

**Department of the Army**  
**DoD 24.4 Small Business Innovation Research (SBIR)**  
**Annual Broad Agency Announcement (BAA)**  
**Component-Specific Proposal Instructions**  
**Release 12**

**APR 4, 2024:** Topic issued for pre-release  
**MAY 16, 2024:** Army begins accepting proposals via DSIP  
**MAY 28, 2024:** DSIP Topic Q&A closes to new questions at 12:00 p.m. ET  
**JUNE 11, 2024:** Deadline for receipt of proposals no later than 12:00 p.m. ET

## **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.

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

- The DoD Program BAA is located at: <https://www.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.dodsirsttr.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 Monroe Harden, AFC SBIR Portfolio Director, [Monroe.b.harden2.civ@army.mil](mailto:Monroe.b.harden2.civ@army.mil).

## **OPEN TOPIC**

This solicitation/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.

## **RESPONSIVENESS AND TIMELINESS**

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, through a peer or scientific review process, 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 disqualified/rejected, and a contract will not be awarded.

Interested firms shall follow the DoD Program BAA instructions as well as the Army's component-specific proposal instructions herein, when preparing and submitting proposals. The DoD 24.4 SBIR Program BAA can be found here: <https://www.defensesbirsttr.mil/SBIR-STTR/Opportunities/>.

The Government reserves the right to disqualify/reject proposals for failing to meet any of the requirements of the SBA SBIR/STTR Policy Directive, the DoD 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 disqualified/rejected:

- System for Award Management (refer to section 'Representations through the System for Award Management (SAM) below for SAM specific requirements).
- 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.
- Price exceeds the stated award guideline limitation identified within the corresponding SBIR opportunity.
- Proposal exceeds the stated page count(s) or formatting requirements
- Firm is NOT an eligible small business.
- 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 small business.
- 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 have employed, on average over the last 24 months, more than 500 employees.

- Firm has been awarded a contract from the US Government for essentially equivalent work.
- Claiming data rights assertions without including a Data Rights Assertions Table.
- 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 Defense Federal Acquisition Regulation Supplement (DFARS) Clause 252.215-7010, Requirements for Certified Cost or Pricing Data and Data Other Than Certified Cost or Pricing Data.
- Proposal is for a topic other than that which is identified.
- Failure to submit a complete and fully certified DD Form 2345, Military Critical Technical Data Agreement, or evidence of application submission when the Topic is subject to International Traffic in Arms or Export Administration Regulations (ITAR/EAR). In such cases, a company there would be an affirmative response to Prompt #7 “There will be ITAR/EAR data in this work and/or deliverables,” within Volume I Proposal Coversheet, under the Proposal Certification section.
- Proposals that do not include the fully completed and signed foreign disclosure Disclosures of Foreign Affiliations or Relationships to Foreign Countries in Volume 5 of the proposal submission will be deemed noncompliant and will not receive an evaluation.

Proposals that do not comply with the requirements detailed in the DoD Program BAA, these Component Instructions, and the research objectives of the topic are considered nonresponsive or non-conforming and therefore will not be evaluated or considered for award.

## **REPRESENTATIONS THROUGH THE SYSTEM FOR AWARD MANAGEMENT (SAM)**

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.

Interested firms are required to be registered and active in SAM ([www.sam.gov](http://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. 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

A firm may NOT submit an offer on behalf of another entity. The proposed firm's Entity Information shall match the Entity Information (Commercial and Government Entity (CAGE) Code / DoD Activity Address Code (DoDAAC) / Unique Entity Identifier (UEI)) contained in the proposal to be eligible for award.

Proposing firms with no SAM registration, inactive SAM registration(s), or SAM registration(s) with improper representations and certifications will be disqualified and shall not be considered for award.

## **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 Small Business Innovation Research (SBIR) and Small Business Technology Transfer (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 firms may refer to Section 4.2, Proposing Small Business Concern Eligibility and Performance Requirements, of BAA 24.4, to include any amendments, 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 shall 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 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.

### **INTERNATIONAL TRAFFIC IN ARMS REGULATIONS (ITAR)**

Statement of Work tasks shall neither require the use of export-controlled information/property nor result in the development of export-controlled data/hardware unless expressly stated in the topic (e.g. "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").

If a proposal is submitted under a topic that requires the use of export-controlled information/property or the development of export-controlled data/hardware, either ITAR/EAR, a complete and fully certified DD Form 2345, Military Critical Technical Data Agreement, or evidence of application submission, must be included with timely proposal submission. Failure to provide such documentation will be grounds for disqualification and rejection of the proposal.

