

**AIR FORCE X21.1 SMALL BUSINESS INNOVATION RESEARCH (SBIR)  
COMMERCIAL SOLUTIONS OPENING (CSO)  
AMENDMENT 2  
12 February 2021**

1. The subject CSO is hereby amended as follows:
  - a. Attachment 5: Foreign Disclosure Addendum is replaced with Attachment 5: Foreign Ownership or Control Disclosure
  - b. DFARS provision 252.209-7002 is incorporated into this CSO (Section 11 Contractual Requirements).
  - c. Requirement to respond to the six questions concerning foreign involvement on the proposal cover sheet is removed.
  
2. The Amendment 2 changes are in the following CSO sections and subsections, and are also highlighted: 2.2; 5.1; 5.3(a); 5.3(e); 5.3(g); 9.1; 9.4(a); 9.4(e); 9.4(g); 11.1(x); and Attachment 5.
  
3. All other X21.1 SBIR CSO content remains unchanged and in full effect.

**DEPARTMENT OF THE AIR FORCE (AF)**  
**SMALL BUSINESS INNOVATION RESEARCH (SBIR) PROGRAM**  
**X21.1 SBIR COMMERCIAL SOLUTIONS OPENING (CSO)**

*This solicitation applies to Topics AF211-CSO1, AF211-DCSO1, and AF211-DCSO2 only.*

**8 December 2020:** Issued for pre-release

**14 January 2020:** Begin accepting proposals

**18 February 2021:** Full proposals due **no later than 12:00 p.m. ET**

IAW with Section 879 of the National Defense Authorization Act (NDAA) for Fiscal Year 2017 (P.L. 114-328), Congress has authorized the Defense CSO Pilot Program. This program allows agencies to obtain solutions or potential new capabilities fulfilling requirements, closing capability gaps, or providing potential technological advancements. Consistent with FY17 NDAA Section 879, AF is soliciting proposals under a CSO. This solicitation is intended for informational purposes and reflects current planning. If there is inconsistency between the information in the CSO and resulting awards, if any, the awards' terms and conditions take precedent.

**IMPORTANT**

**Deadline for Receipt:** No exceptions will be made for the submission deadline above. AF recommends early submission, as computer traffic gets heavy near announcement closing. **Do not wait until the last minute. AF is not responsible for missed proposal submission due to system lag or inaccessibility.**

**How to Submit:** All proposals must be prepared and submitted through the Department of Defense (DOD) SBIR/STTR Innovation Portal (DSIP), <https://www.dodsbirsttr.mil/>. Ensure the proposal email address is accurate. AF is not responsible for missed notifications due to firms changing mailing addresses/email addresses/company points of contact after submission without notifying the AF. **Classified proposals are NOT accepted**

**CSO Changes:** The instructions/topic information have been significantly revised – read carefully.

**SBIR/STTR Updates and Notices:**

- The CSO of record is found at <https://www.dodsbirsttr.mil/>. **Proposals must meet all CSO of record requirements at proposal submission deadline.**
- To receive AFVentures and other AF innovation opportunity notifications, register at <https://af-ventures.com/> and <https://www.afwerx.af.mil/join.html>.

**Help Desk:** For AF SBIR/STTR Program questions, contact the USAF SBIR/STTR One Help Desk at 1-855-855-5360 or [usaf.team@afsbirsttr.us](mailto:usaf.team@afsbirsttr.us). For DSIP questions or issues, contact the DoD SBIR/STTR Help Desk at 1-703-214-1333, or email to [DoDSBIRSupport@reisystems.com](mailto:DoDSBIRSupport@reisystems.com). The Help Desk is available **Monday through Friday, 9:00 a.m. to 5:00 p.m. ET.**

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Attachments:

1. X20.3 Customer Memorandum MANDATORY Template (Direct-to-Phase II Only)
2. X20.3 Funds Matching MANDATORY Form (Direct-to-Phase II Only)
3. X20.3 Sample Pitch Deck (Phase I and Direct-to-Phase II)
4. Contractor Certification Regarding Prohibited Video Surveillance and Telecommunications Services and Equipment
5. **Foreign Ownership or Control Disclosure**

## 1.0 INTRODUCTION

The Air Force (AF) invites small business firms to submit proposals under this CSO for the Small Business Innovation Research (SBIR) Program. Firms with the capability to conduct research and development (R&D) in the AF-related topics described in Section 13.0 and to commercialize the results are encouraged to participate.

The *2014 Quadrennial Defense Review* (QDR) established innovation as a central line of effort in the United States' (US') national Defense strategy. The US' decisive military advantage over its adversaries and peer competitors is steadily eroding. Consequently, under section 879 of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2017 (Pub. L. 114-328) Contracting Officers may acquire innovative commercial items, technologies, or services using a competitive procedure called a Commercial Solutions Opening (CSO). Under the CSO, DoD may competitively select proposals received in response to a general solicitation, similar to a Broad Agency Announcement, based on proposal review by Government scientific, technological, or other subject-matter experts. CSO use in accordance with Class Deviation 2018-O0016 is considered competitive for the purposes of 10 U.S.C. chapter 127 and FAR 6.102. Contracting officers shall treat items, technologies, and services acquired under a CSO as commercial items. The full definition of commercial items, i.e., products and services, under FAR 2.101 applies. This CSO includes no requirement for a commercial product or service be an already developed, off-the-shelf item.

This CSO seeks innovative, commercial technologies proposed to create new AF solutions or potential new capabilities fulfilling requirements, closing capability gaps, or providing potential technological advancements. This CSO may result in the award of prototype projects, which include not only commercially available technologies fueled by commercial or strategic investment, but also concept demonstrations, pilots, and agile development activities improving commercial technologies, existing Government-owned capabilities, or concepts for broad Defense application(s). The Government reserves the right to award a contract or an Other Transaction for any purpose, to include a prototype, under this CSO. The AF also reserves the right to award all, part, or none of the proposals received. The Federal Government is not responsible for any monies expended by the applicant before award. The SBIR/STTR Programs are not substitutes for existing unsolicited proposal mechanisms. Unsolicited proposals are not accepted under the AF SBIR/STTR Programs for Phases I or II.

Information related to the AF Small Business Program is found at <http://www.airforcesmallbiz.af.mil/>. The site contains contracting opportunities within AF, as well as business information and upcoming outreach/conference events. Other informative sites include the Small Business Administration (SBA), [www.sba.gov](http://www.sba.gov), and Procurement Technical Assistance Centers, <http://www.ptac.us.org>. These centers provide Government contracting assistance and guidance to small businesses, typically at no cost.

## 2.0 PROGRAM DESCRIPTION

### 2.1 Objectives

The AF SBIR Program's objectives include stimulating technological innovation, strengthening the small business role in meeting DoD research, development, test, and evaluation (RDT&E) needs, fostering and encouraging minority and disadvantaged persons-owned small businesses in technological innovation, and increasing commercial application of DoD-supported RDT&E results.

The AF Science and Technology (S&T) Strategy identifies five (5) Strategic Capabilities, listed below. Additionally, it is possible for a solution to provide a strategic capability in a previously unconsidered area. Therefore, if the offeror feels their solution does not fit within one of the listed capabilities, they can reference the "BLUE SKY" category, including an explanation of the solution's ability to provide increased strategic capability within the context of AF, national, and global constraints. As applicable, the offeror should address the category(ies) to which the solution aligns in the Technical Volume as part of the "Defense Need" slide.

1. Global Persistent Awareness
2. Resilient Information Sharing
3. Rapid, Effective Decision-Making
4. Complexity, Unpredictability, and Mass
5. Speed and Reach of Disruption and Lethality
6. BLUE SKY\*

US Air Force S&T Strategy:

<https://www.af.mil/Portals/1/documents/2019%20SAF%20story%20attachments/Air%20Force%20Science%20and%20Technology%20Strategy.pdf?ver=2019-04-17-131216-723&timestamp=1555530064092>

The Air Force process is unique as it is incumbent on small business founders to identify and understand their Government customers and their mission needs. Some methods for exploring Defense needs and opportunities are available below:

- a) **AFWERX Mission Needs List** - The AFWERX team collects specific Mission Needs from various Air Force sources and maintains a current list of these needs on <https://www.afwerx.af.mil/>. Following Phase I award, companies will be asked to identify Mission Needs they may be able to address. Once identified, offerors will be connected with the AF Mission Need sponsors. NOTE - if applicable, please reference relevant Mission Need IDs in the Technical Volume's header. Referencing Mission Needs will not affect the peer review. However, it will assist in connecting companies to AF sponsors expeditiously upon award.
- b) **Air Force Tech Connect** - <https://airforcetechconnect.org/>
- c) **Small Business Specialist** - <https://www.airforcesmallbiz.af.mil/Small-Business/Locate-Specialist/>
- d) **Procurement Technical Assistance Centers (PTACs)** - <https://www.sba.gov/local-assistance/find/?type=Procurement%20Technical%20Assistance%20Center>
- e) **AFWERX Challenges** - <https://afwerxchallenge.com/>
- f) **Defense Innovation Marketplace** - <https://Defenseinnovationmarketplace.dtic.mil>

The AF SBIR Program follows the policies and practices of the Small Business Administration (SBA) SBIR/STTR Policy Directive (2 May 19), [https://www.sbir.gov/sites/default/files/SBIR-STTR\\_Policy\\_Directive\\_2019.pdf](https://www.sbir.gov/sites/default/files/SBIR-STTR_Policy_Directive_2019.pdf). This CSO incorporates and makes use of Policy Directive flexibilities to encourage proposals based on scientific and technical approaches most likely to yield important results for the AF and private sector.

## 2.2 Technology and Program Protection to Maintain Technological Advantage

In accordance with DoD Instruction 5000.83, Technology and Program Protection to Maintain Technological Advantage, dated 20 July 20 2020, and as a means to counter the threat from strategic competitor nations, the DoD will employ risk-based measures to protect systems and technologies from adversarial exploitation and compromise of U.S. military vulnerabilities and weaknesses in: (1) systems, (2) components, (3) software, (4) hardware, and (5) supply chains. **The initial measure being implemented for the SBIR program is to require proposers to self-report and disclose foreign ownership of, or control over, the proposer.** Reporting and disclosing such information will enable the DoD to identify national security risks posed by foreign participation, through investment, ownership, or influence, in the Defense industrial base. This information will be used by DoD program offices to determine risks posed by SBIR contractor awardees and their subcontractors to the DoD and the Defense industrial base.

## 2.3 Three Phase Program

The SBIR/STTR Program consists of Phases I, II, and III. Phase I is to determine, to the extent possible, the scientific and technical merit and feasibility of ideas with commercial potential. Proposals should concentrate on RDT&E significantly contributing to proving scientific and technical feasibility and the proposed effort's commercialization potential, wherein successful completion is required to obtain further AF support, e.g., a Phase II award. Proposers should consider whether the RDT&E proposed to the AF has private sector potential, either for the proposed application or as the basis for other applications.

Phase II awards are based on Phase I results, including commercialization potential, relevance to Defense needs, and the Phase II proposal's technical merit. Phase II is the principal RDT&E effort, expected to produce a well-defined deliverable proposed solution prototype. In limited circumstances, Phase II awards may be made for the testing and evaluation of products, services, or technologies for use in technical or weapons systems. Phase II awardees may receive one additional, sequential Phase II award to continue the project. There is also the possibility for a third Phase II award under the Commercialization Assistance Pilot Program (CAPP). Additionally, agencies may provide opportunities to apply for Phase IIB awards seeking to bridge the gap between Phase II and III. Proposals for these opportunities, if/when available, are sought through separate, discreet solicitation cycles.

SBIR/STTR Phase IIIs include work deriving from, extending, or completing efforts made under prior SBIR/STTR funding agreements but funded by non-SBIR/STTR Program sources. This can be private sector, non-SBIR/STTR Government sources, or both. Phase III work is typically oriented towards commercializing SBIR/STTR research or technology.

## 2.4 Consolidated Topic Information

NOTE: All chart content applies to Topics AF211-CSO1 and AF211-DCSO1. Information regarding AF211-DCSO2 may be found in the topic write-up. The Customer Memorandum requirement applies to Topic AF211-DCSO2.



CHART 1	Phase I		Phase II and Direct to Phase II			
	Technical Volume (Vol 2)	Award Amount	Technical & Reporting Duration	Technical Volume (Vol 2)	Additional Info (Vol 5)	Technical & Reporting Duration
NTE 25-slide deck and optional 5-page white paper	NTE \$50,000	NTE 3 months, including 2 months technical performance and 1 month for reporting.	NTE 25-slide deck <u>AND</u> NTE 15-page white paper	Signed Customer Memorandum using MANDATORY template	NTE 15 months, including 12 months technical performance and 3 months for reporting	NTE \$750,000 SBIR funds; no cap on non-SBIR Governmental or private investment

## **3.0 DEFINITIONS**

The following definitions from the SBA SBIR/STTR Policy Direction, the Federal Acquisition Regulation (FAR), and 10 USC 2371b apply to this CSO:

### **3.1 Certified HUBZone Small Business Concern**

An SBC certified by SBA under the Historically Underutilized Business Zones (HUBZone) Program (13 C.F.R. § 126) as a HUBZone firm listed in the Dynamic Small Business Search (DSBS).

### **3.2 Commercial Solutions Opening (CSO)**

A competitive procedure Contracting Officers may use to acquire innovative commercial items, technologies or services.

### **3.3 Commercialization**

The process of developing products, processes, technologies, or services and the production and delivery (whether by the originating party or others) of products, processes, technologies, or services for sale to or use by the Federal Government or commercial markets.

### **3.4 Essentially Equivalent Work**

Work substantially the same research, proposed for funding in more than one application submitted to the same Federal agency, or two or more different Federal agencies for review and funding consideration. It may also include work where a specific research objective and the research design for accomplishing project objective are the same or closely related to another proposal or award, regardless of funding source.

### **3.5 Export Control**

The International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120 through projects with military or dual-use applications beyond fundamental research. Fundamental research is basic and applied research ordinarily published and shared broadly within the scientific community. More information is available at [https://www.pmdtc.state.gov/?id=ddtc\\_public\\_portal\\_itar\\_landing](https://www.pmdtc.state.gov/?id=ddtc_public_portal_itar_landing).

### **3.6 Federal Laboratory**

As defined in 15 U.S.C. §3703, means any laboratory, any Federally funded research and development center (FFRDC), or any center established under 15 USC § 3705 & 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.

### **3.7 Foreign Entity**

Foreign entity means any branch, partnership, group or sub-group, association, estate, trust, corporation or division of a corporation, non-profit, academic institution, research center, or organization established, directed, or controlled by foreign owners, foreign investors, foreign management, or a foreign government.

### **3.8 Foreign Government**

Foreign government means any government or governmental body, organization, or instrumentality, including government owned-corporations, other than the United States Government or United States state, territorial, tribal, or jurisdictional governments or governmental bodies. The term includes, but is not limited to, non-United States

national and subnational governments, including their respective departments, agencies, and instrumentalities.

### 3.9 Foreign Nationals

Foreign Nationals (also known as Foreign Persons) as defined by 22 CFR 120.16 means any natural person who is not a lawful permanent resident as defined by 8 U.S.C. § 1101(a)(20) or who is not a protected individual as defined by 8 U.S.C. § 1324b(a)(3). It also means any foreign corporation, business association, partnership, trust, society or any other entity or group that is not incorporated or organized to do business in the United States, as well as international organizations, foreign Governments and any agency or subdivision of foreign Governments (e.g., diplomatic missions). "Lawfully admitted for permanent residence" means the status of having been lawfully accorded the privilege of residing permanently in the United States as an immigrant in accordance with the immigration laws, such status not having changed.

"Protected individual" means an individual who (A) is a citizen or national of the United States, or (B) is an alien who is lawfully admitted for permanent residence, is granted the status of an alien lawfully admitted for temporary residence under 8 U.S.C. § 1160(a) or 8 U.S.C. § 1255a(a)(1), is admitted as a refugee under 8 U.S.C. § 1157, or is granted asylum under Section 8 U.S.C. § 1158; but does not include (i) an alien who fails to apply for naturalization within six months of the date the alien first becomes eligible (by virtue of period of lawful permanent residence) to apply for naturalization or, if later, within six months after November 6, 1986, and (ii) an alien who has applied on a timely basis, but has not been naturalized as a citizen within two (2) years after the date of the application, unless the alien can establish that the alien is actively pursuing naturalization, except that time consumed in the Service's processing the application shall not be counted toward the two (2)-year period.

### 3.10 Fraud, Waste and Abuse

- a. **Fraud** includes any false representation about a material fact or any intentional deception designed to deprive the United States unlawfully of something of value or to secure from the United States a benefit, privilege, allowance, or consideration to which an individual or business is not entitled.
- b. **Waste** includes extravagant, careless or needless expenditure of Government funds, or the consumption of Government property, that results from deficient practices, systems, controls, or decisions.
- c. **Abuse** includes any intentional or improper use of Government resources, such as misuse of rank, position, or authority or resources.

### 3.11 Funding Agreement

Any contract, grant, cooperative agreement, or Other Transaction for Prototype entered into between any Federal Agency and any small business concern for the performance of experimental, developmental, or research work, including products or services, funded in whole or in part by the Federal Government.

### 3.12 Innovative

- (1) Any new technology, process, or method, including research and development; or
- (2) Any new application of an existing technology, process, or method.

### 3.13 Other Transaction

Refers to the type of Other Transaction Agreement (OTA) that may be placed as a result of this CSO. This type of OT is authorized by 10 U.S.C 2371b for prototype projects directly relevant to enhancing the mission effectiveness of military personnel and the supporting platforms, systems, components, or material proposed to be acquired or developed by the DoD, or for the improvement of platforms, systems, components, or materials in use by the armed forces. This type of OTA is treated by DoD as an acquisition instruments, commonly referred to as an "other transaction" for a prototype or a Section 2371b "other transaction." The definition of a "prototype project" in the

context of an OT is as follows: a prototype project addresses a proof of concept, model, reverse engineering to address obsolescence, pilot, novel application of commercial technologies for Defense purposes, agile development activity, creation, design, development, demonstration of technical or operational utility, or combinations of the foregoing. A process, including a business process, may be the subject of a prototype project.

This authority also allows for a noncompetitive, follow-on OT for Production to an OT for Prototype competitively awarded and successfully completed. This statute requires advanced consideration be given and notice be made for follow-on OT for Production potential. It is a necessary precondition for such a follow-on award. As such, this solicitation document and resulting OTs for Prototype will include notice follow-on OTs for Production are possible.

### **3.14 Performance Benchmarks for Progress Toward Commercialization**

IAW the SBA SBIR/STTR Policy Directive Section 4(a)(3), DoD's established benchmark threshold applies only to Phase I applicants with more than 20 awards in the prior five fiscal years. The ratio of Phase I awards to Phase II awards received during the period must be at least 4:1. Additional information can be found at <https://www.sbir.gov/performance-benchmarks>.

### **3.15 Principal Investigator**

The principal investigator/project manager is the individual designated by the applicant to provide the scientific and technical direction to a project supported by the funding agreement. For both Phase I and Phase II, the primary employment of the principal investigator must be with the SBC at the time of award and during the conduct of the proposed project. Primary employment means that more than one-half of the principal investigator's time is spent in the employ of the SBC. This precludes full-time employment with another organization. Occasionally, deviations from this requirement may occur, and must be approved in writing by the Contracting Officer after consultation with the agency AF SBIR Program Manager/Coordinator. Further, an SBC may replace the principal investigator on an SBIR Phase I or Phase II award, subject to approval in writing by the Contracting Officer.

### **3.16 Proprietary Information**

Proprietary information includes trade secrets, as well as commercial or financial information.

### **3.17 Research Involving Animal Subjects**

“Activities involving animal subjects shall be conducted in accordance with DoDI 3216.01, “Use of Animals in DoD Programs”; 9 CFR parts 1-4; National Academy of Sciences Publication “Guide for the Care & Use of Laboratory Animals” as amended; Department of Agriculture rules implementing the Animal Welfare Act (7 U.S.C. §§ 2131-2159); and other applicable Federal/DoD/local laws, regulations, and instructions.

“Animal use” protocols apply to activities meeting any of the following criteria:

- d. Any research, development, test, evaluation or training (including experimentation) involving an animal or animals.
- e. An animal is defined as any living or dead, vertebrate organism (non-human) being used or intended for use in research, development, test, evaluation, or training.
- f. A vertebrate is a member of the subphylum Vertebrata (within the phylum Chordata), including birds and cold-blooded animals.

See DoDI 3216.01 for definitions of these terms and applicability to work involving animals.

### 3.18 Research Involving Human Subjects

All research involving human subjects shall be conducted in accordance with 32 C.F.R. § 219 “The Common Rule”, 10 USC §980 “Limitation on Use of Humans as Experimental Subjects”, and DoDD 3216.02, “Protection of Human Subjects and Adherence to Ethical Standards in DoD-Supported Research,” as well as other applicable Federal and state law and regulations, and DoD component guidance. Offerors must be cognizant of and abide by the additional restrictions and limitations imposed on the DoD regarding research involving human subjects, specifically as they regard vulnerable populations (DoDD 3216.02), recruitment of military research subjects (DoDD 3216.02), and informed consent and surrogate consent (10 U.S.C. § 980) and chemical and biological agent research (DoDD 3216.02). Food and Drug Administration regulation and policies may also apply.

“Human use” protocols apply to all research that meets any of the following criteria:

- a. Any research involving an intervention or an interaction with a living person that would not be occurring or would be occurring in some other fashion but for this research.
- b. Any research involving identifiable private information. This may include data/information/specimens collected originally from living individuals (broadcast video, web-use logs, tissue, blood, medical or personnel records, health data repositories, etc.) in which the identity of the subject is known, or the identity may be readily ascertained by the investigator or associated with the data/information/specimens.

See DoDD 3216.02 for definitions of these terms and more information about the applicability of DoDI 3216.02 to research involving human subjects.

### 3.19 Research Involving Recombinant DNA Molecules

Any recipient performing research involving recombinant DNA molecules and/or organisms and viruses containing recombinant DNA molecules shall comply with the National Institutes of Health Guidelines for Research Involving Recombinant DNA Molecules, dated January 2011, as amended. The guidelines can be found at: [https://osp.od.nih.gov/wp-content/uploads/2013/06/NIH\\_Guidelines.pdf](https://osp.od.nih.gov/wp-content/uploads/2013/06/NIH_Guidelines.pdf). Recombinant DNA is defined as (i) molecules that are constructed outside living cells by joining natural or synthetic DNA segments to DNA molecules that can replicate in living cells or (ii) molecules that result from the replication of those described in (i) above.

### 3.20 Research or Research and Development (R/R&D)

- a. A systematic, intensive study directed toward greater knowledge or understanding of the subject studied;
- b. A systematic study directed specifically toward applying new knowledge to meet a recognized need; or
- c. A systematic application of knowledge toward the production of useful materials, devices, systems, or methods, including prototype or process design, development, and improvement to meet specific requirements.
- d. Intended broadly to include the work performed under a funding agreement with the government. It includes R&D in all fields, including the physical sciences, engineering, etc. Research is systematic study directed toward fuller scientific knowledge or understanding of the subject studied. Development is systematic use of the knowledge and understanding gained from research, for the production of useful materials, devices, systems, or methods, including the design and development of prototypes and processes.

### 3.21 Service-Disabled Veteran-Owned Small Business (SDVOSB)

A small business concern owned and controlled by a Service-Disabled Veteran or Service-Disabled Veterans, as defined in Small Business Act 15 USC § 632(q)(2) and SBA’s implementing SDVOSB regulations (13 CFR 125).

### **3.22 Small Business Concern (SBC)**

A concern meeting the requirements set forth in 13 CFR. § 121.702. An SBC must satisfy the following conditions on the date of award:

- a. Is organized for profit, with a place of business located in the United States, which operates primarily within the United States or which makes a significant contribution to the United States economy through payment of taxes or use of American products, materials or labor;
- b. Is in the legal form of an individual proprietorship, partnership, limited liability company, corporation, joint venture, association, trust or cooperative, except that if the concern is a joint venture, each entity to the venture must meet the requirements set forth in paragraph (c) below;
- c. Is more than 50% directly owned and controlled by one or more individuals (who are citizens or permanent resident aliens of the United States), other small business concerns (each of which is more than 50% directly owned and controlled by individuals who are citizens or permanent resident aliens of the United States), or any combination of these; and
- d. Has, including its affiliates, not more than 500 employees. (For explanation of affiliate, see [www.sba.gov/size](http://www.sba.gov/size).)

### **3.23 Subcontract**

A subcontract is any agreement, other than one involving an employer-employee relationship, entered into by an awardee of a funding agreement. The funding agreement calls for supplies or services to perform the basic award. This includes consultants.

### **3.24 Subcontractor**

Subcontractor means any supplier, distributor, vendor, firm, academic institution, research center, or other person or entity that furnishes supplies or services pursuant to a subcontract, at any tier.

### **3.25 Test and Evaluation**

Test and Evaluation: Phase II and Phase III awards may be made for testing and evaluation of products, services or technologies for use in technical or weapons systems. Use of this authority will be subject to compliance with fiscal law.

### **3.26 United States**

The fifty states, the territories and possessions of the Federal Government, the Commonwealth of Puerto Rico, the Republic of the Marshall Islands, the Federated States of Micronesia, the Republic of Palau, and the District of Columbia.

### **3.27 Women-Owned Small Business Concern**

An SBC at least 51% owned by one or more women, or in the case of any publicly owned business, at least 51% of the stock is owned by women, and women control the management and daily business operations.

## 4.0 PROPOSAL FUNDAMENTALS

Unless otherwise specified, this section applies to Phase I and II proposals, including Direct to Phase II.

### 4.1 Introduction

The proposal must provide sufficient information to demonstrate to the reviewers the proposed work represents an innovative approach to investigation of important scientific or engineering problems and is worthy of support under the stated criteria. The proposed RDT&E must be responsive to the chosen topic.

### 4.2 Offeror Eligibility and Performance Requirements

- a. Each proposer must qualify as a small business concern IAW 13 C.F.R §§ 701-705 at time of award and certify to this on the proposal Cover Sheet. SBIR/STTR eligibility requirements are unique and do not correspond to other small business programs (see Section 3.15 of this CSO). Proposers must meet eligibility requirements for Small Business Ownership and Control IAW 13 CFR § 121.702 and Section 4.4 of this CSO.
- b. A minimum of two-thirds of the research and/or analytical work in Phase I must be conducted by the proposing firm. For Phase II, a minimum of one-half (50%) of the research and/or analytical work must be performed by the proposing firm. The work percentage is measured by both direct and indirect costs.
- c. Primary employment of the principal investigator must be with the small business firm at the time of the award and during the conduct of the proposed effort. Primary employment means more than one-half of the principal investigator's time is spent with the small business. Primary employment with a small business concern precludes full-time employment at another organization.
- d. All Phase I and Phase II R/R&D work must be performed by the small business concern and its subcontractors in the U.S.
- e. **Benchmarks.** Proposers with prior SBIR/STTR awards must meet two benchmark requirements for progress toward commercialization as determined by the Small Business Administration (SBA) on 1 June each year.
  1. For all proposers with greater than 20 Phase I awards over the past five fiscal years, excluding the most recent year (currently FY 2016-2020), the ratio of Phase II awards to Phase I awards must be at least 0.25.
  2. For all proposers with greater than 15 Phase II awards over the last ten fiscal years excluding the last two years (currently FY 2009-2019), the proposer must have received, to date, an average of at least \$100,000 of sales and/or investments per Phase II award received or have received a number of patents resulting from the SBIR work equal to or greater than 15% of the number of Phase II awards received during the period.

Consequence of failure to meet the benchmarks:

- o SBA will identify and provide Agencies annually on 1 June the list of companies failing to meet minimum performance requirements. These companies will not be eligible to submit Phase I proposals for one year from that date. This requirement only affects a company's eligibility for new Phase I awards. Companies failing to meet minimum performance requirements may continue work on current, ongoing SBIR/STTR awards. They may also apply for and receive new Phase II awards. Likewise, they are not prohibited from receiving Phase III awards.
- o To provide advance warning, SBA notifies companies on 1 April if they are failing the

- benchmarks. If a company believes the information used was not complete or accurate, it may provide feedback through the SBA Company Registry at [www.sbir.gov](http://www.sbir.gov).
- In addition, SBA has posted a [Guide to SBIR/STTR Program Eligibility](#) to help small businesses understand program eligibility requirements, determine if they will be eligible at award, and accurately complete necessary certifications.
  - Companies' benchmark information is not available to the public.

### 4.3 Joint Ventures

Joint ventures and limited partnerships are permitted, provided the entity created qualifies as a small business in accordance with the Small Business Act, 13 U.S.C. § 121.701. Proposers must disclose joint ventures with existing (or planned) relationships/partnerships with any foreign entity or any foreign government-controlled companies.

### 4.4 Administrative Proposal Requirements

The AF SBIR/STTR Center of Excellence (CoE) is committed to reducing Phase I and II proposal-to-award lead times. To this end, processes and tools have been developed allowing for rapid, streamlined contracting via periodic expedited contracting events. Such speed dictates stringent administrative practices in the proposal submission process. **Therefore, proposals not meeting the requirements as identified below will not be considered for award.**

#### 4.4.1 Registrations and Certifications.

Firms shall be registered in the DoD SBIR/STTR Innovation Portal (DSIP) to prepare and submit proposals, <https://www.dodsbirsttr.mil/submissions/login>.

Firms shall register in the System for Award Management (SAM), <https://www.sam.gov/>, to be eligible for proposal acceptance. Follow instructions therein to obtain a Commercial and Government Entity (CAGE) code and Dunn and Bradstreet (DUNS) number. Firms shall also verify "Purpose of Registration" is set to ALL CONTRACTS, not just grants. Firms registered to compete for grants only at the time of proposal submission will not be considered for award. Addresses must be consistent between the proposal and SAM at award. Previously registered firms are advised to access SAM to ensure all company data is current before proposal submission and, if selected, award.

In addition to the standard Federal and DoD procurement certifications, the SBA SBIR/STTR Policy Directive requires certain information be collected from firms at award and during the award life cycle. Each firm will be asked to provide this information at award (Phase I and II and D2P2, prior to receiving 50% of the total award amount (Phase II and D2P2), and prior to final payment (Phase I and II and D2P2).

#### 4.4.2 Prior, Current, or Pending Support of Similar Proposals or Awards

It is permissible, with proper notification, to submit identical proposals or proposals containing a significant amount of essentially equivalent work (see Section 3.3) for consideration under multiple Federal program solicitations. However, it is unlawful to enter into contracts, grants, cooperative agreements, Other Transactions, or other award types, requiring essentially equivalent effort. **Questions concerning prior, current, or pending support of similar proposals or awards shall be disclosed to the soliciting agency or agencies as early as possible.** Note that companies may submit multiple proposals, and receive multiple awards, to topics under this solicitation, so long as the proposed work is not essentially equivalent in nature (see Section 3.3).



#### **4.4.3 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. Awards for selected proposals will incorporate the Work Plan, in whole or part, by reference or as an attachment. Therefore, **the Work Plan shall be Non-Proprietary and marked accordingly.** Proprietary and/or classified information shall not be included in the Proposal Cover Sheet.

#### **4.4.4 Majority-Ownership by VCOC, Hedge Fund, or Private Equity Funds**

Small businesses owned in majority part by multiple venture capital operating companies (VCOCs), hedge funds, or private equity funds are not eligible to submit proposals under this CSO.

#### **4.4.5 Conflicts of Interest**

Contract awards to firms owned by or employing current or previous Federal Government employees could create conflicts of interest for those employees which may be a violation of Federal law. Proposing firms should contact the cognizant Ethics Counselor from the employee's Government agency for further guidance if in this situation.

#### **4.4.6 Classified Proposals**

Classified proposals will not be accepted in response to this CSO. If efforts will require classified work during Phase II performance, the proposing firm must have or obtain a facility clearance. Additional information on facility and personnel clearance procedures and requirements can be found at the Defense Security Service site, <http://www.dss.mil/index.html>.

#### **4.4.7 Research Involving Human Subjects**

All research involving human subjects, to include use of human biological specimens and human data, shall comply with the applicable Federal and state laws and agency policy/guidelines for human subject protection (see Section 3.12).

Institutions to be awarded funding for research involving human subjects must provide documentation of a current Federal Assurance of Compliance with Federal regulations for human subject protection, for example a Department of Health and Human Services, Office for Human Research Protections Federal wide Assurance (<http://www.hhs.gov/ohrp>).

Additional Federal Assurance documentation may also be requested by the AF. All institutions engaged in human subject research, to include subcontractors, must also have a valid Assurance. In addition, personnel involved in human subject research must provide documentation of completing appropriate training for the protection of human subjects. Institutions proposing to conduct human subject research that meets one of the exemption criteria in 32 CFR 219.101 are not required to have a Federal Assurance of Compliance. If selected, institutions must also provide documentation of Institutional Review Board (IRB) approval or a determination from an appropriate official in the institution that the work meets one of the exemption criteria with 32 CFR 219. As part of the IRB review process, evidence of appropriate training for all investigators should accompany the protocol. The protocol, separate from the proposal, must include a detailed description of the research plan, study population, risks and benefits of study participation, recruitment and consent process, data collection and data analysis.

The amount of time required for the IRB to review and approve the protocol will vary depending on such things as the IRB's procedures, the complexity of the research, the level of risk to study participants and the

responsiveness of the Investigator. The average IRB approval process can last between one and three months. Once the IRB has approved the research, the AF will review the protocol and the IRB's determination to ensure that the research will be conducted in compliance with DoD and DoD Component policies. The DoD review process can last between three to six months. Ample time should be allotted to complete both the IRB and DoD approval processes prior to recruiting subjects. **No funding can be used towards human subject research until ALL approvals are granted.**

#### **4.4.8 Research Involving Animal Subjects**

All research, development, testing, experimentation, education or training involving the use of animals shall comply with the applicable Federal and agency rules on animal acquisition, transport, care, handling, and use (see Section 3.11).

For submissions containing animal use, proposals should briefly describe plans for their Institutional Animal Care and Use Committee (IACUC) review and approval.

All Recipients must receive their IACUC's approval as well as secondary or headquarters-level approval by a DoD veterinarian who is trained or experienced in laboratory animal medicine and science. **No animal research may be conducted using DoD funding until all the appropriate DoD office(s) grant approval.**

#### **4.4.9 Research Involving Recombinant DNA Molecules**

All research involving recombinant DNA molecules shall comply with the applicable Federal and state laws and regulations and any additional agency guidance. Research shall be approved by an Institutional Biosafety Committee.

#### **4.4.10 Use of Unmanned Aircraft Systems (UAS)**

All activities involving the operation of Unmanned Aerial Systems shall be conducted IAW Department of Defense Memo entitled "Guidance for the Domestic Use of Unmanned Aircraft Systems in the U.S. National Airspace, dated 18 August 2018 and DOD memo entitled, "Delegation Authority to Approve Exemptions for Using Commercial-Off-The-Shelf Unmanned Aerial Systems in Support of Urgent Needs, dated 16 November 2018. Contractor personnel operating DoD or DoD-contracted UAS in U.S. National Airspace, whether or not the domestic use is related to an intelligence activity, will comply with all laws, regulations, and guidance relating to the operation of UAS in U.S. National Airspace. Specific programs utilizing UAS are required to obtain an exemption for operational use of a UAS; therefore, additional documentation may be requested by the AF to support an exemption request. The DOD exemption approval process can require as long as two months. **No funding can be used for contracted-UAS operations until ALL approvals are granted.**

#### **4.4.11 Proposal Status and Feedback**

The Principal Investigator (PI) and Corporate Official (CO) indicated on the Proposal Cover Sheet (Volume 1) will be notified by email regarding proposal selection or non-selection. The SBC will receive a notification for each proposal submitted. Please read each notification carefully and note the proposal number referenced. **If changes occur to the company mail or email address(es) or points of contact after proposal submission, the information must be provided to the AF at [usaf.team@afsbirsttr.us](mailto:usaf.team@afsbirsttr.us). The message shall include the subject line, "X21.1 Address Change".**

Feedback requests will be accommodated for offerors with proposals determined "Not Selectable" ONLY. Requests shall be submitted in writing within 30 calendar days after non-selection notification receipt. Written feedback requests shall be submitted via [AFRL.SBIR.STTR\\_FeedbackRequests@us.af.mil](mailto:AFRL.SBIR.STTR_FeedbackRequests@us.af.mil). Requests

for feedback shall include the company name and the telephone number/e-mail address for a specific point of contact, as well as an alternate. Additionally, the request shall include the proposal number(s).

**If the preceding information is not included in the request, it will not be fulfilled.** Feedback requests received more than 30 calendar days after non-selection notification receipt will be fulfilled at the Contracting Officers' discretion. Unsuccessful offerors are entitled to no more than one feedback response for

each proposal. The Contracting Officer may also delay feedback dissemination until all awards resulting from the solicitation are finalized.

Release of Proposal Review Information. After final award decisions have been announced, the peer review of the applicant's proposal may be provided to the offeror. The identity of the reviewer shall not be disclosed. Requests may be sent to the address above. The same information required for feedback requests shall be required for release of proposal review information. **If not included in the request, it will not be fulfilled.**

It is anticipated all proposal reviews will be complete, selection decisions made, and notification letters sent within approximately 90 calendar days of solicitation close. Please refrain from contacting the AF SBIR/STTR Center of Excellence for proposal status before that time.

#### 4.4.12 *CSO, Selection, and Award Protests*

Interested parties may have the right to protest this CSO by serving the Contracting Officer, Ms. Kris Croake, [kristina.croake@us.af.mil](mailto:kristina.croake@us.af.mil), with the protest, by filing with the Government Accountability Office (GAO), or by filing U.S. Court of Federal Claims. Protest of selections or awards should also be directed to Ms. Croake, filed with GAO, or filed with the U.S. Court of Federal Claims. If the protest is filed with GAO, a copy of the protest shall be received by the AF Legal Operations Agency within one day of filing. Protests of a selected firm's small business status should be directed to the SBA.

#### 4.4.13 *Phase I Award Information*

- a. **Number of Phase I Awards.** The number of awards will depend upon funds availability. The Government reserves the right to make no awards under this solicitation. The Federal Government is not responsible for any costs incurred before award receipt.
- b. **Type of Funding Agreement.** Phase I awards will be made as firm-fixed-price purchase orders.
- c. **Dollar Value.** Maximum Phase I award value will be \$50,000, unless otherwise stated in the specific topic.
- d. **Timing.** It is intended peer review, proposal selection, negotiations, and award will be complete within 90 calendar days of solicitation close.

#### 4.4.14 *Phase II and Direct to Phase II Award Information*

- a. **Number of Awards.** The number of awards will depend upon funds availability. The Government reserves the right to make no awards under this solicitation. The Federal Government is not responsible for costs incurred before award receipt.
- b. **Type of Funding Agreement.** Phase II awards are executed as firm-fixed-price contracts or Other Transactions for Prototype. The Small Business Administration SBIR/STTR Policy Directive states, "Except as expressly excluded or limited by statute, awarding agencies must provide for a reasonable fee or profit on SBIR/STTR Funding Agreements, consistent with normal profit margins provided to profit-making firms for R/R&D work." Therefore, zero dollar profit proposals cannot be accepted. Awards may be negotiated; award type is at the Contracting Officer's discretion.
  - a. **Average Dollar Value.** Maximum Phase II contract value is found in Section 2.3, Chart 1.
  - b. **Timing.** It is intended that peer review, proposal selection, negotiations, and award will be complete within 180 calendar days of solicitation close.

#### 4.4.15 *Questions about this CSO and CSO Topics*

##### a. **General SBIR Questions/Information**

1. **Help Desk.** The DoD SBIR/STTR Help Desk is prepared to address general questions about this CSO, the proposal preparation and electronic submission process and other program-related areas. The Help Desk may be contacted from 9:00 a.m. to 5:00 p.m. ET Monday through Friday at:

- Phone: 1-703-214-1333
- E-mail: [DoDSBIRSupport@reisystems.com](mailto:DoDSBIRSupport@reisystems.com)

2. **AF SBIR/STTR Special Topic Updates and Notices.** To receive notifications about AF Ventures and other AF innovation opportunities, please register at <https://af-ventures.com/> and <https://www.afwerx.af.mil/join.html>.

3. **AFWERX Topic Online Q&A Webinars ('Ask Me Anything')**: For information regarding these webinars, please visit <https://www.afwerx.af.mil/sbir.html>.

#### 4.4.16 **Identifying RDT&E in SBIR/STTR Proposals**

Subject to programmatic phase conditions, SBIR/STTR awards are made for research, development, test and evaluation (RDT&E) efforts. The definitions and criteria below govern SBIR/STTR as Research, Development, Test, and Evaluation (RDT&E) programs. These definitions and criteria implement 15 USC 638, the SBA SBIR/STTR Policy Directive (2019), and DoD Financial Management Regulation (FMR), Vol. 2A, Chapter 1, Section 0102, *Funding Policies* (June 2004, as amended).

##### **Phase I and II Conditions:**

Consistent with 15 U.S.C. 638 and the SBA SBIR/STTR Policy Directive (2019), both Phase I and II awards are aimed at furthering “scientific and technical merit and feasibility” of ideas in the proposals. The object of Phase I is to conduct feasibility-related experimental or theoretical R/R&D related to agency’s described broad or narrow requirements, as to determine the scientific and technical merit and feasibility of the proposed effort and the quality of performance of the offeror. The object of Phase II is to continue the R&D effort from the completed Phase I (or from prior non-SBIR/STTR research in case of Direct to Phase II award). Phase II also includes a Special Phase II Testing and Evaluation authority.

##### **Scientific and Technical Feasibility Determination IAW 15 USC 638(cc):**

Direct to Phase II awards are conditioned upon the awarding agency’s determination the offeror’s idea has sufficient scientific and technical feasibility and merit despite the lack of Phase I award.

##### a. **Treatment of Commercial Off-the-Shelf (COTS) and Non-Developmental Items (NDIs):**

**COTS/NDIs:** Items purchased directly from a commercial source that can be utilized without alteration through design and development, or without modification, are classified as COTS or NDI. This includes, for example, ready-to-use products, training services, and software licenses for ready-to-use software to satisfy service needs (including Software as a Service (SaaS)). Purchases of COTS and NDIs for use, including the first article and associated first article acceptance testing and related minor adjustments are not suitable for SBIR/STTR funding. The acquisition of commercial items or NDIs for testing and operational evaluation that do not require RDT&E engineering, design or integration effort will not be funded by SBIR/STTR funds. However, if an end item requires design and development in order to accept the COTS or NDI, funding for design and development effort could be funded by SBIR/STTR funds. If a COTS or NDI is required for RDT&E test purposes, the cost could be funded by SBIR/STTR funds.

**Modified COTS/Modified NDIs:** Commercially available items that must be modified to satisfy user requirements are classified as "modified COTS" or "modified NDI" articles. In this instance, the first article, modification of the first article, and first article testing could be funded by SBIR/STTR funds. Follow-on purchases will not be funded by SBIR/STTR funds. The number of "modified" first articles bought with SBIR/STTR funds will not exceed the quantity needed to conduct the RDT&E acceptance tests. Modification is technology refreshment significantly changing the end item's performance envelope. If the commercially available item is modified and requires testing prior to approval for service use or inventory it may be funded by SBIR/STTR funds, as all developmental items. In contrast to modification, continuous technology refreshment is the intentional insertion of newer technology to improve reliability, improve maintainability, reduce cost, and/or add minor performance enhancement, typically in conjunction with depot or field level maintenance. The insertion of such technology into end items as part of maintenance is not funded by SBIR/STTR funds.

b. **Technical Baseline:** As RDT&E programs, SBIR/STTR efforts are subject to scientific and technical literature searches in order to establish technical baseline, avoid duplication, and justify funding IAW AFI 61-201, *Management of Scientific and Technical Information (STINFO)* (29 January 2019) and AFRL/CA guidance, *Streamlined and Waivered SBIR/STTR Specified Requirements* (05 Aug 2019).

c. **Non-RDT&E Effort:** The majority of the Phase II effort must be RDT&E, but some percentage can be for non-RDT&E work, provided that the correct appropriation of funds are used for the corresponding deliverables, both the providing and receiving comptroller agree with the use of funds for those deliverables, and the Contract Officer determines that the overall effort remains RDT&E in nature.

d. **Special Circumstances:** Offerors wishing to assert special circumstances or criteria meriting SBIR/STTR funds expenditure other than those provided above must address them in the proposal and provide appropriate statutory or regulatory justification. This information can included in Volume 5, Supporting Documents, of the proposal.

#### 4.4.17 *Promotional Material*

Promotional and non-project related proposal content is discouraged. Additional information provided via website or other communication medium, except where explicitly requested, will not be considered.

#### 4.4.18 *Fraud and False Statements*

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

The DoD Office of Inspector General (IG) Hotline is an important avenue for reporting fraud, waste, abuse, and mismanagement within the DoD. The DoD IG operates this hotline to receive and investigate complaints or information from contractor employees, DoD civilians, military service members, and public citizens. Individuals who wish to report fraud, waste or abuse may contact the Hotline at (800) 424-9098 between 8:00 a.m. and 5:00 p.m. Eastern Time or visit <http://www.dodig.mil/Components/Administrative-Investigations/DoD-Hotline/Hotline-Complaint/>. Written correspondence should be addressed to the Defense Hotline, The Pentagon, Washington DC, 20301-1900. Email reporting is available at [hotline@dodig.mil](mailto:hotline@dodig.mil).

#### 4.4.19 *State and Other Assistance Available*

Many states have established programs to provide services to small business firms wishing to participate in the Federal SBIR Program. These services vary from state to state, but may include:

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

Contact the state SBIR/STTR Support office at [https://www.sbir.gov/state\\_services?state=105813#](https://www.sbir.gov/state_services?state=105813#) for further information.

#### **4.4.20 Use of Support Contractors for the AF SBIR Program**

Proposals may be handled for administrative purposes only by support contractors, including APEX, Oasis Systems, Riverside Research, Peerless Technologies, HPC- COM, Mile Two, Wright Brother Institute, and MacB (an Alion Company). 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. Contact the AF SBIR/STTR Contracting Officer listed in Section 4.12 with concerns regarding the listed contractors.

#### **4.4.21 Innovation in Manufacturing**

Pursuant to EO 13329, high priority is accorded to proposals advancing innovation in U.S. small business manufacturing.

#### **4.4.22 Renewable Energy**

The Energy Independence and Security Act of 2007 (Act), 19 December 2007, P.L. 110-140, requires SBIR/STTR agencies to give high priority to energy efficiency or renewable energy system R&D projects. The Act encourages eligible US-owned SBCs accomplishing biomedical research in the areas of energy efficiency or renewable energy systems to submit proposals.

#### **4.4.23 Proposal Preparation Tips**

Those responding to this CSO should note the proposal preparation tips listed below:

- a. Read and follow all CSO instructions.
- b. Register the firm on the secure, password-protected DSIP system and, as instructed, prepare the firm's submission. The Air Force will accept proposals submitted via DSIP.
- c. Register in the System for Award Management (SAM), <https://www.sam.gov/>. Firms not registered in SAM.gov are ineligible for award. Verify the firm's "Purpose of Registration" is set to ALL CONTRACTS, not solely grants and the firm's address matches the proposal and SAM.gov information. **Begin this process early, as it can take more than 30 days for registration to be issued or updated.**
- d. Register the firm with SBA's Company Registry at [www.sbir.gov](http://www.sbir.gov) and provide the SBA SBC Identification for each proposal Cover Sheet submitted in response to this CSO.
- e. Ensure cost adheres to Section 5.3.d (Phase I) or 9.3.d (D2P2) of this CSO and the Cover Sheet cost matches the Cost Volume. The Cost Volume should ONLY include that work which will be conducted as part of the Phase I or Direct-to-Phase II effort (e.g. do not include Phase III or privately funded work); conversely, if additional government funding will be provided to

- AFRL/SBRK for inclusion in the award (Phase II only), ensure that it IS represented in the Cost Volume.
- f. Ensure the Project Abstract and other Cover Sheet content DOES NOT contain proprietary information.
  - g. Mark proprietary Technical Volume information as instructed in 5.3 (Phase I) or 9.3 (D2P2).
  - h. Ensure Technical Volume content includes the items in Section 5.2 c (Phase I) or 9.3(b) (D2P2).
  - i. Ensure the proposal is submitted to the correct Component (AFWERX or AFRL) and topic number.

The AF recommends completing 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 not submitted due to system lag or inaccessibility. Please ensure the email address listed in the proposal is current and accurate. The AF is not responsible for ensuring notifications are received by firms changing mailing addresses/e-mail addresses/company points of contact after proposal submission without proper notification. Changes after proposal submission or award (if selected) for Phase I and II shall be sent to [usaf.team@afsbirsttr.us](mailto:usaf.team@afsbirsttr.us).

## 5.0 PHASE I PROPOSAL

### 5.1 Introduction

A complete proposal consists of the following:

- 0. Registration**
  - 0.1. DUNS Number
  - 0.2. Commercial or Government Entity (CAGE) Code
  - 0.3. SBA Small Business Concern (SBC) Control ID
- 1. Volume 1: Proposal Cover Sheet**
  - 1.1. CAGE, DUNS
  - 1.2. Certification Questions
  - 1.3. Business Information
  - 1.4. Proposal Information
  - 1.5. Contact Information
- 2. Volume 2: Technical Volume**
  - 2.1. Up to 25 Page Slide Deck (**Sample slide deck at Attachment 1.**)
  - 2.2. Up to 5 page White Paper (optional)
- 3. Volume 3: Cost Volume**
  - 3.1. Direct Labor Costs
  - 3.2. Direct Material Costs
  - 3.3. Other Direct Costs
- 4. Volume 4: Company Commercialization Report**
- 5. Volume 5: Supporting Documents**
  - 5.1. Coversheet Supplement
  - 5.2. Supplemental Cost Information
  - 5.3. Resumes of Key Personnel
  - 5.4. \*Non-Proprietary\* Work Plan
  - 5.5. DoD Funding Agreement Certification (Signed)
  - 5.6. DD Form 2345, Militarily Critical Technology Data Agreement
  - 5.7. Letters of Support
  - 5.8. Allocation of Rights
  - 5.9. Lifecycle Certification
  - 5.10. Contractor Certification Regarding Provision of Prohibited Video Surveillance and Telecommunications Services and Equipment (REQUIRED)
  - 5.11. **Foreign Ownership or Control Disclosure (Proposers must review Attachment 5: Foreign Ownership or Control Disclosure to determine applicability)**
- 6. Volume 6: Fraud, Waste and Abuse Training**

**NOTE: Refer to [Chart 1](#) for AFWERX topic submission requirements. Requirements for other topics may be found in the topic material in Section 13.0.** Proposals shall be submitted to DSIP. Upon Proposal Cover Sheet creation, a proposal number will be assigned. **Record this number for future reference.** The proposer may add volumes or modify the Proposal Cover Sheet until the CSO closes.

The Government is not obligated to make any Phase I awards nor is it responsible for offeror expenditures prior to award. All awards are subject to successful negotiations and funds availability.

Beginning with the X21.1 SBIR CSO, all proposers are required to submit Volume 4: Company Commercialization Report (CCR), Volume 5: Contractor Certification Regarding Provision of Prohibited Video Surveillance and Telecommunications Services and Equipment, Volume 5: **Foreign Ownership or Control Disclosure (Proposers**



**must review Attachment 5: Foreign Ownership or Control Disclosure to determine applicability**), and Volume 6: Fraud, Waste and Abuse training.

## 5.2 Marking Proprietary Proposal Information

Offerors including data in their proposals they do not want disclosed to the public, or used by the Government except for evaluation purposes, shall:

- (1) Mark the first page of each Volume of the proposal submission with the following legend: "This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed-in whole or in part-for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this offeror as a result of-or in connection with-the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in pages [insert numbers or other identification of sheets]"; and
- (2) Mark each sheet of data it wishes to restrict with the following legend: "Use or disclosure of data contained on this page is subject to the restriction on the first page of this volume."

The DoD assumes no liability for disclosure or use of unmarked data and may use or disclose such data for any purpose. Restrictive notices notwithstanding, proposals and final reports submitted through DSIP may be handled, for administrative purposes only, by support contractors. All support contractors are bound by appropriate non-disclosure agreements.

## 5.3 Phase I Proposal Instructions

Phase I should address the topic solution's feasibility. The period of performance shall be three (3) months, and the award shall not exceed \$50,000.

### a. Proposal Cover Sheet (Volume 1)

Prepare the Proposal Cover Sheet in DSIP. The Cover Sheet must include a brief technical abstract of no more than 200 words describing the proposed R&D project with a discussion of anticipated benefits and potential commercial applications. **Do not include proprietary or classified information in the Proposal Cover Sheet.** Technical abstracts are submitted to the Office of the Secretary of Defense (OSD) for public release. Once the Cover Sheet is saved, the system will assign a proposal number. **Retain that number for future reference.** The cover sheet may be modified as often as necessary until the CSO closes.

~~Beginning January 2021, proposers will be required to disclose foreign involvement. The DSIP Firm Admin must review the below questions to determine if the Foreign Disclosure Addendum (Attachment 5 needs to be submitted with the proposal. The DSIP Firm Admin with either certify the questions do not apply, or certify the questions apply and the Foreign Disclosure Addendum will be uploaded to Volume 5.~~

**The questions below regarding disclosure of foreign involvement in the firm certifications section of the proposal submission are no longer required and responses to these questions will be considered. