

DEPARTMENT OF DEFENSE

Small Business Innovation Research (SBIR) Program

SBIR 25.4 Annual Program Broad Agency Announcement (BAA)

Release 1

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.

Table of Contents

1.0 PROGRAM DESCRIPTION.....	1
1.1 Objectives and Context	1
1.2 A Three Phased Program	1
1.3 OUSD(R&E) Critical Technology Areas.....	2
1.4 Eligibility and Performance Requirements	2
1.5 Majority Ownership in Part by Multiple Venture Capital, Hedge Fund, and Private Equity Firms.....	3
1.6 Performance Benchmark Requirements/Increased Minimum Performance Standards for Experienced Firms.....	3
1.7 Direct to Phase II Program.....	4
1.8 Program on Innovation Open Topics	4
1.9 Discretionary Technical and Business Assistance (TABAs).....	5
1.10 Phase II Enhancement Policy.....	5
1.11 Commercialization Readiness Program (CRP).....	5
1.12 State and Other Available Assistance	5
1.13 Fraud and Fraud Reporting	5
2.0 CERTIFICATIONS AND REGISTRATIONS	6
2.1 System for Award Management (SAM) Registration.....	6
2.2 SBA Company Registry	6
2.3 Defense SBIR/STTR Innovation Portal (DSIP) Registration	6
2.3.1 DSIP Assistance and Support	6
2.4 Required Certifications	7
2.5 Due Diligence Program to Assess Security Risks	7
2.5.1 Training for Understanding FOCI.....	7
2.6 Joint Ventures	8
2.7 Conflicts of Interest.....	8
2.8 Organizational Conflicts of Interest (OCI)	8
2.9 Research Involving Human Subjects/Human Subject Research (RIHS/HSR)	9
2.10 Research Involving Animal Subjects.....	10
2.11 Research Involving Recombinant DNA Molecules	10
2.12 Federal Acquisition Supply Chain Security Act Orders	10
3.0 PROPOSAL PREPARATION INSTRUCTIONS AND REQUIREMENTS	11
3.1 Introduction	11
3.2 Export-Controlled Topic Requirements.....	11
3.3 Classified Proposals	11
3.4 Promotional Materials.....	11
3.5 Prior, Current, or Pending Support of Similar Proposals or Awards	12
3.6 Marking Proprietary Proposal Information.....	12
3.7 Phase I Proposal Instructions	12
3.8 Phase II Proposal Information	17
3.8.1 Phase II Commercialization Strategy	18
3.8.2 Phase II Adequate Accounting System.....	18
4.0 METHOD OF SELECTION AND EVALUATION CRITERIA.....	18
4.1 Evaluation Process	18
4.2 Evaluation Criteria	19

4.3 Proposal Status & Feedback.....	19
4.4 Award Denials.....	19
4.5 Pre-Award and Post Award BAA Protests.....	20
5.0 ADDITIONAL CONSIDERATIONS	20
5.1 Award Information	20
5.2 Contract Requirements.....	20
5.3 Agency Recovery Authority and Ongoing Reporting	21
5.4 Copyrights.....	21
5.5 Patents.....	22
5.6 Invention Reporting	22
5.7 Technical Data Rights.....	22
5.8 Final Technical Reports - Phase I through Phase III.....	22
6.0 PROPOSAL SUBMISSION.....	23
6.1 Submission Details	23
6.2 Technical Questions.....	24
7.0 PARTICIPATING COMPONENT INSTRUCTIONS & RESEARCH TOPICS	25
 Appendix A: TECHNICAL PROPOSAL TEMPLATE (VOLUME 2).....	 A-1 – A-6
Appendix B: DEFINITIONS.....	B-1 – B-8
Appendix C: POTENTIAL APPLICABLE FEDERAL ACQUISITION REGULATION, DEFENSE FEDERAL ACQUISITION REGULATION SUPPLEMENT CLAUSES.....	C-1 – C-5

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 [SBIR/STTR Policy Directive](#), 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 primary employment 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 one-half 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 (TAB A)

DoD has not mandated the use of discretionary technical and business assistance (TAB A). The proposing SBCs should review individual Service/Component-specific instructions to determine if TAB A is offered by the Service/Component and follow instructions for requesting TAB A 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 [State SBIR/STTR Support office](#) 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 must register in SAM [here](#). 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 [SBA Company Registry](#). 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 [DSIP](#) 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.

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

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 [Learning & Support](#) section of DSIP. Email DSIP Support at DoDSBIRSupport@reisystems.com 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 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 nondisclosures of 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.

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 [here](#) 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 (FASCSA) Orders—Representation and Disclosures and FAR 52.204-30 FASCSA 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 personnel's 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. [Verification of Eligibility of Small Business Joint Ventures](#), 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 [here](#) 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. One DSIP firm user for the proposing SBC with read/write access (Proposal Owner, Corporate Official or Firm Admin) must complete this training.

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 [audit process overview](#), and a pre-award [system adequacy checklist](#).

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 no later than 90 days 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; it is important for proposing SBCs to review Service/Component-specific instructions regarding award size.

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.
- l. **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) [website](#).

- 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

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 guidance on DSIP proposal submission is found [here](#).

Deadline for Receipt: 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 submitted after 12:00 p.m. ET will not be 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 avoid unexpected delays due to high volume of traffic during the final hours before the BAA close. 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 Questions

- 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 [DSIP Topics and Topic Q&A](#) page. During this time, proposing SBCs can contact topic authors via telephone or email to ask technical questions about specific BAA topics. Questions must be limited to specific information related to understanding a particular topic’s requirements. Proposing SBCs may not ask for advice or guidance on solution approach and may not submit additional material to the topic author.

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 are not appropriate and will not receive a response; 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 1 of this BAA.

DoD SBIR 25.4 BAA

Release 1

October 2, 2024: Topics Pre-release

October 23, 2024: Topics Open; DoD begins accepting proposals in DSIP

November 6, 2024: DSIP Topic Q&A closes to new questions at **12:00 p.m. ET**

November 20, 2024: Topics Close; Deadline for receipt of proposals is **12:00 p.m. ET**

Participating Services/Components:

- Department of the Army
- Department of the Navy
- Office of the Secretary of Defense – Chief Digital and Artificial Intelligence Office (OSD - CDAO)

DEPARTMENT OF THE ARMY
DoD 25.4 Small Business Innovation Research (SBIR)
Annual Broad Agency Announcement (BAA)
Component-Specific Proposal Instructions
Release 1

INTRODUCTION

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.

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

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

- The DoD SBIR 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](#)

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 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.

CONTACT INFORMATION

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

DSIP Support: Email DSIP Support at DoDSBIRSupport@reisystems.com only for assistance with using the DSIP application. Questions regarding DSIP can be emailed to DSIP Support and 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 small business concern, 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.

Army Component Specific Proposal Instructions: General questions regarding the administration of the Army SBIR Program, and the Army Component-Specific Proposal Instructions can be directed to the following:

Email: usarmy.SBIRSTTR@army.mil

Website: <https://www.armysbir.army.mil/>

Mailing Address: Army SBIR Office
2530 Crystal Drive, Suite 11192
Arlington, Virginia 22202

QUALIFICATIONS

Proposals will only be evaluated in response to an active, corresponding Army topic. Proposals will be initially screened to determine responsiveness, timeliness, compliance, and SBC eligibility. For purposes of this solicitation, these terms are defined as:

Responsiveness: A Responsive Proposal is one that indicates compliance without material deviation from the requirements of the solicitation and the terms and conditions of the proposed contract.

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.

Compliance: A Compliant proposal is one that includes a complete and accurate Disclosures of Foreign Affiliations or Relationships to Foreign Countries (Volume 7).

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

Proposals passing this initial screening will be technically evaluated by engineers or scientists, through a peer or scientific review process, to determine the most promising technical and scientific approaches. Assessment of responsiveness, compliance, and eligibility may continue during technical evaluation and after selection. Additionally, the SBC will be evaluated for responsibility, meaning the prospective SBC meets the standards set forth in [FAR 9.104](#). A prospective contractor must affirmatively demonstrate its responsibility, including, when necessary, the responsibility of its proposed subcontractors.

If at any point the proposal is deemed untimely, unresponsive, noncompliant, 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.

Interested firms shall follow the DoD SBIR Program BAA instructions as well as the Army's component-specific proposal instructions herein when preparing and submitting proposals. The DoD SBIR Program BAA, to include any amendments/revisions, can be found here: <https://www.defensesbirsttr.mil/SBIR-STTR/Opportunities/>.

The Government reserves the right to deem proposals unresponsive for failing to meet any of the requirements of the SBA SBIR/STTR Policy Directive, the DoD SBIR Program BAA instructions, the Army's component-specific proposal instructions herein, and/or in the topic itself. The following include, but are not limited to, the common reasons for which proposals are deemed unresponsive:

- Failure to possess an active and accurate registration through the System for Award Management (SAM);
- The proposal is missing required number of signatures and/or content;
- Minimum Performance Percentage of Work is not allocated properly;
- Work as proposed does not meet the definition of Research and Development required for funding;
- Proposal submitted beyond deadline;
- Commercialization Plan is submitted in a format other than the prescribed template at Appendix D – Commercialization Plan Template, enclosed herein;
- Cost/Price exceeds the stated award guideline limitation identified within the corresponding SBIR opportunity;
- The proposal exceeds the stated page count(s) or formatting requirements;
- Firm is NOT an eligible SBC;
- Firm does NOT meet the ownership and control requirements;
- Firm is 50% or more owned or managed by a corporate entity that is not a SBC;
- Firm will NOT perform the prescribed percentage of the research and/or analytical work;
- Primary employment of the Principal Investigator for this project is NOT with the firm;
- Firm has been convicted of a fraud-related crime;
- Principal Investigator or Corporate Official has been convicted of a fraud-related crime;
- Firm and affiliates employ more than 500 employees;
- Firm has been awarded a contract from the US Government for essentially equivalent work;
- Claiming data rights assertions in Volume 1 without including an assertion of use, release, or disclosure restriction in accordance with Defense Federal Acquisition Regulation Supplement (DFARS) 252.227- 7017) in Volume 5 – Supporting Documents;
- Lack of proper documentation for research utilizing human/animal subjects or recombinant DNA;
- Lack of information or negative information concerning use of foreign nationals;
- Offeror requests to award to a different firm/entity after proposal submission;
- Failure or refusal to submit certified or other than certified cost data in accordance with DFARS Clause 252.215-7010, Requirements for Certified Cost or Pricing Data and Data Other Than Certified Cost or Pricing Data; and/or
- Proposal is for a topic other than that which is identified

ELIGIBILITY

The Army's SBIR Program is subject to small business size, affiliation rules, and ownership or investment disclosure and registration requirements referenced in 13 C.F.R. §§ 121.701-705, Size and Eligibility

Requirements for the SBIR and STTR Programs, and the Small Business Administration's SBIR/STTR Program Policy Directive (MAY 2023). These eligibility requirements are unique and do not correspond to those of other small business programs.

Proposing SBCs may refer to 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 under this BAA. 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.

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

Proposing SBCs that are owned in majority part by multiple venture capital operating companies (VCOCs), hedge funds, or private equity funds are eligible to submit applications or receive awards for this topic.

- The proposing SBC shall identify each foreign national, foreign entity, or foreign government holding or controlling greater than a 5% equity stake in the proposing SBC, whether such equity stake is directly or indirectly held.
- The proposing SBC shall also identify any and all of its ultimate parent owner(s) and any other entities and/or individuals owning more than a 5% equity stake in its chain of ownership.

VCOCs, hedge funds and private equity firms are allowed to hold minority shares of SBIR/STTR awardee so long as they do not have control of the awardee company and so long as their affiliation with the awardee, if any, does not put the awardee firm over the size limit.

If the VCOC is itself more than 50% directly owned and controlled by one or more individuals who are citizens or permanent resident aliens of the United States, the VCOC is allowed to have majority ownership and control of the awardee. In that case, the VCOC and the awardee, and all other affiliates, shall have a total of 500 employees or less.

Representations Through the System for Award Management (SAM)

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 (CAGE) Code
- 12-Digit Unique Entity Identifier (UEI)
- Legal Business Name
- "Doing Business As" (DBA)

- 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.

The purpose of electronic Representations and Certifications (Reps/Certs) is to provide all Offerors with a portal in which to submit Reps/Certs in a publicly accessible format, nullifying the requirement to submit identical information in response to each and every Federal contract solicitation. SAM allows proposing SBCs interested in conducting business with the federal government to provide basic information on business structure and capabilities as well as financial and payment information.

Interested SBCs are required to be registered and active in [SAM](#) in accordance with [FAR Provision 52.204-7](#) 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.

Firms are reminded to update SAM data as necessary, ensuring their Reps/Certs reflect the proper North American Industry Classification System (NAICS) code and Product and Service Code (PSC) supporting this effort:

NAICS: 541715, Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)

PSC: AC11, National Defense R&D Services; Department of Defense - Military; Basic Research; AND AC12, National Defense R&D Services; Department of Defense - Military; Applied Research

SBCs may only submit offers using their legal business name or DBA name, as indicated in the SAM registration for the provided UEI. A firm submitting an offer using a DBA name must have the DBA registered and linked to their SAM registration. An offer submitted using a DBA that is different from the firm's legal, registered name, and not identified in SAM shall be disqualified/rejected from consideration. 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 representations and certifications will be deemed ineligible.

EXPORT CONTROL

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, [JCP Portal](#). Failure to complete the DD Form 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, [SNAP-R](#). 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.

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.

RESEARCH THAT UTILIZES HUMAN/ANIMAL SUBJECTS OR RECOMBINANT DNA

Research Involving Human Subjects.

Research involving human subjects, including use of human biological specimens and human data, in accordance with 32 CFR Part 219, DoD Directive 3216.02, and 10 U.S.C. 980, including research that meets exemption criteria under 32 CFR 219.101(b), is prohibited under Army Phase I SBIR contracts. Proposed Army Phase II SBIR work shall not include research involving human subjects, including use of human biological specimens and human data, in accordance with 32 CFR Part 219, DoD Directive 3216.02, and 10 U.S.C. 980, including research that meets exemption criteria under 32 CFR 219.101(b), unless expressly allowed in the topic. If Phase I or not expressly allowed in the topic for Phase II, proposals with activities involving human subjects will be deemed unresponsive at any time throughout proposal evaluation and analysis.

If a Phase II SBIR proposal is submitted under a topic that allows the involvement of human subjects, including use of human biological specimens and human data, the offeror shall abide by DoD SBIR 25.4 Program BAA, to include any amendments/revisions, definitions and section 4.9, Research Involving Human Subjects; shall clearly segregate research activities involving human subjects from other research and development activities in its proposal; shall follow DFARS clause 252.235-7004, Protection of Human Subjects; and shall obtain all required approvals. It is the responsibility of the SBC to obtain Institutional Review Board (IRB) and Human Research Protection Official (HRPO) approvals. Ample time (four to eight months) should be allotted to complete both the IRB and HRPO approval processes. As such, SBCs shall begin the approval process during Phase I performance to be prepared for a possible Phase II contract. No funding can be used towards human subject research until ALL approvals are granted. Failure to provide such documentation in a timely manner will significantly delay Phase II contract award, become grounds for cancellation of the contract action, or become grounds for termination of an existing contract.

