The AF 19.2 Direct to Phase II proposal submission instructions are intended to clarify the Department of Defense (DoD) instructions as they apply to AF requirements. This Announcement is for Direct to Phase II proposals only.

The AF Program Manager is Mr. David Shahady. The AF SBIR/STTR Program Office can be contacted at afsbirsttr-info@us.af.mil. For general inquiries or problems with the electronic submission, contact the DoD SBIR/STTR Help Desk via email at sbirhelpdesk@u.group (9:00 a.m. to 6:00 p.m. ET, Monday through Friday). For technical questions during the pre-announcement period (02 May 2019 through 31 May 2019), contact the Topic Authors listed for each topic on the Web site. For information on obtaining answers to your technical questions during the formal announcement period (31 May 2019 through 01 July 2019), go to https://sbir.defensebusiness.org. Your complete proposal must be submitted via the submissions site at https://sbir.defensebusiness.org/ on or before the **8:00 pm ET, 01 July 2019 deadline**. A hardcopy will not be accepted.

All Phase II proposals must be prepared and submitted through the DoD SBIR/STTR electronic submission site: https://sbir.defensebusiness.org. The offeror is responsible for ensuring that their proposal complies with the requirements in the most current version of this instruction. In order for a Phase II proposal to be submitted to the component, click “Start New Phase II Proposal” from the “My Portal Page”. After uploading your full proposal, you will need to click “Submit”. This action will notify the agency your proposal submission is complete and ready for evaluation. Once submitted, no further changes may be made to the proposal. **Note: If the proposal is not properly submitted in this manner by the solicitation close date/time identified above, it will receive no further consideration for evaluation/award.** The complete proposal must be submitted via the electronic submission site on or before the **8:00 pm ET, 01 July 2019 deadline**. A hardcopy will not be accepted.

The AF recommends that you complete your submission early, as computer traffic gets heavy near the announcement closing and could slow down the system. **Do not wait until the last minute.** The AF will not be responsible for proposals being denied due to servers being “down” or inaccessible. Please assure that your e-mail address listed in your proposal is current and accurate. **The AF is not responsible for ensuring notifications are received by firms changing mailing address/e-mail address/company points of contact after proposal submission without proper notification to the AF. Changes of this nature that occur after proposal submission or award (if selected) shall be sent to the Air Force SBIR/STTR site address, afsbirsttr-info@us.af.mil.**

Please note that changes have been made to these instructions. Firms must ensure their proposal meets all requirements of the Announcement currently posted on the DoD website at the time the Announcement closes. Incomplete proposals will be rejected.

I. DIRECT TO PHASE II

15 U.S.C. §638 (cc), as amended by NDAA FY2012, Sec. 5106, and further amended by NDAA FY2019, Sec. 854, PILOT TO ALLOW PHASE FLEXIBILITY, allows the Department of Defense to make an award to a small business concern under Phase II of the SBIR program with respect to a project, without regard to whether the small business concern was provided an award under Phase I of an SBIR program with respect to such project. Air Force is conducting a “Direct to Phase II” implementation of this authority for this 19.2 SBIR Announcement and does not guarantee Direct to Phase II opportunities will
be offered in future Announcements. Each eligible topic requires documentation to determine that Phase I feasibility described in the Phase I section of the topic has been met.

The Air Force Direct to Phase II Proposals are different than traditional Air Force Phase I SBIR/STTR proposals. The chart below explains some of these differences.

<table>
<thead>
<tr>
<th></th>
<th>STANDARD AIR FORCE SBIR/STTR PROCESS</th>
<th>AIR FORCE D2P2 PROCESS</th>
<th>AIR FORCE D2P2 ‘TYPICAL’ 192-D001</th>
<th>AIR FORCE D2P2 RAPID 192-D001</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHASE 1 TYPICAL FUNDING LEVEL</td>
<td>~$150k</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>PHASE 1 TECHNICAL *POP DURATION</td>
<td>9 months</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>PHASE 1 TECHNICAL REPORT</td>
<td>3 months</td>
<td>None</td>
<td>None</td>
<td>None</td>
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<tr>
<td>PHASE 2 TYPICAL MAX FUNDING LEVEL</td>
<td>~$750k</td>
<td>$1.6125M</td>
<td>$750K</td>
<td>$1.5M</td>
</tr>
<tr>
<td>PHASE 2 TECHNICAL *POP DURATION</td>
<td>24 months</td>
<td>12 months</td>
<td>12 months</td>
<td>24 months</td>
</tr>
<tr>
<td>PHASE 2 TECHNICAL REPORT</td>
<td>3 months</td>
<td>3 months</td>
<td>3 months</td>
<td>3 months</td>
</tr>
<tr>
<td>NOTES</td>
<td></td>
<td></td>
<td></td>
<td>Matching Funds Required**: 1:1 External Funds 1:1 DoD Funds 4:1 DoD Funds if first Phase II</td>
</tr>
</tbody>
</table>

*POP= Period of Performance
**See Details in Attachment 2 of this document.

II. INTRODUCTION

Direct to Phase II proposals must follow the steps outlined below:

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1. Offerors must create a Cover Sheet using the DoD Proposal submission system (follow the DoD Instructions for the Cover Sheet located in section 5.4.a.). Offerors must provide documentation that satisfies the Phase I feasibility requirement* that will be included as an Appendix to the Phase II proposal. Offerors must demonstrate that they have completed research and development through means other than the SBIR/STTR program to establish the feasibility of the proposed Phase II effort based on the criteria outlined in the topic description.

