Department of the Army
23.4 Small Business Innovation Research (SBIR)
Pacific Open Topic
Component-Specific Proposal Instructions

March 9, 2023: Topic issued for pre-release
September 20, 2023: Army begins accepting proposals via DSIP
September 20, 2023: DSIP Topic Q&A closes to new questions at 12:00pm. ET
October 11, 2023: Deadline for receipt of proposals no later than 12:00 pm. ET

IMPORTANT: This topic is open for all interested U.S based small businesses to submit for a SBIR award. The U.S. Army would like to invite interested entities to participate in the Pacific Open Topic, and submit for a Phase I or Direct to Phase II SBIR award.

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 fail. The Army must provide game-changing capabilities to our Soldiers. To capitalize on small business innovation, 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. This approach also strives to create a more rapid award time from solicitation to closing.

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 DoD Program BAA is located at: https://www.defensesbirsttr.mil/SBIR-STTR/Opportunities/#announcements. Be sure to select the tab for the appropriate BAA cycle.
- Register for the DSIP Listserv at: https://www.dodsbirsttr.mil/submissions/login.

CONTACT INFORMATION

Direct Specific questions pertaining to the administration of the Department of the Army SBIR Program and proposal preparation instructions to the Point of Contact identified in the Topic announcement. General questions can be directed to the following:

Email: usarmy.pentagon.hqda-asa-alt.mbx.army-applied-sbir-program@army.mil
Website: https://www.armysbir.army.mil/
Mailing Address:
Army Applied SBIR Office 2530 Crystal Dr; Ste 11192
Arlington, VA 22202

RESPONSIVENESS AND TIMELINESS

All proposals will be evaluated and judged on a competitive basis. Proposals will only be evaluated in response to an active, corresponding Army topic. Proposals will be initially screened to determine responsiveness and timeliness. Proposals passing this initial screening will be technically evaluated by engineers or scientists to determine the most promising technical and scientific approaches. Assessment of responsiveness may continue during technical evaluation and after selection. If at any point the proposal is deemed untimely, unresponsive, ineligible, or non-responsible, the proposal will be rejected / the contract action will be cancelled.

SYSTEM FOR AWARD MANAGEMENT (SAM)
Interested firms are required to be registered and active in SAM (www.sam.gov) before submitting a proposal and shall continue to be registered until time of award, during performance, and through final payment of any contract. The proper North American Industry Classification System (NAICS) code and Product and Service Code are as follows:

NAICS: 541715, Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)
PSC: AC12, National Defense R&D Services; Department of Defense - Military; Applied Research

Proposing firms with no SAM registration, inactive SAM registration(s), or SAM registration(s) with improper representations and certifications will be disqualified.

A firm may NOT submit an offer on behalf of another entity. The proposed firm must be the same firm (Cage Code/DoDAAC/UEI/Duns) that receives the award.

ELIGIBILITY
The eligibility requirements for the SBIR/STTR programs are unique and do not correspond to those of other small business programs. Please refer to Section 3.1, Eligible Applicants, of BAA 23.4 for full eligibility requirements.

Ownership in Part by Multiple Venture Capital, Hedge Fund, and Private Equity Firms
Proposing small business concerns 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.

- Proposing small business concerns must identify each foreign national, foreign entity, or foreign government holding or controlling greater than a 5% equity stake in the proposing small business concern, whether such equity stake is directly or indirectly held.
- The proposing small business concern must 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.

Venture capital operating companies, 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, must have a total of 500 employees or less.

Anticipated Structure/Award Information
For this topic, Department of the Army will accept Phase I proposals for the cost of up to $250,000 for up to 6-month period of performance and Direct to Phase II proposals for a cost up to $1,900,000 for an 18-month period of performance.
Proposals that do not comply with the requirements detailed in BAA 23.4 and the research objectives of these Component Instructions are considered non-conforming and therefore are not evaluated nor considered for award.

Phase I proposals in response to this BAA include the following:

- Volume 1: Proposal Cover Sheet
- Volume 2: Technical Volume (13 pages maximum; breakdown below)
    - Technical Proposal (5 pages maximum)

    - Commercialization Plan (8 pages maximum saved as PDF)
- Volume 3: Cost Volume
- Volume 4: Company Commercialization Report (REQUIRED)
- Volume 5: Supporting Documents (Requirements outlined in the DoD Program BAA)
    - Contractor Certification Regarding Provision of Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment
    - Disclosures of Foreign Affiliations or Relationships to Foreign Countries
    - Disclosure of Funding Sources - Please refer to the DoD Program BAA for more information.)
    - Fraud, Waste, and Abuse Training Certificate

PHASE I PROPOSAL INSTRUCTIONS

The Defense SBIR/STTR Innovation Portal (DSIP) is the official portal for DoD SBIR/STTR proposal submission. Proposers (also referred to herein as "offeror(s)") 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.