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.

A contract award will not be made without a complete and fully certified DD Form 2345. Additionally, and pursuant to DFARS Procedures Guidance and Information (PGI) 225.7901-2, Contractors shall direct their attention to the clause at DFARS 252.225-7048, Export-Controlled Items for questions concerning compliance with ITAR/EAR.

## **CONTROLLED UNCLASSIFIED INFORMATION (CUI)**

Successful firms will be required to comply with Controlled Unclassified Information (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 disqualified and rejected 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 BAA 24.4 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 small business 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, small business concerns 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 disqualified and rejected 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 BAA 24.4 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. Small business concerns 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 disqualified and rejected at any time throughout proposal evaluation and analysis.

If a Phase II SBIR proposal is submitted under a topic that allows the involvement of recombinant DNA, the offeror shall abide by DoD BAA 24.4 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. Small business concerns 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 Defense Federal Acquisition Regulation Supplement (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 may result in disqualification of the proposal and cancellation of the contract action.
  - 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

## **ANTICIPATED STRUCTURE/AWARD INFORMATION**

For this topic, Department of the Army will accept Direct-to-Phase II (DP2) proposals only for a price of up to \$2,045,816.00 for a period of performance of up to 24-months

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.

## **DIRECT TO PHASE II (DP2) PROPOSAL INSTRUCTIONS**

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.

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 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.

For topics eligible for DP2 proposal submission under these Component Instructions, proposals shall include the following:

- Volume 1: Proposal Coversheet
- Volume 2: Technical Volume (breakdown below)
  - Feasibility Documentation – Part One A (5 Pages maximum)
  - Technical Proposal – Part One B (10 pages maximum)
  - Commercialization Plan – Part Two (8 slides maximum saved as PDF – Offerors shall utilize the template found at Appendix D – Commercialization Plan Template)



- 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 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**

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

The Technical Volume shall include three (3) parts:

- Feasibility Documentation (Part One A);
- Technical Proposal (Part One B); and
- Commercialization Plan (Part Two).

The technical volume shall not exceed 15 pages, inclusive of the Feasibility Determination (Part One A), which is subject to a maximum of five (5) pages, and the Technical Proposal (Part One B), which is subject to a maximum of 10 pages. Proposing small business concerns shall also submit an eight (8) slide Commercialization Plan, utilizing the template found at Appendix D – Commercialization Plan Template attached hereto. The Commercialization Plan shall be converted to a pdf and attached to the end of the five (5) page 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 page limit. 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, and will not be evaluated nor considered for award.

Except as stated herein, the Technical Volume shall follow the formatting requirements provided in the DoD SBIR Program BAA Any proposals submitted in a different format, or exceeding the page count limits shall not be reviewed.

### **Volume 2 - PART ONE: Feasibility and Technical Proposal**

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.

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).**

The offeror shall develop a detailed statement of work addressing, at a minimum, 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 your 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.

The offeror shall structure the statement of work around the effort's objectives and requirements set forth in clear, specific, and objective terms with measurable outcomes. The statement of work shall 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 methods planned to achieve each objective or task should be discussed explicitly and in detail. The statement of work should include the location and mechanics for accomplishing the proposed approach.

The offeror shall include a section clearly describing the specific sample/prototype hardware/software to be delivered, as well as data deliverables, schedules, and quantities.

- **Hardware Deliverables:** See topic for information regarding the development and delivery of prototypes. In accordance with DFARS 252.211- 7003, Item Identification and Valuation may be required. For hardware, more information may be found at <https://www.acquisition.gov/dfars/252.211-7003-item-unique-identification-and-valuation>.
- **Data Deliverables:** At a minimum, the following data deliverables are required:
  - **Status Reports:** Under the authority of Data Item Description number DI-MGMT-80368A, status reports are due 60 days after contract award and bi-monthly thereafter.

- Final Report: Under the authority of Data Item Description number DI-MISC-80711A, delivery of the final report shall be prior to the period of performance expiration date.
- Project Summary Report: Under the authority of Data Item Description number DI-MISC-81612B, delivery of the final report shall be prior to the period of performance expiration date.
- Safety-Related Deliverables: Safety requirements shall be followed in the proposed project's design and performance. The statement of work must contain separate sections specifically addressing the following:
  - Preliminary Hazard Analysis (Report, if applicable): If hardware is to be developed, the contract shall include at least a preliminary hazard analysis included in the deliverables.
  - Hazardous Material Report: If use of hazardous material is anticipated, the following are required: Materials identification; Materials purpose; and possible alternative/procedures/safeguards to minimize risk.
- Additional Reporting: The Army end-user or customer may require additional reporting 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 updated commercialization results.