Research Involving Animal Subjects.

Research involving animal subjects is prohibited under Army Phase I SBIR contracts. Proposed Army Phase II SBIR work shall not include research involving animal subjects unless expressly allowed in the topic. If Phase I or not expressly allowed in the topic for Phase II, proposals with activities involving animal subjects will be deemed unresponsive at any time throughout proposal evaluation and analysis.

If a Phase II SBIR proposal is submitted under a topic that allows the involvement of animal subjects, the offeror shall abide by DoD SBIR 25.4 Program BAA, to include any amendments/revisions, definitions and section 4.10, Research Involving Animal Subjects; shall clearly segregate research activities involving animal subjects from other research and development activities in its proposal; shall include plans for Institutional Animal Care and Use Committee (IACUC) review and approval in its proposal; shall follow DFARS clause 252.235-7002, Animal Welfare; and shall obtain all required approvals, including secondary or headquarters-level approval by a DoD/Army veterinarian who is trained or experienced in laboratory animal medicine and science. SBCs shall begin the approval process during Phase I performance to be prepared for a possible Phase II contract. No animal research may be conducted using DoD funding until all the appropriate DoD office(s) grant approval. Failure to obtain approvals 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.

Research Involving Recombinant DNA.

Research involving recombinant DNA is prohibited under Army Phase I SBIR contracts. Proposed Army Phase II SBIR work shall not include research involving recombinant DNA unless expressly allowed in the topic. If Phase I or not expressly allowed in the topic for Phase II, proposals with activities involving recombinant DNA will be deemed unresponsive.

If a Phase II SBIR proposal is submitted under a topic that allows the involvement of recombinant DNA, the offeror shall abide by DoD SBIR 25.4 Program BAA, to include any amendments/revisions, definitions and section 4.11; shall clearly segregate research activities involving recombinant DNA from other research and development activities in its proposal; and shall obtain all required approvals. SBCs shall begin the approval process during Phase I performance to be prepared for a possible Phase II contract. No research involving recombinant DNA may be conducted using DoD funding until all the appropriate approvals are granted. Failure to obtain approvals 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.

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:

1. References:
 - a. MIL-STD-1168 - Ammunition Lot Numbering and Ammunition Data Cards
 - b. DODM 5100.76 - Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives (AA&E)
 - c. AR 190-11 - Physical Security of Arms, Ammunition, and Explosives
 - d. Defense Transportation Regulation 4500.9-R
 - e. Technical Bulletin (TB) 700-2
2. The offeror, in its proposal, and resulting contractor, in performance of the work, shall comply with the requirements of the following DFARS provisions/clauses:
 - a. 252.223-7002, Safety Precautions for Ammunition and Explosives (NOV 2023);
 - b. 252.223-7003, Change in Place of Performance-Ammunition and Explosives (DEC 1991); and
 - c. 252.223-7007, Safeguarding Sensitive Conventional Arms, Ammunition, and Explosives (NOV 2023).
3. 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".
4. 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.
5. 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.
6. 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.
 - a. 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.
 - b. 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

7. 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.
- a. Firm Name
 - b. Identify if the firm is the prime-contractor or sub-contractor
 - c. Place of Performance (Street Address, City, State, County, ZIP Code)
 - d. Unique Entity Identification (UEI) and Cage Code
 - e. Confirm that address and cage code match the information in SAM.gov (“unknown” is an acceptable response if unable to look up sub-contractors)
 - f. Full name, phone number, and email address for a point of contact at this location
 - g. Description of the AA&E and/or work involving AA&E
 - h. National Stock Number (NSN) of the AA&E (if none exist, indicate “N/A”)
 - i. 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)
 - j. 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)
 - k. 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

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 DA 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. Under this release, the Department of the Army will accept Phase I proposals for the cost of up to \$250,000 for up to a 6-month period of performance and Direct to Phase II proposals for the cost of up to \$2,000,000 for a 24-month period of performance. Unless expressly stated in the SBIR Topic announcement, proposals exceeding these limitations shall be deemed unresponsive.
 - i. Fee or Profit. The SBA SBIR Policy Directive states, “Except as expressly excluded or limited by statute, awarding agencies must provide for a reasonable fee or profit on SBIR

Funding Agreements.” As such, the Government reserves the right to deem any proposal that fails to account for reasonable profit or fee, as unresponsive.

- d. Timing: Proposing small business concerns will be notified of selection or non-selection status for award by the DoD Component that originated the topic within 90 days of the closing date for the topic. For pricing purposes, offerors shall assume a contract \ start date of approximately 180 calendar days after the closing date of the solicitation (in accordance with the SBA SBIR Policy Directive paragraph 7(c)(1)(ii)).

CONTRACT REQUIREMENTS

In addition to the contractual requirements specified at section 8.0, ‘Contractual Requirements’, of the DoD 25.4 SBIR Program BAA, awards under the Army SBIR Program are also subject to the following:

1. DELIVERABLE REQUIREMENTS

- a) Hardware (Prototype) Deliverables (if applicable): 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 [DFARS Clause 252.211- 7003, Item Unique Identification and Valuation](#). More information regarding item identification and valuation requirements may be found at [DFARS Section 211.274](#).
- b) Data Deliverables (Contract Data Requirements Lists – CDRLS):
Data can be in the form of test data, computer software, algorithms, design details, progress reports, technical data, financial or management reports, or any information required by contract to be delivered. 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. Each DID is uniquely numbered to identify the data deliverables in terms of purpose, description, requirements, and preparation instructions. DIDs may be viewed using the Acquisition Streamlining and Standardization Information System (ASSIST).

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

- 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.
- 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).
- 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.

c) 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:

- 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.
- 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.

d) SBIR Funding Agreement Certification – Life-Cycle Certification: In accordance with 13 C.F.R. §§ 121.701-705 and §8(j) of the SBIR/STTR Policy Directive, the following apply:

- Under a SBIR Phase I contract, the contractor shall submit a [SBIR Funding Agreement Certification – Life Cycle Certification](#), 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 [SBIR Funding Agreement Certification – Life Cycle Certification](#), 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.

2. MEETING REQUIREMENTS

At a minimum, the following meetings will be required:

- 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.

- 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.

PHASE I PROPOSAL INSTRUCTIONS

The DSIP is the official portal for DoD SBIR/STTR proposal submission. Proposers/Offerors 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 the DoD SBIR Program BAA.

Phase I proposal submissions under these component-specific proposal instructions shall include the following:

- Volume 1: Proposal Coversheet
- Volume 2: Technical Volume
- Volume 3: Cost Volume
- Volume 4: Company Commercialization Report (Auto generated for prior Federal SBIR or STTR awardees)
- Volume 5: Supporting Documents
- Volume 6: Fraud, Waste, and Abuse Training Certificate
- Volume 7: Disclosure of Foreign Affiliations or Relationships to Foreign Countries

Volume 1 - Proposal Coversheet

The proposal coversheet shall follow the instructions and requirements provided in the DoD SBIR 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.

Volume 2 - Technical Volume

The following instructions supersede those stated in Appendix A of the DoD SBIR 25.4 Program BAA.

The Technical Volume shall not exceed five (5) pages and shall follow the formatting requirements provided in the DoD SBIR 25.4 Program BAA. Any proposals submitted in a different format or exceeding the page count limits will be deemed unresponsive. The technical volume shall contain two (2) key parts: technical approach and team qualifications, described in further detail below.

Volume 2, Part 1. 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 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 section. As a reminder, research or activities involving Human/Animal Subjects and/or Recombinant DNA is prohibited in Army Phase I SBIR contracts.

Volume 2, Part 2. 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. Further, if proposing the use of Foreign National personnel as defined in Appendix B of the DoD SBIR 25.4 Program BAA, offerors shall specify each Foreign National's country of origin, the type of visa or work permit under which they are performing, and provide an explanation of their anticipated level of involvement on this project - Offerors may be asked to provide additional information during negotiations in order to verify the foreign citizen's eligibility to participate in the SBIR. 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).

Volume 3 - Cost Volume

The Cost Volume shall follow all instructions and requirements provided in the DoD SBIR Program BAA. The following instructions supersede those stated in the DoD SBIR 25.4 Program BAA.

Unless otherwise noted in the Topic, Phase I proposals shall not exceed the funding and period of performance limits identified in the section herein titled 'Anticipated Funding Agreement Structure' Proposals exceeding these limits shall be deemed unresponsive. Phase I 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 on the Proposal Cover Sheet (Volume 1) and in Volume 3.

For pricing purposes, offerors shall assume a contract or agreement start date of approximately 180 calendar days after the closing date of the solicitation (in accordance with SBIR/STTR Policy Directive paragraph 7(c)(1)(ii)).

In the event that adequate price competition, as defined in FAR 15.403-1(1), is not realized, the Government will conduct additional proposal analysis, in accordance with the techniques identified at FAR 15.404-1. In accordance with FAR 15.402(a), Contracting officers shall purchase supplies and services from responsible sources at fair and reasonable prices. Proposals lacking a fair and reasonable price will also be deemed unsuccessful.

Volume 3 - Content of the Cost Volume

ALL proposed costs shall be accompanied by documentation to substantiate how the cost was derived. For example, if you proposed travel costs to attend a project-related meeting or conference, and used a travel website to compare flight costs, include a screenshot 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 explain your decision to choose one item or supplier over another. It's important to provide enough information to allow evaluators and contracting personnel to understand how the proposer plans to use the requested funds. Some items in the cost breakdown may not apply to the proposed project. If that is the case, there is no need to provide information on each and every item. 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.

Cost Breakdown Guidance:

- **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:**
 - 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.
 - The Offeror shall provide the basis for establishing the reasonableness of price through price analysis. Proposing firms shall provide substantiating documentation for the costs (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:** A subcontract is any contract as defined at FAR 2.101, other than one involving an employer-employee relationship, entered into by the prime contractor (awardee) calling for supplies or services for the performance of the contract.
 - Provide data showing the degree of Subcontractor competition and the basis for establishing the source and reasonableness of price through price analysis.
 - All subcontractor costs and consultant costs, such as labor, travel, equipment, materials, shall be detailed at the same level as prime contractor costs. Provide

detailed substantiation of subcontractor costs in your cost proposal.

- Percentage of Work Requirement: For Phase I, the offeror shall perform a minimum of two-thirds (66.66%) of the research and/or analytical effort. One third (33.33%) may be subcontracted to another firm or research organization/facility. The percentage of work is measured by both direct and indirect costs.
 - Offerors shall not propose to subcontract to the issuing agency, to any other Federal Government agency, or to other units of the Federal Government, except Federal Laboratories in rare circumstances. 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 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. Failure to submit proper justification in a timely manner will be grounds for an unresponsive proposal..
- TRAVEL:
 - 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.). NOTE: Virtual meetings shall be utilized to the maximum extent practicable.
 - 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:
 - 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.

- 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.

Volume 4 - Company Commercialization Report (CCR)

Completion of the CCR as Volume 4 of the proposal submission in DSIP is required for prior SBIR/STTR awardees. Please refer to the DoD SBIR Program BAA for full details on this requirement. Information contained in the CCR will be considered by the Department of the Army during proposal evaluations.

Volume 5 - Supporting Documents

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).

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

1. Proposing SBCs shall submit an eight (8) slide Commercialization Plan, utilizing the template found at Appendix D – Commercialization Plan Template attached hereto. The offeror shall convert the Commercialization Plan to a Portable Document Format (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 Appendix D – Commercialization Plan Template, shall be deemed unresponsive. The Commercialization Plan content requirements, as described at Appendix D, include:
 - a. SBIR Project Title: Opening slide that includes the SBIR project title, principal investigator name/title key (or other relevant) personnel, and subcontractors, firm name, topic number, and proposal number.
 - b. Bottom Line Up Front (BLUF): Slide that outlines/summarizes key areas of the Commercialization Plan.
 - c. Company Information & Background: Focused objectives/core competencies; Specialization area(s); Products with significant sales; Concise history of previous Federal and non-Federal funding, Regulatory experience (if applicable), Past commercialization successes; and Past failure and how your firm overcame.
 - d. Customer and Competition: Clear description of key technology objectives; Current competition and/or alternative solutions; Advantages of company's solution compared to competing products or services; Description of hurdles to acceptance of the proposed innovation; and Description of possible areas where your technology may be utilized or is underutilized.
 - e. Market: Provide an analysis of market size, and estimated market share after first year sales and after 5 years; Explain milestones target dates of plan to obtain market share; Respond to specific questions regarding your qualifications and approach to bring the product to market
 - f. 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 temporal competitive advantage; Describe how you will protect the intellectual property that enables commercialization of its products while keeping competitors at bay. **Note:** This

cannot conflict with the final negotiated assertion of use, release, or disclosure restriction (in accordance with DFARS 252.227- 7017), if any.

- g. Financing: Plans for securing necessary non-SBIR funding; Describe your firm's revenue stream generation.
- h. Assistance and mentoring: Plans for securing needed technical or business assistance through mentoring, partnering, or through arrangements with government sponsored (e.g., State assistance programs, Federally-funded research laboratories, Manufacturing Extension Partnership centers), not-for-profits (e.g., SBDC), commercial accelerators, DOD Prime Contractors, or other assistance provider.

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

- 2. Verification of Eligibility of Small Business Joint Ventures (Attachment 3 of the DoD 25.4 SBIR Program BAA), if applicable (reference section 4.4 of the DoD 25.4 SBIR Program BAA)
- 3. Assertion of use, release, or disclosure restriction (in accordance with DFARS 252.227- 7017), if applicable (reference Technical Data Rights section of the DoD 25.4 SBIR Program BAA)
- 4. Justification for SBC-selected TABA vendor

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

- 5. Cost/Pricing Information
- 6. [SBIR Funding Agreement Certification](#)
- 7. Other (only as specified in the topic)

Please only submit documents that are identified immediately above, and as required by the DoD SBIR Program BAA. All other documents submitted will be disregarded, including but not limited to promotional and non-project related information. Information provided via Universal Resource Locator (URL) links or on computer disks, CDs, DVDs, video tapes or any other medium will not be accepted or considered in the proposal evaluation.

Volume 6 Fraud, Waste and Abuse Training

Follow instructions provided in the DoD Program BAA for completion of the Fraud, Waste and Abuse training in 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. Do not upload any previous versions of this form to Volume 5. For additional details, please refer to the DoD Program BAA.