2. Offerors must submit a Phase II proposal using the AF Phase II proposal instructions below.

* NOTE: Offerors are required to provide information demonstrating that the scientific and technical merit and feasibility has been established. The Air Force will not evaluate the offeror's related Phase II proposal if it determines that the offeror has failed to demonstrate that technical merit and feasibility has been established or the offeror has failed to demonstrate that work submitted in the feasibility documentation was substantially performed by the offeror and/or the principal investigator (PI). Refer to the Phase I description (within the topic) to review the minimum requirements that need to be demonstrated in the feasibility documentation. Feasibility documentation MUST NOT be solely based on work performed under prior or ongoing federally funded SBIR or STTR work.

III. PROPOSAL SUBMISSION

The complete proposal, i.e., DoD Proposal Cover Sheet, technical volume, cost volume, and Company Commercialization Report, must be submitted electronically at https://sbir.defensebusiness.org/. Only one Phase II proposal file can be uploaded to the DoD Submission Site. Ensure your complete technical volume and additional cost volume information is included in this sole submission. The preferred submission format is Portable Document Format (.pdf). Graphics must be distinguishable in black and white. VIRUS-CHECK ALL SUBMISSIONS.

Complete proposals must include all of the following:
Volume 1: DoD Proposal Cover Sheet
Volume 2: Technical Volume
Volume 3: Cost Volume
Volume 4: Company Commercialization Report
Volume 5: Supporting Documents, e.g., SBIR/STTR Environment, Safety and Occupational Health (ESOH) Questionnaire, DoD Form 2345, Militarily Critical Data Agreement (if applicable)
Volume 6: Fraud Waste and Abuse Training Completion

Phase II proposals require a comprehensive, detailed submission of the proposed effort. AF Direct to Phase II efforts are 15 months; 12 months for technical performance and three (3) months for completion of the final report. AF Direct to Phase II efforts are awarded up to a maximum value of $1.6125M per contract award. Commercial and military potential of the technology under development is extremely important. Proposals emphasizing dual-use applications and commercial exploitation of resulting technologies are sought.

All Phase II Research or Research and Development (R/R&D) must be performed by the small business and its team members in the United States, as defined in the DoD 19.2 BAA Announcement Instructions. The primary employment of the Phase II principal investigator must be with the small business concern at the time of award and during conduct of the entire proposed effort. Primary employment is defined as more than one-half of the principal investigator’s time being spent working for the small business. This precludes full-time employment with another organization.

Knowingly and willfully making false, fictitious, or fraudulent statements or representations may be a
IV. PHASE II PROPOSAL PREPARATION INSTRUCTIONS AND REQUIREMENTS

The technical proposal is limited to 50 pages. The company commercialization report, advocacy letters (if any), “SBIR/STTR Environment, Safety and Occupational Health (ESOH) Questionnaire (Attachment 1 herein)” and the additional cost proposal itemized listing (17a through 17i) should be included in Volume 5, Supporting Documentation. This documentation and the Cover Sheet will not count toward the 50-page limitation.

The Air Force SBIR/STTR Program Office has instituted training and certification requirements in an effort to combat fraud in the SBIR/STTR program. As a result, each Small Business is required to complete the Fraud, Waste and Abuse Training as part of the Phase II proposal submission. The SBIR/STTR Program training related to Fraud, Waste and Abuse is available at: https://training.defensebusiness.org/fwa. When the training has been completed and certified, the DoD Submission Website will indicate this in the proposal which will complete the Volume 6 requirement. If the training has not been completed, you will receive an error message. Your proposal cannot be submitted until this training has been completed. Your complete proposal must be submitted via the DoD Submission Website on or before the date and time specified in the notification.

A. Proposal Requirements. A Phase II proposal should provide sufficient information to persuade the AF the proposed advancement of the technology represents an innovative solution to the scientific or engineering problem and is worthy of support under the stated criteria. All sections below count toward the page limitation, unless otherwise specified.

B. Proprietary Information. Information constituting a trade secret, commercial or financial information, confidential personal information, or data affecting national security must be clearly marked. It shall be treated in confidence to the extent permitted by law. Be advised, in the event of proposal selection it is likely the Work Plan or Statement of Work (SOW) will be incorporated into the resulting contract, in whole or part, by reference or as an attachment. Therefore, segregate any information to be excluded from public release pursuant to the Freedom of Information Act (FOIA). See Section 5.3 of the DoD BAA Announcement regarding marking of proprietary information.

C. General Content. Proposals should be direct, concise, and informative. Type shall be no smaller than 11-point on standard 8 ½ X 11 paper, with one-inch margins and pages consecutively numbered. Offerors are discouraged from including promotional and non-programmatic items.

D. Proposal Format. The technical proposal includes all items listed below in the order provided.

(1) Proposal Cover Sheet: Complete and submit the SBIR Proposal Cover Sheet in accordance with the instructions provided at https://sbir.defensebusiness.org/. The technical abstract should include a brief description of the program objective(s), a description of the effort, anticipated benefits and commercial applications of the proposed research, and a list of key words/terms. The technical abstract of each successful proposal will be submitted to the Office of the Secretary of Defense (OSD) for publication and, therefore, must not contain proprietary or classified information. The term “Component” on the Cover Sheet refers to the AF organization requesting the Phase II proposal.

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(2) **Table of Contents:** A table of contents should be located immediately after the Cover Sheet.

(3) **Glossary:** Include a glossary of acronyms and abbreviations used in the proposal.

(4) **Milestone Identification:** Include a program schedule with all key milestones identified. If options are proposed, the schedule should provide notional option start date and period of performance.

(5) **Identification and Significance of the Problem or Opportunity:** Briefly reference the specific technical problem/opportunity that will be pursued under this effort.

(6) **Phase II Technical Objectives:** Detail the specific objectives of the Phase II work, and describe the technical approach and methods to be used in meeting these objects. The proposal should also include an assessment of the potential commercial application for each objective.