Proposal Coversheet (Volume 1)

The proposal coversheet must 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 technical volume is not to exceed 5 pages and must follow the formatting requirements provided in the DoD SBIR Program BAA. A commercialization plan must also accompany the technical proposal and must be 8 slides. The required content to include within these slides are described in Appendix D. The commercialization plan must be converted to a pdf and attached to the end of the technical volume, resulting in one pdf file to be uploaded to DSIP as Volume 2. The commercialization plan does not count towards the technical volume 5-page limit. Any proposals submitted without a commercialization plan or in a format other than that provided by the BAA will not be reviewed.

Volume 2 (Part One Technical Proposal)

The Technical Volume shall contain two key sections – technical approach and team qualifications The technical approach section shall contain details on how the proposer is going to solve the problem. It shall detail key elements of the firm's approach, any risks, relevant past work and how success is measured. The team qualifications section shall highlight the key personnel working on the project, and the resources that will be brought to bear on solving the problem.

Volume 2 (Part Two Commercialization Plan)

The commercialization plan shall include:

- Company information: Focused objectives/core competencies; specialization area(s); products with significant sales; and history of previous Federal and non-Federal funding, regulatory experience, and subsequent commercialization successes.
- Customer and Competition: Clear description of key technology objectives, current competition, and advantages compared to competing products or services; description of hurdles to acceptance of the innovation.
- Market: Milestones, target dates, analyses of market size, and estimated market

share after first year sales and after 5 years; explanation of plan to obtain market share.

- 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.
- Financing: Plans for securing necessary non-SBIR funding.
- 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.

These instructions supersede those stated in section 5.3.c of the DoD Program BAA.

Cost Volume (Volume 3)
The Cost Volume must follow all instructions and requirements provided in the DoD SBIR Program BAA. Supplemental requirements are as follows:

Unless otherwise noted in the topic, the Phase I Base amount must not exceed $250,000 for a 6-month period of performance. Phase I Options are not anticipated at this time. If an option is identified in the topic posting, costs for the Base and Option must be separated and clearly identified on the Proposal Cover Sheet (Volume 1) and in Volume 3. Awards for these topics will be in the form of a firm fixed price contract.

Content of the Cost Volume (Volume 3)
For pricing purposes, offerors should assume a contract or agreement start date of approximately ninety (90) days after submission of the proposal. Awards are executed as FAR-based firm-fixed-price contracts. Fixed price payments shall be tied to measurable milestones, as agreed to by the Government.

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 offeror will be disqualified. Proposals lacking a fair and reasonable price will be eliminated.

ALL proposed costs should 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 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.

ALL proposed costs should be accompanied by documentation to substantiate how the cost was derived. Substantiating documentation guidance is as follows:

- LABOR:
    - List all key personnel by name as well as by number of hours dedicated to the project as direct labor.
    - Explain the basis of proposed labor hours, including required tasks, and substantiating documentation for the costs (e.g. payroll reports). Volume 5, Supporting Documents, may be used if additional space is needed.
- MATERIAL/TOOLING/EQUIPMENT:
    - Explain the basis of proposed material and equipment costs. This support should include a consolidated priced summary of individual material and equipment quantities and 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. Volume 5, Supporting Documents, may be used if additional space is needed.
    - 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 must, in the opinion of the 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.
- 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. Volume 5, Supporting Documents, may be used if additional space is needed.
- SUBCONTRACTS: A subcontract is any agreement, 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.
    - All subcontractor costs and consultant costs must be detailed at the same level as prime contractor costs in regard to labor, travel, equipment, etc.
    - Explain the basis of proposed subcontract costs. Include documented support of the offeror's price analyses and degree of competition of all subcontractor

proposals. 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 substantiation of subcontractor costs in your cost proposal. Volume 5, Supporting Documents, may be used if additional space is needed.

- Certify that the following requirements are met: For Phase I, the offeror must perform a minimum of two-thirds of the research and/or analytical effort. One third 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 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.

