business Eligibility Requirements

Each offeror must qualify as a small business at time of award per the Small Business Administration's (SBA) regulations at 13 CFR 121.701-121.705 and certify to this in the Cover Sheet section of the proposal. Small businesses that are selected for award will also be required to submit a Funding Agreement Certification document and be registered with Supplier Performance Risk System https://www.sprs.csd.disa.mil/ prior to award.

Ownership Eligibility

Prior to award, MDA may request business/corporate documentation to assess ownership eligibility as related to the requirements of SBIR/STTR Program Eligibility. These documents include, but may not be limited to, the Business License; Articles of Incorporation or Organization; By-Laws/Operating Agreement; Stock Certificates (Voting Stock); Board Meeting Minutes for the previous year; and a list of all board members and officers. If requested by MDA, the offeror shall provide all necessary documentation for evaluation prior to SBIR award. Failure to submit the requested documentation in a timely manner as indicated by MDA may result in the offeror's ineligibility for further consideration for award.

SBA Company Registry

Per the SBIR/STTR Policy Directive, all applicants are required to register their firm at SBA's Company Registry prior to submitting a proposal. Upon registering, each firm will receive a unique control Identification number to be used for submissions at any of the participating agencies in the SBIR or STTR program. For more information, please visit the SBA's Firm Registration Page: https://app.www.sbir.gov/company-registration/overview.

Organization Conflicts of Interest (OCI)

The basic OCI rules for Contractors that support development and oversight of SBIR topics are

covered in <u>9.505-1</u> through <u>FAR 9.505-4</u> as the means of avoiding, neutralizing, or mitigating organizational conflicts of interest.

All applicable rules under the <u>FAR 9.5</u> apply.

If you, or another employee in your company, developed or assisted in the development of any SBIR requirement or topic, please be advised that your company may have an OCI. Your company could be precluded from an award under this BAA if your proposal contains anything directly relating to the development of the requirement or topic. Before submitting your proposal, please examine any potential OCI issues that may exist with your company to include subcontractors and understand that if any exist, your company may be required to submit an acceptable OCI mitigation plan prior to award.

In addition, FAR 3.101-1 states that Government business shall be conducted in a manner above reproach and, except as authorized by statute or regulation, with complete impartiality and with preferential treatment for none. The general rule is to avoid strictly any conflict of interest or even the appearance of a conflict of interest in Government-contractor relationships. An appearance of impropriety may arise where an offeror may have gained an unfair competitive advantage through its hiring of, or association with, a former Government official if there are facts indicating the former Government official, through their former Government employment, had access to non-public, competitively useful information. (See Health Net Fed. Svcs, B-401652.3; Obsidian Solutions Group, LLC, B-417134, 417134.2). The existence of an unfair competitive advantage may result in an offeror being disqualified and this restriction cannot be waived.

It is MDA policy to ensure all appropriate measures are taken to resolve OCIs arising under FAR 9.5 and unfair competitive advantages arising under FAR 3.101-1 to prevent the existence of conflicting roles that might bias a contractor's judgment and deprive MDA of objective advice or assistance, and to prevent contractors from gaining an unfair competitive advantage.

<u>Use of Foreign Nationals (also known as Foreign Persons), Green Card Holders, and Dual Citizens</u>
See the "Foreign Nationals" section of the DoD SBIR Program announcement for the definition of a Foreign National (also known as Foreign Persons).

ALL offerors proposing to use foreign nationals, green-card holders, or dual citizens, MUST disclose this information regardless of whether the topic is subject to export control restrictions. Identify any foreign nationals or individuals holding dual citizenship expected to be involved on this project as a direct employee, subcontractor, or consultant. For these individuals, please specify their country of origin, the type of visa or work permit under which they are performing and an explanation of their anticipated level of involvement on this project. You may be asked to provide additional information during negotiations in order to verify the foreign citizen's eligibility to participate on a SBIR contract. Supplemental information provided in response to this paragraph will be protected in accordance with the Privacy Act (5 U.S.C. 552a), if applicable, and the Freedom of Information Act (5 U.S.C. 552(b)(6)).

Proposals submitted to export control-restricted topics and/or those with foreign nationals, dual citizens, or green card holders listed will be subject to security review during the contract negotiation process (if selected for award). MDA reserves the right to vet all un-cleared individuals involved in the project, regardless of citizenship, who will have access to Controlled Unclassified Information (CUI) such as export controlled information. If the security review disqualifies a person from participating in the proposed work, the contractor may propose a suitable replacement. In the event a proposed person and/or firm is found ineligible by the Government to perform proposed work, the Contracting Officer will advise

the offeror of any disqualifications but is not required to disclose the underlying rationale. MDA may require offerors to address follow-up questions in order to determine eligibility.

Export Control Restrictions

The technology within most MDA topics is restricted under export control regulations including the International Traffic in Arms Regulations (ITAR) and the Export Administration Regulations (EAR). ITAR controls the export and import of listed defense-related material, technical data and services that provide the United States with a critical military advantage. EAR controls military, dual-use and commercial items not listed on the United States Munitions List or any other export control lists. EAR regulates export controlled items based on user, country, and purpose. The offeror must ensure that their firm complies with all applicable export control regulations. Please refer to the following URLs for additional information: https://www.pmddtc.state.gov/ and https://www.bis.doc.gov/index.php/regulations/export-administration-regulations-ear.

The MDA SBIR Direct to Phase II topic is subject to ITAR and/or EAR. If selected for award negotiations, your company will be required to submit a Technology Control Plan (TCP) during the contracting negotiation process.

Flow-Down of Clauses to Subcontractors

The clauses to which the prime contractor and subcontractors are required to comply include, but are not limited to the following clauses: MDA clause H-08 (Public Release of Information) (see Attachment), DFARS 252.204-7000 (Disclosure of Information), DFARS clause 252.204-7012 (Safeguarding Covered Defense Information and Cyber Incident Reporting), DFARS clause 252.204-7020 (NIST SP 800-171 DoD Assessment Requirements), MDA clause H-09 (Organizational Conflict of Interest) (see Attachment), MDA clause H-27 (Foreign Persons) (see Attachment), and MDA clause H-28 (Distribution of Control Technical Data) (see Attachment). Your proposal submission confirms that any proposed subcontract is in accordance to the clauses cited above and any other clauses identified by MDA in any resulting contract. All proposed universities will need to provide written acceptance of the Flow-Down Clauses in both SBIR and STTR proposals.

Ownership Eligibility

If selected for award, MDA may request business/corporate documentation to assess ownership eligibility as related to the requirements of SBIR program eligibility. These documents include, but may not be limited to, the Business License; Articles of Incorporation or Organization; By-Laws/Operating Agreement; Stock Certificates (Voting Stock); Board Meeting Minutes for the previous year; and a list of all board members and officers. If requested by MDA, the contractor shall provide all necessary documentation for evaluation prior to award. Failure to submit the requested documentation in a timely manner as indicated by MDA may result in the offeror's ineligibility for further consideration for award.

<u>Rights in Noncommercial Technical Data and Computer Software – SBIR Program (DFARs 252.227-7018 Class Deviation 2020-O0007 Revision 1)</u>

Use this link for full description of Data Rights: https://www.acq.osd.mil/dpap/policy/policyvault/USA001352-23-DPC.pdf

Fraud, Waste, and Abuse

All offerors must complete the fraud, waste, and abuse training (Volume 6) that is located on the Defense SBIR/STTR Innovation Portal (DSIP) (https://www.dodsbirsttr.mil). Please follow guidance provided on DSIP to complete the required training.

To report fraud, waste, or abuse, please contact:

MDA Fraud, Waste & Abuse Hotline: (256) 313-9699 MDAHotline@mda.mil

DoD Inspector General (IG) Fraud, Waste & Abuse

Hotline: (800) 424-9098 hotline@dodig.mil

DP2 Proposal Submission Guidelines and Requirements

Proposal Submission

The MDA SBIR 25.4 Release 5 DP2 proposal submission instructions are intended to clarify the Department of Defense (DoD) instructions (https://www.dodsbirsttr.mil) as they apply to MDA requirements. This announcement is for MDA SBIR 25.4 Release 5 DP2 topic only. The offeror is responsible for ensuring that DP2 proposals comply with all requirements. Prior to submitting your proposal, please review the latest version of these instructions as they are subject to change before the submission deadline.

All proposals MUST be submitted online using DSIP (https://www.dodsbirsttr.mil). Any questions or technical issues pertaining to DSIP should be directed to the DoD SBIR/STTR Help Desk: DoDSBIRSupport@reisystems.com. It is recommended that potential offerors email the topic author(s) to schedule a time for topic discussion during the pre-release period.

Classified Proposals

Classified proposals ARE NOT accepted under the MDA SBIR/STTR Program. The inclusion of classified data in an unclassified proposal MAY BE grounds for the Agency to determine the proposal as non-responsive and the proposal not to be evaluated. Contractors currently working under a classified MDA SBIR/STTR contract must use the security classification guidance provided under that contract to verify new SBIR/STTR proposals are unclassified prior to submission. In some instances work being performed on Phase II contracts will require security clearances. If a Phase II contract will require classified work, the offeror must have a facility clearance and appropriate personnel clearances in order to perform the classified work. For more information on facility and personnel clearance procedures and requirements, please visit the Defense Counterintelligence and Security Agency Web site at: https://www.dcsa.mil.

Use of Acronyms

Acronyms must be spelled out the first time they are used within the technical volume (Volume 2), the technical abstract, the anticipated benefits/potential commercial applications, and the keywords section of the proposal. This will help avoid confusion when proposals are evaluated by technical reviewers.

Proposal titles, abstracts, anticipated benefits, and keywords of proposals that are selected for contract award will undergo an MDA Policy and Security Review. Proposal titles, abstracts, anticipated benefits, and keywords are subject to revision and/or redaction by MDA. Final approved versions of proposal titles, abstracts, anticipated benefits, and keywords may appear on DSIP and/or the SBA's SBIR/STTR award site (https://www.sbir.gov/awards). Acronyms that are not spelled out in the abstracts, anticipated benefits, and keywords will be removed.

Communication

All communication from the MDA SBIR/STTR PMO will originate from the "sbirsttr@mda.mil" email address. Please white-list this address in your company's spam filters to ensure timely receipt of communications from our office. In some instances, the MDA SBIR/STTR PMO may utilize the DoD

Secure Access File Exchange (SAFE) website (https://safe.apps.mil) to provide information and/or documentation to offerors.

Proposal Status

Proposing firms will be notified of selection or non-selection status for a DP2 award within 90 days of the closing date of the BAA. The email will be distributed to the "Corporate Official" and "Principal Investigator" listed on the proposal coversheet and will originate from the sbirsttr@mda.mil email address. MDA cannot be responsible for notification to a company that provides incorrect information or changes such information after proposal submission.

Proposal Layout

For MDA DP2 proposals, MDA has provided a template that may be used to create the technical volume, Volume 2, of the DP2 proposal. The Volume 2 template can be found here: https://www.mda.mil/global/documents/pdf/MDA%20SBIR%20phase%20II.pdf

All pages within the technical volume (Volume 2) must be numbered consecutively. Proposals may not exceed 25 pages, may not have a font size smaller than 10-point, must use a font type of Times New Roman, and must be submitted on standard 8-1/2" x 11" paper with one-inch margins. The header on each page of the Technical Volume should contain your company name, topic number, and proposal number assigned by DSIP. The header must be included in the one-inch margin.

Proposal Feedback

MDA will provide written feedback to unsuccessful offerors regarding their proposals upon request. Requests for feedback must be submitted in writing to the MDA SBIR/STTR PMO within 30 calendar days of non-selection notification. Non-selection notifications will provide instructions for requesting proposal feedback. Only firms that receive a non-selection notification are eligible for written feedback.

Technical and Business Assistance (TABA)

The SBIR/STTR Policy Directive allows agencies to enter into agreements with suppliers to provide technical assistance to SBIR/STTR awardees, which may include access to a network of scientists and engineers engaged in a wide range of technologies or access to technical and business literature available through on-line databases.

All requests for TABA must be completed using the MDA SBIR/STTR Phase II TABA Form (https://www.mda.mil/global/documents/pdf/SBIR_STTR_PHII_TABA_Form.pdf) and must be included as a part of Volume 5 of the proposal package using the "Other" category. MDA https://www.mda.mil/global/documents/pdf/SBIR_STTR_PHII_TABA_Form.pdf) and must be included as a part of Volume 5 of the "Other" category accept requests for TABA that do not utilize the MDA SBIR/STTR Phase II TABA Form or are not uploaded using the DSIP "Other" category as part of Volume 5 of the Phase II proposal package. The maximum TABA request is \$20,000.

An SBIR/STTR firm may acquire the technical assistance services described above on its own. Firms must request this authority from MDA and demonstrate in its SBIR/STTR proposal that the individual or entity selected can provide the specific technical services needed. In addition, costs must be included in the cost volume of the offeror's proposal. The TABA provider may not be the requesting firm, an affiliate of the requesting firm, an investor of the requesting firm, or a subcontractor or consultant of the requesting firm otherwise required as part of the paid portion of the research effort (e.g. research partner or research institution).

If the awardee supports the need for this requirement sufficiently as determined by the Government, MDA will permit the awardee to acquire such technical assistance, in an amount up to \$20,000. This will be an allowable cost on the SBIR/STTR award. The amount will be in addition to the award and is not

subject to any burden, profit or fee by the offeror. The amount is based on the original contract period of performance and does not apply to period of performance extensions and/or enhancements. Requests for TABA funding outside of the base Phase II period of performance (24 months) will not be considered.

The purpose of this technical assistance is to assist SBIR/STTR awardees in:

- 1. Making better technical decisions on SBIR/STTR projects;
- 2. Solving technical problems that arise during SBIR/STTR projects;
- 3. Minimizing technical risks associated with SBIR/STTR projects; and
- 4. Developing and commercializing new commercial products and processes resulting from such projects including intellectual property protections.