(7) **Proposer-Prepared Statement of Work (SOW):** The SOW shall be a separate and distinct part of the proposal package, using a page break to divide it from the technical proposal. The proposed SOW must contain a summary description of the technical methodology and task description in broad enough detail to provide contractual flexibility. The following is the recommended format for the SOW; begin this section on a new page. **DO NOT include proprietary information in the SOW.**

   a) **1.0 – Objective:** This section is intended to provide a brief overview of the specialty area. It should explain why it is being pursued and the expected outcome.

   b) **2.0 – Scope:** This section should provide a concise description of the work to be accomplished, including the technology area to be investigated, goals, and major milestones. However, the key elements of this section are task development and deliverables, i.e., the anticipated end result and/or product of the effort. This section must also be consistent with the information in 4.0 (below).

   c) **3.0 – Background:** The proposer shall identify appropriate specifications, standards, and other documents applicable to the effort. This section includes any information, explanation, or constraints to understanding the requirements. It may include relationships to previous, current, and/or future operations. It may also include techniques previously found to be ineffective.

   d) **4.0 – Task/Technical Requirements:** The detailed description of the individual tasks to accomplish the work to be performed is considered to be legally binding on the proposer. Therefore, it must be developed in an orderly progression with sufficient detail to establish overall program requirements and goals. The work effort must be segregated into major tasks and identified in separately numbered paragraphs.

Each numbered major task should delineate a subtask the work to be performed. The SOW MUST contain every task to be accomplished; they must be definite, realistic, and clearly stated. Use “shall” whenever the SOW expresses a binding provision. Use “should” or “may” to express a declaration or purpose. Use “will” when no contractor requirement is involved, i.e., “... power will be supplied by the Government.”

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(8) **Deliverables:** Include a section clearly describing the specific sample/prototype hardware/software to be delivered, as well as data deliverables, schedules, and quantities. Be aware of the possible requirement for unique item identification IAW DFARS 252.211-7003, Item Identification and Valuation, for hardware. If hardware/software will be developed but not delivered, provide an explanation. At a minimum, the following reports will be required under ALL Phase II contracts.

a) **Scientific and Technical Reports:** Rights in technical data, including software, developed under the terms of any contract resulting from a SBIR Announcement generally remain with the contractor. The Government obtains a royalty-free license to use such technical data for Government purposes during the period commencing with contract award and ending five (5) years after submission of the last contract deliverable. Upon expiration of the five year restrictive license, the Government has unlimited rights to the SBIR data, unless the firm receives another contract under which the SBIR data rights may be asserted.

i. **Final Report:** The draft is due 30 days after completion of the Phase II technical effort. The first page of the final report will be a single-page project summary, identifying the purpose of the work, providing a brief description of the effort accomplished, and listing potential applications of the results. The summary may be published by DoD; therefore, it must not contain any proprietary or classified information. The remainder of the report should contain details of the project objectives met, work completed, results obtained, and estimates of technical feasibility.

ii. **Status Reports:** Status reports are due quarterly at a minimum.

iii. **Small Business Online Success Stories:** Success Story submissions are due at the end of the technical effort via the [http://launchstories.org/](http://launchstories.org/) website. Refer to the Contract Data Requirements List (CDRL) in your contract for submission instructions.

b) **Cost Reports:** Required if a cost-type contract is awarded.

c) **Additional Reporting:** AF may require additional reporting or documentation including:

   i. Software documentation and users’ manuals;
   
   ii. Engineering drawings;
   
   iii. Operation and maintenance documentation;
   
   iv. Safety hazard analysis when the project will result in partial or total development and delivery of hardware; and
   
   v. Updates to the commercialization results.

(9) **Related Work:** Describe significant activities directly related to the proposed effort, including any previous programs conducted by the principal investigator, proposing firm, consultants, or others, and their application to the proposed project. Also list any reviewers providing comments regarding the offeror’s knowledge of the state-of-the-art in the specific approach proposed.
(10) **Commercialization Potential:**

a) The DoD requires a commercialization plan be submitted with the Phase II proposal, specifically addressing the following questions:

i. What is the first planned product to incorporate the proposed technology?
ii. Who are the probable customers, and what is the estimated market size?
iii. How much money is needed to bring this technology to market and how will it be raised?
iv. Does your firm have the necessary marketing expertise and, if not, how will your firm compensate?
v. Who are the probable competitors, and what price/quality advantage is anticipated by your firm?

b) The commercialization strategy plan should briefly describe the commercialization potential for the anticipated results of the proposed project, as well as plans to exploit it. Commercial potential is evidenced by:

i. The small business’ record of commercializing SBIR/STTR or other research, particularly as reflected in its Company Commercialization Report. The Company Commercialization Report of prior SBIR/STTR awards may be included to satisfy this requirement.
ii. The existence of private sector or non-SBIR/STTR funding sources demonstrating commitment to Phase II efforts/results.
iii. The existence of Phase III follow-on commitments for the research subject.
iv. The presence of other indicators of commercial technology potential, including the firm’s commercialization strategy.

c) If awarded a Phase II contract, the contractor is required to periodically update the commercialization results of the Phase II project at [https://sbir.defensebusiness.org/](https://sbir.defensebusiness.org/). These updates will be required at completion of the Phase II effort, and subsequently when the contractor submits a new SBIR/STTR proposal to DoD. Firms not submitting a new proposal to DoD will be requested to provide updates annually after completion of the Phase II.

(11) **Military Applications:** Briefly describe the existing/potential military requirement and the military potential of the SBIR/STTR Phase II results. Identify the DoD agency/organization most likely to benefit from the project. State if any DoD agency has expressed interest in, or commitment to, a non-SBIR, Federally funded Phase III effort. This section should involve not more than one to two (1-2) paragraphs. Include agency point of contact names and telephone numbers.