## **Volume 2b - PART TWO - Commercialization Plan**

Offerors shall refer to and utilize the eight (8) slide template found at Appendix D – Commercialization Plan Template, attached hereto, when preparing the commercialization plan.

The commercialization plan content requirements, as described at Appendix D, include:

**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.

**Bottom Line Up Front (BLUF):** Slide that outlines/summarizes key areas of the Commercialization Plan. See slide 2 of Appendix D.

**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.

**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.

**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 (See slide 5 of Appendix D)

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.

Financing: Plans for securing necessary non-SBIR funding; Describe your firm's revenue stream generation.

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.

### **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 section 5.3. d of the DoD Program BAA.

Unless otherwise noted in the topic, the Army will accept DP2 proposals for a cost up to \$2,000,000 for a 24-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 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)). 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.

### **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.

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 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, and/or have the submitted proposal disqualified.
- 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.
  - If selected for award, failure to include the documentation with your 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.

#### **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 small business concerns are REQUIRED to submit the following documents to Volume 5:

- 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
- SBIR Funding Agreement Certification

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
- Technical Data Rights (Assertions)
- Allocation of Rights
- Place of Performance Information
- Other (only as specified in the BAA, these component-specific instructions, or the topic)

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

### **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.

### **DISCRETIONARY TECHNICAL AND BUSINESS ASSISTANCE**

Technical and Business Assistance (TABA) is not provided for this topic.

### **EVALUATION AND SELECTION**

The Army will conduct an evaluation of each responsive, timely, eligible proposal in accordance with the evaluation criteria listed in the DoD Program BAA, as supplemented herein. 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. Designated support contractors may review submissions for the purposes of technical evaluation. All support contractors are bound by appropriate non-disclosure agreements.

As previously stated herein, timeliness, responsiveness, and eligibility will be assessed upon initial screening, during evaluation, and after selection. Proposals that do not comply with the instructions and requirements detailed in this document, the DoD Program BAA, or the corresponding Topic posting (including the research objective(s)), will be considered ineligible, nonresponsive, untimely, or non-conforming and therefore will not be evaluated or considered for award.

Using the evaluation criteria, the Government will evaluate each responsive, timely, eligible proposal in its entirety. 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.

Consistent with the instructions and evaluation criteria specified in the DoD Program BAA (see Section 6.0 – Phase I Evaluation Criteria), 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 a 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 and offered the most capable solutions with the greatest overall benefit and potential to meet the Government's requirement and determined to be the most advantageous to the Government.

Proposing firms will be notified via email of selection or non-selection status for a Phase I or direct to Phase II 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.

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 contract negotiation and further consideration. The Government Contracting Officer shall evaluate selected proposal(s) for price reasonableness utilizing the various proposal analysis techniques described at FAR 13.106-3, or 15.404-1, to ensure a fair and reasonable price is paid. 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. In the event that an Offeror has not provided fair and reasonable pricing, the Offeror shall be eliminated from further consideration for award.

Upon an affirmative determination of price reasonableness 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 reject the proposal or dissolve 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 applicants that are not selected for further consideration. The selection decision notice contains instructions for obtaining feedback in the form of a ValidEval Report. The Army will 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. Competitive procedures are conducted in accordance with the SBA SBIR Policy Directive. Therefore, offerors are neither entitled to, nor will they be provided FAR Part 15 debriefs.

## **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:  
usarmy.SBIRSTTR@army.mil

For protests filed with the Government Accountability Office (GAO), a copy of the protest shall be submitted to usarmy.SBIRSTTR@army.mil within one day of filing with the GAO.

Protests of small business status of a selected proposing small business concern may also be made to the Small Business Administration.



## **ADDITIONAL INFORMATION**

### **TECHNOLOGY AREAS / RELATED EVENTS:**

**1. Human Machine Integration (HMI) Formations / Army Futures Command HMI Summit Series:**

The HMI Summit Series is a semi-annual event hosted by the Commanding General of Army Futures Command (AFC). The HMI Summits provide focused opportunities to engage (presentations, demonstrations, etc.) and learn about the latest Army capability priorities and Industry/Academia technologies and concepts related to HMI. Army attendees include Senior Leaders, Soldiers, and Subject Matter Experts (SME) representing the Army S&T, requirements and procurement communities. See Appendix E for more details.