DIRECT TO PHASE II (DP2) PROPOSAL INSTRUCTIONS

The DSIP is the official portal for DoD SBIR/STTR proposal submission. Proposers/Offerors 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 the DoD SBIR Program BAA.

Offerors may submit DP2 proposals only if allowed pursuant to the topic posting. For topics eligible for DP2 proposal submission under these component-specific proposal instructions, proposals shall include the following:

- Volume 1: Proposal Coversheet
- Volume 2: Technical Volume
- Volume 3: Cost Volume
- Volume 4: Company Commercialization Report (Auto generated for prior Federal SBIR or STTR awardees)
- Volume 5: Supporting Documents
- Volume 6: Fraud, Waste, and Abuse Training Certificate
- Volume 7: Disclosure of Foreign Affiliations or Relationships to Foreign Countries

With the exception of the DP2 component specific proposal instructions identified below, DP2 Proposals shall follow the Phase I Proposal instructions described in the DoD SBIR 25.4 Program BAA.

Volume 1 - Proposal Coversheet

The proposal coversheet shall follow the instructions and requirements provided in the DoD SBIR 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.

Volume 2 - Technical Volume

The following instructions supersede those stated in the DoD SBIR 25.4 Program BAA.

The Technical Volume shall include two (2) sections, and is subject to a total page limit of 15 pages broken down as follows:

- A. Feasibility Documentation (five (5) pages maximum);
- B. Technical Proposal (10 pages maximum)

Volume 2A, Feasibility Documentation

Feasibility documentation shall not exceed five (5) pages in length. Any proposals exceeding the page count limits will neither be evaluated nor considered for award.

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 not exceed 10 pages and shall follow the formatting requirements provided in the DoD SBIR 25.4 Program BAA. Any proposals submitted in a different format or exceeding the page count limits will neither be evaluated nor considered for award. The technical proposal shall contain two key parts: (1) technical approach and (2) team qualifications.

Volume 2B, Part 1. 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. 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.

Volume 2B, Part 2. 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. Further, if proposing the use of Foreign National personnel as defined in Appendix B of the DoD SBIR 25.4 Program BAA, offerors shall specify each Foreign National's country of origin, the type of visa or work permit under which they are performing and provide an explanation of their anticipated level of involvement on this project. Offerors may be asked to provide additional information during negotiations in order to verify the foreign citizen's eligibility to participate in the SBIR. 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).

Volume 3 - Cost Volume

The Cost Volume shall follow all instructions and requirements provided in the DoD SBIR Program BAA. The following instructions supersede those stated in the DoD SBIR 25.4 Program BAA.

DP2 proposals shall not exceed the funding and period of performance limits identified in the section herein titled 'Anticipated Funding Agreement Structure.' Proposals exceeding these limits shall be deemed unresponsive. Proposers are required to use the Cost Proposal method as provided on the DSIP

submission site. The Cost Volume (and supporting documentation) DOES NOT count toward the page limit of the Technical Volume.

For pricing purposes, offerors shall assume a contract or agreement start date of approximately 180 calendar days after the closing date of the solicitation (in accordance with SBIR/STTR Policy Directive paragraph 7(c)(1)(ii)).

In the event that adequate price competition, as defined in FAR 15.403-1(1), is not realized, the Government will conduct additional proposal analysis, in accordance with the techniques identified at FAR 15.404-1. In accordance with FAR 15.402(a), Contracting officers shall purchase supplies and services from responsible sources at fair and reasonable prices. If the Contracting Officer is unable to deem the offeror as responsible (FAR 9.1), the proposal will be deemed unsuccessful. Proposals lacking a fair and reasonable price will also be deemed unsuccessful.

Volume 3 - Content of the Cost Volume

ALL proposed costs shall be accompanied by documentation to substantiate how the cost was derived. For example, if you proposed travel costs to attend a project-related meeting or conference, and used a travel website to compare flight costs, include a screenshot 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 explain your decision to choose one item or supplier over another. It's important to provide enough information to allow evaluators and contracting personnel to understand how the proposer plans to use the requested funds. Some items in the cost breakdown may not apply to the proposed project. If that is the case, there is no need to provide information on each and every item. 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.

Cost Breakdown Guidance:

- **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:**
 - 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.

- The Offeror shall provide the basis for establishing the reasonableness of price through price analysis. Proposing firms shall provide substantiating documentation for the costs (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: A subcontract is any contract as defined at FAR 2.101, other than one involving an employer-employee relationship, entered into by the prime contractor (awardee) calling for supplies or services for the performance of the contract.
 - Provide data showing the degree of Subcontractor competition and the basis for establishing the source and reasonableness of price through price analysis.
 - All subcontractor costs and consultant costs, such as labor, travel, equipment, materials, shall be detailed at the same level as prime contractor costs. Provide detailed substantiation of subcontractor costs in your cost proposal.
 - Percentage of Work Requirement: For DP2, the offeror shall perform a minimum of one-half (50%) of the research and/or analytical effort. The percentage of work is measured by both direct and indirect costs.
 - Offerors shall not propose to subcontract to the issuing agency, to any other Federal Government agency, or to other units of the Federal Government, except Federal Laboratories in rare circumstances. 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 DoD SBIR 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. Failure to submit proper justification in a timely manner will be grounds for an unresponsive proposal.
- TRAVEL:
 - 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.). NOTE: Virtual meetings shall be utilized to the maximum extent practicable.
 - 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:
 - 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.
 - If a 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.

Volume 4 - Company Commercialization Report (CCR)

Completion of the CCR as Volume 4 of the proposal submission in DSIP is required for prior SBIR/STTR awardees. Please refer to the DoD SBIR Program BAA for full details on this requirement. Information contained in the CCR will be considered by the Department of the Army during proposal evaluations.

Volume 5 - Supporting Documents

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).

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

1. Proposing SBCs shall submit an eight (8) slide Commercialization Plan, utilizing the template

found at Appendix D – 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 Appendix D – Commercialization Plan Template, shall be deemed unresponsive. The Commercialization Plan content requirements, as described at Appendix D, include:

- a. SBIR Project Title: Opening slide that includes the SBIR project title, principal investigator name/title key (or other relevant) personnel, and subcontractors, firm name, topic number, and proposal number.
- b. Bottom Line Up Front (BLUF): Slide that outlines/summarizes key areas of the Commercialization Plan.
- c. Company Information & Background: Focused objectives/core competencies; Specialization area(s); Products with significant sales; Concise history of previous Federal and non-Federal funding, Regulatory experience (if applicable), Past commercialization successes; and Past failure and how your firm overcame.
- d. Customer and Competition: Clear description of key technology objectives; Current competition and/or alternative solutions; Advantages of company's solution compared to competing products or services; Description of hurdles to acceptance of the proposed innovation; and Description of possible areas where your technology may be utilized or is underutilized.
- e. Market: Provide an analysis of market size, and estimated market share after first year sales and after 5 years; Explain milestones target dates of plan to obtain market share; Respond to specific questions regarding your qualifications and approach to bring the product to market
- f. 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 temporal competitive advantage; Describe how you will protect the intellectual property that enables commercialization of its products while keeping competitors at bay. **Note:** This cannot conflict with the final negotiated assertion of use, release, or disclosure restriction (in accordance with DFARS 252.227- 7017), if any.
- g. Financing: Plans for securing necessary non-SBIR funding; Describe your firm's revenue stream generation.
- h. Assistance and mentoring: Plans for securing needed technical or business assistance through mentoring, partnering, or through arrangements with government sponsored (e.g., State assistance programs, Federally-funded research laboratories, Manufacturing Extension Partnership centers), not-for-profits (e.g., SBDC), commercial accelerators, DOD Prime Contractors, or other assistance provider.

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

2. Verification of Eligibility of Small Business Joint Ventures (Attachment 3 of the DoD 25.4 SBIR Program BAA), if applicable (reference section 4.4 of the DoD 25.4 SBIR Program BAA)
3. Assertion of use, release, or disclosure restriction (in accordance with DFARS 252.227- 7017), if applicable (reference Technical Data Rights section of the DoD 25.4 SBIR Program BAA)
4. Justification for SBC-selected TABA vendor

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

5. Cost/Pricing Information
6. [SBIR Funding Agreement Certification](#)
7. Other (only as specified in the topic)

Please only submit documents that are identified immediately above, and as required by the DoD SBIR Program BAA. All other documents submitted will be disregarded, including but not limited to promotional and non-project related information. Information provided via URL links or on computer disks, CDs, DVDs, video tapes or any other medium will not be accepted or considered in the proposal evaluation.

Volume 6 - Fraud, Waste and Abuse Training

Follow instructions provided in the DoD Program BAA for completion of the Fraud, Waste and Abuse training in 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. Do not upload any previous versions of this form to Volume 5. For additional details, please refer to the DoD Program BAA.

DISCRETIONARY TECHNICAL AND BUSINESS ASSISTANCE

The Army, at its discretion, may provide Technical and Business Assistance (TABA). The Army will select a preferred vendor(s) for the Army SBIR TABA program through a competitive process. Alternately, a SBC may, by subcontract or otherwise, select one or more vendors to assist the firm in meeting the TABA goals. The Applicant must request the authority to select its own TABA provider in its Army SBIR proposal and must demonstrate that the vendor is *uniquely* postured to provide the specific technical and business services required by providing documentation in Volume 5, Supporting Documentation. TABA funding will be denied if the offeror fails to include the cost and detailed explanation in its proposal. If you prefer to use the Army preferred vendor, you may opt for that support after selection if chosen to receive a contract award.

Participation in the Army SBIR TABA program is voluntary for each Army SBIR awardee. Services provided to Army SBIR firms under the auspices of the TABA program may include, but are not limited to:

1. Access to a network of scientists, engineers, and technologists focused on commercialization and transition considerations such as protected supply chain management, advanced manufacturing, process/product/production scaling, etc.;
2. Assistance with intellectual property protections, such as legal considerations, intellectual property rights, patent filing, patent fees, licensing considerations, etc.;
3. Commercialization and technology transition support such as market research, market validation, development of regulatory or manufacturing plans, brand development; and
4. Regulatory support such as product domain regulatory considerations, regulatory planning, and regulatory strategy development.

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

- Phase I Firms:
 - Army-Preferred Vendor: If approved, the contractor may receive up to \$6,500 worth of assistance services per project (in addition to the maximum value identified in the ‘Anticipated Funding Agreement Structure’ section herein).
 - Firm-Selected Vendor: If approved, the contractor may receive up to \$6,500 in contract obligation (in addition to the maximum value identified in the ‘Anticipated Funding Agreement Structure’ section herein) per project.
- Phase II Firms:
 - Army-Preferred Vendor: If approved, the contractor may receive up to \$50,000 worth of assistance services per project (in addition to the maximum value identified in the ‘Anticipated Funding Agreement Structure’ section herein).
 - Firm-Selected Vendor: If approved, the contractor may receive up to \$50,000 in contract obligation (must be included as part of the maximum value identified in the ‘Anticipated Funding Agreement Structure’ section herein) per project.

EVALUATION AND SELECTION

The Army shall conduct an evaluation of proposals in accordance with the evaluation criteria listed in the DoD SBIR 25.4 Program BAA, as supplemented by the component-specific instructions herein ([Appendix A, B & C](#), as applicable). 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. 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 opportunity.

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

Consistent with the instructions and evaluation criteria specified in the DoD SBIR 25.4 Program BAA, as supplemented by the component-specific instructions herein (e.g. [Appendix A, B & C](#), as applicable), and the corresponding Topic posting, proposals selected for further consideration of possible contract award are those that, through a peer or scientific review, have been determined to be a best value to the Government, as they have demonstrated the strongest understanding of the problem to be solved, offered the most capable solutions with the greatest overall benefit and potential to meet the Government's requirement, and were determined to be the most advantageous to the Government.

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.

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.

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.

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: usarmy.SBIRSTTR@army.mil

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.

Appendix A

Phase I Evaluation Criteria

Army SBIR Phase I Proposal Review v2 Evaluation Criteria Defined



		DEFINITION
INTRODUCTION	<i>weight 5%</i>	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. At the scale of a single Army end-user, argue that their jobs or lives will be significantly improved if your solution is adopted. What is the impact of your solution for a soldier/Army civilian vs. today's solutions?
POTENTIAL FOR ARMY IMPACT	OPERATIONAL IMPACT	Here, we're looking for an idea of how broad the impact you described above could be. Look into the future to a time when your solution is both technically mature and actively in use by Army personnel. Describe the scale and scope of your impact within the context of the Army.
	POTENTIAL SCALE OF IMPACT	
TECHNICAL FEASIBILITY	SCIENTIFIC FEASIBILITY	Is the science behind the solution sound? Convince readers who don't have deep expertise in your field that your innovation is built atop sound scientific and engineering principles.
	ENABLING TECHNOLOGIES	Point to the foundational technologies that you rely on to deliver your solution. Do the required enabling technologies introduce added risk? Using proven (and ideally Army-fielded) underlying technologies and techniques helps to lower technical risk.
	ALTERNATIVE TECHNICAL APPROACHES	From a technologist's perspective, why is your proposed solution the best choice for the Army? Refute the alternative engineering approaches others are using. Why does your technology win?
	TECHNICAL RISK MITIGATION	No matter your current technology readiness level, technical risks remain. Identify those risks. Present a credible plan to tackle those risks.
TRANSITION	ARMY TRANSITION PATHWAY	Planning for success, what's next for you after this SBIR award? Describe the next type of deal you aim to make with the Army, e.g. a CRADA, a different SBIR contract, a CSO, etc. Briefly outline your current plan to unlock that next opportunity and/or share the biggest risks you see post this SBIR award.
	SBIR MILESTONE SCHEDULE	Please share with us a thoughtful execution plan. Strike a balance between giving us a sense of the detailed thinking behind the scenes and the need for your contracting officer to manage a reasonably small number of milestones during your period of performance.
FIRM CASH FLOW	FIRM SURVIVAL RISK	SBIR funds are meant to fuel growth rather than stave off a firm's impending financial failure. Demonstrate that your company will survive financially as a going concern through the early stages of a Phase III contract, sometimes referred to as "transitioning" into use by Army personnel.
	OTHER PEOPLE'S MONEY	Make the case that non-Army and/or non-DoD dollars will continue to fund improvements to your solution from which the Army will benefit in the future. Companies who cannot demonstrate non-Army and/or non-DoD funding sources for future solution enhancements are less attractive to the Applied SBIR program.
	FINANCIAL PROFIT POTENTIAL	Through the Applied SBIR program, the Army wants to take advantage of the speed and scalability of dual-use companies. Make your best case that your product is or will be profitable. If you have more than one product, please focus your argument on the product / solution presented for this SBIR program.
TEAM ABILITY	<i>weight 10%</i>	Prove your team has executed well as a group. Please draw clear distinctions between private sector, DoD and civilian government work. What milestones have you accomplished as a group in this company?
SUBMISSION QUALITY	QUALITY OF PROSE	Prove you write clearly. Prove you argue convincingly.
	DATA QUALITY & ATTRIBUTION	Support your arguments with relevant, properly attributed data to enhance your credibility.