(12) **Relationship with Future Research or Research and Development (R/R&D) Efforts:**

a) State the anticipated results of the proposed approach, specifically addressing plans for Phase III, if any.

b) Discuss the significance of the Phase II effort in providing a basis for the Phase
III R/R&D effort, if planned.

(13) **Key Personnel:** In the technical volume, identify all key personnel involved in the project. Include information directly related to education, experience, and citizenship. A technical resume for the principal investigator, including publications, if any, must also be included. Concise technical resumes for subcontractors and consultants, if any, are also useful. You must identify all non-U.S. citizens expected to be involved in the project as direct employees, subcontractors, or consultants. For these individuals, in addition to technical resumes, please provide countries of origin, type of visas or work permits under which they are performing, and explanation of their anticipated level of involvement in the project.

Foreign Nationals (also known as Foreign Persons) means any person who is NOT:

a. a citizen or national of the United States; or
b. a lawful permanent resident; or
c. a protected individual as defined by 8 U.S.C. § 1324b

ALL offerors proposing to use foreign nationals MUST follow Section 5.4. c. (8) of the DoD Program Announcement and disclose this information regardless of whether the topic is subject to ITAR restrictions.

When the topic area is subject to export control, these individuals, if permitted to participate, are limited to work in the public domain. Further, tasks assigned must not be capable of assimilation into an understanding of the project’s overall objectives. This prevents foreign citizens from acting in key positions, such as Principal Investigator, Senior Engineer, etc. Additional information may be requested during negotiations in order to verify foreign citizens’ eligibility to perform on a contract awarded under this Announcement.

The following will apply to all projects with military or dual-use applications that develop beyond fundamental research (basic and applied research ordinarily published and shared broadly within the scientific community):

(1) The Contractor shall comply with all U. S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120 through 130, and the Export Administration Regulations (EAR), 15 CFR Parts 730 through 799, in the performance of this contract. In the absence of available license exemptions/exceptions, the Contractor shall be responsible for obtaining the appropriate licenses or other approvals, if required, for exports of (including deemed exports) hardware, technical data, and software, or for the provision of technical assistance.

(2) The Contractor shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of this contract, including instances where the work is to be performed on-site at any Government installation (whether in or outside the United States), where the foreign person will have access to export-controlled technologies, including technical data or software.

(3) The Contractor shall be responsible for all regulatory record keeping requirements associated with the use of licenses and license exemptions/exceptions.

(4) The Contractor shall be responsible for ensuring that these provisions apply to its subcontractors.

(14) **Facilities/Equipment:** Describe instrumentation and physical facilities necessary and
available to carry out the Phase II effort. Justify equipment to be purchased (detail in cost proposal). State whether proposed performance locations meet environmental laws and regulations of Federal, state, and local Governments for, but not limited to, airborne emissions, waterborne effluents, external radiation levels, outdoor noise, solid and bulk waste disposal practices, and handling and storage of toxic and hazardous materials.

(15) **Consultants/Subcontractors:** Private companies, consultants, or universities may be involved in the project. All should be described in detail and included in the cost proposal. In accordance with the Small Business Administration (SBA) SBIR Policy Directive, a minimum of 50% of the R/R&D must be performed by the proposing firm, unless otherwise approved in writing by the Contracting Officer. Signed copies of all consultant or subcontractor letters of intent must be attached to the proposal. These letters should briefly state the contribution or expertise being provided. Include a SOW and detailed cost proposal. Include information regarding consultant or subcontractor unique qualifications. Subcontract copies and supporting documents do not count against the Phase II page limit. Identify any subcontract/consultant foreign citizens per (13) above.

(16) **Prior, Current, or Pending Support of Similar Proposals or Awards:** WARNING: While it is permissible, with proper notification, to submit identical proposals or proposals containing a significant amount of essentially equivalent work for consideration under numerous Federal program Announcements, it is unlawful to enter into contracts or grants requiring essentially equivalent effort. Any potential for this situation must be disclosed to the Announcement agency(ies) before award. If a proposal submitted in response to this Announcement is substantially the same as another proposal previously, currently, or in process of being funded by another Federal agency/DoD Component or the same DoD Component, the company must so indicate on the Cover Sheet and provide the following:

a) The name and address of the Federal agency(ies) or DoD Component(s) to which proposals were or will be submitted, or from which an awarded is expected or has been received;
b) The date of proposal submission or date of award;
c) The title of the proposal;
d) Name and title of the principal investigator for each proposal submitted or award received; and
e) Title, number, and date of Announcement(s) under which the proposal was or will be submitted, or under which an award is expected or has been received.
f) If award was received, provide the contract number.
g) Specify the applicable topics for each SBIR proposal submitted or award received.

NOTE: If this section does not apply, state in the proposal, “No prior, current, or pending support for proposed work.”

(17) **Cost Proposal:** A detailed cost proposal must be submitted. Cost proposal information will be treated as proprietary. Proposed costs must be provided by both individual cost element and contractor fiscal year (FY) in sufficient detail to determine the basis for estimates, as well as the purpose, necessity, and reasonableness of each. This information will expedite award of the resulting contract if the proposal is selected for award. Generally, cost
negotiations. The Contracting Officer will determine contract type during negotiations. Phase II contracts may include profit (Firm Fixed price) or fee (cost type).