- Offerors shall not propose to subcontract to any prohibited sources. Proposals identifying a subcontractor/vendor arrangement with a prohibited source may be rejected.

- Offerors shall ensure subcontracting arrangements are with United States Small Businesses to the maximum extent practicable. Offerors proposing a subcontractor arrangement with other than a United States Small Business (such as, a large business, foreign firm, foreign government, educational institution, unit of Federal Government, etc.) may be required to submit further explanation.

- INDIRECT COSTS:

  - Explain the basis of the proposed indirect expense rates including overhead, general and administrative, material handling, and fringe benefits.

  - 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).

  - Offerors shall provide any current Forward Pricing Rate Agreements (FPRA) in effect at time of proposal submission.

If selected for award, failure to include the documentation with your proposal may delay 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 cancellation of the contract action.

Company Commercialization Report (CCR) (Volume 4)

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

Supporting Documents (Volume 5)
Volume 5 is provided for proposers to submit additional documentation to support the Cover Sheet (Volume 1), Technical Volume (Volume 2), and the Cost Volume (Volume 3).

All proposing small business concerns are REQUIRED to submit the following documents to Volume 5:

1. Contractor Certification Regarding Provision of Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment
2. Disclosures of Foreign Affiliations or Relationships to Foreign Countries
3. Disclosure of Funding Sources - Please refer to the DoD Program BAA for more information.
4. Fraud, Waste, and Abuse Training Certificate

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

- Additional Cost Information
- Funding Agreement Certification
- Technical Data Rights (Assertions)
- Lifecycle Certification
- Allocation of Rights
- Other (only as specified in the topic)

Please only submit documents that are identified immediately above and in the DoD Program BAA. All other documents submitted will be disregarded.

DIRECT TO PHASE II PROPOSAL (DP2) GUIDELINES
Proposers interested in submitting a DP2 proposal in response to this particular topic must provide documentation to substantiate that the scientific and technical merit and feasibility described in the Phase I section of the topic has been met and describes the potential commercial applications. Documentation should include all relevant information including, but not limited to: technical reports, test data, prototype designs/models, and performance goals/results. Work submitted within the feasibility documentation must have been substantially performed by the proposer and/or the Principal Investigator.

The Army will not evaluate the proposer's related Phase II proposal if it determines that the proposer has failed to demonstrate that technical merit and feasibility 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.

Feasibility documentation cannot be based upon any prior or ongoing federally funded SBIR or STTR work and DP2 proposals MUST NOT logically extend from any prior or ongoing federally funded SBIR or STTR work.

Format of Technical Volume (Volume 2)
The Technical Volume must include three parts, the Feasibility Documentation, the Technical Proposal, and the Commercialization Plan.

The Technical Volume must be a single Portable Document Format (PDF) file, including graphics. Perform a virus check before uploading the Technical Volume file. If a virus is detected, it may cause rejection of the proposal. Do not lock or encrypt the uploaded file. Do not include or embed active graphics such as videos, moving pictures, or other similar media in the document.

The length of the Feasibility Documentation is not to exceed 5 pages and the length of the Technical Proposal is not to exceed 10 pages. A commercialization plan must also accompany the technical proposal and should be 8 slides. The required content to include within these slides are described in Appendix D. Any proposals submitted in a different format, or exceed the page count limits will not be reviewed.

Number all pages of your proposal consecutively. Font size should not be smaller than 10- point on standard 8-1/2" x 11" paper with one-inch margins. The header on each page of the Technical Volume should contain your company name, topic number, and proposal number assigned by DSIP when the Cover Sheet was created. The header may be included in the one-inch margin.

Volume 2, PART ONE: Feasibility and Technical Proposal (15 pages maximum)
Offerors are free to structure each section of Volume 2, PART ONE as they like, so long as it provides sufficient detail for evaluators to understand the proposed work, who will carry it out, and how the business plans to commercialize results. Volume 2, PART ONE shall include the following:

Volume 2, PART ONE A: Feasibility Documentation (5 pages):

- The offeror shall provide documentation in its proposal to substantiate that the scientific and technical merit and feasibility described in the Phase I section of the topic component-specific instructions 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 from the Phase I effort.
- 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 listed within the feasibility documentation must have been substantially performed by the offeror and/or the Principal Investigator (PI) during the Phase I effort.
- If technology in the feasibility documentation is subject to Intellectual Property (IP), the offeror 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. Documentation of IP ownership or license rights shall be included in the Technical Volume of the proposal.