SBIR/STTR Proposal Funding

All MDA SBIR/STTR contracts are funded with 6.2/6.3 funding which is defined as:

- 1. Applied Research (6.2), Systematic study to gain knowledge or understanding necessary to determine the means by which a recognized and specific need may be met.
- 2. Advanced Technology Development (6.3), Includes all efforts that have moved into the development and integration of hardware for field experiments and tests.

As stated in Section VI "CLAUSE H-08 PUBLIC RELEASE OF INFORMATION", MDA requires prior review and approval before public release of any information arising from STTR-sponsored research. As such, MDA does not consider STTR-sponsored research as fundamental research.

Protests Procedures

Refer to the DoD Program Announcement for procedures to protest the Announcement.

As further prescribed in Federal Acquisition Regulation (FAR) 33.106(b), and in accordance with FAR clause 52.233-3 Protest after Award, any protests after award should be submitted to Candace Wright via email: sbirsttr@mda.mil.

Proposal Submission Requirements and Proposal Format

Proposals submitted to an MDA SBIR DP2 topic must provide documentation to substantiate that the scientific and technical merit and feasibility described in the Phase I section of the topic has been met and describes the potential commercial applications. Documentation should include all relevant information including, but not limited to: technical reports, test data, prototype designs/models, and performance goals/results. Work submitted within the proposal must have been substantially performed by the offeror and/or the Principal Investigator (PI).

A complete DP2 proposal consists of the following volumes:

- Volume 1: Proposal Cover Sheet
- Volume 2: Technical Volume (25 page maximum)
- Volume 3: Cost Volume
- Volume 4: Company Commercialization Report
- Volume 5: Supporting Documents
 - o Quality Management Questionnaire (required use "other" upload category),
 - o Letters of Support (optional use "Letter of Support" category),
 - o MDA Phase II TABA Form (optional use "other" upload category).
- Volume 6: Fraud, Waste, and Abuse Certification
- Volume 7: Disclosures of Foreign Affiliations or Relationships to Foreign Countries

Volume 1 – Proposal Coversheet (Required)

 A coversheet will be automatically generated by DSIP and placed at the beginning of your PDF proposal package document.

Volume 2 – Technical Volume (Required – 25 page maximum)

Use of the MDA provided DP2 template is recommended. The template can be obtained at the following URL:
 https://www.mda.mil/global/documents/pdf/MDA%20SBIR%20phase%20II.pdf. The technical volume should include the following 11 sections:

(1) Executive Summary.

Provide a summary of the key objectives that will be accomplished in the DP2 effort.

(2) Phase I Proof of Feasibility.

The offeror must describe work performed that substantiates Phase I feasibility as described in the topic.

Proposers interested in participating in DP2 must include Phase I feasibility documentation that substantiates the scientific and technical merit and ensure that the Phase I feasibility described in the topic has been met and describe the potential commercialization applications. The documentation provided must validate that the proposer has completed development of technology as stated in Phase I above in previous work or research completed. Documentation should include all relevant information including, but not limited to: technical reports, test data, prototype designs/models, and performance goals/results. Work submitted within the feasibility documentation must have been substantially performed by the proposer and/or the PI. Feasibility documentation cannot be based upon or logically extend from any prior or ongoing federally funded SBIR or STTR work.

(3) Description of Proposed DP2 Technical Effort and Objectives.

Define the specific technical problem or opportunity addressed and its importance.

(4) Phase II Technical Objective and Statement of Work.

Enumerate the specific objectives of the Phase II work, and describe the technical approach and methods to be used in meeting these objectives. The statement of work should provide an explicit, detailed description of the Phase II approach, indicate what is planned, how and where the work will be carried out, a schedule of major events and the final product to be delivered. The methods planned to achieve each objective or task should be discussed explicitly and in detail. This section should be a substantial portion of the total proposal.

(5) Related Work.

Describe significant activities directly related or similar to the proposed effort, including any conducted by the PI, the proposing firm, consultants, or stakeholders. Describe how these activities interface with the proposed project and discuss any planned coordination with outside sources. The proposal must accentuate its state-of-the-art technology and how it relates to the topic to capture the Government's interest for further development. In addition, please indicate whether your firm has performed on a classified government contract in the past as either a prime or subcontractor.

(6) Relationship with Future Research or Research and Development.

State the anticipated results if the project is successful. Discuss the significance of the Phase II effort in providing a foundation for Phase III research and development or commercialization.

(7) Key Personnel.

Identify at least two key personnel who will be involved in the Phase II effort including information on directly related education and experience. A concise resume of the PI that includes a list of relevant publications (if any) authored by the PI, must be submitted. All resumes count toward the page limitation in the technical volume.

a) Foreign Persons: ALL offerors proposing to use foreign persons, green-card holders, or dual citizens, MUST disclose this information regardless of whether the topic is subject to export control restrictions. Identify any foreign nationals or individuals holding dual citizenship expected to be involved on this project as a direct employee, subcontractor, or consultant. For these individuals, please specify their country of origin, the type of visa or work permit under which they are performing and an explanation of their anticipated level of involvement on this project. You may be asked to provide additional information during negotiations in order to verify the foreign citizen's eligibility to participate on an SBIR/STTR contract. Supplemental information provided in response to this paragraph will be protected in accordance with the Privacy Act (5 U.S.C. 552a), if applicable, and the Freedom of Information Act (5 U.S.C. 552(b)(6)).

(8) Facilities/Equipment

Describe the equipment and physical facilities necessary to carry out the Phase II effort. Items of equipment to be purchased (as detailed in the cost proposal) shall be justified under this section. Also, certify that the facilities where the proposed work will be performed meet environmental laws and regulations of federal, state (name), and local governments (name) for, but not limited to, the following groupings: airborne emissions, waterborne effluents, external radiation levels, outdoor noise, solid and bulk waste disposal practices, and handling and storage of toxic and hazardous materials.

(9) Subcontractors/Consultants.

Involvement of a university or other subcontractors or consultants in the project may be appropriate. If such involvement is intended, it should be described in detail and identified in the Cost Volume. A minimum of one-half of the research and/or analytical work in Phase II, as measured by direct and indirect costs, must be carried out by the offeror, unless otherwise approved in writing by the Contracting Officer.

(10) Prior, Current or Pending Support of Similar Proposals or Awards.

While it is permissible to submit identical proposals or proposals containing a significant amount of essentially equivalent work for consideration under numerous federal program solicitations or Broad Agency Announcements (BAA), it is unlawful to enter into contracts or grants requiring essentially equivalent effort. If there is any question concerning prior, current, or pending support of similar proposals or awards, it must be disclosed to the soliciting agency or agencies as early as possible.

(11) Commercialization Strategy

The Commercialization Strategy must address the following questions:

- a) What is the first product that this technology will go into (identify the components of the MDS and areas within the commercial marketplace where you can transition this technology)?
- b) Who will be your customers, and what is your estimate of the market size?
- c) How much funding will you need to bring the technology to market, how will you acquire the necessary funds, and how do you expect to integrate this technology into the MDS?
- d) Does your company have marketing expertise? If yes, please elaborate. If not, how do you intend to bring that expertise into the company?
- e) Who are your competitors, and what makes you more competitive with your technology?

The commercialization strategy must also include a schedule showing the quantitative commercialization results from the Phase II project at one year after the start of Phase II, at the completion of Phase II, and after the completion of Phase II (i.e., amount of additional investment, sales revenue, etc.). After Phase II award, the company is required to report actual sales and investment data in its Company Commercialization Report at least annually.

Volume 3 – Cost Volume (Required)

Complete the on-line cost proposal in DSIP. Your cost volume may not exceed \$2,000,000 (or \$2,020,000 if TABA is included – use of the MDA Phase II TABA form is required if applying for TABA). Proposals whose cost volumes exceed \$2,000,000 (or \$2,020,000 if TABA is included) will not be evaluated or considered for award. The Phase II Period of Performance is generally 24 months. MDA will not accept any deviation to the percentage of work requirements.

Volume 4 – Company Commercialization Report (CCR) (Required)

The CCR allows companies to report funding outcomes resulting from prior SBIR and STTR awards. The CCR is required for DP2 proposals. The information contained in the CCR will not be considered by MDA during proposal evaluations.

Small businesses must complete the CCR by logging into their account at https://www.sbir.gov. Please refer to the "Instructions" and "Guide" documents contained in the DSIP Dashboard for more detail on completing and updating the CCR.

Once the CCR is certified and submitted on SBIR.gov, it must be uploaded to Volume 4: Company Commercialization Report in the Firm Information section of DSIP by the Firm Admin.

Volume 5 – Supporting Documents

MDA will accept the following documents under Volume 5:

- 1. Quality Management Questionnaire (**Required** use "other" upload category)
- 2. TABA Request (Optional use "other" upload category)
- 3. Letter of Support (Optional use "Letter of Support" upload category)

If including a request for TABA, the MDA <u>Phase II TABA Form</u> MUST be completed and uploaded using the "Other" category within Volume 5 of DSIP.

If including letters of support, they MUST be uploaded using the "Letter of Support" category within Volume 5 of DSIP. A qualified letter of support is from a relevant commercial or Government Agency procuring organization(s) working with MDA, articulating their pull for the technology (i.e., what MDS need(s) the technology supports and why it is important to fund it), and possible

commitment to provide additional funding and/or insert the technology in their acquisition/sustainment program. Letters of support shall not be contingent upon award of a subcontract.

Note that letters of support from any MDA officials or references to such letters in a proposal WILL NOT be accepted and may result in the rejection of the proposal.

Any additional documentation included as part of Volume 5 WILL NOT be considered.

Volume 6 – Fraud, Waste, and Abuse Certification (Required)

All offerors must complete the fraud, waste, and abuse training that is located on DSIP.

Volume 7 – Disclosures of Foreign Affiliations or Relationships to Foreign Countries

Small business concerns must complete the Disclosures of Foreign Affiliations or Relationships to Foreign Countries webform in Volume 7 of the DSIP proposal submission. Please be aware that the Disclosures of Foreign Affiliations or Relationships to Foreign Countries WILL NOT be accepted as a PDF Supporting Document in Volume 5 of the DSIP proposal submission. <u>Do not upload any previous versions of this form to Volume 5</u>. For additional details, please refer to the DoD SBIR Program BAA.

References to Hardware, Computer Software, or Technical Data

In accordance with the SBIR/STTR Policy Directive, SBIR contracts are to conduct feasibility-related experimental or theoretical Research/Research & Development (R/R&D). Phase II is not for formal enditem contract delivery or ownership by the Government of the contractor's hardware, computer software, or technical data.

The SBIR/STTR Policy Directive states that Agencies may issue Phase II awards for testing and evaluation of products, services, or technologies for use in technical or weapons systems.

As a result, the technical proposal should not use the term "Deliverables" when referring to your hardware, computer software, or technical data. Instead use the term: "Products for Testing, Evaluation, and/or Demonstration (possibly destruction)."

The standard formal deliverables for a Phase II are the:

- (a) Report of Invention and Disclosure
- (b) Contract Summary Report: Final Report
- (c) Certificate of Compliance: SBIR STTR Life-Cycle Certification
- (d) Status Report: Quarterly Status Reports
- (e) Computer Software Product: Product Description (if applicable, for Government Testing, Evaluation, and/or Demonstration ONLY)
- (f) Technical Report Study Services: Prototype Design and Operation Document
- (g) Contract Summary Report: Phase III Plan
- (h) Final Summary Chart: SBIR/STTR Transition Summary Chart
- (i) Government Property Inventory Report: Government Furnished Property (GFP) and Contractor Acquired Property (CAP) Listing

FAR 52.203-5 Covenant Against Contingent Fees

As prescribed in FAR 3.404, the following FAR 52.203-5 clause shall be included in all contracts awarded under this BAA:

- (a) The Contractor warrants that no person or agency has been employed or retained to solicit or obtain this contract upon an agreement or understanding for a contingent fee, except a bona fide employee or agency. For breach or violation of this warranty, the Government shall have the right to annul this contract without liability or to deduct from the contract price or consideration, or otherwise recover, the full amount of the contingent fee.
- (b) Bona fide agency, as used in this clause, means an established commercial or selling agency, maintained by a contractor for the purpose of securing business, that neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds itself out as being able to obtain any Government contract or contracts through improper influence.

"Bona fide employee," as used in this clause, means a person, employed by a contractor and subject to the contractor's supervision and control as to time, place, and manner of performance, who neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds out as being able to obtain any Government contract or contracts through improper influence.

"Contingent fee," as used in this clause, means any commission, percentage, brokerage, or other fee that is contingent upon the success that a person or concern has in securing a Government contract.

"Improper influence," as used in this clause, means any influence that induces or tends to induce a Government employee or officer to give consideration or to act regarding a Government contract on any basis other than the merits of the matter.

MDA Proposal Evaluations and Selection

MDA will evaluate DP2 proposals using scientific review criteria based upon technical merit and other criteria as discussed in this document. MDA reserves the right to award none, one, or more than one contract under any topic. MDA is not responsible for any money expended by the offeror before award of any contract.

DP2 proposals will be evaluated based on the criteria outlined below, including potential benefit to the MDS. Selections will be based on best value to the Government considering the following factors:

- a) The soundness, technical merit, and innovation of the proposed approach and its incremental progress toward topic or subtopic solution.
- b) The qualifications of the proposed principal/key investigators, supporting staff, and consultants. Qualifications include not only the ability to perform the research and development but also the ability to commercialize the results.
- c) The potential for commercial (Government or private sector) application and the benefits expected to accrue from its commercialization.

Please note that potential benefit to the MDS will be considered throughout all the evaluation criteria and in the best value trade-off analysis. When combined, the stated evaluation criteria are significantly more important than cost or price.