Cost proposal attachments do not count toward Phase II proposal page limitations. The cost proposal includes:

a) **Direct Labor:** Identify key personnel by labor category. Number of hours, actual hourly rates, labor overhead, and/or fringe benefits per contractor FY is also required.

b) **Direct Materials:** Costs for materials, parts, and supplies must be justified and supported. Provide an itemized list of types, quantities, prices, and, where appropriate, purpose. If computer or software purchases are planned, detailed information such as manufacturer, price quotes, proposed use, and support for the need will be required.

c) **Other Direct Costs:** This includes specialized services such as machining or milling, special test/analysis, and costs for temporary use/lease of specialized facilities/equipment. Provide usage (hours) expected, rates, and sources, as well as brief discussion concerning the purpose and justification. Proposals including leased hardware must include an adequate lease versus purchase rationale. Special tooling/test equipment/material costs are acceptable but will be carefully reviewed to determine the need/appropriateness of the work proposed. The Contracting Officer must decide whether these purchases are advantageous to the Government and are directly related to the proposed effort. Title to property furnished by the Government will be vested with the AF unless determined to be more cost-effective for transfer to the contractor. The Government’s intention is not to directly fund purchase of general purpose equipment.

d) **Subcontracts:** Subcontract costs must be supported with copies of the subcontract agreements. Agreement documents must adequately describe the work to be performed and basis for cost. The agreement document should include a SOW, assigned personnel, hours and rates, materials (if any), and proposed travel (if any). A letter from the subcontractor agreeing to perform a task or tasks at a fixed price is not considered sufficient. The proposed total of all consultant fees, facility leases or usage fees, and other subcontract or purchase agreements may not exceed one-half of the total contract price or cost, unless otherwise approved in writing by the Contracting Officer.

IAW FAR 15.404-1, price analysis, including reasonableness, realism, and completeness, of the proposed subcontractor costs by the prime is required. If based on comparison with prior efforts, identify the basis upon which the prior prices were determined to be reasonable. If price analysis techniques are inadequate or the FAR requires submission of subcontractor cost or pricing data, provide a cost analysis IAW FAR 15.404-1(c). Cost analysis includes, but is not limited to, consideration of materials, labor, travel, other direct costs, and proposed profit rates.

e) **Consultants:** For each consultant, provide a separate agreement letter briefly stating the service to be provided, hours required, and hourly rate and include a short, concise resume.

f) **Travel:** Each Phase II effort, at a minimum, should include a kickoff or interim meeting. Travel costs must be justified as related to the needs of the effort. Include destinations, the number of trips, number of travelers per trip, airfare, per diem, lodging, ground transportation, etc. Information regarding per diem and lodging

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rates may be found in the Joint Travel Regulation (JTR), Volume 2, www.defensetravel.dod.mil.
g) Indirect Costs: Indicate the basis of the proposed rates, e.g., budgeted/actual rates per FY, etc. The proposal should identify the specific rates used and allocation bases to which they are applied. Do not propose composite rates; proposed rates and applications per FY throughout the anticipated performance period should be provided.
h) Cost Share: Cost sharing is permitted. However, cost sharing is not required nor will it be an evaluation factor in the consideration of a proposal. Please note that cost share contracts do not allow fees.
i) DD Form 2345: For proposals submitted under export-controlled topics (either International Traffic in Arms (ITAR) and Export Administration Regulations (EAR)), a copy of the certified DD Form 2345, Militarily Critical Technical Data Agreement, or evidence of application submission must be included. The form, instructions, and FAQs may be found at the United States/Canada Joint Certification Program website, http://www.dlis.dla.mil/jcp/. Approval of the DD Form 2345 will be verified if proposal is chosen for award.

18. Feasibility Documentation – Should be uploaded to Volume 5, Supporting Documents
   a. Maximum page length for feasibility documentation is 25 pages. If you have references, include a reference list or works cited list as the last page of the feasibility documentation. This will count towards the page limit.
   b. Work submitted within the feasibility documentation must have been substantially performed by the offeror and/or the principal investigator (PI). If technology in the feasibility documentation is subject to intellectual property (IP), the offeror must provide IP rights assertions. Provide a good faith representation that you either own or possess appropriate licensing rights to all other IP that will be utilized under your proposal. Additionally, proposers shall provide a short summary for each item asserted with less than unlimited rights that describes the nature of the restriction and the intended use of the intellectual property in the conduct of the proposed research. Please see section 11.5 of the DoD instructions for information regarding technical data rights.
   c. DO NOT INCLUDE marketing material. Marketing material will NOT be evaluated and WILL be redacted.

E. Company Commercialization Report: All Phase II proposals must contain a “Commercialization Report of Prior SBIR Awards”. This report should be submitted under Volume 4 in the DoD Submission Website and will not be counted against the 50-page limitation. The online Company Commercialization Report may be used to fulfill this requirement. As instructed in paragraph 11.2 of the DoD Announcement, prepare the report using the password-protected DoD SBIR electronic submission site, https://sbir.defensebusiness.org/.

V. METHOD OF SELECTION AND EVALUATION CRITERIA

A. Introduction: Phase II proposals are evaluated on a competitive basis by subject matter expert (SME) scientists, engineers, or other technical personnel. Throughout evaluation, selection, and award, confidential proposal and evaluation information will be protected to the greatest extent possible. Phase II proposals will be disqualified and will not be evaluated if the Phase I equivalency documentation does not establish feasibility and technical merit of the proposed technical approach.

B. Evaluation Criteria: Phase II proposals will be reviewed for overall merit based on following

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criteria in descending order of importance:

(1) Technical Merit – The soundness, technical merit, and innovation of the proposed approach and its incremental progress toward topic or subtopic solution.

(2) Potential for Commercial Application – The potential for commercial (Government or private sector) application and the benefits expected to accrue from this commercialization.