Army SBIR Phase I Proposal Review v2 Evaluation Criteria



		UNSATISFACTORY	MARGINAL	SATISFACTORY	SUPERIOR
INTRODUCTION	<i>weight 5%</i>	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.
POTENTIAL FOR ARMY IMPACT	OPERATIONAL IMPACT	If successful, no improvement vs. existing technological approaches.	If successful, slight improvement vs. existing technological approaches.	If successful, significant improvement vs. existing technological approaches.	If successful, radical improvement vs. existing technological approaches.
<i>weight 25%</i>	POTENTIAL SCALE OF IMPACT	A fully deployed, mature solution could impact only niche use cases.	A fully deployed, mature solution could impact an Army element.	A fully deployed, mature solution could impact several Army elements.	A fully deployed, mature solution could have impact across the entire Army.
TECHNICAL FEASIBILITY	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.
	ALTERNATIVE TECHNICAL APPROACHES	No examination of alternatives.	Partially refutes alternatives.	Adequately refutes alternatives.	Persuasively refutes alternatives.
<i>weight 25%</i>	TECHNICAL RISK MITIGATION	Inappropriate next steps.	Somewhat appropriate next steps.	Appropriate next steps.	Highly appropriate next steps.
TRANSITION	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.
<i>weight 20%</i>	SBIR 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.
FIRM CASH FLOW	FIRM SURVIVAL RISK	Fails to demonstrate solvency through a Phase III.	Marginally demonstrates solvency through a Phase III.	Credibly demonstrates solvency through a Phase III.	Convincingly demonstrates solvency through a Phase III.
	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.
<i>weight 10%</i>	FINANCIAL PROFIT POTENTIAL	Product does not have a path to profitability.	Demonstrates product has a path to profitability.	Demonstrates product progressing toward profitability.	Demonstrates product has achieved profitability.
TEAM ABILITY	<i>weight 10%</i>	Evidence of marginal group execution.	Evidence of some group execution.	Evidence of impressive group execution.	Evidence of exceptional group execution.
SUBMISSION 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.
<i>weight 5%</i>	DATA QUALITY & ATTRIBUTION	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.

Appendix B

Direct to Phase II Evaluation Criteria

Army SBIR Direct to Phase II v2 Evaluation Criteria Defined



		DEFINITION
INTRODUCTION	<i>weight 2%</i>	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.
POTENTIAL FOR ARMY IMPACT	OPERATIONAL IMPACT	At the scale of a single Army end-user, argue that their jobs or lives will be significantly improved if your solution is adopted. What is the impact of your solution for a soldier/Army civilian vs. today's solutions?
	POTENTIAL SCALE OF IMPACT	Here, we're looking for an idea of how broad the impact you described above could be. Look into the future to a time when your solution is both technically mature and actively in use by Army personnel. Describe the scale and scope of your impact within the context of the Army.
TECHNICAL FEASIBILITY	SCIENTIFIC FEASIBILITY	Is the science behind the solution sound? Convince readers who don't have deep expertise in your field that your innovation is built atop sound scientific and engineering principles.
	ENABLING TECHNOLOGIES	Point to the foundational technologies that you rely on to deliver your solution. Do the required enabling technologies introduce added risk? Using proven (and ideally Army-fielded) underlying technologies and techniques helps to lower technical risk.
	ALTERNATIVE TECHNICAL APPROACHES	From a technologist's perspective, why is your proposed solution the best choice for the Army? Refute the alternative engineering approaches others are using. Why does your technology win?
	TECHNICAL RISK MITIGATION	No matter your current technology readiness level, technical risks remain. Identify those risks. Present a credible plan to tackle those risks.
TRANSITION	ARMY TRANSITION PATHWAY	Planning for success, what's next for you after this SBIR award? Describe the next type of deal you aim to make with the Army, e.g. a CRADA, a different SBIR contract, a CSO, etc. Briefly outline your current plan to unlock that next opportunity and/or share the biggest risks you see post this SBIR award.
	SBIR MILESTONE SCHEDULE	Please share with us a thoughtful execution plan. Strike a balance between giving us a sense of the detailed thinking behind the scenes and the need for your contracting officer to manage a reasonably small number of milestones during your period of performance.
FIRM CASH FLOW	FIRM SURVIVAL RISK	SBIR funds are meant to fuel growth rather than stave off a firm's impending financial failure. Demonstrate that your company will survive financially as a going concern through the early stages of a Phase III contract, sometimes referred to as "transitioning" into use by Army personnel.
	OTHER PEOPLE'S MONEY	Make the case that non-Army and/or non-DoD dollars will continue to fund improvements to your solution from which the Army will benefit in the future. Companies who cannot demonstrate non-Army and/or non-DoD funding sources for future solution enhancements are less attractive to the Applied SBIR program.
	FINANCIAL PROFIT POTENTIAL	Through the Applied SBIR program, the Army wants to take advantage of the speed and scalability of dual-use companies. Make your best case that your product is or will be profitable. If you have more than one product, please focus your argument on the product / solution presented for this SBIR program.
TEAM ABILITY	<i>weight 10%</i>	Prove your team has executed well as a group. Please draw clear distinctions between private sector, DoD and civilian government work. What milestones have you accomplished as a group in this company?
SUBMISSION QUALITY	QUALITY OF PROSE	Prove you write clearly. Prove you argue convincingly.
	DATA QUALITY & ATTRIBUTION	Support your arguments with relevant, properly attributed data to enhance your credibility.

Army SBIR Direct to Phase II v2 Evaluation Criteria



		UNSATISFACTORY	MARGINAL	SATISFACTORY	SUPERIOR
INTRODUCTION	<i>weight 2%</i>	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.
POTENTIAL FOR ARMY IMPACT	OPERATIONAL IMPACT	If successful, no improvement vs. existing technological approaches.	If successful, slight improvement vs. existing technological approaches.	If successful, significant improvement vs. existing technological approaches.	If successful, radical improvement vs. existing technological approaches.
<i>weight 20%</i>	POTENTIAL SCALE OF IMPACT	A fully deployed, mature solution could impact only niche use cases.	A fully deployed, mature solution could impact an Army element.	A fully deployed, mature solution could impact several Army elements.	A fully deployed, mature solution could have impact across the entire Army.
TECHNICAL FEASIBILITY	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.
	ALTERNATIVE TECHNICAL APPROACHES	No examination of alternatives.	Partially refutes alternatives.	Adequately refutes alternatives.	Persuasively refutes alternatives.
<i>weight 30%</i>	TECHNICAL RISK MITIGATION	Inappropriate next steps.	Somewhat appropriate next steps.	Appropriate next steps.	Highly appropriate next steps.
TRANSITION	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.
<i>weight 20%</i>	SBIR 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.
FIRM CASH FLOW	FIRM SURVIVAL RISK	Fails to demonstrate solvency through a Phase III.	Marginally demonstrates solvency through a Phase III.	Credibly demonstrates solvency through a Phase III.	Convincingly demonstrates solvency through a Phase III.
	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.
<i>weight 15%</i>	FINANCIAL PROFIT POTENTIAL	Product does not have a path to profitability.	Demonstrates product has a path to profitability.	Demonstrates product progressing toward profitability.	Demonstrates product has achieved profitability.
TEAM ABILITY	<i>weight 10%</i>	Evidence of marginal group execution.	Evidence of some group execution.	Evidence of impressive group execution.	Evidence of exceptional group execution.
SUBMISSION 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.
<i>weight 3%</i>	DATA QUALITY & ATTRIBUTION	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.

Appendix C

Phase II Evaluation Criteria

Army SBIR Phase II Proposal Review v3 Evaluation Criteria Defined



		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.
POTENTIAL FOR ARMY IMPACT	OPERATIONAL IMPACT	At the scale of a single Army end-user, argue that their jobs or lives will be significantly improved if your solution is adopted. What is the impact of your solution for a soldier/Army civilian vs. today's solutions?
	POTENTIAL SCALE OF IMPACT	Here, we're looking for an idea of how broad the impact you described above could be. Look into the future to a time when your solution is both technically mature and actively in use by Army personnel. Describe the scale and scope of your impact within the context of the Army.
TECHNICAL FEASIBILITY	SCIENTIFIC FEASIBILITY	Is the science behind the solution sound? Convince readers who don't have deep expertise in your field that your innovation is built atop sound scientific and engineering principles.
	ENABLING TECHNOLOGIES	Point to the foundational technologies that you rely on to deliver your solution. Do the required enabling technologies introduce added risk? Using proven (and ideally Army-fielded) underlying technologies and techniques helps to lower technical risk.
	ALTERNATIVE TECHNICAL APPROACHES	From a technologist's perspective, why is your proposed solution the best choice for the Army? Refute the alternative engineering approaches others are using. Why does your technology win?
	TECHNICAL RISK MITIGATION	No matter your current technology readiness level, technical risks remain. Identify those risks. Present a credible plan to tackle those risks.
TRANSITION	ARMY TRANSITION PATHWAY	Planning for success, what's next for you after this SBIR award? Describe the next type of deal you aim to make with the Army, e.g. a CRADA, a different SBIR contract, a CSO, etc. Briefly outline your current plan to unlock that next opportunity and/or share the biggest risks you see post this SBIR award.
	SBIR MILESTONE SCHEDULE	Please share with us a thoughtful execution plan. Strike a balance between giving us a sense of the detailed thinking behind the scenes and the need for your contracting officer to manage a reasonably small number of milestones during your period of performance.
FIRM CASH FLOW	FIRM SURVIVAL RISK	SBIR funds are meant to fuel growth rather than stave off a firm's impending financial failure. Demonstrate that your company will survive financially as a going concern through the early stages of a Phase III contract, sometimes referred to as "transitioning" into use by Army personnel.
	OTHER PEOPLE'S MONEY	Make the case that non-Army and/or non-DoD dollars will continue to fund improvements to your solution from which the Army will benefit in the future. Companies who cannot demonstrate non-Army and/or non-DoD funding sources for future solution enhancements are less attractive to the Applied SBIR program.
	FINANCIAL PROFIT POTENTIAL	Through the Applied SBIR program, the Army wants to take advantage of the speed and scalability of dual-use companies. Make your best case that your product is or will be profitable. If you have more than one product, please focus your argument on the product / solution presented for this SBIR program.
TEAM ABILITY	weight 10%	Prove your team has executed well as a group. Please draw clear distinctions between private sector, DoD and civilian government work. What milestones have you accomplished as a group in this company?
SUBMISSION QUALITY	QUALITY OF PROSE	Prove you write clearly. Prove you argue convincingly.
	DATA QUALITY & ATTRIBUTION	Support your arguments with relevant, properly attributed data to enhance your credibility.

Army SBIR Phase II Proposal Review v3 Evaluation Criteria



		UNSATISFACTORY	MARGINAL	SATISFACTORY	SUPERIOR
INTRODUCTION	<i>weight 2%</i>	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.
POTENTIAL FOR ARMY IMPACT	OPERATIONAL IMPACT	If successful, no improvement vs. existing technological approaches.	If successful, slight improvement vs. existing technological approaches.	If successful, significant improvement vs. existing technological approaches.	If successful, radical improvement vs. existing technological approaches.
<i>weight 20%</i>	POTENTIAL SCALE OF IMPACT	A fully deployed, mature solution could impact only niche use cases.	A fully deployed, mature solution could impact an Army element.	A fully deployed, mature solution could impact several Army elements.	A fully deployed, mature solution could have impact across the entire Army.
TECHNICAL FEASIBILITY	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.
	ALTERNATIVE TECHNICAL APPROACHES	No examination of alternatives.	Partially refutes alternatives.	Adequately refutes alternatives.	Persuasively refutes alternatives.
<i>weight 30%</i>	TECHNICAL RISK MITIGATION	Inappropriate next steps.	Somewhat appropriate next steps.	Appropriate next steps.	Highly appropriate next steps.
TRANSITION	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.
<i>weight 20%</i>	SBIR 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.
FIRM CASH FLOW	FIRM SURVIVAL RISK	Fails to demonstrate solvency through a Phase III.	Marginally demonstrates solvency through a Phase III.	Credibly demonstrates solvency through a Phase III.	Convincingly demonstrates solvency through a Phase III.
	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.
<i>weight 15%</i>	FINANCIAL PROFIT POTENTIAL	Product does not have a path to profitability.	Demonstrates product has a path to profitability.	Demonstrates product progressing toward profitability.	Demonstrates product has achieved profitability.
TEAM ABILITY	<i>weight 10%</i>	Evidence of marginal group execution.	Evidence of some group execution.	Evidence of impressive group execution.	Evidence of exceptional group execution.
SUBMISSION 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.
<i>weight 3%</i>	DATA QUALITY & ATTRIBUTION	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.

Appendix D

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 drag-drop 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.

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

Firm Name

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

3

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

4

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 through 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

6

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

8

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 (TABAs), 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 1**

A254-P001	TITLE: Canine Readiness and Performance Open Topic
A254-002	TITLE: Explosive Ordnance Disposal Visual Ordnance Identification Database (EODVOID)
A254-003	TITLE: Computational Analysis of Event Camera Imagery for Propellant Testing
A254-004	TITLE: Triboelectric, Thermoelectric, Piezoelectric Coating

A254-P001 TITLE: Canine Readiness and Performance Open Topic

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

OBJECTIVE: The objective of this focused open topic is to demonstrate technologies that support performance readiness and operational effectiveness of working dogs across all training and operational environments based on current and future Army needs. Technologies with purely veterinary medical use cases will not be considered.

DESCRIPTION: The Army SBIR Program seeks proposals that focus on one or more of the following sub-topics within this topic objective. Firms are asked to self-identify which sub-topic(s) their technology relates to in their proposal submission.

1. **Bite performance:** Evaluating canine bite performance involves a range of measures to include bite pressure, grip stability, endurance, stamina and full mouth bite. Technologies that evaluate canine bite performance, including but not limited to bite sleeves, bite pillows or other innovative solutions will be considered.
2. **Physiological Monitoring in extreme environments:** Monitoring the physiological status of canines in extreme environments is crucial for ensuring canine health, performance, and safety. Technologies and techniques used to track and evaluate core body temperature, behavior, cognitive function, hydration and electrolyte balance, and other physiological data related to extreme conditions will be considered.
3. **Sensor Platforms:** Integrating canines with sensors leverages their natural abilities and enhances them with technology that operates with minimal human interaction. Wearable platforms suitable to canine morphology while collecting sensor data will be considered.
4. **Advanced Protection:** The Army requires innovative canine protection technologies for canines operating in demanding environments. Innovative technologies centered on the protection of canine paws, hearing, and eyesight are desired. Additionally, innovative solutions for body armor and protective vests will be considered.
5. **Body Temperature Regulation:** The Army seeks innovations to assist in the regulation of internal temperature for working dogs in extreme environments. Technologies and techniques including but not limited to cooling vests, thermoelectric cooling devices, smart fabric technology, advanced hydration, nutritional supplements or other innovative solutions will be considered.
6. **Kennel Monitoring:** Monitoring canine rest and rehabilitation is crucial for ensuring the health and recovery of working dogs. Innovative technologies and methods designed to monitor canine rest and rehabilitation in a kennel will be considered.