**2. Open Topic Solicitation / Other U.S. Army-relevant experimentation/demonstration events:**

Technology focus areas associated with other Army-relevant experimentation/demonstration events (past or future) will be considered under this solicitation as open topic submissions. Submissions must note the event (past or future; e.g., Technology Gateway, Capstone, Army Expeditionary Warrior Experiment) and reference one or more of the below modernization priorities. Clear technology alignment with the specific experimentation event and/or potential sponsor must be documented. Only one proposal per entity is permitted under the open topic solicitation. See Appendix F for more details.

**\*END\***

**Army SBIR 24.4 Topic Index  
Release 12**

A244-P019    Open Topic for Persistent Experimentation

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

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

**OBJECTIVE:** The U.S. Army is seeking novel, disruptive concepts and technology solutions with dual-use capabilities that can assist in tackling the Army's current needs and address future Army concepts. There are multiple Army experimentation/demonstration events throughout each year. Army Futures Command (AFC) has developed this single SBIR topic to streamline and facilitate path forward opportunities for small businesses participating in these events. The consolidated approach enhances the Army's ability to identify, experiment, rapidly evolve, and deliver transformative technology solutions to address both urgent and emerging threats and expedite critical capabilities to the field to meet Combatant Commanders' needs and operational challenges near, mid, and far term.

**DESCRIPTION:** The U.S. Army would like to invite eligible small businesses to submit innovative technology solutions that address Army needs with the potential to evolve under a Persistent Experimentation (PE) approach. The intent is to explore, test, refine and advance technology solutions and associated requirements documents as an industry-government team, experimenting iteratively in operationally relevant environments and with soldier touchpoints throughout the Army systems' R&D, transition, and acquisition life cycle.

If selected, participation at one or more of the Army's PE events (e.g., Technology Gateway, Human Machine Integration Summits, Army Expeditionary Warrior Experiment, Capstone events – see Appendices) or other relevant experimentation venues or programs is strongly encouraged throughout award phases to mature and test the technology.

As noted above and in Appendix E, specific technology/capability focus areas of interest will be announced periodically as associated with key experimentation events. Proposals should include noted interest/intent to participate in an active experimentation/demonstration event and/or evidence of prior participation or selection for participation at an event (see Appendix F). Clear alignment with the specific experimentation event and/or potential sponsor should be documented. The Government program manager/team will be available to assist in coordination and participation in future events. Proposals should account for event participation and travel in proposed/estimated budgets.

**Prime Collaborations:** Partnerships or teaming with a technology integrator is permitted and encouraged where it leverages complimentary resources to bring forward innovative technology solutions for experimentation and to streamline potential follow-on transition paths. A technology integrator is defined herein as “any business outside of the selected small business, who has directly worked with the U.S. government. They have experience managing at least one subcontractor and are responsible for ensuring that the work is completed as defined in the contract, this can include but is not limited to, other small businesses, Primes, and sole proprietors.”

**Dual-Use Collaborations:** Advanced partnership or teaming with a commercial and/or private capital entity is permitted and encouraged where it leverages complimentary resources to bring forward innovative technology solutions for experimentation and/or scaling via commercial markets to streamline potential follow-on transition.

PHASE I: Only Direct to Phase II (DP2) proposals will be accepted for this solicitation. DP2 proposals must provide documentation to substantiate/validate that the scientific and technical merit and feasibility are met, and the proposals must describe potential commercial applications of the solution. DP2 proposals should clearly indicate how a validated proof-of-concept design, as typically shown in Phase I awards, will be refined/advanced to an initial prototype/model/system under a DP2 award. If prior participation and/or technical reviews exist for an applicable government experimentation/demonstration event, please include as substantiating documentation. **DIRECT TO PHASE II:**

Direct to Phase II (DP2) awards are expected to produce a prototype solution ready for initial field demonstration, testing and/or operation by a Soldier (see Appendices E and F for technical focus areas associated with this topic). Final DP2 prototypes should be capable of or have a plan for integration with existing Army systems and/or newly developed systems. Companies are strongly encouraged to demonstrate prototype solutions in conjunction with one/or more experimentation/demonstration events validated by the Government team. These events are intended to provide government stakeholder and/or user/Soldier feedback.

In addition, DP2 awardees are expected to deliver a technology transition and commercialization plan for DOD and commercial markets as part of their final deliverable package. Awardees may also be eligible for Sequential Phase II awards or Phase II Enhancements after completion of Phase II period of performance. Phase II can extend the work with additional funding and additional matching opportunities to finish building out solutions at the stakeholders' discretion

**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 assess each product in a realistic field environment and provide solutions to stakeholders for further assessment.