Volume 2, PART ONE B: Technical Proposal (10 pages). At a minimum, the technical proposal shall address all of the following:

- What are you trying to do? Describe your firm's technical approach/solution. Articulate your firm's objectives without jargon.
- What is new in your firm's approach and why will your firm be successful?
- If you firm is successful, what difference will this technology make?

- What are the technical risks?
- What is the Period of Performance? In other words, how long will it take to complete the contract, including a milestone schedule to justify the requested period of performance.

Volume 2, PART TWO: Commercialization Plan (8 slides/pages maximum saved as a PDF and attached with the Technical Proposal as part of the Technical Volume, MUST follow the Appendix D Template provided as an additional attachment to these instructions).

The Army is equally interested in dual use commercialization of SBIR/STTR projects that result in products sold to the U.S. military, the private sector market, or both. The Army expects explicit discussion of key activities to achieve this result in the commercialization strategy part of the proposal.

- What is the commercialization plan for the proposed technology? The commercialization plan shall include the following and adhere to the Appendix D Template attached:
  - Company information: Focused objectives/core competencies; specialization area(s); products with significant sales; and history of previous Federal and non-Federal funding, regulatory experience, and subsequent commercialization successes.
  - Customer and Competition: Clear description of key technology objectives, current competition, and advantages compared to competing products or services; description of hurdles to acceptance of the innovation.
  - Market: Milestones, target dates, analyses of market size, and estimated market share after first year sales and after 5 years; explanation of plan to obtain market share.
  - 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.
  - Financing: Plans for securing necessary non-SBIR funding.
  - 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., Small Business Development Centers or Procurement Technical Assistance Centers), commercial accelerators, DOD Prime Contractors, or other assistance provider.

The commercialization plan should include the following elements:

- A summary of transition and commercialization activities, and the Technology Readiness Level (TRL) achieved. Discuss how the preliminary transition and commercialization path or paths may evolve during the Phase II project.
- Describe key proposed technical milestones during Phase II that will advance the technology towards product such as: prototype development, laboratory and systems testing, integration, testing in operational environment, and demonstrations.

- Description of Product(s) and/or System Application(s). Identify the commercial product(s) and/or DoD system(s), or system(s) under development, or potential new system(s). Identify the potential DoD end- users, Federal customers, and/or private sector customers who would likely use the technology.
- Business Model(s)/Procurement Mechanism(s). Discuss your current business model hypothesis for bringing the technology to market. Describe plans to license, partner, or self-produce your product. How do you plan to generate revenue? Understanding the Army's goal of creating and sustaining viable small businesses that support and generate advanced Army technologies, describe how you intend to develop your product and supply chains to enable this differentiation.
- Target Market. Describe the market and customer sets you propose to target, their size, their growth rate, and their key reasons they would consider procuring the technology.
- Describe competing technologies existent today on the market as well as those being developed in the lab.
- Funding Requirements. Describe your company's funding history. How much external financing have you raised? Describe your plans for future funding sources (internal, loan, angel, venture capital, etc.).
- Commercialization Risks. Describe the major technology, market and team risks associated with achieving successful transition of the Army funded technology.
- Expertise/Qualifications of Team/Company Readiness. Describe the expertise and qualifications of your management, marketing/business development and technical team that will support the transition of the technology from the prototype to the commercial market and into government operational environments. Has this team previously taken similar products/services to market? If the present team does not have this needed expertise, how do you intend to obtain it? What is the financial history and health of your company (e.g., availability of cash, profitability, revenue growth, etc.)?
- Anticipated Commercialization Results. Include a schedule showing the anticipated quantitative commercialization results from the Phase II project at one year after the start of Phase II, at the completion of Phase II, and after the completion of the Sequential Phase II (i.e., amount of additional investment, sales revenue, etc.). After a Phase II award, the company is required to report actual sales and investment data in its Company Commercialization Report at least annually.

Cost Volume (Volume 3)

Unless otherwise noted in the topic, the Army will accept Direct to Phase II proposals for a cost up to $1,900,000 for an 18-month period of performance. 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 should assume a contract or agreement start date of approximately ninety (90) days after submission of the proposal. Awards are executed as FAR-based firm-fixed-price contracts. Fixed price payments shall be tied to measurable milestones, as agreed to by the Government.