(3) Qualifications of the Principal Investigator (and Team) – Qualifications of the proposed principal/key investigators, supporting staff, and consultants. Qualifications include not only the ability to perform the research and development but also ability to commercialize the results.

Cost reasonableness and realism shall also be considered to the extent appropriate.

The proposer's record of commercializing its prior SBIR and STTR projects, as shown in its Company Commercialization Report, will be used as a portion of the Commercialization Plan evaluation. If the "Commercialization Achievement Index (CAI)", shown on the first page of the report, is at the 20th percentile or below, the proposer will receive no more than half of the evaluation points available under evaluation criterion (2) above.

A Company Commercialization Report showing the proposing firm has no prior Phase II awards will not affect the firm's ability to win an award. Such a firm's proposal will be evaluated for commercial potential based on its commercialization strategy.

The primary basis for selecting proposals for award will be overall merit, importance to agency programs, and funds availability. Other factors considered during the selection process include appropriate demonstration of feasibility of the technology, equivalent to that resulting from Phase I type efforts; commitment for Phase III funding; possible duplication with other R/R&D; program balance; budget limitations; and potential, if successful, of leading to a product of continuing interest to DoD. Phase II evaluations may include on-site assessment of the offeror’s research results to date, or of the Contractor’s facility, by Government personnel. The reasonableness of proposed costs for the Phase II effort will be examined to determine proposals offering the best value to the Government.

NOTE: Restrictive notices notwithstanding, proposals may be handled for administrative purposes only, by support contractors; U. Group, Oasis Systems, Riverside Research, Peerless Technologies, BRTRC and/or Stealth Entry LLC. In addition, only Government employees and technical personnel from Federally Funded Research and Development Centers (FFRDCs) MITRE and Aerospace Corporations working under contract to provide technical support to AF Life Cycle Management Center and Space and Missiles Centers may evaluate proposals. All support contractors are bound by appropriate non-disclosure agreements. If you have concerns about any of these contractors, you should contact the AF SBIR/STTR Contracting Officer, Michele Tritt, michele.tritt@us.af.mil.

VI. CERTIFICATIONS

In addition to the standard Federal and DoD procurement certifications, the SBA SBIR/STTR Policy Directives require the collection of certain information from firms at the time of award and during the
award life cycle. Each firm must provide this additional information at the time of the Phase II award, prior to receiving 50% of the total award amount, and prior to final payment.

VII. DEBRIEFINGS

In accordance with FAR 15.505, a debriefing may be requested in writing. Consistent with the DoD SBIR/STTR Announcements, the request must be received within 30 days after receipt of notification of non-selection. Written requests for debrief must be sent directly to the Contracting Officer named on your non-selection notification. Requests should include the company name and telephone number/email address for a company point of contact, as well as an alternate. Also include the topic number under which the proposal was submitted and the proposal number. Requests received more than 30 days after receipt of notification of non-selection will be fulfilled at the Contracting Officers’ discretion. Unsuccessful offerors are entitled to no more than one debriefing per proposal. NOTE: FAR15.505(a) (2) states, at the offeror’s request, debriefs may be delayed until after award. Under the AF SBIR/STTR Programs, debriefs are automated and standardized. Therefore, pre- and post-award debriefs are identical.
Attachment 1: SBIR/STTR Environment, Safety and Occupational Health (ESOH) Questionnaire

Company Name:  
Title:  

1. Will hazardous materials (as defined by Federal Standard 313D, Material Safety Data, Transportation Data and Disposal Data for Hazardous Material Furnished to Government Activities and 40 CFR Part 260 – 279) be used in the contract?

Yes  No  
If the answer is "yes," list materials:  

2. Will explosives or ammunition be used in research? (See definitions listed below before answering.)

Yes  No  
Explosives and ammunition mean:
(a.) Liquid and solid propellants and explosives, pyrotechnics, incendiaries and smokes in the following:
   i. Bulk:
   ii. Ammunition;
   iii. Rockets;
   iv. Missiles;
   v. Warheads;
   vi. Devices; and
   vii. Components of (1) through (6), except for wholly inert items.
(b.) This definition does not include the following, unless the contractor is using or incorporating these materials for initiation, propulsion, or detonation as an integral or component part of an explosive, an ammunition or explosive end item, or of a weapon system.
   1. Inert components containing no explosives, propellants, or pyrotechnics;
   2. Flammable liquids;
   3. Acids;
   4. Oxidizers;
   5. Powdered metals; or
   6. Other materials having fire or explosive characteristics.
If the answer is "yes," list items:  

3. Will any hazardous processes be performed under the contract? Examples include operation of heavy equipment or power tools, operation of lasers or radio frequency radiation emitters, use of high voltage (greater than 600 volts) equipment, or use of equipment operating at high pressure (greater than 60 psig) or high temperature (greater than 50°C).

Yes  No  
If the answer is “yes,” list processes:  

4. Will this research be completed on a U.S. Air Force installation?

Yes  No  
If the answer is “yes,” list facilities:  

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5. Will the contract require the purchase, storage use or delivery of any chemicals or hazardous material to USAF facilities?
   Yes ☐ No ☐
   If the answer is “yes,” list chemicals or hazardous materials:

6. Will any hazardous chemical or waste be generated during the course of this research?
   Yes ☐ No ☐
   If the answer is “yes,” specify the hazardous chemical or waste to be generated:

7. Will any Class I ozone depleting substances (ODSs) be required in this research?
   A list of Class I ODSs is located at the following website: http://www.epa.gov/ozone/ods.html
   Yes ☐ No ☐
   If the answer is “yes,” list substances:

8. Does this effort involve the purchase or use of any radioactive materials?
   Yes ☐ No ☐
   If the answer is “yes,” specify the radioactive materials:

9. Will this effort involve any asbestos, radiation, or chemical generating/using components that will be delivered to USAF facilities?
   Yes ☐ No ☐
   If the answer is “yes,” specify the components:

10. Are there any special atmospheric or water resource requirements?
    Yes ☐ No ☐
    If “yes” specify the requirements:
Attachment 2: Air Force RAPID Phase II Matching Funds Guidance

This information provides guidance regarding relationships between a small company and outside investors that qualify as investment under the SBIR/STTR RAPID Program (“RAPID private investment”). For questions regarding specific situations’ qualification, please contact the cognizant Government Program Manager, Contracting Officer, or the Air Force special topics team at sbir@afwerx.af.mil.