#### REFERENCES:

1. U.S. Army on HMI Formations – [link](#)
2. U.S. Army priorities - [Army of 2030](#)

**KEYWORDS:** Human-Machine Integration (HMI); Human-Machine Teaming (HMT); autonomy; artificial intelligence; AI/ML; logistics; ground systems; air systems; robotics; UAS; RAS; sensors; persistent sensing; zero trust; common controller; common architecture; Electromagnetic Warfare (EW)

## Appendix A Phase I Evaluation Criteria

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



		DEFINITION
<b>INTRODUCTION</b>	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.
<b>POTENTIAL FOR ARMY IMPACT</b>	<b>OPERATIONAL IMPACT</b>	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?
	<b>POTENTIAL SCALE OF IMPACT</b>	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.
<b>TECHNICAL FEASIBILITY</b>	<b>SCIENTIFIC FEASIBILITY</b>	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.
	<b>ENABLING TECHNOLOGIES</b>	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.
	<b>ALTERNATIVE TECHNICAL APPROACHES</b>	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?
	<b>TECHNICAL RISK MITIGATION</b>	No matter your current technology readiness level, technical risks remain. Identify those risks. Present a credible plan to tackle those risks.
<b>TRANSITION</b>	<b>ARMY TRANSITION PATHWAY</b>	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 CSQ, etc. Briefly outline your current plan to unlock that next opportunity and/or share the biggest risks you see post this SBIR award.
	<b>SBIR MILESTONE SCHEDULE</b>	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.
<b>FIRM CASH FLOW</b>	<b>FIRM SURVIVAL RISK</b>	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.
	<b>OTHER PEOPLE'S MONEY</b>	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.
	<b>FINANCIAL PROFIT POTENTIAL</b>	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.
<b>TEAM ABILITY</b>	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?
<b>SUBMISSION QUALITY</b>	<b>QUALITY OF PROSE</b>	Prove you write clearly. Prove you argue convincingly.
	<b>DATA QUALITY &amp; ATTRIBUTION</b>	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
<b>INTRODUCTION</b>	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.
<b>POTENTIAL FOR ARMY IMPACT</b>	<b>OPERATIONAL IMPACT</b>	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?
	<b>POTENTIAL SCALE OF IMPACT</b>	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.
<b>TECHNICAL FEASIBILITY</b>	<b>SCIENTIFIC FEASIBILITY</b>	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.
	<b>ENABLING TECHNOLOGIES</b>	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.
	<b>ALTERNATIVE TECHNICAL APPROACHES</b>	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?
	<b>TECHNICAL RISK MITIGATION</b>	No matter your current technology readiness level, technical risks remain. Identify those risks. Present a credible plan to tackle those risks.
<b>TRANSITION</b>	<b>ARMY TRANSITION PATHWAY</b>	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.
	<b>SBIR MILESTONE SCHEDULE</b>	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.
<b>FIRM CASH FLOW</b>	<b>FIRM SURVIVAL RISK</b>	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.
	<b>OTHER PEOPLE'S MONEY</b>	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.
	<b>FINANCIAL PROFIT POTENTIAL</b>	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.
<b>TEAM ABILITY</b>	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?
<b>SUBMISSION QUALITY</b>	<b>QUALITY OF PROSE</b>	Prove you write clearly. Prove you argue convincingly.
	<b>DATA QUALITY &amp; ATTRIBUTION</b>	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
<b>INTRODUCTION</b>	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.
<b>POTENTIAL FOR ARMY IMPACT</b>	<b>OPERATIONAL IMPACT</b>	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?
	<b>POTENTIAL SCALE OF IMPACT</b>	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.
<b>TECHNICAL FEASIBILITY</b>	<b>SCIENTIFIC FEASIBILITY</b>	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.
	<b>ENABLING TECHNOLOGIES</b>	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.
	<b>ALTERNATIVE TECHNICAL APPROACHES</b>	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?
	<b>TECHNICAL RISK MITIGATION</b>	No matter your current technology readiness level, technical risks remain. Identify those risks. Present a credible plan to tackle those risks.
<b>TRANSITION</b>	<b>ARMY TRANSITION PATHWAY</b>	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.
	<b>SBIR MILESTONE SCHEDULE</b>	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.
<b>FIRM CASH FLOW</b>	<b>FIRM SURVIVAL RISK</b>	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.
	<b>OTHER PEOPLE'S MONEY</b>	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.
	<b>FINANCIAL PROFIT POTENTIAL</b>	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.
<b>TEAM ABILITY</b>	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?
<b>SUBMISSION QUALITY</b>	<b>QUALITY OF PROSE</b>	Prove you write clearly. Prove you argue convincingly.
	<b>DATA QUALITY &amp; ATTRIBUTION</b>	Support your arguments with relevant, properly attributed data to enhance your credibility.