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 offeror will be disqualified. Proposals lacking a fair and reasonable price will be eliminated.

Content of the Cost Volume (Volume 3)

ALL proposed costs should 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 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.

Cost Breakdown Guidance:

ALL proposed costs should be accompanied by documentation to substantiate how the cost was derived. Substantiating documentation guidance is as follows:

- LABOR:
    - List all key personnel by name as well as by number of hours dedicated to the project as direct labor.
    - Explain the basis of proposed labor hours, including required tasks, and substantiating documentation for the costs (e.g. payroll reports). Volume 5, Supporting Documents, may be used if additional space is needed.

- MATERIAL/TOOLING/EQUIPMENT:
    - Explain the basis of proposed material and equipment costs. This support should include a consolidated priced summary of individual material and equipment quantities and 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. Volume 5, Supporting Documents, may be used if additional space is needed.
    - 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 must, in the opinion of the 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.

- 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. Volume 5, Supporting Documents, may be used if additional space is needed.

- SUBCONTRACTS: A subcontract is any agreement, 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.

  - All subcontractor costs and consultant costs must be detailed at the same level as prime contractor costs in regard to labor, travel, equipment, etc.
  - Explain the basis of proposed subcontract costs. Include documented support of the offeror's price analyses and degree of competition of all subcontractor proposals. 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 substantiation of subcontractor costs in your cost proposal. Volume 5, Supporting Documents, may be used if additional space is needed.
  - Certify that the following requirements are met: For a Direct to Phase II, the offeror must perform a minimum of one-half of the research and/or analytical effort. Less than one-half 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 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.
  - Offerors shall not propose to subcontract to any prohibited sources. Proposals identifying a subcontractor/vendor arrangement with a prohibited source may be rejected.
  - Offerors shall ensure subcontracting arrangements are with United States Small Businesses to the maximum extent practicable. Offerors proposing a subcontractor arrangement with other than a United States Small Business (such

as, a large business, foreign firm, foreign government, educational institution, unit of Federal Government, etc.) may be required to submit further explanation.

- INDIRECT COSTS:

    - Explain the basis of the proposed indirect expense rates including overhead, general and administrative, material handling, and fringe benefits.
    - 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).
    - Offerors shall provide any current Forward Pricing Rate Agreements (FPRA) in effect at time of proposal submission.

If selected for award, failure to include the documentation with your proposal may delay 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 cancellation of the contract action.

For more information about cost proposals and accounting standards, see the DCAA publication titled "Audit Process Overview – Information for Contractors" available at: http://www.dcaa.mil.

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

Supporting Documents (Volume 5)
Volume 5 is provided for proposers to submit additional documentation to support the Cover Sheet (Volume 1), Technical Volume (Volume 2), and the Cost Volume (Volume 3).

All proposing small business concerns are REQUIRED to submit the following documents to Volume 5:

1. Contractor Certification Regarding Provision of Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment
2. Disclosures of Foreign Affiliations or Relationships to Foreign Countries
3. Disclosure of Funding Sources - Please refer to the DoD Program BAA for more information.
4. Fraud, Waste, and Abuse Training Certificate

In addition to the Volume 5 requirements outlined in the DoD Program BAA, the Department of the Army will accept the following documents in Volume 5:

- Additional Cost Information

- Funding Agreement Certification
- Technical Data Rights (Assertions)
- Lifecycle Certification
- Allocation of Rights
  - Other (only as specified in the topic)

Please only submit documents that are identified in the topic instructions. All other submissions will be disregarded.

PHASE II PROPOSAL INSTRUCTIONS

Phase II proposals may only be submitted by Phase I awardees. Phase II proposal submission window, notification process, expected budget/duration structure and additional instructions will be provided in the Phase I contract or by subsequent notification.

DISCRETIONARY TECHNICAL AND BUSINESS ASSISTANCE (TABA)

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 small business concern may, by contract 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. TABA funding will be denied if the offeror fails to include the cost and detailed explanation in its proposal.

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;
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 per year (in addition to the base SBIR award amount).
  - Firm-Selected Vendor: If approved, the contractor may receive up to $6,500 in contract obligation (in addition to the base SBIR award amount) per project per year.
- Phase II Firms:
  - Army-Preferred Vendor: If approved, the contractor may receive up to $50,000 worth of assistance services per project per year (in addition to the base SBIR award amount).
  - Firm-Selected Vendor: If approved, the contractor may receive up to $50,000 in contract obligation (included in the base SBIR award amount) per project per year.