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

Demonstrate the scientific, technical, and commercial merit and feasibility of the selected technology, participate in capability pitches to Army stakeholders and develop a technology transition plan.

PHASE II: Develop, install, and demonstrate a prototype system determined to be the most feasible solution identified during the Phase I study.

PHASE III DUAL USE APPLICATIONS:

- **Pet Care/Veterinary Care:** Enables remote patient monitoring, early detection of health issues, and long-term health trends.
- **Rescue dogs:** GPS enables rescuers to track their dogs and suspected target area. Moreover, dog 'gestures' allow rescuers to 'understand' dogs.
- **Assistance dogs:** Enable communication between dogs and the human they are caring for.
- **R&D:** Sensors allow universities and veterinary researchers to augment data

REFERENCES:

1. Comparison of Non-invasive and Implanted Telemetric Measurement in Conscious Beagle Dogs:
<https://www.ncbi.nlm.nih.gov/pubmed/31014339>
2. Cardiac Monitoring of Dogs via Smartphone Mechanocardiography:
<https://www.ncbi.nlm.nih.gov/pubmed/31014339>
3. Evaluation of Dry Electrodes in Canine Heart Rate Monitoring:
<https://www.ncbi.nlm.nih.gov/pubmed/29848952>

KEYWORDS: Working dogs; Canine, K-9; Readiness; Performance; Protection; Wearable; Sensors; Monitoring; Physiological Data

A254-002 TITLE: Explosive Ordnance Disposal Visual Ordnance Identification Database (EODVOID)

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

OBJECTIVE: The Explosive Ordnance Disposal Visual Ordnance Identification Database (EODVOID) will develop an automated photogrammetry method to greatly increase the speed of scanning and creating 3D models for 1000's of pieces of ordnance samples. This would enable the development of a much-needed authoritative ordnance database and serve as a baseline standard for training and developing AI/ML detection and classification algorithms.

DESCRIPTION: Currently there is no Artificial Intelligence and Machine Learning (AI/ML) based ordnance detection/identification/recognition technology available to Army Explosive Ordnance Disposal (EOD) Soldiers. Such a technology would greatly assist in the detection and identification of these ordnance items and potentially increase the safety of EOD personnel. EOD technicians have rendered safe over 100,000 improvised explosive devices in Iraq and Afghanistan since 2006 and have trained thousands of host nation forces. To effectively execute their mission, EOD Technicians typically identify ordnance by physical sight or through analyzing images from fielded robotic platforms (ground or air). Currently all identification of ordnance is done visually and relies on the expertise of EOD operators, that typically utilize printed reference materials which include photographs and line drawings of the potential explosive hazards. The problem of identifying threats is further complicated by the fact that there are tens of thousands of different types of threat items worldwide, and some may be made to appear like other ordnance but functions differently. To add to the issue, once ordnance is fired, the physical characteristics (shape) may change and key identifying features such as markings may be altered or destroyed. If ordnance has been left in certain environments for extended periods of time, there may be a significant degradation to the appearance of the item due to rust and damage. Once the ordnance is properly identified, the EOD Technician can proceed to the next phase of their mission.

The EODVOID will utilize photogrammetry methods developed by this SBIR and have cameras mounted on a robot to capture high resolution files of ordnance and their components. We will develop an automated system that will scan, take photos and create 3D models in one complete action. Once captured these images will be stored, along with all the metadata of each item, in a database with the ability to be geographically tailored to subset databases for any regional deployment. It is extremely important to have hi-resolution images for the purpose of training the CV algorithms. We will be generating (NOT SIMULATING) hi-resolution images that have been aged, rusted, dented, broken and placed in different environments as well as all aspect angles of the ordnance.

PHASE I: This topic is only 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: Companies are expected to develop a fully automated photogrammetry scanning program for ordnance to create 3D models that can be populated into a database.

This SBIR proposal will create a controlled automated environment, using high end DSL cameras, computers, turntables and proper lighting, this will ensure all the shadowing and detail on the ordnance is correct. Because of this process we will be able to generate (NOT SIMULATE) hi-resolution 3D images as well as age, dent, rust, brake apart items and show what actual fired ordnance would look like on the battlefield. Being able to create this process will make it extremely faster and more comprehensive for the purpose of training the CV algorithms.

This proposal will leverage highly mature computer vision approaches that have not previously been applied to EOD applications. Once the process to establish a database has been created, transfer learning methods will be employed as a first step towards achieving the required level of detection and classification. Convolutional Neural Networks (CNNs) are currently integrated as an important tool within the industrial base and have automated image and video recognition tasks, resulting in a high degree of effectiveness and efficiency across multiple sectors. For example, CNNs are now integrated in a variety of industries, to include retail, automotive, healthcare and manufacturing. CNNs can be used in medical imaging applications and in manufacturing for monitoring and ensuring quality. Automotive manufacturers use related methods for the design of autopilot capabilities and autonomous driving applications. The development of the EODVOID and corresponding metadata standard for training deep learning algorithms is fundamental to the development of AI/ML detection algorithms. The primary enabling technology for the autonomous recognition of ordnance is an automated scanning solution to populate the database. Such technology has been proven to a TRL 6 at Picatinny Arsenal and the DEVCOM AC EOD in 2024.

Companies must have extensive knowledge on photogrammetry methods and related automation software. Need to be able to speed up overall process of taking photos of ordnance and transferring images into complete 3D models automatically. Currently around 20-25 complete models can be produced a day. Need to bring overall process up to around 50 – 75 if not more. Companies need to know how to work with Convolutional Neural Networks (CNNs) so that all the data that is being captured through the photogrammetry method can eventually be used in a database that will lead to ordnance identification on the battlefield.

PHASE III DUAL USE APPLICATIONS:

- **Video gaming & AR/VR:** leverages AI image detection for in-game object detection
- **Healthcare:** aides in creating 3D models as well as classification of medical scans
- **Autonomy:** train algorithms used to make computer-speed decisions about objects in the natural world
- **Robotics & Manufacturing:** industrial robotic applications it to train robots in the manufacturing process and quality control process

Automotive manufacturers use related methods for the design of autopilot capabilities and autonomous driving applications. The development of the EODVOID and corresponding metadata standard for training deep learning algorithms is fundamental to the development of AI/ML detection algorithms.

REFERENCES:

1. <https://digital.library.unt.edu/ark:/67531/metadc1085874/>
2. <https://ieeexplore.ieee.org/document/10566207>

KEYWORDS: Photogrammetry; Scan; Classification; EOD; Ordnance; Identification

A254-003 TITLE: Computational Analysis of Event Camera Imagery for Propellant Testing

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

OBJECTIVE: The objective of this effort is to develop a hardware and software solution to capture, process, and measure key parameters of the chaotic, high-speed, propellant development experiments in challenging real world lighting conditions. It is important because it will lead to advancements in propelling charge design that will enable greater range of artillery weapon systems in development and simultaneously increasing both the lethality and the safety of Soldiers utilizing propellants designed with this technology.

DESCRIPTION:

- Develop new event camera hardware/software system that can capture and display propellant testing data at a rate of 0.01ms or faster over a 0.5 second interval in high dynamic range lighting conditions (100dB or more).
- Develop software that can fuse event camera data with high-speed camera data and utilize supervised and unsupervised AI/ML tools to perform complex 3D image analysis to assess and evaluate initial ignition phenomenon and combustion propagation in a translucent acrylic combustion case.
- Develop software with Graphic User Interface that can visualize and generate reports of assessment and evaluation of propellant testing.

PHASE I: This topic is only 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:

1. Demonstrate the use of Event Camera(s) to capture imagery of a rapidly changing chaotic event and the production of metrics that supports the analysis of the event. Examples of Event Camera data collection for events occurring in high dynamic range lighting conditions are highly desirable.
2. Demonstrate the use of High-Speed Video with sampling rates greater than or equal to 5,000 (Threshold)/ 10,000 (Objective) frames per second to capture imagery of a rapidly changing event and the production of metrics that support the analysis of the event. Examples of tools developed for efficient and effective processing of High-Speed video to generate metrics for analysis is highly desired.
3. Demonstrate the fusing of different types of sensor technologies e.g., Electro-Optical and Infrared sensors, to utilize the strengths of each sensor technologies to produce an enhanced data product not solely attainable from a single sensor type.
4. Demonstrate the use of AI/ML processes to effectively and efficiently extract data from video-based imagery. Examples must include the development of the AI/ML tools, efficiencies gained, and process flow that a qualified user with similar resources would need to follow to obtain similar results.

PHASE III DUAL USE APPLICATIONS:

- **Autonomous Vehicles/Drones & Industrial:** self-driving cars and commercial drone surveillance
- **Scientific Research:** studying high-speed phenomena in fields like fluid dynamics or particle physics along with analyzing rapid movements in humans (biomechanics) for scientific study
- **Medical Imaging & Consumer/Mobile Electronics:** utilize low-light and high dynamic range imaging to improve the quality of images in minimally invasive procedures or through HDR technology on personal mobile devices
- **Robotics & AR/VR:** 3D object detection and tracking

REFERENCES:

1. “Data-driven Feature Tracking for Event Cameras”, Nico Messikommer et al, IEEE Conference on Computer Vision and Pattern Recognition (CVPR), Vancouver, 2023
<https://arxiv.org/abs/2211.12826>
2. “Low-latency automotive vision with event cameras”, Daniel Gehrig et al, Nature May 2024,
<https://www.nature.com/articles/s41586-024-07409-w>
3. “High speed and high dynamic range video with an Event Camera”, H Rebecq et al, IEEE Transactions on Pattern Analysis and Machine Intelligence, 2019:
https://rpg.ifi.uzh.ch/docs/TPAMI19_Rebecq.pdf

KEYWORDS: Event Camera; Artificial Intelligence; Sensor Fusion

A254-004 TITLE: Triboelectric, Thermoelectric, Piezoelectric Coating

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

OBJECTIVE: Develop a triboelectric, thermoelectric and/or piezoelectric coating for use on ordnance to augment or replace onboard batteries.

DESCRIPTION: As ordnance become more advanced, the electronic requirements grow. Currently batteries are widely used across the portfolio, however these batteries take up valuable internal space and have shelf lives. In the development of a triboelectric, thermoelectric, piezoelectric coating, or some combination, it is possible to lower the reliance on batteries for advanced munitions. This coating should be able to convert the excess heat and deformations from detonation and flight to generate a usable electrical current. The goal in the development and use of these coatings is to lower the dependence on batteries for fuses. This would allow for new, innovative fuse designs, space optimization within a munition, and longer shelf life and stability of fused munitions.

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

Detailed reports of the feasibility of the topic, including expected costs for Phase II testing and beyond for each award. It is important that this report also includes a plan for commercialization of this technology from each award.

PHASE II: Initial test batching and application of the coating to test and meet requirements. The remainder of Phase II will be used to for application testing on a specific product.

PHASE III DUAL USE APPLICATIONS:

Final selection, integration, and commercialization. Focus on integration into the chosen program in preparation for large scale manufacturing/production using the coating.

Today piezoelectricity is considered one of the highly recommended energies harvesting source along with sensors. Companies like Boeing, airbus, rolls Royce and Samsung has started to expand their portfolio in it. While this technology is maturing, triboelectric and thermoelectric has also seen a significant development over the years and companies like Boeing, Murata, IBM, QORVO, AIRBUS, etc. has started to see a potential in these technologies. According to the latest online reports, average projected growth of piezoelectric is 7% CAGR until 2030 with heavy requirements in automotive, healthcare, aerospace, defense, consumer electronics, manufacturing and other industries. Similarly, although triboelectric and thermoelectric are in early phases of developments the average of forecasted projected online growth is 48.55% between 2019-2025 and 12-14% between 2022-2030 respectively.

REFERENCES:

1. <https://www.nature.com/articles/s41528-017-0007-8>
2. <https://link.springer.com/article/10.1007/s11998-023-00819-x>
3. <https://www.graphene-info.com/researchers-develop-novel-graphene-coating-converts-waste-heat-electrical>

KEYWORDS: Triboelectric; Thermoelectric; Piezoelectric; Power; Coating; Battery

DEPARTMENT OF THE NAVY (DoN)
25.4 Small Business Innovation Research (SBIR)
Release 1
Catapult Challenge Announcement and Proposal Submission Instructions

IMPORTANT

- The following dates apply to Catapult Challenge topics only N254-C01 through N254-C04
 - 2 October 2024: Topics issued for pre-release
 - 23 October 2024: DoN begins accepting proposals
 - 6 November 2024: Topic Q&A closes to new questions
 - 20 November 2024: Full proposals due no later than 12:00 p.m. ET
- Information on virtual Ask Me Anything event for the Catapult Challenge BAA can be found at https://www.navysbir.com/Catapult_Challenge.htm.
- A submitting small business concern **MUST** use the Catapult Challenge proposal template for Volume 2. This template is specific to DoN Catapult Challenge topics and meets Catapult Challenge submission requirements. The Catapult Challenge proposal template will be posted to https://navysbir.com/links_forms.htm on the Open date of this BAA.
- Submitting small business concerns are encouraged to thoroughly review the DoD Program BAA and register for the DSIP Listserv to remain apprised of important programmatic changes.
 - The DoD Program BAA is located at: <https://www.dodsbirsttr.mil/submissions/login>. 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 Instruction document takes precedence over the DoD Instructions posted for this Broad Agency Announcement (BAA).
- 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, and 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 SBIR and STTR Policy Directive section 4(b)(7) allows the DoN to make a subsequent Phase II award to a small business concern that has received a Phase I award under a topic with another agency. The resulting subsequent Phase II contract award must be within the scope of the original topic but not duplicate any previous work. **An eligible small business concern that has received a Phase I or Phase II award to a topic with another agency and the scope of that award aligns to a Catapult Challenge topic identified in this BAA may participate in this Catapult Challenge BAA.** If selected, DoN will request a written determination for cross agency award from the topic's originating agency.

No Phase I awards will be issued to the designated Catapult Challenge topics.