## **Appendix D**

### **Commercialization Plan Template**

#### **General Instructions/Guidance:**

1. Small business firms shall prepare an eight (8) slide commercialization plan, utilizing the template and format below. The commercialization plan shall be converted to a pdf and attached to the end of the end of Volume 2 – Technical Volume (see page limitations in the instructions above), resulting in one pdf file to be uploaded to DSIP as Volume 2.
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:
  - Include title/bullet describing importance of plot/chart, and/or data (be specific).
  - 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.
  - Select 96ppi resolution
  - 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

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### SBIR Project Title

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

Subcontractors

## BLUF: Bottom Line Up Front

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- 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.

## Company Information and Background

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- 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

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- 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.

## Market

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- 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.

## Intellectual Property

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- 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.

## Financing

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- 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

## Assistance & Mentoring

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- 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.

**Appendix E**  
**Human Machine Integration (HMI) Formations**

**DP2 OBJECTIVE (HMI):**

Future HMI formations will be capable of combined arms maneuver and fires in a multi-domain operating environment. The objective of this topic is to develop, demonstrate, and deliver autonomous/robotic solutions or component solutions with a focus on integrating humans and machines into formations that optimize the capabilities of both. Proposed HMI solutions under this topic should demonstrably enhance Soldier safety and/or mission success (e.g., survivability, effectiveness, efficiency) in one or more of the following areas:

- 1) HMI for Maneuver to breach, seize and/or control terrain.
- 2) Combat Casualty Care & Evac / Resupply capable of providing timely and appropriate medical care, treatment, and multi-modal evacuation over greater distances and longer durations.
- 3) Mobile Network Bubble / Network at the Edge, operating in complex/contested environments.
- 4) Electromagnetic Warfare (EW) offensive and defensive capabilities to increase friendly force survivability against enemy fires, sensors, and other assets.

**DP2 DELIVERABLE (HMI):**

Direct to Phase II (DP2) awards are expected to produce a *prototype solution* ready for initial field demonstration, testing and/or operation by a Soldier at a future HMI Summit or other relevant event. Final DP2 prototypes should be capable of or have a plan for integration with existing Army systems and/or newly developed systems from other awardees. Additionally, a final/refined transition and Commercialization Plan/Strategy must be submitted. Detailed instructions for final deliverables (prototype and commercialization plan) will be provided to DP2 awardees.

**HMI EVENT OPPORTUNITY DESCRIPTION:**

HMI formations, where autonomous/robotic systems operate alongside and out in front of soldiers, are a top Army priority ([AUSA article](#)). The U.S. Army Futures Command (AFC) has established the AFC HMI Summit series as a semi-annual event hosted by the AFC Commanding General. The summits provide focused opportunities to engage (presentations, demonstrations, etc.) and learn about the latest Army capability priorities and Industry/Academia technologies and concepts related to HMI. Army attendees include Senior Leaders, Soldiers, and Subject Matter Experts (SME) representing the Army S&T, requirements and procurement communities. With a sustained focus on HMI formations, essential baseline understanding/data and measurable advances year-over-year will inform government and industry stakeholders alike.

The next HMI Summit open to Industry/Academia (HMI Summit IV) will be held o/a NOV 2024 at Texas A&M (details and registration tbd). Although still in the planning phase, HMI Summit IV is expected to be an engagement event focused on Army technology demonstrations. HMI Summit IV will inform the 2025 HMI summit, which is expected to include a larger demonstration/challenge event for Industry/Academia technologies.

## Appendix F Open Topic Solicitation

### DP2 OBJECTIVE (OPEN):

Technology focus areas associated with other Army-relevant experimentation/demonstration events (past or future) will be considered under this solicitation as open topic submissions. Submissions must note the event (past or future) and reference one or more of the below modernization priorities. Solutions or component solutions must have clear alignment with the technical focus areas associated with a specific experimentation event and/or a potential sponsor must be documented. Only one proposal per entity is permitted under the open topic solicitation.