RAPID Phase II Documentation: If applying for a RAPID Phase II, include in the ‘Other’ section a RAPID Application Package. A RAPID Application Package consists of:

1. A completed RAPID application form. The company and investor must:
   a. State the outside investor will match the entirety of the Phase II SBIR funding, in cash, contingent on the company's selection for Phase II award. The matching rates needed to qualify for RAPID are as follows:
      ▪ For all companies, the minimum matching rate is $1.00 private funding for every SBIR dollar, e.g., Phase II SBIR funding of $1,500,000 must be matched with $1,500,000 from the private investor(s).
      ▪ For companies with no prior Phase II SBIR awards from DoD or other Federal agency, the minimum matching rate is $.25 from a Government investor for every SBIR dollar, e.g., $1,500,000 Phase II SBIR funding must be matched $375,000 Government investment.
      ▪ For companies with one or more prior Phase II SBIR awards from DoD or other Federal agency, the minimum matching rate is $1.00 Government investment for every SBIR dollar, e.g. Phase II SBIR funding totaling $1,500,000 must be matched with $1,500,000 Government investment.
   b. Certify outside funding included in the application qualifies as "RAPID investment", and the investor qualifies as an "outside investor," as defined in the reference at the end of this document titled Air Force RAPID Phase II Matching Funds Guidance.

2. A letter from the outside investor to the company, submitted electronically on the DoD Submission Website in Volume 6, Other (see section 6.7 of this document). The letter should contain:
   a. A commitment to match the entirety of the Phase II SBIR funding, in cash, contingent on the company's selection for Phase II award.
   b. A brief statement (less than one page) describing the portion of the effort the investor will fund. The investor's funds may pay for additional R&D on the company's SBIR project or, alternatively, for other activities not included in the Phase II Work Plan, provided these activities further the development and/or commercialization of the technology, e.g., marketing.
   c. A brief statement (less than one page) describing (i) the investor's experience in evaluating companies' ability to successfully commercialize technology; and (ii) the investor's assessment of the market for this particular SBIR technology and company’s ability to bring this technology to market.
What Qualifies As "RAPID Investment" (general):

- Must be an outside investor, which includes other companies, venture capital firms, individual “angel” investors, non-SBIR/non-STTR government programs, or any combination thereof. It does not include the owners of the small business, their family members, and/or “affiliates” of the small business, as defined in Title 13 of the Code of Federal Regulations (C.F.R.), Section 121.103. As discussed in that section:
  
  ► Concerns are affiliates of each other when one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.
  
  ► [We] consider factors such as ownership, management, previous relationships with or ties to another concern, and contractual relationships, in determining whether affiliation exists.
  
  ► Individuals or firms that have identical or substantially identical business or economic interests, such as family members, persons with common investments, or firms that are economically dependent through contractual or other relationships, may be treated as one party with such interests aggregated. Although USAF is guided by this definition of affiliation in the Code of Federal Regulations, we also exercise our own discretion whether a particular entity qualifies as an "outside investor".

- The investment must be an arrangement by which the outside party provides cash to the small company in return for such items as equity; a share of royalties; rights in the technology; a percentage of profit; an advance purchase order for products resulting from the technology; or any combination thereof.

Qualifying RAPID Investments:

A. Qualifying as an “Outside” Investor”

(1) Can a small company contribute its own internal funds to qualify for the RAPID Program?

No. USAF is seeking outside validation of the company’s technology commercialization potential, and therefore requires funds be provided by an outside investor. Additionally, outside investor funding is more readily verifiable in the small business’s financial records.

(2) Company A spins off Company B; Company B receives a Phase I SBIR award. Company A then wants to contribute matching funds to qualify Company B for the RAPID Program. Can A be considered an outside investor for purposes of the RAPID? In this example A and B would be considered "affiliates". Company A would therefore not be an outside investor for purposes of the RAPID Program. The presumption could be rebutted by showing, e.g., the spin-off occurred several years ago, Companies A and B do not exercise control over the other, do not have common ownership or management, pursue different business interests, etc.

(3) Small company S wins a Phase I award. The president of S is a major shareholder in company Y. Company Y wants to contribute matching funds to qualify S for the RAPID Program. Can Y be considered an outside investor? The presumption is Y would not be considered an outside investor. This determination is based on whether the president's stake in Company Y is large enough for S and Y to be considered "affiliates" IAW 13 CFR Section 121.103. Subsection c specifically discusses affiliation based on stock ownership:

A person is an affiliate of a concern if the person owns or controls, or has the power to control 50 percent or more of its voting stock, or a block of stock which affords control because it is large compared to other
outstanding blocks of stock. 2. If two or more persons each own, control, or have power to control < 50% of a concern’s voting stock, with minority holdings ~ equal in size, but the aggregate of which is large as compared with other stock holdings, each such person is presumed to be the concern’s affiliate.

If S and Y are determined to be affiliates, Y cannot be an outside investor.

(4) Does the outside investor have to be a single entity, e.g., a single venture capital firm, or can it be more than one entity e.g., two angel investors and a venture capital firm? The outside investor can be comprised of more than one entity.