It cannot be assumed that reviewers are acquainted with the firm or key individuals or any referenced experiments. Technical reviewers will base their conclusions on information contained in the proposal. Relevant supporting data such as journal articles, literature, including Government publications, etc., should be contained in Volume 2 and will count toward the applicable page limit. Qualified letters of support and/or requests for TABA, if included, MUST be uploaded as part of Volume 5 and will not count towards the Volume 2-page limit. Letters of support shall not be contingent upon award of a subcontract.

All Phase II awardees must have a Defense Contract Audit Agency (DCAA) approved accounting system. It is strongly urged that an approved accounting system be in place prior to the MDA Phase II award timeframe. If you do not have a DCAA approved accounting system, this will delay/prevent Phase II contract award. Please reference

<u>https://www.dcaa.mil/Portals/88/AccountingSystemRequirementsPreAwards_1.pdf</u> for more information on obtaining a DCAA approved accounting system.

Attachment – Standard MDA Mandatory Flowdown Local Clauses

H-08 PUBLIC RELEASE OF INFORMATION (MAR 2020)

- a. In addition to the requirements of National Industrial Security Program Operations Manual (DoD 5220.22-M), all foreign and domestic contractor(s) and its subcontractors are required to comply with the following:
- 1) Any official MDA information/materials that a contractor/subcontractor intends to release to the public that pertains to any work under performance of this contract, the Missile Defense Agency (MDA) will perform a pre-publication review prior to authorizing any release of information/materials.
- 2) At a minimum, these information/materials may be technical papers, presentations, articles for publication, key messages, talking points, speeches, and social media or digital media, such as press releases, photographs, fact sheets, advertising, posters, videos, etc.
- b. Subcontractor public information/materials must be submitted for approval through the prime contractor to MDA.
- c. Upon request to the MDA Procuring Contracting Officer (PCO), contractors shall be provided the "Request for Industry Media Engagement" form (or any superseding MDA form).
- d. At least 45 calendar days prior to the desired release date, the contractor must submit the required form and information/materials to be reviewed for public release to MDAPressOperations@mda.mil, and simultaneously provide courtesy copy to the appropriate PCO. (Additional distribution emails can be added by the Program Office to ensure proper internal coordination and tracking of PR requests.)
- e. All information/materials submitted for MDA review must be an exact copy of the intended item(s) to be released, must be of high quality and are free of tracked changes and/or comments. Photographs must have captions, and videos must have the intended narration included. All items must be marked with the applicable month, day, and year.
- f. No documents or media shall be publically released by the Contractor without MDA Public Release approval.
- g. Once information has been cleared for public release, it resides in the public domain and must always be used in its originally cleared context and format. Information previously cleared for public release but containing new, modified or further developed information must be re-submitted.

H-09 ORGANIZATIONAL CONFLICT OF INTEREST (Apr 2020)

- a. Purpose: The purpose of this clause is to ensure that:
- (1) the Contractor is rendering impartial assistance and advice to the Government at all times under this contract and related Government contracts:
- (2) the Contractor's objectivity in performing work under this contract or related Government contracts is not impaired; and
- (3) the Contractor does not obtain an unfair competitive advantage by virtue of its access to non-public Government information, or by virtue of its access to proprietary information belonging to others.
- b. Scope: The Organizational Conflict of Interest (OCI) rules, procedures and responsibilities described in FAR 9.5 "Organizational and Consultant Conflicts of Interest", FAR 3.101-1 "Standards of Conduct General, DFARS 209.5 "Organizational and Consultant Conflicts of Interest," and in this clause are applicable to the prime Contractor (including any affiliates and successors-in-interest), as well as any cosponsor, joint-venture partner, consultant, subcontractor or other entity participating in the performance of this contract. The Contractor shall flow this clause down to all subcontracts, consulting agreements, teaming agreements, or other such arrangements which have OCI concerns, while modifying the terms "contract", "Contractor", and "Contracting Officer" as appropriate to preserve the Government's rights.
- c. Access to and Use of Nonpublic Information: If in performance of this contract the contractor obtains access to nonpublic information such as plans, policies, reports, studies, financial plans, or data which has not been released or otherwise made available to the public, the Contractor agrees it shall not use such information for any private purpose or release such information without prior written approval from the Contracting Officer.
- d. Access to and Protection of Proprietary Information: The Contractor agrees to exercise due diligence to protect proprietary information from misuse or unauthorized disclosure in accordance with FAR 9.505-
- (4) the Contractor may be requested to enter into a written non-disclosure agreement with a third party asserting proprietary restrictions, if required in the performance of the contract.
- e. In accordance with FAR 3.101-1, the Contractor shall also take all appropriate measures to prevent the existence of conflicting roles that might bias the Contractor's judgement, give the Contractor an unfair competitive advantage, and deprive MDA of objective advice or assistance that can result from hiring former Government employees. (See Health Net Fed. Svcs, B-401652.3).
- f. Restrictions on Participating in Other Government Contract Efforts.
- g. OCI Disclosures: The Contractor shall disclose to the Contracting Officer all facts relevant to the existence of an actual or potential OCI, using an OCI Analysis/Disclosure Form which the Contracting Officer will provide upon request. This disclosure shall include a description of the action the Contractor has taken or plans to take to avoid, neutralize or mitigate the OCI.

h. Remedies and Waiver:

(1) If the contractor fails to comply with any requirements of FAR 9.5, FAR 3.101-1, DFARS 209.5, or this clause, the Government may terminate this contract for default, disqualify the Contractor from subsequent related contractual efforts if necessary to neutralize a resulting organizational conflict of

interest, and/or pursue other remedies permitted by law or this contract. If the Contractor discovers and promptly reports an actual or potential OCI subsequent to contract award, the Contracting Officer may terminate this contract for convenience if such termination is deemed to be in the best interest of the Government, or take other appropriate actions.

(2) The parties recognize that the requirements of this clause may continue to impact the contractor after contract performance is completed, and that it is impossible to foresee all future impacts. Accordingly, the Contractor may at any time seek an OCI waiver from the Director, MDA by submitting a written waiver request to the Contracting Officer. Any such request shall include a full description of the OCI and detailed rationale for the OCI waiver.

H-27 FOREIGN PERSONS (Jun 2010)

- 1. "Foreign National" (also known as Foreign Persons) as used in this clause means any person who is NOT:
 - a. a citizen or national of the United States; or
 - b. a lawful permanent resident; or
 - c. a protected individual as defined by 8 U.S.C.1324b(a)(3).

"Lawful permanent resident" is a person having the status of having been lawfully accorded the privilege of residing permanently in the United States as an immigrant in accordance with the immigration laws and such status not having changed.

"Protected individual" is an alien who is lawfully admitted for permanent residence, is granted the status of an alien lawfully admitted for temporary residence under 8 U.S.C.1160(a) or 8 U.S.C.1255a(a)(1), is admitted as a refugee under 8 U.S.C.1157, or is granted asylum under section 8 U.S.C.1158; but does not include (i) an alien who fails to apply for naturalization within six months of the date the alien first becomes eligible (by virtue of period of lawful permanent residence) to apply for naturalization or, if later, within six months after November 6, 1986, and (ii) an alien who has applied on a timely basis, but has not been naturalized as a citizen within 2 years after the date of the application, unless the alien can establish that the alien is actively pursuing naturalization, except that time consumed in the Service's processing the application shall not be counted toward the 2-year period."

2. Prior to contract award, the contractor shall identify any lawful U.S. permanent residents and foreign nationals expected to be involved on this project as a direct employee, subcontractor or consultant. For these individuals, in addition to resumes, please specify their country of origin, the type of visa or work permit under which they are performing and an explanation of their anticipated level of involvement on this project. You may be asked to provide additional information during negotiations in order to verify the foreign citizen's eligibility to participate on a contract. Supplemental information provided in response to this clause will be protected in accordance with Privacy Act (5 U.S.C. 552a), if applicable, and the Freedom of Information Act (5 U.S.C. 552(b)(6)). After award of the contract, the Contractor shall promptly notify the Contracting Officer and Contracting Officer's Representative with the information above prior to making any personnel changes involving foreign persons. No changes involving foreign persons will be allowed without prior approval from the Contracting Officer. This clause does not remove any liability from the contractor to comply with applicable ITAR and EAR export control obligations and restrictions. This clause shall be included in any subcontract."

H-28 DISTRIBUTION CONTROL OF TECHNICAL INFORMATION (AUG 2014)

- a. The following terms applicable to this clause are defined as follows:
- 1. DoD Official. Serves in DoD in one of the following positions: Program Director, Deputy Program Director, Program Manager, Deputy Program Manager, Procuring Contracting Officer, Administrative Contracting Officer, or Contracting Officer's Representative.
- 2. Technical Document. Any recorded information (including software) that conveys scientific and technical information or technical data.
- 3. Scientific and Technical Information. Communicable knowledge or information resulting from or pertaining to the conduct or management of effort under this contract. (Includes programmatic information).
 - 4. Technical Data. As defined in DFARS 252.227-7013.
- b. Except as otherwise set forth in the Contract Data Requirements List (CDRL), DD Form 1423 the distribution of any technical documents prepared under this contract, in any stage of development or completion, is prohibited outside of the contractor and applicable subcontractors under this contract unless authorized by the Contracting Officer in writing. However, distribution of technical data is permissible to DOD officials having a "need to know" in connection with this contract or any other MDA contract provided that the technical data is properly marked according to the terms and conditions of this contract. When there is any doubt as to "need to know" for purposes of this paragraph, the Contracting Officer or the Contracting Officer's Representative will provide direction. Authorization to distribute technical data by the Contracting Officer or the Contracting Officer's Representative does not constitute a warranty of the technical data as it pertains to its accuracy, completeness, or adequacy. The contactor shall distribute this technical data relying on its own corporate best practices and the terms and conditions of this contract. Consequently, the Government assumes no responsibility for the distribution of such technical data nor will the Government have any liability, including third party liability, for such technical data should it be inaccurate, incomplete, improperly marked or otherwise defective. Therefore, such a distribution shall not violate 18 United States Code § 1905.
- c. All technical documents prepared under this contract shall be marked with the following distribution statement, warning, and destruction notice identified in sub-paragraphs 1, 2 and 3 below. When it is technically not feasible to use the entire WARNING statement, an abbreviated marking may be used, and a copy of the full statement added to the "Notice To Accompany Release of Export Controlled Data" required by DoD Directive 5230.25.
- 1. DISTRIBUTION [PCO, Insert the appropriate distribution statement and complete the statement, if necessary, to include the applicable controlling office.]
- 2. WARNING This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C., Sec 2751, et seq.) or the Export Administration Act of 1979 (Title 50, U.S.C., App. 2401 et seq), as amended. Violations of these export laws are subject to severe criminal penalties. Disseminate in accordance with provisions of DoD Directive 5230.25
- 3. DESTRUCTION NOTICE For classified documents follow the procedures in DOD 5220.22-M, National Industrial Security Program Operating Manual, February 2006, Incorporating Change 1, March 28, 2013, Chapter 5, Section 7, or DoDM 5200.01-Volume 3, DoD Information Security Program: Protection of Classified Information, Enclosure 3, Section 17. For controlled unclassified information

follow the procedures in DoDM 5200.01-Volume 4, Information Security Program: Controlled Unclassified Information.

d. The Contractor shall insert the substance of this clause, including this paragraph, in all subcontracts.

Approved for Public Release (Instructions) 25-MDA-11988 (8 Jan 25)

MDA SBIR 25.4 Topic Index Release 5

MDA254-D001 Prototype Payloads

MDA254-D001 TITLE: Prototype Payloads

OUSD (R&E) CRITICAL TECHNOLOGY AREA(S): Hypersonics

The technology within this topic is restricted under the International Traffic in Arms Regulation (ITAR), 22 CFR Parts 120-130, which controls the export and import of defense-related material and services, including export of sensitive technical data, or the Export Administration Regulation (EAR), 15 CFR Parts 730-774, which controls dual use items. Offerors must disclose any proposed use of foreign nationals (FNs), their country(ies) of origin, the type of visa or work permit possessed, and the statement of work (SOW) tasks intended for accomplishment by the FN(s) in accordance with the Announcement. Offerors are advised foreign nationals proposed to perform on this topic may be restricted due to the technical data under US Export Control Laws.

OBJECTIVE: Design, develop, and test wide area effect concepts for defense against hypersonic and maneuvering threats.

DESCRIPTION: This topic seeks to design, develop, and demonstrate payload concepts for integration on various developmental hypersonic defense systems. These capabilities will augment existing and future Missile Defense Agency (MDA) weapon systems, providing a wide area effect capability. The proposed system-integrated payload concepts will compliment current hit-to-kill capabilities. This effort seeks to understand possible payload configurations for incorporation into various defensive systems.

PHASE I: Phase I-like proposals will not be evaluated and will be rejected as nonresponsive. For this topic, the Government expects the small business would have accomplished the following in a Phase I-like effort via some other means, e.g., independent research and development (IRAD) or other source, a concept for a workable prototype or design to address, at a minimum, the basic capabilities of the stated objective above. Proposal must show, as appropriate, a demonstrated technical feasibility or nascent capability. The documentation provided must substantiate the proposer's development of a preliminary understanding of the technology to be applied in their Phase II proposal in meeting topic objectives. Documentation should comprise all relevant information including, but not limited to, technical reports, test data, prototype designs/models, and performance goals/results. Feasibility = maturity and what have you already done/validated.

Proposers interested in participating in Direct to Phase II must include in their responses to this topic Phase I feasibility documentation that substantiates the scientific and technical merit and Phase I feasibility described in Phase I above has been met.

(i.e., the small business must have performed a proof of concept like "Phase I" component and/or other validation in a relevant environment, and/or at a much higher TRL level (5 or higher) and describe the potential commercialization applications. The documentation provided must validate that the proposer has completed development of technology in previous work or research completed.)