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 <i>2 October 2024 - 22 October 2024</i>	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 <i>23 October 2024 – 20 November 2024</i>	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

<u>Topic Numbers</u>	<u>Point of Contact</u>	<u>SYSCOM</u>	<u>Email</u>
N254-C01 to N254-C03	Mr. Jason Schroepfer	Naval Sea Systems Command (NAVSEA)	NSSC_SBIR.fct@navy.mil
N254-C04	Mr. Jon M. Aspinwall III (Acting)	Strategic Systems Programs (SSP)	ssp.sbir@ssp.navy.mil

Each Catapult Challenge submission requires documentation to determine eligibility. Documentation requirements to determine eligibility will be included in the Catapult Challenge proposal template which will be posted to https://navysbir.com/links_forms.htm on the Open date of this BAA.

The DoN SBIR Catapult Challenge is a two-step process:

STEP ONE: Prepare and submit a Catapult Challenge Proposal (instructions and link to template provided below under the heading Technical Volume. Technical Volume template will be posted online on the Open date of this BAA). The purpose of the Catapult Challenge Proposal is for the proposing small business concern to document the technical accomplishments to date of the Phase I or initial (first) Phase II award and describe how the work under that award can be leveraged to meet the needs of a topic identified in this Catapult Challenge BAA.

STEP TWO: If selected, the cognizant SYSCOM Program Office will contact the small business concern directly to provide instructions on how to submit a Full Phase II Proposal to this Catapult Challenge.

DoN SBIR reserves the right to make no awards under this Catapult Challenge 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.

CATAPULT CHALLENGE PROPOSAL SUBMISSION REQUIREMENTS

The following section details requirements for submitting a compliant STEP ONE Catapult Challenge 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.)

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 under STTR may transition in Phase II to SBIR and vice versa. As such, the DoN will accept STEP ONE Catapult Challenge Proposals submissions from small business concerns with Phase I or initial Phase II STTR awards.

DoD SBIR/STTR Innovation Portal (DSIP). Proposing small business concerns are required to submit proposals via the DoD SBIR/STTR Innovation Portal (DSIP); 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 received a Phase I or an initial Phase II award to a topic that aligns to a Catapult Challenge topic advertised in this BAA, and not yet received a second Phase II award to the same topic
- Have submitted a STEP ONE Catapult Challenge Proposal for evaluation
- Meet Offeror Eligibility and Performance Requirements as defined in the Program Description 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
- Have an active registration in System for Award Management (SAM) as defined in the Certifications and Registration section of the DoD SBIR/STTR Program BAA. To register, visit <https://sam.gov/>

Proposal Volumes. The following 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 Catapult Challenge Proposal template for Volume 2. The Catapult Challenge Proposal template will be posted to https://navysbir.com/links_forms.htm on the Open date of this BAA. This template is specific to DoN Catapult Challenge topics and meets Catapult Challenge submission requirements:
 - ☐ Response provided to each section of the template
 - ☐ Not to exceed 12 pages, regardless of page content
 - ☐ 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 workbook template when submitting the DoN SBIR Catapult Challenge Proposal for STEP ONE. Proposing small business concerns are to include a cost estimate in the Order of Magnitude Cost Estimate Table (example below) within the Technical Volume (Volume 2). Please refer to Table 3 below for guidance on cost and period of performance.

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

TABLE 3: COST & PERIOD OF PERFORMANCE

Topic Number	Base	
	Cost (NTE)	POP (NTE)
N254-C01 – N254-C04	\$2,000,000	36 mos.

- Additional information:
 - For Phase II a minimum of 50% of the work is performed by the proposing small business concern. The percentage of work is measured by both direct and indirect costs.
- **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.

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 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:
 - Additional Cost Information
 - SBIR/STTR Funding Agreement Certification
 - Data Rights Assertion
 - Allocation of Rights between Prime and Subcontractor
 - Disclosure of Information (DFARS 252.204-7000)
 - Prior, Current, or Pending Support of Similar Proposals or Awards
 - Foreign Citizens
 - Details of Request for Discretionary Technical and Business Assistance (TABAs), 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.

CATAPULT CHALLENGE EVALUATION AND SELECTION

The following section details how the DoN SBIR/STTR Programs will evaluate Catapult Challenge 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 STEP ONE Catapult Challenge Proposals using the evaluation criteria specified in the Method of Selection 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 costs proposed in the Technical Volume. 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 Catapult Challenge Proposal template for Volume 2. The Catapult Challenge Proposal template will be posted to https://navysbir.com/links_forms.htm on the Open date of this BAA. This template is specific to DoN Catapult Challenge topics and meets Catapult Challenge submission requirements:
 - ☐ Response provided to each section of the template
 - ☐ Not to exceed 12 pages, regardless of page content
 - ☐ 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 (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.
- **Company Commercialization Report (Volume 4).** The CCR (Volume 4) will not be evaluated by the Navy nor will it be considered in the Navy's 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 CATAPULT CHALLENGE PROPOSAL SUBMISSION REQUIREMENT 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. The TABA amount, of up to \$25,000, 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 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 NOT 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 DoN SBIR/STTR 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 submission. The DoN Fundamental Research Disclosure is available on 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 must 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 verify their registrations in SAM are still active and will not expire within 60 days of BAA Close, <https://sam.gov>. 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 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 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 Proposal Fundamentals, 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 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 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 1**

N254-C01	Catapult Challenge: Anti-Submarine Warfare (ASW) Multi-Platform Product Family Architecture
N254-C02	Catapult Challenge: At-Sea Reload Technologies
N254-C03	Catapult Challenge: Modular Electronic Warfare Counter- Unmanned Aerial System (C-UAS) Payload
N254-C04	Catapult Challenge: Modular Alternate Navigation Fusion Architecture for High Speed Systems

N254-C01 TITLE: Catapult Challenge: Anti-Submarine Warfare (ASW) Multi-Platform Product Family Architecture

OUSD (R&E) CRITICAL TECHNOLOGY AREA(S): Trusted AI and Autonomy;Advanced Computing and Software;Integrated Network Systems-of-Systems

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 an architecture that facilitates capabilities to be fielded across Anti-Submarine Warfare (ASW) systems fielded across Maritime Patrol Reconnaissance Aircraft (MPRA), submarines, surface combatants, and seabed protection systems.

DESCRIPTION: The Navy is seeking additional Phase II research and development on previous Phase I and Phase II efforts. The proposing small business concern must detail the previous SBIR/STTR efforts and how they will extend the previous SBIR/STTR effort to meet the requirements of this topic. The Navy desires a multi-platform architecture for Anti-submarine warfare (ASW) that can enable integration of key warfighting capabilities, to include Artificial Intelligence (AI) algorithms, across multiple US Navy Platforms. Multiple Navy enterprises and directorates contribute to undersea warfare. Over the decades, this has led to divergent system architectures. These divergent system architectures degrade the Navy's ability to leverage developments in support of a combined lethal network of capabilities. The combined Anti-Submarine Warfare (ASW) Multi-Platform Product Family Architecture will enable key architectures across constituent ASW acquisition offices to be aligned to enable capability reuse, increasing warfighting capability at reduced acquisition cost and with reduced sailor burden. Hardware required for the architecture shall comply with Modular Open System Architecture (MOSA) and follow open standards for compute, storage, input/output (I/O) and memory. Software contributing to the architecture shall enable integration of key warfighting capabilities, including various AI algorithms, across different combat systems. These combat systems are developed by each of the three Navy enterprises that contribute to Anti-submarine Warfare: The Undersea Enterprise (USE), the Surface Warfare Enterprise (SWE), and the Naval Aviation Enterprise (NAE). In addition, the architecture shall enable integration of capabilities with other DoD entities with a need for Anti-Submarine capabilities, for example the Coast Guard and Homeland Defense to defend against commodities and threats conveyed via submarines or Marine Corps for detecting submarine threats to advanced bases established to defend national interests across the world.

The ASW Multi-Platform Product Family Architecture shall both 1) demonstrate connectivity with at least one of the Navy systems with an Anti-submarine warfare mission (MPRA, SSN, DDG, FFG, or Seabed defense) and 2) be able to demonstrate the feasibility of connectivity with the other ASW systems. The architecture shall enable cyber compliance and support environmental qualification on air, surface, and undersea systems. The architecture shall incorporate standardized interfaces that enable integration of capabilities such as AI, sensor, and unmanned underwater systems modules across platforms with an ASW mission, with the P-8 representing a key system that possesses extended range at speed but with extremely limiting space, weight, power, cost, and cooling (SWAP-C2) constraints.

The small business concern shall demonstrate the ability to deploy Artificial Intelligence (AI) Algorithms developed by Project Harbinger to the P-8 and demonstrate that integration with other platforms with an ASW mission is feasible. In Phase II, the small business concern will define and standardize interfaces to enable affordable and effective integration of ASW capabilities and sensors aboard platforms with an ASW mission. Among the systems of interest, a key focus shall be integration of AI, sensor processing, and unmanned underwater systems modules with systems with a limited computational infrastructure, such as the P-8 Maritime Patrol Reconnaissance Aircraft.

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 NAVSEA 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: Catapult leverages prior SBIR/STTR investment to accelerate technology development to meet Naval priorities. Small business concerns should have accomplished the following in their previously funded SBIR/STTR Phase I effort:

1. Demonstrated their architecture derives from efforts that achieved connectivity with at least one of the Navy systems with an Anti-submarine warfare mission (MPRA, SSN, DDG, FFG, or Seabed defense)
2. Demonstrated their architecture supports the feasibility of connectivity with ASW systems from each of the Navy Enterprises (USE, SWE, NAE)
3. Demonstrated that their architecture can specifically support integration of key capabilities, to include AI and unmanned underwater system modules, aboard P-8 Maritime Reconnaissance Patrol Aircraft (MPRA).

PHASE II: The Phase II effort shall develop a standardized interfaces to enable affordable and effective integration of ASW capabilities and sensors aboard platforms with an ASW mission. Building on these standardized interfaces, the awardee shall develop a prototype that enables the P-8 to integrate ASW capabilities, to include

- a) AI developed under Project Harbinger,
- b) processing of distributed sensors, and
- c) unmanned underwater systems modules with systems.

Demonstrate the interfaces are standardized across the family of platforms with an ASW mission, develop a prototype that could be used to field important capability across each major platform with an ASW mission, to include SSNs, SQQ-89 sonars aboard DDGs and FFGs, and Seabed systems.

For each major platform, execute a land-based demonstration of the loose integration of a ASW capability that the platform's organic ASW suite currently lacks. Negotiation of which capability will be demonstrate for each major platform shall be suggested in the Phase II proposal. If the capability the Navy desires integrated for each major platform exceeds the bounds of the Phase II funding, the Navy has the option to add their desired capability for each major platform with mission funds.

The government will evaluate the prototype to determine its capability in meeting the performance goals defined in the Phase II SOW and the current cybersecurity requirements for achieving authority to operate (ATO). The ASW Multi-Platform Product Family Architecture prototype will be delivered at the end of Phase II.

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: The awardee will be expected to support the Navy in transitioning the ASW Multi-Platform Product Family Architecture to support major platforms with ASW missions as well as the need of Homeland Defense and Marine Corps to perform ASW as part of their missions.

The technology will have private sector commercial potential for any family of infrastructure-critical systems where stove-piped development has prohibited capability sharing that is desired but previously not affordable, as may occur for organizations performing disaster response.

REFERENCES:

1. “P-8A Poseidon,” Commander, Naval Air Systems Command. Accessed September 2024 <https://www.navair.navy.mil/product/P-8A-Poseidon>
2. Sandeep Katta, “Enterprise AI and Legacy Systems: A Double-Edged Sword on the Path to Modernization,” Republished on Medium, 1 Aug 2024. Accessed September 2024 <https://medium.com/snowflake/enterprise-ai-and-legacy-systems-a-double-edged-sword-on-the-path-to-modernization-9f54e1da1fab>
3. Navy Fact File, “AN/SQQ-89(V) Undersea Warfare / Anti-Submarine Warfare Combat System,” Last updated 20 Sep 2021. Accessed September 2024 <https://www.navy.mil/Resources/Fact-Files/Display-FactFiles/Article/2166784/ansqq-89v-undersea-warfare-anti-submarine-warfare-combat-system/>
4. Director Operational Test and Evaluation, “AN/BQQ-10 Acoustic Rapid Commercial Off-the-Shelf Insertion (A-RCI) Sonar,” FY2018 Report. Accessed September 2024, <https://www.dote.osd.mil/Portals/97/pub/reports/FY2018/navy/2018arci.pdf>
5. Bill Glenney, “The Deep Ocean: Seabed Warfare and the Defense of Undersea Infrastructure,” CIMSEC 4 February 2019. Accessed September 2024 <https://cimsec.org/the-deep-ocean-seabed-warfare-and-the-defense-of-undersea-infrastructure-pt-1/> and <https://cimsec.org/the-deep-ocean-seabed-warfare-and-the-defense-of-undersea-infrastructure-pt-2/>
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: Product Family Architecture; divergent system architectures; increasing warfighting capability; space, weight, power, cost, and cooling (SWAP-C2) constraints; standardized interfaces; detecting submarine threats

OUSD (R&E) CRITICAL TECHNOLOGY AREA(S): Sustainment

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 a system to improve the Navy's ability to support distributed forces, develop and demonstrate innovative technologies that enable underway ordnance stowage, transportation, handling, transfer, and loading/unloading in elevated sea states.

DESCRIPTION: The Navy is seeking additional Phase II research and development on previous Phase I and Phase II efforts. The proposing small business concern must detail the status of previous SBIR/STTR efforts and how they can be further developed into technology for use.

Ships and submarines are typically reloaded pier side at developed ports or in austere/protected anchorages that may be far from operational areas.

At-Sea reload of MK41 VLS, and other ordnance, close to the point of need is challenging in higher sea states due to the relative motions between supply vessels and Combatants. The weight of ordnance and equipment may limit ability to transfer and shipboard infrastructure may not be sufficient or available.

The Navy seeks innovation solutions that support and enable underway at-sea reloading of ordnance from Combat Logistics Force ships to surface combatants in Sea State 3 and above conditions.

Ship to Ship Ordnance Handling, Integration and Enabling Technology Focus Areas:

- Shipboard cranes
- Connected Replenishment systems
- Motion Compensation
- Improved Ordnance Handling Equipment and PHS&T
- Advanced Materials and Manufacturing for Weight reduction
- Ship to Ship communications & data transfer
- Sensors/monitoring for reload systems, relative ship motions and operational decision making
- Intra-ship ordnance and Reload equipment handling
- Advanced maintenance support and training systems

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 NAVSEA 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: Catapult leverages prior SBIR/STTR investment to accelerate technology development to meet Naval priorities. The Navy is seeking additional Phase II research and development on previous Phase I and Phase II efforts. The proposing small business concern must detail the status of previous SBIR/STTR Phase I or Phase II efforts and how they can be further developed into technology solutions that support and enable underway at-sea reloading.

PHASE II: Develop, demonstrate and deliver a prototype that demonstrates innovative technologies that enable underway ordnance stowage, transportation, handling, transfer, and loading/unloading in elevated sea states. Develop plans for full-scale testing in an open water environment in Phase III. 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: Support the Navy in transitioning the technology for Navy use. Perform full-scale testing in shipboard operational environments and further refine the technology for Navy use.