(5) Small Company A contributes matching funds to Small Company B to qualify B for the RAPID Program. At the same time, Small Company B contributes matching funds to Small Company A to qualify A for the RAPID Program. Do Small Companies A and B qualify as outside investors under the RAPID Program? No. A and B’s investment in the other would not provide outside validation of the commercial potential of their respective SBIR projects. They would therefore not be considered outside investors for purposes of the RAPID Program.

(6) Can the brother of an employee of Small Company S contribute funds to qualify Small Company S for the RAPID Program? Probably not. Again, the decision would be guided by the definition of “affiliates” in 13 CFR Section 121.103. The brother would likely be considered an affiliate of Small Company S and not an outside investor.

(7) Venture Capital Firm V currently is a 22% shareholder in Small Company S. Can V invest additional funds in S to qualify S for the RAPID Program? The presumption is yes. The determination would be based on whether V and S are "affiliates," as defined in 13 C.F.R. Sec. 121.103. Section 121.103 provides (in subsection (b)(5)) that a venture capital firm is not affiliated with a company if the venture capital firm does not control the company, i.e., by owning more than 50 percent of the stock of a small company (prior to its investment under the RAPID Program), as described in 13 C.F.R. 107.865.

(8) Large Company L makes a cash investment in Small Company S, then serves as a subcontractor to S on an SBIR project. Can L's investment in S count as a matching contribution for purposes of the RAPID Program? Only L's net cash investment qualifies as matching funds for purposes of the RAPID Program. For example, if L invests $750,000 in S, then subcontracts with S for $250,000, only L's net contribution of $500,000 ($750,000 - $250,000) qualifies as matching funds for the RAPID Program.

(9) Company Y makes a cash investment in Small Company S under the RAPID Program. Y then enters into a separate contract with S to provide certain goods/services for $500,000. Can Y's cash investment in S count as a matching contribution under the RAPID Program?

As in the previous example, only Y's net cash investment of the $500,000 it receives from S qualifies as matching funds under the RAPID Program. However, if the separate contract between Y and S precedes S's Phase I SBIR proposal submission, Y's entire cash investment can count as matching funds.

(10) A group of investors wishes to provide funding to Small Company S to qualify S for the RAPID Program. One of the investors is the mother of S's president, and wants to contribute $50,000 toward the effort. Can the group's investment in S count as a matching contribution to qualify S for the RAPID? The mother's $50,000 is not considered a matching contribution, because she is not an outside investor (see item (6) above). Other investors' contributions can count provided they meet the other conditions for the RAPID Program, e.g., each must be an outside investor.
B. Examples of Qualified "Investment"

(1) Can a loan from an outside party qualify as investment under the RAPID Program? No. The basis of the RAPID Program is for an outside party to invest in the company's success in bringing the technology to market, not solely its ability to repay a loan.

(2) Do loans convertible to equity qualify? A loan convertible to equity at the company's discretion would qualify as an investment provided the loan: (1) if from a public entity, e.g., a state agency, or (2) is from a private entity with rights allowing the SBIR company to convert the loan to equity. At a minimum, the loan must include an automatic conversion clause within five (5) years of loan receipt.

Notes similar to the Simple Agreement for Future Equity (SAFE) are generally NOT considered loans, and therefore qualify as an “Investment”.

(3) Do in-kind contributions from outside investors qualify as matching funds under the RAPID Program? No. Matching contribution must be cash. A cash contribution is a stronger indicator of the outside investor’s interest in the technology, and can be readily verified.

(4) Would a purchase order from an outside investor qualify as a matching contribution under the RAPID Program? An advance purchase order for new products resulting from the SBIR project can count as a matching contribution under the RAPID Program, assuming the other RAPID conditions are met.

(5) Would funds raised through an initial public offering (IPO) qualify as matching funds for purposes of the RAPID Program? Yes, as long as the offering memo indicates a portion of the IPO funds will pay for work, e.g., R&D, marketing, etc., related to the SBIR project.

(6) If Large Company L pays Small Company S for work related to S's SBIR project and expects a deliverable, i.e., goods or services, from S in return, would that qualify as an "investment"? No, for the same reason a loan does not count. Specifically, the large company is not betting on the small company's success in bringing the technology to market, but merely on its ability to provide the deliverable.

C. RAPID Program Investment Timing/Logistics

(1) Can Entity E's investment in Small Company S during the first month of S's Phase I SBIR performance qualify as a matching contribution to qualify S for the RAPID Program? Yes, provided E is an outside investor and the other RAPID Program conditions are met. The investment can occur at any time after the start of Phase I performance.

(2) Small Company A, which won a Phase I award, spins off Small Company B to commercialize the SBIR technology. A then convinces Angel Investor I to invest funds in B. Is I's investment in B considered a matching contribution to qualify A for the RAPID Program? For Angel Investor I's investment in Small Company B to qualify Small Company A for the RAPID Program, USAF must determine A and B are substantially the same entity as evidenced, for example, by their meeting the “affiliates” definition in 13 C.F.R. Sec.121.103. If USAF determines A and B are substantially the same entity, I's investment in B could qualify A for the RAPID Program. Of course, the parties must also meet the other conditions for the RAPID Program, e.g., I must be an outside investor.

(3) Small Company S is collaborating with a university on an STTR Phase I (?) project. Investor I wishes to provide funds to the university to qualify Small Company S for the STTR RAPID Program.
**I's investment in the university a matching contribution to qualify S for the RAPID Program?** In order to qualify S for the STTR RAPID Program, I's investment must be in Small Company S, not in the university. S can then subcontract to the university. The rationale is a cash investment in the small company is a strong indication of commercial potential, whereas an investment in the university is less so.