IRAD work: Documentation should include the most relevant information including, but not limited to: technical reports, test data, prototype designs/models, and/or performance goals/results. Work submitted within the feasibility documentation must have been substantially performed by the proposer and/or the principal investigator (PI).

PHASE II: The goal of this effort is the design, prototype development, and conduct of a test to demonstrate system integrated payload concepts. The demonstration test will depend on the complexities of the proposed solutions. We will prioritize payload scalable concepts based on available space and power in the delivery vehicle system.

PHASE III DUAL USE APPLICATIONS: Phase III efforts would focus on testing and demonstration in more operationally relevant conditions. Integration with the larger Missile Defense System would be initiated to support initial capability delivery. Technologies developed for MDA will have other applications within the Department of Defense.

REFERENCES:

- Patriot / Medium Extended Air Defense System (MEADS)
 (https://www.dote.osd.mil/Portals/97/pub/reports/FY2011/army/2011patriot.pdf?ver=2019-08-22-112309-380)
- 2. U.S. Navy Confirms SM-6 Air Launched Configuration is 'Operationally Deployed', https://www.navalnews.com/naval-news/2024/07/u-s-navy-confirms-sm-6-air-launched-configuration-is-operationally-deployed

KEYWORDS: Wide area effect; Kinetic; Non-kinetic; blast-fragmentation warhead

Approved for Public Release (Topic) 25-MDA-11994 (16 Jan 25)

UNITED STATES SPECIAL OPERATIONS COMMAND 25.4 Small Business Innovation Research (SBIR) Direct to Phase II Proposal Submission Instructions Release 5

INTRODUCTION

The United States Special Operations Command (USSOCOM) Direct to Phase II (DPII) proposal submission instructions cover DPII proposals only and change/append the Department of Defense (DoD) instructions for Phase II submissions as they apply to USSOCOM Direct to Phase II requirements. The Government will only evaluate responsive proposals.

USSOCOM seeks small businesses with strong research and development capabilities to pursue and commercialize technologies needed by Special Operations Forces (SOF) through the Department of Defense (DoD) SBIR Program Broad Agency Announcement (BAA).

Offerors responding to a topic in this BAA must follow all general instructions provided in the Department of Defense (DoD) SBIR Program BAA. USSOCOM requirements in addition to or deviating from the DoD Program BAA are provided in the instructions below.

<u>Proposers are encouraged to thoroughly review the DoD Program BAA and register for the DSIP Listserv to stay informed of important programmatic and contractual changes.</u>

- Full component-specific instructions and topic descriptions are available on DSIP at https://www.dodsbirsttr.mil/submissions/solicitation-documents/active-solicitations. Be sure to select the tab for the appropriate BAA cycle.
- Register for the DSIP Listserv at: https://www.dodsbirsttr.mil/submissions/login.
- Specific questions pertaining to the administration of the USSOCOM SBIR/STTR programs and these proposal preparation instructions, should be directed to: SBIR@SOCOM.mil.

The USSOCOM SBIR/STTR Program Office will be hosting a virtual USSOCOM Industry Day to specify requirements and stimulate small business/research institute partnership-building. Please visit https://events.sofwerx.org/ for the date and time information.

DIRECT TO PHASE II PROPOSAL GUIDELINES

The topics below are accepting Direct to Phase II (DPII) proposals only.

Offerors interested in submitting a DPII proposal must provide documentation to substantiate that the scientific and technical merit and feasibility of the objectives described in the Phase I section of the topic have been met and provide the potential commercial applications. Documentation should include all relevant information including, but not limited to, technical reports, test data, prototype designs/models, and performance goals/results. Work submitted within the feasibility documentation must have been performed and be owned (data rights) by the offeror and/or the Principal Investigator (PI).

USSOCOM will not evaluate the offeror's related DPII proposal if the offeror fails to demonstrate 1) the technical merit and feasibility of the proposed solution has been established, and/or 2) the work submitted in the feasibility documentation was performed by the offeror and/or the PI.

The Defense SBIR/STTR Innovation Portal (DSIP) is the official portal for DoD SBIR/STTR proposal submission. Proposals must be submitted via DSIP; submission by any other means will be disregarded. Detailed instructions regarding registration and proposal submission via DSIP are provided in the DoD SBIR Program BAA.

Please Note:

- 1. It is the Offeror's responsibility to ensure compliance with all DoD and USSOCOM instructions to submit all required documents. The DSIP (the DoD SBIR/STTR proposal submission website) will only confirm that the upload process is complete with the notice "100% submitted"; it does not verify compliance with instruction or successful upload of all required documents.
- 2. USSOCOM does not assist with proposal preparation nor review proposals for completeness prior to formal submission. It is recommended that offerors utilize local and state resources for assistance (refer to DoD Instructions for resources information).
- 3. Identifying foreign national involvement in a USSOCOM SBIR topic crucial for determining eligibility, particularly for topics within the parameters of the United States Munitions List, Part 121 in the International Traffic in Arms Regulation (ITAR). Firms employing a foreign national(s) (as defined section in the titled "Foreign Nationals" of the DoD SBIR Program BAA) to work on USSOCOM ITAR topics must possess an export license to receive a USSOCOM SBIR contract.
- 4. The Government may withdraw from negotiations at any time for any reason, including national security concerns (e.g., foreign persons, foreign influence or ownership, inability to clear the firm or personnel for security clearances, or other related issues).
- 5. USSOCOM prohibits the inclusion of a Government Letter of Support (LoS). Any proposal that includes a Government LoS will be deemed non-responsive (disqualified).

Cover Page (Volume 1)

Volume 1 is created as part of the DoD Proposal Submissions process. Follow all instructions provided in the DoD SBIR Program BAA and DSIP.

Technical Volume (Volume 2)

The technical volume is **Not to exceed (NTE) ten (10) pages** and must adhere to the formatting requirements outlined in the "SBIR 25.4 Annual Program BAA", "Format of Technical Volume" and "Content of Technical Volume". USSOCOM will only evaluate the first (10) pages of the Technical Volume; additional pages will not be considered or evaluated.

Content of the Technical Volume

Direct to Phase II Technical Volume (Volume 2) instructions are the same as the Phase I Technical Volume instructions. Reference https://www.dodsbirsttr.mil/submissions/solicitation-documents/supporting-documents, select the document titled "Phase I Technical (Vol 2) Sample Template".

The Statement of Objective (SOO), with the list of Contract Data Requirement List (CDRL)s are provided and can be downloaded at https://www.dodsbirsttr.mil/submissions/solicitation-documents/supporting-documents. The technical proposal shall include a non-proprietary Statement of Work (SOW) with the planned tasks and descriptions to meet the Statement of Objectives (SOO) goals detailed. Do not upload the whole SOO as your SOW with your proposal. The SOO and CDRL are provided to help the offerors consider the required goals, scope, and deliverables when developing the proposal. It is the offeror's responsibility to provide fully responsive, complete, and clear submissions. Exceptions to the requirements need to be identified/explained.

If an offeror is selected for award, the offeror will be required to submit a separate non-proprietary SOW with the planned tasks and descriptions from the proposal and all other applicable sections of the SOO and it shall include no proprietary information, data, or marking. The provided SOW will become Attachment 3 of the resulting OTA, incorporating any agreed upon changes if necessary.

<u>Note</u>: The Phase I Feasibility Appendix (Appendix A), documenting the results of the offeror's internal Feasibility Study, is required for the Direct to Phase II proposal and is specified in Volume 5 of these instructions.

Cost Volume (Volume 3)

Offerors must read the instructions before completing the cost volume. The Phase II Cost Volume template is posted at https://www.dodsbirsttr.mil/submissions/solicitation-documents/supporting-documents.

For the Direct to Phase II topics in this announcement, the total price limit to provide a testable prototype is listed in Table 1 titled "Consolidated SBIR Topic Information". Any proposal submitted with a total price above the provided limit will not be evaluated or considered for award.

The final price of a USSOCOM Phase II SBIR contract/Other Transaction Agreement (OTA) will be negotiated as necessary to reach a determination of price fairness and reasonableness commensurate with the magnitude and complexity of the required research and development effort. The resulting agreement will be a firm priced agreement.

Proposal information should include the itemized listing (a-h) specified below. The proposal information must include a level of detail that would enable the Government personnel to determine the purpose, necessity, and reasonableness of the proposal and show an understanding of the scope of the work. It is requested that a breakdown of labor hours per labor category and other associated costs be provided by task. The Agreements Officer may request additional information to support price analysis or understand the approach if needed.

- a) Special Tooling and Test Equipment and Material: The inclusion of equipment and materials will be carefully reviewed relative to need and appropriateness of the work proposed. The purchase of special tooling and test equipment must, in the opinion of the Contracting Officer, be advantageous to the Government and relate directly to the specific effort. They may include such items as innovative instrumentation and/or automatic test equipment. The reason for the requirement and the intention of offeror on disposition of the special material/equipment shall be documented in the proposal as well as the reason on why said equipment is charged directly to the effort rather than in the indirect cost of the business.
- b) Direct Cost Materials: Justify costs for materials, parts, and supplies with an itemized list that includes item description, part number, quantities, and price.
- c) Other Direct Costs: This category of costs includes specialized services such as machining or milling, special testing or analysis, and costs incurred in obtaining temporary use of specialized equipment. Proposals that include leased hardware must provide an adequate lease vs. purchase justification or rationale.
- d) Direct Labor: For each individual, include the number of hours, and loaded rate to include all indirect costs. Identify key personnel by name if possible and labor category.
- e) Travel: Travel costs must relate to the needs of the project. Proposed travel cost must be in accordance with the Federal Travel Regulation (FTR).
 - 1. Per Diem Rates can be obtained at: http://www.gsa.gov/perdiem
 - 2. The following information shall be documented
 - (i) Date (estimated), length and place (city, town, or other similar designation) of the trip;
 - (ii) Purpose of the trip; and
 - (iii) Number of personnel included in the estimate.

- f) Cost Sharing: Cost sharing is permitted. However, cost sharing is not required, nor will it be an evaluation factor in the consideration of a proposal. Please note that cost share contracts do not allow fees/profit.
- g) Subcontracts: Involvement of consultants in the planning and/or research stages of the project may be appropriate. If the offeror intends such involvement, describe in detail and include information in the cost proposal. The proposed total of all consultant fees, facility leases or usage fees, and other subcontract or purchase agreements may not exceed one-half of the total contract price or cost, unless otherwise approved in writing by the Agreements Officer.
 - Support subcontract costs with copies of the subcontract agreements. The supporting agreement documents must adequately describe the work to be performed (i.e., cost proposal) and provide a statement of work with a corresponding detailed proposal for each planned subcontract.
- h) Consultants: Provide a separate agreement letter for each consultant. The letter should briefly state what service or assistance will be provided, the number of hours required and hourly rate.

SBIR program requires the offerors must do at least 50% of the PHASE II SBIR work. To determine eligibility for award based on this requirement, USSOCOM will divide the overall price submitted/negotiated minus the total cost of subcontractors/consultants amount (with applied indirects), by the total price of the proposal. To qualify for award, the resulting offeror percentage of work shall be 50% or higher. If the percentage is lower, the proposal will not be evaluated.

Company Commercialization Report (CCR) (Volume 4)

Completion of the CCR Volume 4 of the proposal submission in DSIP is required. Please refer to the DoD SBIR Program BAA for full details on this requirement. Information contained in the CCR will be considered by USSOCOM during proposal evaluations.

Supporting Documents (Volume 5)

Volume 5 is provided for proposing SBCs to submit additional documentation to support the Coversheet (Volume 1), Technical Volume (Volume 2), and the Cost Volume (Volume 3). Please refer to the DoD Program BAA for more information.

In addition to the documentation outlined in the DoD SBIR Program BAA, the following USSOCOM documents must also be included in Volume 5: (1) Feasibility Study (Appendix A), (2) section K and (3) resumes for all key personnel.

- 1. o Feasibility Study: Offerors must provide documentation to satisfy the feasibility requirement explaining the previously done research and how it applies to the topic as specified in the Phase I topic write-up. The file with the documentation shall be named "Feasibility Appendix" and uploaded in this volume. Offerors are required to provide sufficient information to determine, to the extent possible, the scientific, technical, and commercial merit and feasibility of ideas submitted, and that the feasibility assessment was performed by the offeror and/or the Principal Investigator. If the offeror fails to demonstrate the scientific and technical merit, feasibility, and/or the source of the work, USSOCOM will not continue to evaluate the offeror's proposal. Refer to the topic's Phase I description associated with the Direct to Phase II topic to review the minimum requirements needed to demonstrate feasibility. There is no minimum or maximum page limitation for the Feasibility Appendix (Appendix A).
- 2. o Section K Titled "Representations, Certifications, and other statements of Offerors": The proposal must also include a completed Section K which does not count toward the page limit and should be uploaded with this volume. The identification of foreign national involvement in a USSOCOM SBIR topic is required to determine if a firm is ineligible for award on a USSOCOM

topic that falls within the parameters of the United States Munitions List, Part 121 of the International Traffic in Arms Regulation (ITAR). A firm employing a foreign national(s) (as defined in paragraph 3.7 entitled "Foreign Nationals" of the DoD SBIR 22.4 Announcement) to work on a USSOCOM ITAR topic must possess an export license to receive a SBIR Phase II contract.

3. o Resumes: Include Key Personnel resumes.

Fraud, Waste and Abuse Training (Volume 6)

Fraud, Waste and Abuse (FWA) training is required for Direct to Phase II proposals. Please refer to the DoD SBIR Program BAA for full details.

Disclosures of Foreign Affiliations or Relationships to Foreign Countries (Volume 7)

In accordance with Section 4 of the SBIR and STTR Extension Act of 2022 and the SBA SBIR/STTR Policy Directive, all proposals submitted in response to this BAA will be reviewed for security risks related to foreign affiliations.