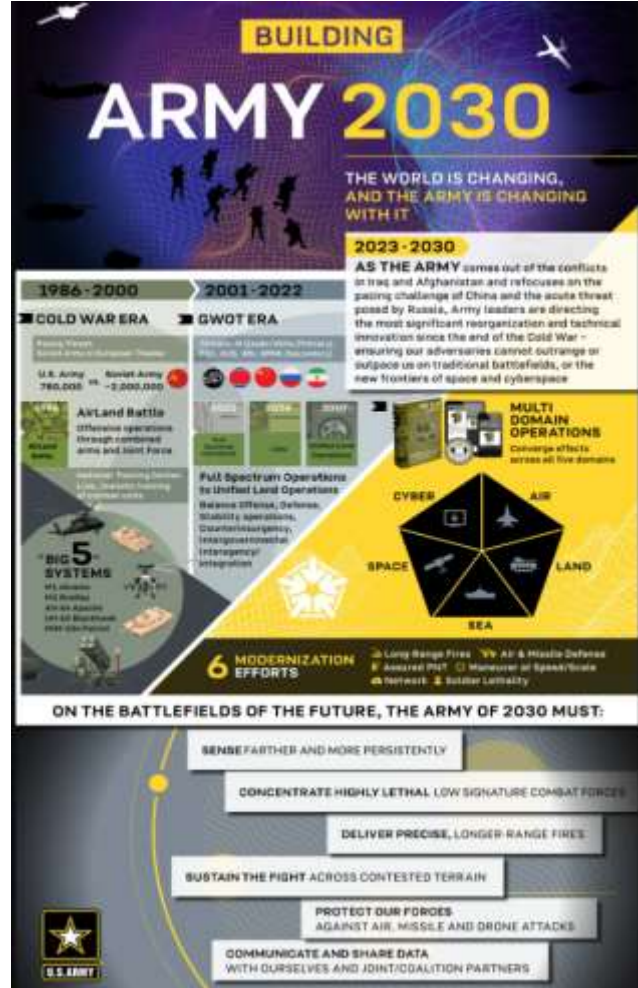
**DP2 DELIVERABLE (OPEN):** Direct to Phase II (DP2) awards are expected to produce a *prototype solution* ready for initial field demonstration, testing and/or operation by a Soldier at a future event. Final DP2 prototypes should be capable of or have a plan for integration with existing Army systems and/or newly developed systems from other awardees. Additionally, a final/refined transition and Commercialization Plan/Strategy as outlined above must be submitted. Detailed instructions for final deliverables (prototype and commercialization plan) will be provided to DP2 awardees.

### MODERNIZATION PRIORITIES:

Human-Machine Integration | Trusted AI and Autonomy | Advanced Computing and Software | Advanced Materials | Integrated Network Systems-of-Systems | Integrated Sensing and Cyber | Microelectronics | Disruptive Energetics | Renewable Energy Generation and Storage

### RECURRING ARMY EVENTS (list is non exhaustive and subject to change):

- Technology Gateway 2023/24 – DEVCOM:** Technology Gateway is a collaborative experiment between industry partners and the Army, intended to enable collective innovation and identify novel technology capabilities that will help the Army achieve its modernization goals. It is part of Army Futures Command's Project Convergence campaign of learning, which is designed to aggressively advance and integrate the Army's contributions to the Joint and Multi-national Force for convergence effects across all domains (air, land, sea, space, and cyberspace) to overmatch U.S. adversaries.
  - TG 2023/4 – SAM.gov Notice ID W50RAJ23R0003 (CLOSED)
  - TG 2025 – Future / TBD
- Project Convergence – AFC:** Project Convergence is the Joint Force experimenting with speed, range, and decision dominance to achieve overmatch and inform the Joint Warfighting Concept and Joint All Domain Command and Control.
  - PC Capstone 5 – Feb-Mar 2025 (Call for whitepapers through Gov't sponsoring organizations open through April 5, 2024)
  - Public Affairs Office at [afcmedia@army.mil](mailto:afcmedia@army.mil)