EVALUATION AND SELECTION

All proposals will be evaluated during the Pacific Open Topic in accordance with the evaluation criteria that has been provided to the Pacific Open Topic. It is the policy of the Army to ensure equitable and comprehensive proposal evaluations based on the evaluation criteria provided to the finalists and to select the source (or sources) whose offer meets the Government's technical, policy, and programmatic goals.

All proposal evaluations will be based solely on the above evaluation criteria. The Army 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 opportunity are considered non-conforming and therefore will not evaluated nor considered for award.

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.

Selected proposals are those determined to be the most advantageous to the Government, consistent with instructions and evaluation criteria specified in the DoD Program BAA, the component-specific instructions herein, the corresponding Topic posting, and availability of funding.

Proposing firms will be notified via email of selection or non-selection status for a Phase I or direct to Phase II award 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. The Army promotes transparency regarding the technical evaluation for all Army SBIR proposals. The Army will provide a technical evaluation narrative to the proposer in accordance with the SBA Policy Directive, Appendix I, paragraph 4. The selection decision notice contains instructions for retrieving the technical evaluation narrative.

Proposers must not regard the notification email (selection decision notice) as an authorization to commit or expend funds. After the Army SBIR Office has recommended a proposal for award, 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 must not regard these communications as an authorization to commit or expend funds. Unless a Government Contracting Officer signs the award document (i.e. contract), no obligations to provide funding are made. The Government may reject the proposal or cancel the contract action at any time.

If signed by the Government Contracting Officer, the award document is the official and authorizing instrument (i.e. contract). The anticipated period of performance start date will be determined at time of award. The Contracting Officer will email the signed, authorizing award instrument to the principal investigator (PI) and/or an authorized organization representative.

PROTESTS

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

As further prescribed in FAR 33.106(b), FAR 52.233-3, Protests after Award shall be submitted to the Point of Contract identified in the topic solicitation:

Email: usarmy.pentagon.hqda-asa-alt.mbx.army-applied-sbir-program@mail.mil

Mailing Address:
Army Applied SBIR Office
2530 Crystal Dr; Ste 11192
Arlington, VA 22202

Appendix A
Phase I Evaluation Criteria

Applied SBIR Phase I Proposal Review v2-0-3 Evaluation Criteria Defined

		DEFINITION
INTRODUCTION	weight 5%	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?
weight 25%	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?
weight 25%	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.
weight 20%	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.
weight 10%	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.
weight 5%	DATA QUALITY & ATTRIBUTION	Support your arguments with relevant, properly attributed data to enhance your credibility.

Appendix B
Direct to Phase II Evaluation Criteria

Applied SBIR D2P2 Proposal Review v2-0-4 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?
weight 20%	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?
weight 30%	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.
weight 20%	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.
weight 15%	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.
weight 3%	DATA QUALITY & ATTRIBUTION	Support your arguments with relevant, properly attributed data to enhance your credibility.

Appendix C
Phase II Evaluation Criteria

Applied SBIR Phase II Proposal Review v2-0-3 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?
weight 20%	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?
weight 25%	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.
weight 25%	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.
weight 25%	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 5%	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.
weight 3%	DATA QUALITY & ATTRIBUTION	Support your arguments with relevant, properly attributed data to enhance your credibility.

Appendix D
Commercialization Plan Template

General Instructions/Guidance:

1. The slide deck must be 8 slides total, per Component Instructions, and follow the formatting contained in the template. Font size shall be no smaller than 10-point font.
2. Slides should display the slide number in bottom right corner
3. All text (including tables, charts, plots, axes labels, legends, captions) must be readable without zooming and understandable without voice-over
4. For plots and charts:
    a. Include title/bullet describing importance of plot/chart, and/or data (be specific)
    b. Axes must be meaningfully labeled (to be understandable by non-experts) and include scale
5. Avoid jargon; define technical terms
6. Convert from slide format to a PDF file for submission to DSIP alongside the technical volume proposal
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
10. Do not put any company logos (Twitter, Reddit, GitHub, etc) on your slides

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

Appendix D
Commercialization Plan Template cont.

Firm Name

SBIR Project Title

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

.....

Insert Topic Number
Insert Proposal Number

Distribution markings as appropriate for your organization

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

Appendix D
Commercialization Plan Template cont.