- Complete the Disclosures of Foreign Affiliations or Relationships to foreign Countries webform in Volume 7 of the DSIP proposal submission. **PDF uploads will not be accepted.**
- Full proposal submissions cannot be certified and submitted by the Corporate Official until Volume 7 is fully completed and the webform is submitted.
- The Disclosures of Foreign Affiliations or Relationships to Foreign Countries WILL NOT be accepted as a Supporting Document in Volume 5. Do not upload any previous versions of this form to Volume 5.
- For additional details, refer to the DoD Program BAA.

INOUIRIES

USSOCOM does not allow direct communication with the topic authors, which differs from the DoD SBIR/STTR Program BAA instructions.

- During the Pre-Release and Open Periods of the DoD SBIR Program BAA, all technical questions that enhance the Offerors' understanding of the topic's requirements must be submitted via the Defense SBIR/STTR Innovation Portal (DSIP) Topic Q&A. All questions and answers submitted to DSIP Topic Q&A will be released to the general public.
- USSOCOM does not permit direct communication with topic authors. Only questions pertaining to the proposal preparation instructions should be directed to: sbir@socom.mil. All inquiries must include the topic number in the subject line of the e-mail.
- Consistent with DoD SBIR instructions, USSOCOM will not answer programmatic questions such as providing the technical point of contact, the number of contracts to be awarded, the source of funding, or transition strategy.
- Physical site visits will not be permitted during the Pre-release and Open Periods of the DoD SBIR Program BAA.

EVALUATION AND SELECTION

All Offerors will be evaluated in accordance with the evaluation criteria listed in the DoD SBIR Program BAA.

The Government will evaluate only responsive proposals.

- 1. Proposals missing Technical Volume (Volume 2), Feasibility Appendix (Appendix A), or Cost Volume (Volume 3) will not be evaluated or those that exceed the maximum price allowed as per Table 1 of this instructions. Those proposals will be considered non-responsive.
- 2. Feasibility determination. The Feasibility Appendix (Appendix A) to the Phase II proposal will be evaluated first to determine that the offerors demonstrated they have completed research and development to establish the feasibility of the proposed Phase II effort based on the criteria outlined in the topic description of Phase I. USSOCOM will not continue evaluating the offeror's related Direct to Phase II proposal if it determines that the offeror failed to demonstrate that feasibility has been established or the offeror failed to demonstrate work submitted in the feasibility documentation was substantially performed by the offeror and/or the Principal Investigator.

Refer to the Phase I Topic description associated with the Direct to Phase II topic Statement of Objectives to review the minimum requirements that need to be demonstrated in the feasibility documentation.

3. The technical evaluation will utilize the Evaluation Criteria provided in the DoD SBIR Program BAA instructions. The Technical Volume and slide PowerPoint Presentation will be reviewed holistically. The technical evaluation is performed in two parts:

Part I: The evaluation of the Technical Volume will utilize the Evaluation Criteria provided in the DoD SBIR Program BAA. Once the evaluations are complete, all offerors will be notified in a timely manner.

Part II: The Cost Volume award amount is set at a not to exceed (NTE) amount and a technical evaluation of the proposal cost will be completed to assess price fair and reasonableness. Proposals above the established NTE for the Phase I effort will not be considered for award. The team will assess the technical approach presented for the effort based on the number of labor hours by labor categories, the key personnel level of involvement, materials, subcontractors and consultants (scope of work, expertise, participation and proposed effort), and other direct cost as proposed.

4. The Cost Volume (Volume 3) evaluation:

For these Direct to Phase II efforts, the award amount is set with not to exceed (NTE) amount. Technical evaluation of the proposal cost will be completed to assess the probability of success to obtain a working prototype. Proposals above the set NTE for the effort **will not** be considered for award. The team will assess the probability of success of the technical approach, presented for the efforts. The technical team will assess number of labor hours, labor categories, key personnel expertise and level of involvement, materials, equipment, subcontractors and consultants (scope of work, expertise, participation and proposed effort), travel and other direct cost to successfully complete the effort as proposed.

The resulting award/s will be a fixed price prototyping agreement, and a successful prototype may lead to follow on production. Follow on production awards may be FAR based, Fixed Price or Cost-Plus Fixed Fee contracts. A Defense Contracts Audit Agency approved accounting system will be required to issue a Cost-Plus Fixed Fee contract.

Additionally, input on technical aspects of the proposals may be solicited by USSOCOM from non-Government consultants and advisors who are bound by appropriate non-disclosure requirements. When appropriate, non-government advisors may have access to Offeror's proposals and may be utilized to

objectively review a proposal in a particular functional area and provide comments and recommendations to the Government's decision makers. They may not establish final assessments of risk, rate or rank Offerors' proposals. All advisors shall comply with procurement Integrity Laws and shall sign Non-Disclosure and Rules of Conduct/ Conflict of Interest statements. The Government shall take into consideration requirements for avoiding conflicts of interest. Submission of a proposal in response to this request constitutes approval to release the proposal to Government support contractors.

Offerors will be notified of selection or non-selection status via DSIP within 90 calendar days of the closing date of the BAA. This notification will come by e-mail to the Corporate Official identified by the Offeror during proposal submission. The Government will also notify the Offerors if their proposal is considered non-responsive (disqualified).

A non-selected Offeror can make a written request to the Contracting Officer, within 30 calendar days of receipt of notification of non-selection, for informal feedback. The Contracting Officer will provide informal feedback after receipt of an Offeror's written request rather than a debriefing as specified in the DoD SBIR Program BAA instructions.

Refer to the DoD SBIR Program BAA for procedures to protest the Announcement. As further prescribed in FAR 33.106(b), FAR 52.233-3, Protests after Award should be submitted to: sbir@socom.mil.

AWARD AND CONTRACT INFORMATION

Table 1: Consolidated SBIR Topic Information

Topic	Technical	Additional	Period of	Award	Contract
	Volume (Vol 2)	Info. (Vol 5)	Performance	Amount	Type
SOCOM254-D002	Not to exceed 10 pages	<mark>15 page</mark> PowerPoint	Not to exceed 18 months	NTE \$1,397,000	Firm-Fixed- Price

SBIR awards for the Direct to Phase II topics will be awarded as a fixed price (level of effort type), Other Transactions Agreements (OTA). Successful completion of the prototype under an OTA may result in a follow-on production OTA or contract. Successful completion of the prototype is defined as meeting one more threshold requirements. Firms may download the template https://www.dodsbirsttr.mil/submissions/solicitation-documents/supporting-documents. The general terms and conditions are included in the draft OTA template provided in this solicitation. The terms and conditions of the Template OTA and the latest version of the OTA may be revised prior to execution. The document deliverables required for the effort are listed in the uploaded Statement of Objectives (SOO) for each topic. The OTA template uploaded is a basic draft and not tailored to the specific topic and is not the final document to be use in the award. Offerors must review these documents to develop their proposal.

The OTA template needs to be completed by only those offerors selected for award and will be submitted directly to the Agreements Officer identified in the notification. The specific OTA template for each topic will be sent to those selected to present the PowerPoint Presentation. Providing the completed OTA for those invited to present, is desirable but not required.

Those selected for award would be required to enter their company information, expected milestones (Attachment 1), and provide a non-proprietary Statement of Work (SOW) following the format of the Statement of Objectives (SOO) (Attachment 3).

ADDITIONAL INFORMATION

Direct to Phase II proposals shall NOT include:

- 1. "Basic Research" (or "Fundamental Research") defined as a "Systematic study directed toward greater knowledge or understanding of the fundamental aspects of phenomena and/or observable facts without specific applications toward processes or products in mind."
- 2. Discretionary Technical and Business Assistance (TABA).

USSOCOM SBIR 25.4 Direct to Phase II Topic Index Release 5

SOCOM254-D002 Operator Portable Oxygen Generation Device

SOCOM254-D002 TITLE: Operator Portable Oxygen Generation Device

CRITICAL TECHNOLOGY AREAS: Biotechnology; Advanced Materials

OBJECTIVE: The objective of this topic is to develop applied research toward an innovative capability to improve oxygen therapy at point-of-need in an austere prehospital environment. The goal is to develop a field instrument that is rugged, compact, and able to provide oxygen to patients and oxygen generation capabilities as far-forward as possible to reduce the need for oxygen cylinders.

DESCRIPTION: The capability to provide oxygen therapy and generation far-forward will incorporate a design that is both durable and small-scale so that it is both portable and able to withstand travel and ground movement while simultaneously providing the necessary oxygen concentration to an adult patient and is able to generate oxygen by separating it from other gases in the atmosphere. As a part of this feasibility study, the proposers shall address the design options with specifications on the key equipment attributes:

- Able to generate and provide oxygen purity of 93% +/- 3%.
- Able to provide 15 liters per minute and capable of supporting multiple patients.
- Device must meet MIL-STD-810H and Environmental Joint Enroute Care Equipment Test Standards.
- Device must be dual voltage with battery pack capability; capable of running off "shore" power.
- Battery has a run-time of 6 hours.
- Battery charging is compatible with universal USB-C; compatible with external AC/DC (110/240 VAC/12-24 VDC).
- Batteries are swappable without device losing memory or settings; must not require use of hold up battery.
- Battery recharge time is <35 minutes.
- Device has a replace sieve bend and replaceable / cleanable filter(s).
- Device must be able to fit within a standard "D" size oxygen cylinder mount (4.5" diameter x 20" length).
- Device is compatible with standard connectors.
- Device must have a tactical setting that allows audible alarms to be completely disabled or reduced to a level acceptable by the FDA.
- Device must have a tactical setting that changes all light sources or visual screens to the lowest level acceptable by the FDA.
- Device must weight < 5 lbs.
- Device is easily transportable by a single person.

PHASE I: Conduct a feasibility study to assess what is in the art of the possible that satisfies the requirements specified in the above paragraphs entitled "Objective" and "Description."

The objective of this USSOCOM Phase I SBIR effort is to conduct and document the results of a thorough feasibility study ("Technology Readiness Level 3") to investigate what is in the art of the possible within the given trade space that will satisfy a needed technology. The feasibility study should investigate all options that meet or exceed the minimum performance parameters specified in this write up. It should also address the risks and potential payoffs of the innovative technology options that are investigated and recommend the option that best achieves the objective of this technology pursuit. The funds obligated on the resulting Phase I SBIR contracts are to be used for the sole purpose of conducting a thorough feasibility study using scientific experiments and laboratory studies as necessary. Operational prototypes will not be developed with USSOCOM SBIR funds during Phase I feasibility studies. Operational prototypes

Version 3

developed with other than SBIR funds that are provided at the end of Phase I feasibility studies will not be considered in deciding what firm(s) will be selected for Phase II.

PHASE II: Develop, install, and demonstrate a prototype system determined to be the most feasible solution during the Phase I feasibility study on an operator portable oxygen generation device that can provide expeditious results to address patient oxygen therapy and oxygen generation as far-forward as possible to reduce the need for multiple oxygen cylinders. During the first year, the prototype(s) will be tested in simulated environments (>40oC, <0oC, humidity > 90%, 10,000 ft elevation) in order to determine practical viability. The second year will involve refinement and more rigorous testing of the chosen design in contractor-arranged laboratory studies to determine purity of the oxygen produced and accuracy of flow rates. Testing and refinement will involve the device's adherence to battlefield constraints; the device must be portable, lightweight (~2 kg), self-contained, have low power requirements (i.e. can operate continuously for 6 hours on a single battery), quiet (<45db), have stacking capability, and perform to all needed parameters concurrently. The phase II commercialization plans should include a regulatory plan for FDA clearance. The contractor would ideally identify appropriate potential commercialization partners (manufacturing, marketing, etc.) to facilitate technology transition.

PHASE III DUAL USE APPLICATIONS: This system could be used in a broad range of military applications where an operator portable oxygen generation device can provide patients with oxygen therapy and reduce the logistical burden of needing oxygen cylinder replacements. Phase III will consist of finalizing the device design and delivering manufactured devices (in their final form) for military-relevant testing such as airworthiness/performance testing and FDA-related testing (e.g. oxygen purity, accuracy of flow rates, etc.) under design freeze. The device will be functional for use by special operations forces medics, physician assistants, nurses, and physicians in far forward environments. Phase III will also include developing and finalizing training methods and protocols for the new device. In addition, the regulatory package should be in its final form ready for submission to the FDA, including all relevant test data. Other agencies interested in this technology include patient treatment programs, emergency response teams, and other federal directorates.

REFERENCES:

- 1. Joint Trauma System Clinical Practice Guideline (JTS CPG) Acute Respiratory Failure (CPG ID: 06) CPG 06 Acute Respiratory Failure
- 2. MIL-STD-810H Environmental Engineering Considerations and Laboratory Tests MIL-STD-810H
- 3. Joint Enroute Care Equipment Test Standard (JECETS) JECETS
- 4. U.S. Food & Drug Administration FDA Products and Medical Procedures Landing Page
- 5. American College of Surgeons, and Committee on Trauma. Advanced Trauma Life Support: Student Course Manual. 2018
- 6. Douin DJ, Schauer SG, Anderson EL, Jones J, DeSanto K, Cunningham CW, Bebarta VS, Ginde AA. Systematic review of oxygenation and clinical outcomes to inform oxygen targets in critically ill trauma patients. J Trauma Acute Care Surg. 2019 Oct 1;87(4):961-77.
- 7. McMullan J, Hart KW, Barczak C, Lindsell CJ, Branson R. Supplemental oxygen requirements of critically injured adults: an observational trial. Military medicine. 2016 Aug 1;181(8):767-72

KEYWORDS: O2, Oxygen, Oxygen Therapy; Oxygen Generator; Oxygen Generation, Portable Oxygen, Oxygen Device

Appendix A TECHNICAL PROPOSAL TEMPLATE (VOLUME 2)

INSTRUCTIONS

These instructions and template apply to DoD SBIR/STTR Phase I topics and provide general guidelines for completing the Phase I Technical Volume. Information provided in the Service/Component-specific instructions for the topic of interest take precedence over any instructions listed below.