Technologies needed to support ship-to-ship at-sea reload of ordnance can also be used for other Navy ship-to-ship transfers, as well as offshore oil and wind industry applications.

REFERENCES:

1. Lariosa, Aaron-Matthew. "At-sea rearming deemed a "Main Priority" by SECNAV." Naval News, 2 Feb. 2023. <https://www.navalnews.com/naval-news/2023/02/at-sea-rearming-deemed-a-main-priority-by-secnav/>
2. Eckstein, Megan. "US Navy prioritizes 'game-changing' rearming capability for ships." Defense News, 28 March 2023. <https://www.defensenews.com/naval/2023/03/28/us-navy-prioritizes-game-changing-rearming-capability-for-ships/>
3. Ziezulewicz, Geoff. "US Navy Prioritizes 'Game-changing' Rearming Capability for Ships." Navy Times, 1 Aug. 2017. <https://www.navytimes.com/news/your-navy/2017/08/01/navy-planning-to-bring-back-at-sea-missile-reload-capability/>
4. "U.S. Navy Tries Reloading VLS Missile Cells With a Commercial OSV." The Maritime Executive, 7 Oct. 2022. <https://maritime-executive.com/article/u-s-navy-tries-reloading-vls-missile-cells-with-a-commercial-osv>
5. 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: Reload at sea; ordnance storage; ordnance transportation; ordnance transfer; ordnance loading/unloading; motion compensation

N254-C03 TITLE: Catapult Challenge: Modular Electronic Warfare Counter- Unmanned Aerial System (C-UAS) Payload

OUSD (R&E) CRITICAL TECHNOLOGY AREA(S): Integrated Sensing and Cyber; Microelectronics; Integrated Network Systems-of-Systems

OBJECTIVE: Develop a low Size, Weight, and Power (SWaP) modular payload to deploy on an Unmanned Aircraft System/Unmanned Surface Vehicle (UAS/USV) platform to counter adversarial class I commercial Unmanned Aircraft System (UAS) 5G Radio Frequency (RF) Command and Control (C2) links.

DESCRIPTION: The growing threat of adversarial Unmanned Aircraft Systems (UAS) of various sizes and shapes to US Navy Vessels and operational areas has increased at an expeditious pace. The Navy has sought various methods to defend vessels against potential attacks and reconnaissance. However, with their advantages in ease of operation and low cost, the widespread availability of UASs and advances in technology continues to pose significant security threats to Navy vessels and operating areas. To defeat such threats, one effective Navy Counter-UAS technique is to employ electronic warfare to negate UAS threats and deny access to US Navy vessels and operating areas.

The Navy is seeking additional Phase II research and development on previous Phase I and Phase II efforts. The proposing small business concern must detail the status of previous SBIR/STTR efforts and how they can be further developed into technology for use.

The Navy is seeking additional modular payloads for counter UAS platforms. Potential capabilities could include, but are not limited to detection, identification, tracking, and defeat of class I commercial UASs. The Navy is also seeking to expand the capability to counter future commercial UAS platforms that utilize 5G cellular Frequency Range (FR) 2 & FR3 standalone C2 links.

The proposed solution should be a low SWaP modular electronic warfare payload for deployment on UAS and Unmanned Surface Vehicles (USV) that can counter adversarial UAS to provide force protection capabilities. The payload should be compatible with the Zynq UltraScale+ RFSoc based Government-owned Software Defined Radio (SDR) to utilize existing C-UAS electronic warfare functions. The Government-owned SDR is dual half duplex transceiver with a 3U form factor size, has a C5ISR Modular Open Suite of Standards (CMOSS) interface, and requires 38 Watts of power.

The vendor will integrate payload with SDR. It is anticipated that the payload will contain a single board computer, RF front end electronics, antennas, UAS/USV RF C2 link, SDR C2 link, housing, and power supply. RF Front end key parameters:

- Transmit power: 5 watts
- Transmit switching time: 10 microseconds
- Maximum RF input: 15dBm
- Dynamic range: 72 db (12 bit) or 95 db (14 bit)
- Max duty cycle: 100%
- 2nd harmonic level suppression: -40dBc

Payloads footprint must be no larger than 500 cubic inches and shall weigh no more than 10 lbs. Additionally, power consumption shall not exceed 100W. The payload should maximize the effective radiated power within these SWaP limits. The payload size is to be deployable on a UAS and USV platform in maritime environments.

The performer will be required are to demonstrate the C-UAS capability on an UAS platform as a modular payload and deploy a C-UAS RF capability for 5G cellular FR2 & FR3 standalone C2 links

utilizing the Government furnished SDR, software, and techniques. The focus of the technology should be on developing a low SWaP modular payload that can be deployed on UAS/USV and is capable of countering small UAS and providing force protection capabilities. Performance parameters to bound the scope of research include the ability to demonstrate the C-UAS capability on an UAS platform, and a C-UAS RF capability for 5G cellular FR2 & FR3 standalone C2 links utilizing the Government furnished SDR, software, and techniques. Additionally, the performer should identify alternative UAS and USV platforms to rapidly integrate and deploy the C-UAS modular payload.

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 NAVSEA 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: The Government expects that the small business concern has developed a concept for a workable prototype or design to address, at a minimum, the basic requirements of the stated objective above in their previously funded SBIR/STTR phase I effort. The below actions would be required in order to satisfy the requirements of Phase I:

Proposals must demonstrate that the small business concern understands the current state of the art in digital and RF electronics and explain how the proposed approach will advance the state of the art. Proposals must describe in detail the small business concern's concept for electronic warfare payloads. The proposal should clearly explain the rationale for the selection of the proposed concept for next-generation autonomy and how it will satisfy the capabilities of this topic within the constraints stated in the Description section above. This rationale must be clearly supported by, for example, analysis, testing in simulation, and/or small scale-model testing.

PHASE II: Develop and deliver a prototype for evaluation as appropriate. The prototype will be evaluated to determine its capability in meeting the performance goals defined in the Phase II SOW and the Navy requirements for the counter UAS modular payload. Demonstrate performance with a detailed analysis, and live demonstration in a test environment as part of the evaluation. Provide detailed technical documentation of the design, including an interface control drawing and interface specification, to allow successful transition of the product. Prepare a Phase III development plan to transition the technology to Navy use.

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: Transition of this product includes C-UAS force protection rolls that require expanded coverage areas and that adapts to future threat requirements for critical expeditionary and afloat personnel and operations.

Dual use applications include C-UAS capabilities to support Federal law enforcement and National Special Security Events.

REFERENCES:

1. Northrup Grumman Corporation, “JCREW/DRAKE Intelligent Jam”, Feb 29 2024, “<https://cdn.northropgrumman.com/-/media/Project/Northrop-Grumman/ngc/what-we-do/sea/electronic-warfare/JCREW-DRAKE-datasheet.pdf>”
2. Program Executive Office Unmanned and Small Combatants Public Affairs “JCREW Counter IED Program Achieves Full Operational Capability”, Jul 27 2023 <https://www.navy.mil/Press-Office/News-Stories/Article/3469648/jcrew-counter-ied-program-achieves-full-operational-capability/>
3. 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: Unmanned Aerial Vehicle; Uncrewed Aerial Vehicle; Unmanned Aerial System; Uncrewed Aerial System; Modular; Networked; Software Defined Radio; Platform Integration; Force Protection; C2

N254-C04 TITLE: Catapult Challenge: Modular Alternate Navigation Fusion Architecture for High Speed Systems

OUSD (R&E) CRITICAL TECHNOLOGY AREA(S): Advanced Computing and Software; Hypersonics; Integrated Network Systems-of-Systems

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: A Testing Open System Architecture (TOSA) is required to develop and evaluate alternate navigation capabilities. The TOSA solutions shall include a reference architectural diagram and definitions as well as Open System Models to enable modeling, simulation, and analysis (MS&A) of proposed technologies.

DESCRIPTION: Most flight systems are Global Positioning Systems (GPS)-aided flight systems. To be more resilient when GPS may not be available, systems need to leverage additional alternate navigation sensors. However, flight system and subsystem architectures are often closed, proprietary, or otherwise not built to receive new capability subsystems. To open innovation, advanced capability programs require a Modular Open Systems Architecture (MOSA) architecture to evaluate S&T or Advanced Capability subsystem performance for high-speed flight alternate navigation. The Testing Open System Architecture (TOSA) will be available to technology developers to develop their technologies to the testing standard. TOSA will also provide the government the tools needed to evaluate sensors developed to the TOSA. This architecture shall incorporate and be compatible with Weapons Open System Architecture (WOSA) and Sensor Open Systems Architecture (SOSA). This architecture shall give common standards to capability developers for hypersonic and supersonic weapon systems. TOSA shall be transitioned to The Multi-Service Advanced Capability Hypersonic Test Bed (MACH-TB) to be implemented on Sub-Scale Tests (SSTs) and Full Scale Tests (FSTs) to enable the rapid transition of experimental prototype capability into Programs of Record for the US Navy, US Army, and US Air force.

The small business concern shall develop and promulgate a Testing Open System Architecture (TOSA) that will be representative for high-speed systems and sensor suites. The TOSA shall include:

1. TOSA Input from Technology [See input A on notional block diagram linked below]: data interfaces for technologies to provide sensor navigation information to a notional flight computer;
2. TOSA input to technology [See input B on notional block diagram linked below]: data interfaces to a navigation sensor from a representative flight computer
3. Sensor stimuli model to a sensor technology [See input C on notional block diagram linked below]: publicly available data interface by sensor type (GPS, celestial, resident space objects, digital elevation map(s))

Link to Notional Block Diagram:

https://navysbir.com/n25_4/R1/N254-C04-Notional_Block_Diagram.pdf

The problem most technology developers have is that they do not understand the constraints they should consider when developing a solution for the government. The objective is to develop a reference to which

all developers can explore technology solutions to and to also enable the government to evaluate their performance without having to explore complex weapon system integration.

Related State of the Art Technologies: The TOSA should be able to support stimulation and assessment of various alternate navigation technologies:

1. Celestial Aided Navigation
2. Doppler Aided Navigation
3. GPS aided navigation
4. Inertial Aided Navigation
5. Terrain Aided Navigation
6. Clock aided navigation

Performance parameters: The TOSA should represent supersonic and hypersonic flight profiles over land and water.

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 SSP 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: In Phase I, feasibility of the technology shall have superior accuracy over long distances to TOSA dead reckoning navigation systems. In order to design to success the following SWaP constraints should be considered:

Compliant with Modular Open Systems Architecture (MOSA), Sensor Open System Architecture (SOSA), Weapon Open System Architecture (WOSA), and the USAF Resilient-Embedded GPS/INS (R-EGI) open architecture

- Provide ability to port ALTNV algorithms between manned and unmanned high speed platforms
- Develop MOSA-compliant interface specifications to be demonstrated on the Multi-Service Hypersonic Test Bed (MACH-TB)

These considerations should be treated as bare minimum requirements, and may change based on the type of technology selected.

PHASE II: In Phase II, the awardee shall develop any hardware and/or software required to demonstrate a refined prototype solution for the advanced dead reckoning navigation system addressed in the previous SBIR or STTR award. The refined prototype shall not use any known external references other than initial starting position and IMU data, unless previously approved by the Government Technical Point of Contact (TPOC). The Phase II Statement of Work (SOW) should identify a work plan that provides proof of concept to meet the performance goals and reduce SWaP from Phase I. Work should focus on reduced SWaP and increased accuracy of modular alternative navigation algorithms while operating in a hypersonic regime. The prototype hardware, software, all modeling and simulation, and shall be delivered to show technical, measurable improvements to dead reckoning navigation. By the end of Phase II, the

final prototype is intended to be integrated into test asset(s) for verification and validation of the technology.

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: If the demonstration in Phase II is deemed to be of high interest to the government, the small business concern will be expected to support the government in transitioning the technology for government use. The transitioned product is expected to be able to support current and future weapon and space systems, as well as a wide range of other air, land, and sea-based systems.

Commercial applications should be considered for transition (i.e., ocean exploration, space exploration, commercial autonomous vehicles, and mapping systems). The primary objective of this project is for transition to defense contractors for high-speed weapons and space systems. To meet these needs, maturation and packaging of the technology to meet practical size, weight, and power constraints will be required. Extreme environments may require special considerations to conform to airframe shape and shielding from the aerothermal environment.

REFERENCES:

1. Holmes, Estella. "New technical standard refines open solution." Air Force Research Lab (AFRL), 26 Jan. 2022. <https://www.afrl.af.mil/News/Article/2928547/new-technical-standard-refines-open-solution/>
2. Holmes, Estella. "AFMC utilizes MOATEL as verification resource." Air Force Research Lab (AFRL), 26 Apr. 2022. <https://www.afrl.af.mil/News/Article/3012372/afmc-utilizes-moatel-as-verification-resource/>
3. 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: Hypersonic; Modular Alternate Navigation; High Speed Systems

Chief Digital and AI Office (CDAO)
25.4 Small Business Innovation Research (SBIR)
Release 1
Proposal Submission Instructions

INTRODUCTION

The Department of Defense (DoD) Chief Digital and Artificial Intelligence Office (CDAO) is tasked with accelerating the DoD's adoption and integration of artificial intelligence (AI), while also ensuring responsible development and use of these technologies. The CDAO aims to create value by harnessing the power of data and AI to enhance decision-making, improve operational effectiveness, and increase the speed and scale of mission outcomes.

The CDAO is looking to explore innovative solutions leveraging Generative AI to support its mission. Generative AI is a subset of AI that involves creating new data from patterns in existing data, such as generating text, images, or other information. The DoD is interested in leveraging generative AI for various applications, such as simulating training environments, creating synthetic data for AI model development, enhancing autonomous systems, command and control (C2) activities, dash boarding, culture assessments, ecosystem development, policy generation, contract writing, acquisition management, messaging proliferation, and a host of other activities that Generative AI could support.

By issuing this Generative AI Open Topic the CDAO hopes to engage with the broader public and industry to explore the latest advancements in Generative AI, foster collaboration, and support the growth of small businesses in this field. This will help the DoD advance its mission by gaining access to new ideas, technology, and capabilities in AI and related areas.

Proposers responding to a topic in this BAA must follow all general instructions provided in the Department of Defense (DoD) SBIR Program BAA. CDAO requirements in addition to or deviating from the DoD Program BAA are provided in the instructions below.

Proposers are encouraged to thoroughly review the DoD Program BAA and register for the DSIP Listserv to remain apprised of important programmatic and contractual changes.

- The full DoD Program BAA is 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 CDAO SBIR Program and these proposal preparation instructions should be directed to: Vince Pecoraro, Vincent.m.pecoraro.civ@mail.mil, CDAO Acquisition Management Division Chief.