3. **Army Expeditionary Warfighter Experiment (AEWE) – AFC M-COE MBL:** The Maneuver Center of Excellence (M-COE) Maneuver Battle Lab (MBL); The AEWE assesses Cross Domain Maneuver concepts and capabilities at the lower tactical echelon in support of Multi Domain Operations.
  - Mar - May 2025
  - Technology submissions closed: 9 March 2024 - [Fort Moore | Maneuver Battle Lab \(MBL\) \(army.mil\)](#)
  - AEWE Team - [usarmy.moore.futures-cmd.mbx.aewe@army.mil](mailto:usarmy.moore.futures-cmd.mbx.aewe@army.mil)
4. **Maneuver Support & Protection Integration eXperiments 2025 (MSPIX 25) – AFC MS CDID:** The Maneuver Support Capability Development Integration Directorate (MS CDID) will host MSPIX 25. MSPIX 25 will examine capabilities and concepts designed to address modernization needs for Maneuver Support and Protection.
  - May 2025
  - SAM.gov Notice ID W911S7-24-X-0300 (NLT 30 April 2024)
5. **Experimental Demonstration Gateway Event (EDGE) – AFC FVL CFT:** Participants from across the U.S. Army come together to build on lessons learned from previous experimentations by assessing new tactics, technologies and interconnecting architectures. The exercise, sponsored by Army Futures Command's Future Vertical Lift Cross-Functional Team, tested new tactics, technologies and interconnecting architectures for the Army and its international partners.
  - EDGE 2024 – SAM.gov Notice ID RFI220122 (CLOSED)
  - EDGE 2025 – Future
6. **Position, Navigation, Timing, Assessment, Exercise (PNTAX) – AFC APNT/S CFT:** APNT/S CFT is conducting market research to identify potential sources capable of providing Commercial Off-The-Shelf (COTS), Non-Developmental Items (NDI), or near NDI for assured PNT technologies in the ground, air, space or cyber domains and situational awareness, defensive, and offensive capabilities in the Navigation Warfare (NAVWAR) mission area.
  - PNTAX 24 – SAM.gov Notice ID APNTSCFT-24 (CLOSED)
  - PNTAX 25 – Future
7. **Network Modernization Experiment (NetModX) – DEVCOM C5ISR Center:** Network Modernization Experiment (NetModX) is a field-based experimentation event. Led by engineers, it serves as an opportunity to take technologies that are still maturing out of the lab as early as possible and into a fail-safe environment for assessment.
  - NetModX 24 – Sep 2024 (SAM.gov RFI Closed)
  - NetModX 25 – Future
8. **Multi-Domain Operations Live – DEVCOM C5ISR Center:** The C5ISR Center's Multi-Domain Operations (MDO) Live experiment compliments and supports Joint Warfighter Assessments and Project Convergence, by focusing on the non-kinetic intelligence operations and collections that enable targeting to happen across all domains.
  - C5ISR Center Future Capabilities Office at [usarmy.apg.devcom-c5isr.mbx.esi-fco@army.mil](mailto:usarmy.apg.devcom-c5isr.mbx.esi-fco@army.mil)
  - <https://c5isrcenter.devcom.army.mil/activities/>
9. **Cyber Quest (CQ) – CCoE:** U.S. Army Cyber Center of Excellence (CCoE) conducts an annual Cyberspace Operations, Signal, and EW Prototyping Experiment called Cyber Quest (CQ) to assess emerging technologies against associated Army capability requirements. This assessment will inform current capability development efforts by validating concepts and determining their doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF)

impacts. Cyber Quest will also serve as a venue to inform rapid acquisition capability requirements and technical risk mitigation.

- CQ 2024 – July 2024 – SAM.gov Notice ID CQ2024-BAA (CLOSED)
- CQ 2025 – Future

10. **Vanguard – USAICoE:** The U.S. Army Intelligence Center (USAICoE), in partnership with Army Futures Command (AFC) through the Intelligence Capability Development Integration Directorate (ICDID) and its Intelligence Battle Lab (IBL), will conduct persistent experimentation through a recurring event executed in collaboration with Army, Joint, Department of Defense (DoD), Multi-National, Industry, Academia, and other mission stakeholders to advance Army Intelligence and Electromagnetic Warfare (I&EW) modernization objectives, while shaping and incorporating future concepts, formations, and emerging technologies.

- Vanguard 24 – Sep 2024 – SAM.gov Notice ID W91CNY (CLOSED)
- Vanguard 25 – Future

11. **Sustainment Modernization Experiment:**

- SMEx 24: Apr-May 2024
- SMEx 25: Apr-May 2025

12. **Additional Events:**

- ASA(ALT) xTech Competitions – <https://www.xtech.army.mil/>
- Maneuver Fires Integration Experiments (MF(X)) – AFC FCC
- Sustainment Modernization Experiments (SMEx) – AFC FCC
- MFI 24 - Oct-Nov 2024

\*Other DoD events (e.g., OUSD's Thunderstorm and related events, USSOCOM's Trident Spectre and related events, Air Force, Navy and other) will be considered on a case-by-case basis given sponsor interest and alignment.