The template (beginning on the following page) is the format model that may be used to prepare the Phase I Technical Volume. Do not include the instructions provided on this page or any bracketed [] guidance in the template.

Disclosure

Offerors that include in their proposals data which they do not want disclosed to the public for any purpose, or used by the U.S. Government except for evaluation purposes, must:

- (1) Mark the first page of each Volume of the Submission with the following legend:

 "This proposal includes data that must not be disclosed outside the Government and must not be duplicated, used, or disclosed-in whole or in part-for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this offeror as a result of-or in connection with-the submission of this data, the Government has the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in pages [insert numbers or other identification of sheets]";
- (2) Mark each sheet of data it wishes to restrict with the following legend: "Use or disclosure of data contained on this page is subject to the restriction on the first page of this volume."

Format

The Technical Volume shall meet the following requirements:

- Please refer to Service/Component-specific topic instructions for the page limit and how a technical volume is handled if the stated page count is exceeded. It is the proposing firm's responsibility to verify that the Technical Volume does not exceed the page limit after upload to DSIP. Unless otherwise noted, all content in the Technical Volume will count toward the limit.
- Single column format, single-spaced typed lines.
- Standard 8 ½" x 11" paper format.
- Page margins one inch on all sides. A header and footer may be included in the one-inch margin.
- The header on each page of the Technical Volume should contain your company name, topic number, and DSIP-assigned proposal number.
- No font smaller than 10-point. For headers, footers, imbedded tables, figures, images, or graphics that include text, a font size of smaller than 10-point is allowable, though proposers are cautioned that the text may be unreadable by evaluators.

Do not lock or encrypt the uploaded file. Do not include or embed active graphics such as videos, moving pictures, or other similar media in the document.

Delete this instruction page and begin the Technical Volume starting with the following page.

[Title]

Volume 2: Technical Volume

[Note: Remove the disclosure statement below if not applicable to your proposal. Refer to Instructions.]

This proposal includes data that must not be disclosed outside the Government and must not be duplicated, used, or disclosed – in whole or in part – for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this offeror as a result of – or in connection with – the submission of this data, the Government has the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in pages <insert numbers or other identification of sheets>.

1. Identification and Significance of the Problem or Opportunity.

[Define the specific technical problem or opportunity addressed and its importance.]

2. Phase I Technical Objectives.

[Enumerate the specific objectives of the Phase I work, including the questions the research and development effort will try to answer to determine the feasibility of the proposed approach.]

3. Phase I Statement of Work (include Subcontractors and/or Research Institutions).

- (a) [Provide an explicit, detailed description of the Phase I approach. If a Phase I option is required or allowed by the Component (refer to Component-specific instructions for topic of interest), describe appropriate research activities which would commence at the end of Phase I base period should the Component elect to exercise the option. The Statement of Work should indicate what tasks are planned, how and where the work will be conducted, a schedule of major events, and the final product(s) to be delivered. The Phase I effort should attempt to determine the technical feasibility of the proposed concept. The methods planned to achieve each objective or task should be discussed explicitly and in detail. This section should be a substantial portion of the Technical Volume.
- (b) The BAA may contain topics that have been identified by the Program Manager as research or activities involving Human/Animal Subjects and/or Recombinant DNA. If Phase I performance includes performance of these kinds of research or activities, please identify the applicable protocols and how those protocols will be followed during Phase I. Please note that funds cannot be released or used on any portion of the project involving human/animal subjects or recombinant DNA research or activities until all of the proper approvals have been obtained. SBCs proposing research involving human and/or animal use are encouraged to separate these tasks in the technical proposal and cost proposal in order to avoid potential delay of contract award.]

4. Related Work.

[Describe significant activities directly related to the proposed effort, including any conducted by the principal investigator, the proposing firm, consultants, or others. Describe how these activities interface with the proposed project and discuss any planned coordination with outside sources. The Technical Volume must persuade evaluators of the proposer's awareness of the state of the art in the topic. Describe any previous work not directly related but similar to the proposed effort. Provide the following: (1) a short description, (2) the client for which work was performed (including the Government Point of Contact to be contacted including e-mail address and phone number), and (3) date of performance including project completion.]

5. Relationship with Future Research or Research and Development.

- (a) [State the anticipated results of the proposed approach if the project is successful.
- (b) Discuss the significance of the Phase I effort in providing a foundation for a Phase II research or research and development effort.
- (c) Identify the applicable clearances, certifications and approvals required to conduct Phase II testing. Outline the plan for ensuring timely completion of stated authorizations in support of a Phase II research or research and development effort.]

6. Commercialization Strategy.

[Describe in approximately one page the SBC's strategy for commercializing this technology in DoD, other Federal Agencies, and/or private sector markets. Provide specific information on the market need the technology will address and the size of the market. Also include a schedule showing the quantitative commercialization results from the project that your company expects to achieve.]

7. Key Personnel.

[Identify key personnel who will be involved in the Phase I effort including information on directly related education and experience. A concise technical resume of the principal investigator, including a list of relevant publications (if any), must be included (Please do not include Privacy Act Information). All resumes will count toward the page limit for Volume 2, as specified in the Component-specific instructions.]

[Principal Investigator Name] [School, Degree, Year]

Relevant Experience

[A concise description of the principal investigator's relevant technical experience and its application to this topic.]

Relevant Awards or Patents

[List any awards received or patents granted or applications submitted for work related to this topic.]

Relevant Publications

[List any publications relevant to this topic.]

[Repeat this format as necessary to address the qualifications of all key personnel.]

8. Foreign Citizens.

[Identify any foreign citizens or individuals holding dual citizenship expected to be involved on this project as a direct employee, subcontractor, or consultant. For these individuals, please specify their country of origin, the type of visa or work permit under which they are performing and an explanation of their anticipated level of involvement on this project. The proposal may be deemed nonresponsive if the requested information is not provided. You may be asked to provide additional information during negotiations in order to verify the foreign citizen's eligibility to participate on a SBIR/STTR contract. Supplemental information provided in response to this paragraph will be protected in accordance with the Privacy Act (5 U.S.C. 552a), if applicable, and the Freedom of Information Act (5 U.S.C. 552(b)(6)). Note: If no foreign nationals will be involved in proposed work, the word "None" can be substituted for the table.]

Name	Foreign National	Country of Origin	Type of Visa or	Level of
[include direct employees, subcontractors, and consultants]	(Yes/No)		Work Permit	Involvement (Role)

9. <u>Facilities/Equipment</u>.

[Describe available instrumentation and physical facilities necessary to carry out the Phase I effort. Justify equipment purchases in this section and include detailed pricing information in the Cost Volume. State whether or not the facilities where the proposed work will be performed meet environmental laws and regulations of federal, state (name), and local Governments for, but not limited to, the following groupings: airborne emissions, waterborne effluents, external radiation levels, outdoor noise, solid and bulk waste disposal practices, and handling and storage of toxic and hazardous materials.]

10. Subcontractors/Consultants.

[Propose efforts as applicable to either SBIR or STTR as follows:

SBIR. Involvement of a university or other subcontractors or consultants in the project may be appropriate. A minimum of two-thirds of the research and/or analytical work in Phase I, as measured by direct and indirect costs, must be carried out by the proposing small business firm, unless otherwise approved in writing by the Contracting Officer. SBIR efforts may include subcontracts with Federal Laboratories and Federally Funded Research and Development Centers (FFRDCs). A waiver is not required for the use of Federal Laboratories and FFRDCs; however, proposers must certify their use of such facilities on the proposal cover sheet. Subcontracts with other Federal organizations are not permitted. Note that universities cannot publicly release information related to Export Controlled/ITAR restricted topics. (Refer to the DoD SBIR/STTR Broad Agency Announcement for detailed eligibility requirements as it pertains to the use of subcontractors/consultants.)

STTR. Involvement of a Research Institution in the project is required. A minimum of 40 percent of the research and/or analytical work in Phase I, as measured by direct and indirect costs, must be conducted by the proposing small business firm, and a minimum of 30 percent of the research and/or tasks in Phase I, as measured by direct and indirect costs, must be conducted by a single Research Institution. STTR efforts may include subcontracts with Federally Funded Research and Development Centers (FFRDCs). A waiver is not required for the use of Federal Laboratories, but they do not qualify as a Research Partner; proposers may only subcontract to Federal Laboratories within the remaining 30 percent and must certify their use of such facilities on the proposal cover sheet. Subcontracts with other Federal organizations are not permitted. Note that universities cannot publicly release information related to Export Controlled/ITAR restricted topics. (Refer to the DoD SBIR/STTR Broad Agency Announcement for detailed eligibility requirements as it pertains to the use of subcontractors/consultants.]

11. Prior, Current or Pending Support of Similar Proposals or Awards.

[If a proposal submitted in response to this BAA is substantially the same as another proposal that was funded, is now being funded, or is pending with another Federal Agency, another or the same DoD Service/Component, you must disclose this on the proposal cover sheet and provide the following information:

- a) Name and address of the Federal Agency(s) or DoD Component to which a proposal was submitted, will be submitted, or from which an award is expected or has been received.
- b) Date of proposal submission or date of award.
- c) Title of proposal.
- d) Name and title of principal investigator for each proposal submitted or award received.
- e) Title, number, and date of BAA(s) or solicitation(s) under which the proposal was submitted, will be submitted, or under which award is expected or has been received.
- f) If award was received, provide contract number.
- g) Specify the applicable topics for each proposal submitted or award received.

Note: If this does not apply, state in the proposal "No prior, current, or pending support has been provided for proposed work."]

12. <u>Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data or Computer Software.</u>

The Offeror asserts for itself, or the persons identified below, that the Government's rights to use, release, or disclose the following technical data or computer software should be restricted:

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person or Organization Asserting Restrictions
[(LIST)]	[(LIST)]	[(LIST)]	[(LIST)]

[Completion of this table and submission of the proposal constitutes signature for the information listed in the table above.]

[ADDITIONAL INFORMATION/INSTRUCTION: Rights in technical data, including software, developed under the terms of any contract resulting from proposals submitted in response to this BAA generally remain with the contractor, except that the Government obtains a royalty-free license to use such technical data only for Government purposes during the period commencing with contract award and ending twenty years after completion of the project under which the data were generated. This data <u>must</u> be marked with the restrictive legend specified in DFARS 252.227-7018 Class Deviation 2020-O0007. Upon expiration of the twenty-year restrictive license, the Government has unlimited rights in the SBIR data. During the license period, the Government may not release or disclose SBIR data to any person other than its support services contractors except: (1) For evaluation purposes; (2) As expressly permitted by the contractor; or (3) A use, release, or disclosure that is necessary for emergency repair or overhaul of items operated by the Government. See DFARS clause 252.227-7018 Class Deviation 2020-O0007 "Rights in Noncommercial Technical Data and Computer Software – Small Business Innovation Research (SBIR) Program."

If a proposer plans to submit assertions in accordance with DFARS 252.227-7017 Class Deviation 2020-00007, those assertions must be identified and assertion of use, release, or disclosure restriction MUST be included with your proposal submission. The contract cannot be awarded until assertions have been approved. Please note that only the table is included in the page limitation; any supporting data

concerning the contract/grant number and awarding agency, as well as planned use or need of the data asserted, can be provided in Volume 5, Supporting Documents.

The following instructions apply to the fields in the table above (Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data or Computer Software).

- 1) For technical data (other than computer software documentation) pertaining to items, components, or processes developed at private expense, identify both the deliverable technical data and each such item, component, or process. For computer software or computer software documentation identify the software or documentation.
- 2) Generally, development at private expense, either exclusively or partially, is the only basis for asserting restrictions. For technical data, other than computer software documentation, development refers to development of the item, component, or process to which the data pertain. The Government's rights in computer software documentation generally may not be restricted. For computer software, development refers to the software. Indicate whether development was accomplished exclusively or partially at private expense. If development was not accomplished at private expense, or for computer software documentation, enter the specific basis for asserting restrictions.
- 3) Enter asserted rights category (e.g., Government purpose license rights from a prior contract, rights in SBIR/STTR data generated under another contract, limited, restricted, or government purpose rights under this or a prior contract, or specially negotiated licenses).
- 4) Corporation, individual, or other person, as appropriate.

Enter "none" when all data or software will be submitted without restrictions.]

Appendix B DEFINITIONS

The following definitions from the SBA SBIR/STTR Policy Directive, the Federal Acquisition Regulation (FAR) and other cited regulations apply to this BAA.

Commercialization

The process of developing products, processes, technologies, or services, and the production and delivery (whether by the originating party or others) of the products, processes, technologies, or services for Federal Government or commercial markets purchase or use.

Cooperative Research and Development

An SBC and a research institution jointly conduct R&D. For purposes of the STTR Program, the SBC performs 40 percent of the work, and the single research institution performs not less than 30 percent of the work. For purposes of the SBIR Program, this refers to work a research institution conducts as the SBC's subcontractor. The proposing SBC must conduct at least two-thirds of the research and/or analytical work in Phase I.

Covered Individual

An individual who contributes in a substantive, meaningful way to the scientific development or execution of a R&D project proposed to be carried out with a DoD-funded award. DoD has further designated covered individuals as including all proposed key personnel.

Essentially Equivalent Work

Work that is substantially the same research, which is proposed for funding in more than one contract proposal or grant application submitted to the same federal agency or submitted to two or more different federal agencies for review and funding consideration; or work where a specific research objective and the research design for accomplishing the objective are the same or closely related to another proposal or award, regardless of the funding source.