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 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.

PHASE I PROPOSAL GUIDELINES

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 the DoD Program BAA.

Entities applying for a Phase I should be in search of product market fit with a CDAO mission set (www.ai.mil) and be early stage development. The final report at the end of the six (6) month period of performance shall cover steps accomplished to find product market fit within the CDAO mission sets and an analysis of the commercial potential should this technology be developed into a mature prototype ready for Authority to Operate (ATO) via a SBIR Phase II.

Proposal Coversheet (Volume 1)

The proposal coversheet is prepared on DSIP and in accordance with the DoD Program BAA.

Technical Volume (Volume 2)

The technical volume should be a one (1) page screen shot of your video submission that includes your DSIP proposal number. This is different than what has been done in the past. The CDAO Generative AI Open Topic requires a video presentation conforming to the format and content requirements described below:

Video Submission Format Requirements:

Maximum length: The video presentation must not exceed five (5:00) minutes in length.

Production requirements:

- a. Resolution: The video must be produced in HD (1920x1080) resolution.
- b. Video file format: The video must be encoded for streaming and submitted as an .mp4 file with a maximum file size of 5 gigabytes (GB).
- c. Color space: The video must use the Rec709 or sRGB color space.

Restrictive markings: Video presentations must not contain any restrictive markings limiting their use or distribution other than a valid copyright notice. Any video submission containing unauthorized restrictive markings will not be assessed and deemed to be nonresponsive.

Video Submission Process:

All video submissions must be submitted through the Tradewind Solutions Marketplace webpage at <https://www.tradewindai.com/opportunities/cljmyfxh0000011090eeyez2s>. No hard copies or physical submissions (e.g., CD, DVD, or Blu-ray) will be accepted or evaluated. Videos that do not conform to the Video Submission Format Requirements or Restrictive Markings guidelines will not be evaluated.

Content of the Technical Volume

Video Submission Content Requirements:

The video presentation must clearly and concisely address the following five elements:

1. Identification of the Problem(s) Addressed:

- a. Begin the video presentation by identifying the problem(s) you aim to address for the DoD and commercializing customers.
- b. Explain the problem thoroughly.

2. Description of the Technology or Service Solution and its Application to the Problem(s) Identified:

- a. Fully describe your proposed solution.
- b. Identify the Technology Readiness Level (TRL) of your solution. Early-stage concepts in search of a product market fit within the CDAO mission sets are encouraged for Phase I awards.

3. Potential Impact of the Solution if Adopted by DoD:

- a. Explain how adoption of your solution would impact the Department of Defense.
- b. Identify potential impacts such as time savings, cost reductions, or risk reduction.

4. Differentiation from Other Technology and Service Solutions Addressing the Same or Similar Problem(s):

- a. Identify other solutions or potential competitors in the market that seek to address the problem(s) you have identified.
- b. Explain what differentiates your solution from the competition and why it is the best way to address the problem(s).

5. Commercialization Strategy:

- a. Describe your company's intended monetization strategy for your solution, both with the government and in commercial markets (if applicable).
- b. DO NOT submit non-public pricing or rates.

Cost Volume (Volume 3)

The Phase I amount must not exceed \$150,000 for a six (6) month period of performance.

Please review the updated Percentage of Work (POW) calculation details included in the DoD Program BAA. The CDAO will not accept any deviation to the POW requirements.

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 Program BAA for full details on this requirement. Information contained in the CCR will not be considered by the CDAO 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.

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. Do not upload any previous versions of this form to Volume 5. For additional details, please refer to the DoD Program BAA.

DIRECT TO PHASE II PROPOSAL GUIDELINES

Entities applying for a Direct to Phase II should have a clearly identified product market fit with a CDAO mission set (www.ai.mil) and be prepared to deliver an Authority to Operate (ATO)-ready prototype at the end of the 18 month Direct to Phase II period of performance.

Proposal Coversheet (Volume 1)

The proposal coversheet is prepared on DSIP and in accordance with the DoD Program BAA.

Technical Volume (Volume 2)

The technical volume should be a one (1) page screen shot of your video submission that includes your DSIP proposal number. This is different than what has been done in the past. The CDAO Generative AI Open Topic requires a video presentation conforming to the format and content requirements described below:

Video Submission Format Requirements:

Maximum length: The video presentation must not exceed five (5:00) minutes in length.

Production requirements:

- a. Resolution: The video must be produced in HD (1920x1080) resolution.

b. Video file format: The video must be encoded for streaming and submitted as an .mp4 file with a maximum file size of 5 gigabytes (GB).

c. Color space: The video must use the Rec709 or sRGB color space.

Restrictive markings: Video presentations must not contain any restrictive markings limiting their use or distribution other than a valid copyright notice. Any video submission containing unauthorized restrictive markings will not be assessed and will be deemed to be nonresponsive.

Video Submission Process:

All video submissions must be submitted through the Tradewind Solutions Marketplace webpage at <https://www.tradewindai.com/opportunities/cljmyfxh0000011090eeyez2s>. No hard copies or physical submissions (e.g., CD, DVD, or Blu-ray) will be accepted or evaluated. Videos that do not conform to the Video Submission Format Requirements or Restrictive Markings guidelines will not be evaluated.

Content of the Technical Volume

Video Submission Content Requirements:

The video presentation must clearly and concisely address the following five elements:

1. Identification of the Problem(s) Addressed:

- a. Begin the video presentation by identifying the problem(s) you aim to address for the DoD and commercializing customers.
- b. Explain the problem thoroughly.

2. Description of the Technology or Service Solution and its Application to the Problem(s) Identified:

- a. Fully describe your proposed solution.
- b. Identify the Technology Readiness Level (TRL) of your solution. Technologies that have identified a product market fit within the CDAO mission set and are approaching an ATO ready prototype are encouraged for Direct to Phase II awards.

3. Potential Impact of the Solution if Adopted by DoD:

- a. Explain how adoption of your solution would impact the Department of Defense.
- b. Identify potential impacts such as time savings, cost reductions, or risk reduction.

4. Differentiation from Other Technology and Service Solutions Addressing the Same or Similar Problem(s):

- a. Identify other solutions or potential competitors in the market that seek to address the problem(s) you have identified.
- b. Explain what differentiates your solution from the competition and why it is the best way to address the problem(s).

5. Commercialization Strategy:

- a. Describe your company's intended monetization strategy for your solution, both with the government and in commercial markets (if applicable).
- b. DO NOT submit non-public pricing or rates.

Cost Volume (Volume 3)

The Direct to Phase II amount must not exceed \$1,200,000 for an 18-month period of performance.

Please review the updated Percentage of Work (POW) calculation details included in the DoD Program BAA. The CDAO will not accept any deviation to the POW requirements.

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 Program BAA for full details on this requirement. Information contained in the CCR will not be considered by the CDAO 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.

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TRADITIONAL PHASE II PROPOSAL GUIDELINES

Traditional Phase II proposals may only be submitted by Phase I awardees. Please follow all of the guidelines as outlined in the Direct to Phase II Proposal Guidelines.

DISCRETIONARY TECHNICAL AND BUSINESS ASSISTANCE (TAB A)

The CDAO will not provide TAB A as part of this topic.

EVALUATION AND SELECTION

All proposals will be evaluated in accordance with the evaluation criteria listed in the DoD Program BAA. CDAO 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 are not evaluated nor considered for award. Please note the

following sections that will be 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 the Proposal Cover Sheet as specified in the DoD SBIR Program BAA.
- Technical Volume (Volume 2). CDAO will evaluate and select Phase I, Direct to Phase II, and Phase II proposals using the evaluation criteria specified in the Video Submission Content Requirements listed in the Phase I, Direct to Phase II, and Traditional Phase II Proposal Guidelines aligned with the company offering of a Phase I, Direct to Phase II, or Phase II proposal. Technical merit of each section will be assessed using a scale of Superior, Satisfactory, Marginal, Unsatisfactory, with each having equal importance. The Technical Volume (Volume 2) will undergo a conformance review (prior to evaluation) to verify the proposing small business concern has met the submission requirements of the BAA detailed in the DoD SBIR instructions.
- Cost Volume (Volume 3). The Cost Volume (Volume 3) will not be considered in the selection process and will only undergo a conformance review to verify the proposing small business concern has followed the BAA instructions.
- Company Commercialization Report (CCR) (Volume 4). The CCR (Volume 4) will not be evaluated by the CDAO nor will it be considered in the CDAO's award decision. However, all proposing small business concerns must refer to the DoD SBIR 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 conformance review to ensure the proposing small business concern has included items in accordance with the submission instructions above.
- Fraud, Waste, and Abuse Training Certificate (Volume 6). Not evaluated.

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 select-ability. 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 CDAO 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 BAA and availability of funding.

Given the limited funding available for each topic released, not all proposals considered selectable will be selected for funding. For the purposes of this proposal evaluation process, a selectable proposal is defined as follows:

Selectable: A selectable proposal is a proposal that has been evaluated by the Government against the evaluation criteria listed in the DoD SBIR BAA and CDAO topic, and the strength of the overall proposal outweighs 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:

Non-Selectable: A proposal is considered non-selectable when the proposal has been evaluated by the Government against the evaluation criteria listed in the DoD SBIR BAA and CDAO 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 awards within 90 days of the closing date of the BAA. It is the policy of CDAO 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 CDAO support contractors are expressly prohibited from performing CDAO-sponsored technical research and are bound by appropriate nondisclosure agreements. Input on technical aspects of the proposals may be solicited by CDAO 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 CDAO. Proposal titles, abstracts, anticipated benefits, and keywords of proposals that are selected for contract award will undergo a CDAO Policy and Security Review. Proposal titles, abstracts, anticipated benefits, and keywords are subject to revision and/or redaction by CDAO. Final approved versions of proposal titles, abstracts, anticipated benefits, and keywords may appear on the DoD SBIR/STTR awards website and/or the SBA's SBIR/STTR award website (<https://www.sbir.gov/sbirsearch/award/all>). In addition the Tradewind Solution Marketplace will denote all selected videos as awardable on www.tradewindai.com.

Refer to the DoD 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: osd.ncr.ousd-r-e.mbx.sbir-sttr-protest@mail.mil.

AWARD AND CONTRACT INFORMATION

All contract awards are anticipated to be Firm Fixed Price with a monthly invoicing cycle spread equally over the period of performance of the contract.

SBIR Phase I Awards: Subject to funding availability, the Government will award single or multiple SBIR Phase I awards as a result of this BAA announcement. The maximum award amount is \$150,000 for a six (6) month period of performance.

The following deliverables are required for a Phase I award:

Kickoff Meeting: A virtual or in-person kickoff meeting between the Government and the awardee(s), to be held within two weeks of contract award.

3-Month Progress Report: A written progress report detailing accomplishments, challenges, and any necessary course corrections due to unforeseen circumstances or discoveries in the pursuit of finding a product market fit within the CDAO mission set.

Final Report: A comprehensive written report summarizing the results, findings, and accomplishments of the Phase I project, along analysis of the commercial potential should this technology be developed into a mature prototype ready for Authority to Operate (ATO) via a SBIR Phase II.

Direct to Phase II Awards and Traditional Phase II Awards: Subject to funding availability, the Government will award single or multiple Direct to Phase II awards or Traditional Phase II awards as a result of this BAA announcement. The maximum award amount is \$1,200,000 for an 18-month period of performance.

The following deliverables are required for all Direct tot Phase II and Traditional Phase II awards:

Kickoff Meeting: A virtual or in-person kickoff meeting between the Government and the awardee(s), to be held within two weeks of contract award.

Quarterly Progress Reports: Written progress reports detailing accomplishments, challenges, and any necessary course corrections due to unforeseen circumstances or discoveries in the pursuit of an ATO ready prototype aligned to the CDAO mission set.

Final Report and ATO Compliant Systems Documentation: A comprehensive written report summarizing the results, findings, and accomplishments of the Phase II project, along with ATO compliant system documentation.

Prototype Demonstration: A demonstration of the prototyped technology, highlighting its features, benefits, and capabilities, with a focus on its appropriateness for transition to production or usage scenarios.

ADDITIONAL INFORMATION

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.

Additionally, CDAO reserves the right to accept proposals in their entirety or to select only portions of proposals for award. In the event that CDAO desires 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. CDAO 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 CDAO permission before publishing any information or results on the program.

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.

CDAO SBIR 25.4 Topic Index
Release 1

OSD254-P001	Generative AI BAA Open Topic
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OSD254-P001 TITLE: Generative AI BAA Open Topic

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

OBJECTIVE: Identify Generative AI Applications/Technologies

DESCRIPTION: This open topic invites proposals that explore dual use Generative Artificial Intelligence (AI) technologies and applications to enhance government operations. The Chief Digital and AI Office (CDAO) seeks innovative, AI-driven solutions that can help streamline processes, improve decision-making, and provide more efficient and effective services to citizens. Generative AI holds significant potential for government applications, as it can be utilized to generate new content or solutions, automate complex tasks, and provide valuable insights from large datasets.

PHASE I: Entities applying for a Phase I should be in search of product market fit with a CDAO mission set (www.ai.mil) and be early stage development. The final report at the end of the six (6) month period of performance shall cover steps accomplished to find product market fit within the CDAO mission sets and an analysis of the commercial potential should this technology be developed into a mature prototype ready for Authority to Operate (ATO) via a SBIR Phase II.

PHASE II: Entities applying for a Direct to Phase II should have a clearly identified product market fit with a CDAO mission set (www.ai.mil) and be prepared to deliver an Authority to Operate (ATO)-ready prototype at the end of the 18 month Direct to Phase II period of performance.

PHASE III DUAL USE APPLICATIONS: Describe one or more potential commercial applications, and one or more potential DoD/military applications for the technology that may be pursued by the firm post Phase II. Phase III refers to work that derives from, extends, or completes an effort made under prior SBIR/STTR funding agreements, but is funded by sources other than the SBIR/STTR Program.

REFERENCES:

1. www.ai.mil

KEYWORDS: Generative Artificial Intelligence (AI); Government Operations; Streamlining processes; Improving decision-making; Efficient and effective services; Automating complex tasks; Personalized communications; Document generation; Virtual assistants; Resource allocation; Testing and implementation; Acquisition Efficiency

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 [include direct employees, subcontractors, and consultants]	Foreign National (Yes/No)	Country of Origin	Type of Visa or Work Permit	Level of Involvement (Role)

9. Facilities/Equipment.

[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. Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data or Computer Software.

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 must 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-O0007, 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 [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 cross-agency 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 [here](#). 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 [list](#) 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, web-use 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-O0013)	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 Software--Small Business Innovation Research (SBIR) Program (DEVIATION 2020-O0007) (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 Data--Withholding of Payment	Mar-00	
252.227-7037	Validation of Restrictive Markings on Technical Data	Jan-23	
252.227-7039	Patents--Reporting 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-O0006, 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.