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.

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.

Appendix D
Commercialization Plan Template cont.

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 bring products to market – either through this company or though other companies with which you have worked.
- Does the company currently market, manufacture, or license technology? Describe what you do.

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.

Appendix D
Commercialization Plan Template cont.

Financing

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

Assistance & Mentoring

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

Army SBIR 23.4 Topic Index
Release 7

A234-P010 Pacific Open Topic

A234-P010 Pacific Open Topic

Critical Technical Area(s): Advanced Computing and Software; Integrated Network Systems-of-Systems; Renewable Energy Generation and Storage; Human-machine Interfaces

OBJECTIVE:

It has been noted that when it comes to conflict, America is often the "away team." The U.S. is often fighting wars in areas thousands of miles from U.S. shores. This fact creates a "tyranny of distance," meaning that, distance lessens military strength and increases the cost of conflicts. The impact of long distances can affect overall strategy, tactics, and logistics. Even with unrivaled capabilities, the ability to collect and understand intelligence can decay over distance. The supply chain is also heavily impacted, as distance increases, the time to provide supplies increases, supply routes can be contested, and even when supplies arrive safely, upkeep and maintenance are still a concern. These are just a few of the ways that distance impacts the effectiveness of our military overseas.

The U.S. Army is interested in enabling technologies that could help overcome the "tyranny of distance". Examples of technologies that address this issue include but are not limited to the following domains:

- **Logistics/Supply Chain:** To ensure rapid resupply of material and aid.
- **Sustainment and Climate:** To limit the need for resupply across geographically dispersed troops.
- **Communications:** To ensure secured communication in degraded environments over extraordinary distances.
- **Internet of Things (IoT)/Sensing:** To increase force control and introduce autonomous capabilities in Theater.
- **Information Advantage:** To increase real-time situational awareness through information operations and a commons intelligence picture.

DESCRIPTION:

This topic is open for all interested U.S based small businesses to submit a Phase I or Direct to Phase II proposal. The U.S. Army would like to invite interested entities to participate in the Pacific Open Topic, and submit for a Phase I or Direct to Phase II SBIR award. The Pacific Open Topic offers an opportunity for eligible participants to submit novel technology solutions directly to the Army addressing tyranny of distance challenges faced across the country.

The U.S. Army Combat Capabilities Development Command (DEVCOM)-Pacific, U.S. Army Pacific (USAPAC), and Hawaii Technology Development Corporation (HTDC) in partnership with the Assistant Secretary of the Army (Acquisition, Logistics, and Technology) (ASA(ALT)), recognizes that the Army must enhance engagements with eligible small businesses by: (1) understanding the spectrum of 'world-class' technologies being developed commercially that may benefit the Army; (2) integrating the sector of commercial innovators into the Army's Science and Technology (S&T) ecosystem; and (3) providing mentorship and expertise to accelerate, mature, and transition technologies of interest to the Army.

PHASE I:

Companies will complete a feasibility study that demonstrates the firm's competitive technical advantage relative to other commercial products (if other products exist) and develop concept plans for how the company's technology can be applied to Army modernization priority areas. Studies should clearly detail and identify a firm's technology at both the individual component and system levels, provide supporting literature for technical feasibility, highlight existing performance data, showcase the technology's application opportunities to a broad base of customers outside the defense

space, a market strategy for the commercial space, how the technology directly addresses the Army's modernization area as well as include a technology development roadmap to demonstrate scientific and engineering viability.

At the end of Phase I, the company will be required to provide a concept demonstration of their technology to demonstrate a high probability that continued design and development will result in a Phase II mature product.

PHASE II:

Produce prototype solutions that will be easy to operate by a Soldier. These products will be provided to select Army units for further evaluation by the soldiers. In addition, companies will provide a technology transition and commercialization plan for DOD and commercial markets.

PHASE III DUAL USE APPLICATIONS:

Complete the maturation of the company's technology developed in Phase II to TRL 6/7 and produce prototypes to support further development and commercialization. The Army will evaluate each product in a realistic field environment and provide small solutions to stakeholders for further evaluation. Based on soldier evaluations in the field, companies will be requested update the previously delivered prototypes to meet final design configuration.

REFERENCES: https://www.xtech.army.mil/competitions/

KEYWORDS: logistics; supply chain; climate; Open Topic; Pacific; internet of things; information collection; data collection; sensing; communications