Export Control

The International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120 through 130, and the Export Administration Regulations (EAR), 15 CFR Parts 730 through 799, apply to all projects with military or dual-use applications that develop beyond fundamental research, which is basic and applied research ordinarily published and shared broadly within the scientific community. Details are available <a href="https://example.com/here-

NOTE: Export control compliance statements found in the individual Service/Component-specific proposal instructions are not meant to be all inclusive. They do not remove any liability from the submitter to comply with applicable ITAR or EAR export control restrictions or from informing the U.S. Government of any potential export restriction as fundamental R&D efforts proceed.

Federal Laboratory

In 15 U.S.C. §3703, it means any laboratory, any federally funded R&D center (FFRDC), or any center established under 15 U.S.C. §§ 3705 & 3707 that a federal agency owns, leases, or otherwise uses and the Federal Government funds, whether the U.S. Government or the contractor operates.

Federally Funded Award

A Phase I, Phase II (including Direct to Phase II, sequential Phase II/subsequent Phase II and crossagency Phase II), or Phase III SBIR or STTR award made using a funding agreement.

Foreign Affiliation

Under 15 U.S.C. § 638(e)(16), foreign affiliation means a funded or unfunded academic, professional, or institutional appointment or position with a foreign government or government-owned entity, whether full-time, part-time, or voluntary (including adjunct, visiting, or honorary). This includes appointments or positions deemed adjunct, visiting, or honorary with research institutions located in a foreign country of concern.

Foreign Country of Concern

In 15 U.S.C. § 638(e)(17), foreign country of concern means the People's Republic of China, the Democratic People's Republic of Korea, the Russian Federation, the Islamic Republic of Iran, or any other country the Secretary of State determines as a country of concern.

Foreign Entity

Foreign entity means any branch, partnership, group or sub-group, association, estate, trust, corporation or division of a corporation, non-profit, academic institution, research center, or organization that foreign owners, foreign investors, foreign management, or a foreign government establish, direct, or control.

Foreign Government

Foreign government means any government or governmental body, organization, or instrumentality, including government owned-corporations, other than the U.S. Government or U.S. state, territorial, tribal, or jurisdictional governments or governmental bodies. The term includes, but is not limited to, non-U.S. national and subnational governments, including their respective departments, agencies, and instrumentalities.

Foreign National

Foreign National (also known as Foreign Person) under 22 CFR 120.16 mean any natural person who is not a lawful permanent resident as defined by 8 U.S.C. § 1101(a)(20) or who is not a protected individual as defined by 8 U.S.C. § 1324b(a)(3). It also means any foreign corporation, business association, partnership, trust, society, or any other entity or group that is not incorporated or organized to do business in the United States, as well as international organizations, foreign governments and any agency or subdivision of foreign governments (e.g., diplomatic missions).

"Lawfully admitted for permanent residence" means the status of having been lawfully accorded the privilege of residing permanently in the United States as an immigrant in accordance with the immigration laws, such status not having changed.

"Protected individual" means an individual who (A) is a citizen or national of the United States, or (B) is an alien who is lawfully admitted for permanent residence, is granted the status of an alien lawfully admitted for temporary residence under 8 U.S.C. § 1160(a) or 8 U.S.C. § 1255a(a)(1), is admitted as a

refugee under 8 U.S.C. § 1157, or is granted asylum under Section 8 U.S.C. § 1158; but does not include (i) an alien who fails to apply for naturalization within six months of the date the alien first becomes eligible (by virtue of period of lawful permanent residence) to apply for naturalization or, if later, within six months after November 6, 1986, and (ii) an alien who has applied on a timely basis, but has not been naturalized as a citizen within two years after the date of the application, unless the alien can establish that the alien is actively pursuing naturalization, except that time consumed in the Service's processing the application shall not be counted toward the two-year period.

Fraud, Waste and Abuse

- a. Fraud includes any false
- b. about a material fact or any intentional deception designed to deprive the United States unlawfully of something of value or to secure from the United States a benefit, privilege, allowance, or consideration to which an individual or business is not entitled.
- c. Waste includes extravagant, careless or needless expenditure of government funds, or the consumption of government property, that results from deficient practices, systems, controls, or decisions.
- d. Abuse includes any intentional or improper use of government resources, such as misuse of rank, position, or authority or resources.
- e. The SBIR/STTR Program training related to Fraud, Waste and Abuse is available <u>here</u>. See Section 1.13 for reporting fraud, waste, and abuse.

Funding Agreement

Any contract, grant, or cooperative agreement entered between any Federal Agency and any SBC for the performance of experimental, developmental, or research work, including products or services, Federal Government-funded in whole or in part. DoD Services/Components will only use contracts and other transaction authority (OTA) agreements for all SBIR awards.

Historically Black Colleges and Universities, and Minority-Serving Institutions

Department of Education <u>list</u> for historically Black colleges and universities and minority-serving institutions.

HUBZone Certified Small Business Concern

An SBC with SBA certification under the Historically Underutilized Business Zones (HUBZone) Program (13 C.F.R. § 126) as a HUBZone firm listed in the dynamic small business search (DSBS).

Malign Foreign Talent Recruitment Program

As defined in 42 U.S.C § 19237, the term "malign foreign talent recruitment program" means-

- (A) any program, position, or activity that includes compensation in the form of cash, in-kind compensation, including research funding, promised future compensation, complimentary foreign travel, things of non de minimis value, honorific titles, career advancement opportunities, or other types of remuneration or consideration directly provided by a foreign country at any level (national, provincial, or local) or their designee, or an entity based in, funded by, or affiliated with a foreign country, whether or not directly sponsored by the foreign country, to the targeted individual, whether directly or indirectly stated in the arrangement, contract, or other documentation at issue, in exchange for the individual-
 - (i) engaging in the unauthorized transfer of intellectual property, materials, data products, or

- other nonpublic information owned by a United States entity or developed with a Federal R&D award to the government of a foreign country or an entity based in, funded by, or affiliated with a foreign country regardless of whether that government or entity provided support for the development of the IP, materials, or data products;
- (ii) being required to recruit trainees or researchers to enroll in such program, position, or activity;
- (iii) establishing a laboratory or company, accepting a faculty position, or undertaking any other employment or appointment in a foreign country or with an entity based in, funded by, or affiliated with a foreign country if such activities are in violation of the standard terms and conditions of a Federal R&D award;
- (iv) being unable to terminate the foreign talent recruitment program contract or agreement except in extraordinary circumstances;
- (v) through funding or effort related to the foreign talent recruitment program, being limited in the capacity to carry out a R&D award or required to engage in work that would result in substantial overlap or duplication with a Federal R&D award;
- (vi) being required to apply for and successfully receive funding from the sponsoring foreign government's funding agencies with the sponsoring foreign organization as the recipient;
- (vii) being required to omit acknowledgment of the recipient institution with which the individual is affiliated, or the Federal research agency sponsoring the R&D award, contrary to the institutional policies or standard terms and conditions of the Federal R&D award;
- (viii) being required to not disclose to the Federal research agency or employing institution the participation of such individual in such program, position, or activity; or
- (ix) having a conflict of interest or conflict of commitment contrary to the standard terms and conditions of the Federal R&D award; and
- (B) a program that is sponsored by-
 - (i) a foreign country of concern or an entity based in a foreign country of concern, whether or not directly sponsored by the foreign country of concern;
 - (ii) an academic institution on the list developed under section 1286(c)(8) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 2358 note; 1 Public Law 115–232); or
 - (iii) a foreign talent recruitment program on the list developed under section 1286(c)(9) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 2358 note; 1 Public Law 115–232).

Performance Benchmark Requirements

SBCs with multiple SBIR/STTR awards must meet minimum performance requirements to be eligible to apply for a new Phase I or Direct-to-Phase II award. The purpose of these requirements is to ensure that Phase I SBCs with multiple prior SBIR/STTR awards are making progress towards commercializing the work done under those awards. The Phase I to Phase II transition rate addresses the extent to which an awardee progresses a project from Phase I to Phase II. The commercialization benchmark addresses the extent to which an awardee has moved past Phase II work towards commercialization.

The SBIR and STTR Extension Act of 2022 (Pub. L. 117-183) amended the benchmarks' applications for more experienced firms. Detailed information on benchmark calculations and increased performance standards for more experienced firms can be found here.

Personal Conflict of Interest

A situation in which an individual has a financial interest, personal activity, or relationship that could impair the employee's ability to act impartially and in the best interest of the government when performing under the contract. (A de minimis interest that would not "impair the employee's ability to act impartially and in the best interest of the government" is not covered under this definition.)

Among the sources of personal conflicts of interest are:

- a. The covered employee's, their close family members' or other members of their household's financial interests;
- b. Other employment or financial relationships (including seeking or negotiating for prospective employment or business); and
- c. Gifts, including travel.

Financial interests referred to in this definition's first paragraph may arise from:

- a. Compensation, including wages, salaries, commissions, professional fees, or fees for business referrals;
- b. Consulting relationships (including commercial and professional consulting and service arrangements, scientific and technical advisory board memberships, or serving as an expert witness in litigation);
- c. Services provided in exchange for honorariums or travel expense reimbursements;
- d. Research funding or other forms of research support;
- e. Investment in the form of stock or bond ownership or partnership interest (excluding diversified mutual fund investments);
- f. Real estate investments;
- g. Patents, copyrights, and other IP interests; or
- h. Business ownership and investment interests.

Principal Investigator/Program Manager

The principal investigator/project manager is the proposing SBC-designated individual who provides the scientific and technical direction to a funding agreement-supported project.

Proprietary Information

Proprietary information is any information that a SBC considers to be non-public information the SBC owns and is marked accordingly.

Research Institution

Any organization located in the United States that is:

- a. A university.
- b. A nonprofit institution as defined in Section 4(5) of the Stevenson-Wydler Technology Innovation Act of 1980.
- c. A contractor-operated federally funded R&D center, as identified by the National Science Foundation in accordance with the government-wide FAR issued in accordance with the Office of Federal Procurement Policy Act Section 35(c)(1). A list of eligible FFRDCs is here.

Research or Research and Development

Any activity that is:

- a. A systematic, intensive study directed toward greater knowledge or understanding of the subject studied.
- b. A systematic study directed specifically toward applying new knowledge to meet a recognized need; or
- c. A systematic knowledge application toward the production of useful materials, devices, systems, or methods, including design, development, and improvement of prototypes and new processes to meet specific requirements.

Research Involving Animal Subjects

All activities involving animal subjects shall be conducted in accordance with DoDI 3216.01 "Use of Animals in DoD Programs," 9 C.F.R. parts 1-4 "Animal Welfare Regulations," National Academy of Sciences Publication "Guide for the Care & Use of Laboratory Animals," as amended, and the Department of Agriculture rules implementing the Animal Welfare Act (7 U.S.C. §§ 2131-2159), as well as other applicable federal and state law and regulation and DoD instructions.

"Animal use" protocols apply to all activities that meet any of the following criteria:

- a. Any research, development, test, evaluation or training, (including experimentation) involving an animal or animals.
- b. An animal is defined as any living or dead, vertebrate organism (non-human) that is being used or is intended for use in research, development, test, evaluation or training.
- c. A vertebrate is a member of the subphylum Vertebrata (within the phylum Chordata), including birds and cold-blooded animals.

See DoDI 3216.01 for definitions of these terms and more information about the applicability of DoDI 3216.01 to work involving animals.

Research Involving Human Subjects

All research involving human subjects shall be conducted in accordance with 32 C.F.R. § 219 "The Common Rule," 10 U.S.C. § 980 "Limitation on Use of Humans as Experimental Subjects," and DoDI 3216.02 "Protection of Human Subjects and Adherence to Ethical Standards in DoD-Supported Research," as well as other applicable federal and state law and regulations, and DoD Services/Component guidance. Proposing SBCs must be cognizant of and abide by the additional restrictions and limitations imposed on the DoD regarding research involving human subjects, specifically as they regard vulnerable populations (DoDI 3216.02), recruitment of military research subjects (DoDI 3216.02), and informed consent and surrogate consent (10 U.S.C. § 980) and chemical and biological agent research (DoDI 3216.02). Food and Drug Administration regulation and policies may also apply.

"Human use" protocols apply to all research that meets any of the following criteria:

- a. Any research involving an intervention or an interaction with a living person that would not be occurring or would be occurring in some other fashion but for this research.
- b. Any research involving identifiable private information. This may include data/information/specimens collected originally from living individuals (broadcast video, webuse logs, tissue, blood, medical or personnel records, health data repositories, etc.) in which the identity of the subject is known, or the identity may be readily ascertained by the investigator or associated with the data/information/specimens.

See DoDI 3216.02 for definitions of these terms and more information about the applicability of DoDI 3216.02 to research involving human subjects.

Research Involving Recombinant DNA Molecules

Any recipient performing research involving recombinant DNA molecules and/or organisms and viruses containing recombinant DNA molecules shall comply with the National Institutes of Health Guidelines for Research Involving Recombinant DNA Molecules, dated January 2011, as amended. The guidelines can be found at: https://osp.od.nih.gov/wp-content/uploads/2016/05/NIH_Guidelines.pdf. Recombinant DNA is defined as (i) molecules that are constructed outside living cells by joining natural or synthetic DNA segments to DNA molecules that can replicate in living cells or (ii) molecules that result from the replication of those described in (i) above.

Service-Disabled Veteran-Owned Small Business (SDVOSB)

A service-disabled veteran or service-disabled veterans-owned and controlled SBC defined in Small Business Act 15 USC § 632(q)(2) and SBA's implementing SDVOSB regulations (13 CFR 125).

Small Business Concern (SBC)

A concern that meets the requirements set forth in 13 C.F.R. § 121.702 (available here).

An SBC must satisfy the following conditions on the date of award:

- a. Is organized for profit, with a place of business located in the United States, which operates primarily within the United States, or which makes a significant contribution to the United States economy through payment of taxes or use of American products, materials or labor;
- b. Is in the legal form of an individual proprietorship, partnership, limited liability company, corporation, joint venture, association, trust or cooperative, except that if the concern is a joint venture, each entity to the venture must meet the requirements set forth in paragraph (c) below;
- c. Is more than 50 percent directly owned and controlled by one or more individuals (who are citizens or permanent resident aliens of the United States), other SBCs (each of which is more than 50 percent directly owned and controlled by individuals who are citizens or permanent resident aliens of the United States), or any combination of these; and
- d. Has, including its affiliates, not more than 500 employees. (See here for definition of an affiliate.)

Subcontract

A subcontract is any agreement, other than one involving an employer-employee relationship, including consultants, the funding agreement awardee enters calling for supplies or services for the performance of the original funding agreement.

Subcontractor

Subcontractor means any supplier, distributor, vendor, firm, academic institution, research center, or other person or entity that furnishes supplies or services pursuant to a subcontract, at any tier.

United States

United States means the fifty states, the territories and possessions of the Federal Government, the Commonwealth of Puerto Rico, the Republic of the Marshall Islands, the Federated States of Micronesia, the Republic of Palau, and the District of Columbia.

Women-Owned Small Business Concern

An SBC where one or more women own at least 51 percent, or in the case of any publicly owned business, women own at least 51 percent of the stock, and women control the management and daily business operations.

Appendix C POTENTIAL APPLICABLE FEDERAL ACQUISITION REGULATION, DEFENSE FEDERAL ACQUISITION REGULATION SUPPLEMENT CLAUSES

Note: Green cells are potential required Federal Acquisition Regulation (FAR) and Defense Federal Acquisition Regulation Supplement (DFARS) clauses. Blue cells are potential required FAR and DFARS clauses, when applicable.

Clause Number	Title	Date	When Applicable
52.203-17	Contractor Employee Whistleblower Rights	Nov-23	
52.203-19	Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements	Jan-17	
52.204-10	Reporting Executive Compensation and First- Tier Subcontract Awards	Jun-20	
52.204-13	System for Award Management Maintenance	Oct-18	
52.204-18	Commercial and Government Entity Code Maintenance	Aug-20	
52.204-19	Incorporation by Reference of Representations and Certifications	Dec-14	
52.204-21	Basic Safeguarding of Covered Contractor Information Systems	Nov-21	
52.204-23	Prohibition on Contracting for Hardware, Software, and Services Developed or Provided by Kaspersky Lab and Other Covered Entities	Dec-23	
52.204-25	Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment	Nov-21	
52.204-27	Prohibition on a ByteDance Covered Application	Jun-23	
52.204-30	Federal Acquisition Supply Chain Security Act Orders—Prohibition	Dec-23	
52.209-06	Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment	Nov-21	
52.209-10	Prohibition on Contracting with Inverted Domestic Corporations	Nov-15	
52.219-06	Notice of Total Small Business Set-Aside	Nov-20	
52.219-08	Utilization of Small Business Concerns	Feb-24	
52.219-28	Post-Award Small Business Program Representation	Feb-24	
52.222-03	Convict Labor	Jun-03	
52.222-19	Child Labor-Cooperation with Authorities and Remedies	Feb-24	
52.222-21	Prohibition of Segregated Facilities	Apr-15	
52.222-25	Affirmative Action Compliance	Apr-84	
52.222-26	Equal Opportunity	Sep-16	
52.222-36	Equal Opportunity for Workers with Disabilities	Jun-20	
52.222-50	Combating Trafficking in Persons	Nov-21	

Clause Number	Title	Date	When Applicable
52.225-01	Buy American-Supplies	Oct-22	
52.225-13	Restrictions on Certain Foreign Purchases	Feb-21	
52.226-07	Drug-Free Workplace	May-24	
52.226-08	Encouraging Contractor Policies to Ban Text Messaging While Driving	May-24	
52.227-01 Alt I	Authorization and Consent - Alternate I (Apr-84)	Jun-20	
52.227-02	Notice and Assistance Regarding Patent and Copyright Infringement	Jun-20	
52.227-11	Patent Rights-Ownership by the Contractor	May-14	
52.227-20	Rights in Data-SBIR Program	May-14	
52.232-11	Extras	Apr-84	
52.232-23	Assignment of Claims	May-14	
52.232-25	Prompt Payment	Jan-17	
52.232-33	Payment by Electronic Funds Transfer - System for Award Management	Oct-18	
52.232-39	Unenforceability of Unauthorized Obligations	Jun-13	
52.232-40	Providing Accelerated Payments to Small Business Subcontractors	Mar-23	
52.232-01	Disputes	May-14	
52.233-04	Applicable Law for Breach of Contract Claim	Oct-04	
52.242-15	Stop-Work Order	Aug-89	
52.243-01 Alt V	Changes-Fixed-Price Alternate V (Apr-84)	Aug-87	
52.244-06	Subcontracts for Commercial Products and Commercial Services	Feb-24	
52.246-09	Inspection of Research and Development (Short Form)	Apr-84	
52.252-02	Clauses Incorporated by Reference	Feb-98	
52.252-06	Authorized Deviations in Clauses	Nov-20	
52.253-01	Computer Generated Forms	Jan-91	
252.203-7000	Requirements Relating to Compensation of Former DoD Officials	Sep-11	
252.203-7002	Requirement to Inform Employees of Whistleblower Rights	Dec-22	
252.204-7000	Disclosure of Information	Oct-16	
252.204-7003	Control of Government Personnel Work Product	Apr-92	
252.204-7008	Compliance with Safeguarding Covered Defense Information Controls	Oct-24	
252.204-7009	Limitations on the Use or Disclosure of Third-Party Contractor Reported Cyber Incident Information	Jan-23	
252.204-7012	Safeguarding Covered Defense Information and Cyber Incident Reporting (DEVIATION 2024-00013)	May-24	
252.204-7016	Covered Defense Telecommunications Equipment or Services—Representation	Dec-19	

Clause Number	Title	Date	When Applicable
252.204-7017	Prohibition on the Acquisition of Covered Defense Telecommunications Equipment or Services—Representation	May-21	
252.204-7018	Prohibition on the Acquisition of Covered Defense Telecommunications Equipment or Services	Jan-23	
252.204-7019	Notice of NISTSP 800-171 DoD Assessment Requirements	Nov-23	
252.204-7020	NIST SP 800-171 DoD Assessment Requirements	Nov-23	
252.204-7022	Expediting Contract Closeout	May-21	
252.204-7024	Notice on the use of the Supplier Performance Risk System	Mar-23	
252.227-7016	Rights in Bid or Proposal Information	Jan-23	
252.227-7018	Rights in Noncommercial Technical Data and Computer SoftwareSmall Business Innovation Research (SBIR) Program (DEVIATION 2020-00007) (Jul 23)	Nov-23	
252.227-7019	Validation of Asserted Restrictions Computer Software	Jan-23	
252.227-7025	Limitations on the Use or Disclosure of Government-Furnished Information Marked with Restrictive Legends	Jan-23	
252.227-7030	Technical DataWithholding of Payment	Mar-00	
252.227-7037	Validation of Restrictive Markings on Technical Data	Jan-23	
252.227-7039	PatentsReporting of Subject Inventions	Apr-90	
252.232-7003	Electronic Submission of Payment Requests and Receiving Reports	Dec-18	
252.232-7006	Wide Area WorkFlow Payment Instructions	Jan-23	
252.232-7010	Levies on Contract Payments	Dec-06	
252.235-7010	Acknowledgment of Support and Disclaimer	May-95	
252.235-7011	Final Scientific or Technical Report	Dec-19	
252.243-7001	Pricing of Contract Modifications	Dec-91	
252.244-7000	Subcontracts for Commercial Items	Nov-23	
52.203-03	Gratuities	Apr-84	Exceeding the simplified acquisition threshold.
52.203-05	Covenant Against Contingent Fees	May-14	Exceeding the simplified acquisition threshold.
52.203-06 or Alt I	Restrictions on Subcontractor Sales to the Government or ALT I	Nov-21	Exceeding the simplified acquisition threshold, Alt I commercial products or commercial services.
52.203-07	Anti-Kickback Procedures	Jun-20	Contracts exceeding \$150,000.
52.203-08	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	May-14	Exceeding the simplified acquisition threshold.
52.203-10	Price or Fee Adjustment for Illegal or Improper Activity	May-14	Exceeding the simplified acquisition threshold.
52.203-12	Limitation on Payments to Influence Certain Federal Transactions	Jun-20	Contracts exceeding \$150,000.
52.204-02	Security Requirements	Mar-21	May require access to classified information; cost contract (see 16.302) for research and development with an educational institution is contemplated.

Clause Number	Title	Date	When Applicable
52.212-04	Contract Terms and Conditions— Commercial Products and Commercial Services	Nov-23	Commercial products or commercial services.
52.212-05	Contract Terms and Conditions Required to Implement Statutes or Executive Orders- Commercial Items	May-24	Commercial products or commercial services.
52.219-14	Limitations on Subcontracting	Oct-22	Set aside for small business and the contract amount is expected to exceed the simplified acquisition threshold.
52.222-35	Equal Opportunity for Veterans	Jun-20	Contracts exceed \$150,000.
52.222-37	Employment Reports on Veterans	Jun-20	If contract contains 52.222-35.
52.222-40	Notification of Employee Rights Under the National Labor Relations Act	Dec-10	Exceeding the simplified acquisition threshold.
52.222-54	Employment Eligibility Verification	May-22	Contracts exceed \$150,000.
52.223-03	Hazardous Material Identification and Material Safety Data	Feb-21	Requires the delivery of hazardous materials.
52.229-03	Federal, State, and Local Taxes	Feb-13	A fixed-price contract is contemplated; and the contract is expected to exceed the simplified acquisition threshold.
52.232-02	Payment under Fixed-Price Research and Development Contracts	Apr-84	Fixed Price R&D.
52.233-03	Protest After Award	Aug-96	Exceed the simplified acquisition threshold.
52.242-13	Bankruptcy	Jul-95	Exceed the simplified acquisition threshold.
52.242-17	Government Delay of Work	Apr-84	Supplies other than commercial or modified-commercial products.
52.245-01	Government Property	Sep-21	When property is expected to be furnished.
52.245-09	Use and Charges	Apr-12	When the clause at 52.245-1 is included.
52.246-04	Inspection of Services-Fixed Price	Aug-96	Services, or supplies that involve the furnishing of services, when a fixed-price contract is contemplated, and the contract amount is expected to exceed the simplified acquisition threshold.
52.246-16	Responsibility for Supplies	Apr-84	Supplies, services involving the furnishing of supplies, or research and development, when a fixed-price contract is contemplated, and the contract amount is expected to exceed the simplified acquisition threshold.
52.246-23	Limitation of Liability	Feb-97	Exceed the simplified acquisition threshold.
52.247-34	F.o.b. Destination	Nov-91	When the delivery term is f.o.b. destination.
252.204-7015	Notice of Authorized Disclosure of Information for Litigation Support	Jan-23	Commercial products and commercial services.
252.209-7004	Subcontracting with Firms that are Owned or Controlled by the Government of a Country that is a State Sponsor of Terrorism	May-19	Contracts value of \$150,000 or more.
252.211-7003	Item Identification and Valuation	Jan-23	For supplies, and for services involving the furnishing of supplies.
252.223-7001	Hazard Warning Labels	Dec-91	Requires submission of hazardous material data sheets.
252.223-7008	Prohibition of Hexavalent Chromium	Jan-23	For supplies, maintenance and repair services, or construction.
252.225-7001	Buy American and Balance of Payments Program	Feb-24	Acquisition of commercial products and commercial services.

Clause Number	Title	Date	When Applicable
252.225-7002	Qualifying Country Sources as Subcontractors	Mar-22	(i) 252.225-7001, Buy American and Balance of Payments Program. Use if one or more is included: (ii) 252.225-7021, Trade Agreements. (iii) 252.225-7036, Buy American - Free Trade Agreements - Balance of Payments Program.
252.225-7012	Preference for Certain Domestic Commodities	Apr-22	Commercial products and commercial services.
252.225-7052	Restriction on Acquisition of Certain Magnets, Tantalum, and Tungsten	May-24	Products and commercial services, that exceed the simplified acquisition threshold.
252.225-7056	Prohibition Regarding Business Operations with the Maduro Regime	Jan-23	Commercial products and commercial services.
252.225-7060	Prohibition on Certain Procurements from the Xinjiang Uyghur Autonomous Region	Jun-23	Products utilizing funds appropriated or otherwise made available for any fiscal year.
252.225-7972	Prohibition on the Procurement of Foreign-Made Unmanned Aircraft Systems (DEVIATION 2020-O0015)	May-20	
252.225-7967	Prohibition Regarding Russian Fossil Fuel Business Operations (DEVIATION 2024- 00006, Revision 1)	Feb-24	Exceeding the simplified acquisition threshold.
252.228-7001	Ground and Flight Risk	Mar-23	Acquisition, development, production, modification, maintenance, repair, flight, or overhaul of aircraft owned by or to be delivered to the Government.
252.228-7005	Mishap Reporting and Investigation Involving Aircraft, Missiles, and Space Launch Vehicles	Nov-19	Acquisition, development, production, modification, maintenance, repair, flight, or overhaul of aircraft owned by or to be delivered to the Government.
252.235-7002	Animal Welfare	Dec-14	Uses live vertebrate animals.
252.235-7004	Protection of Human Subjects	Jul-09	Involving human subjects.
252.243-7002	Requests for Equitable Adjustment	Dec-22	Exceeding the simplified acquisition threshold.
252.245-7003	Contractor Property Management System Administration	Apr-12	Containing the clause at FAR 52.245-1, Government Property.
252.245-7005	Management and Reporting of Government Property	Jan-24	Containing the clause at FAR 52.245-1, Government Property.
252.247-7023	Transportation of Supplies by Sea	Jan-23	Except - those with an anticipated value at or below the simplified acquisition threshold.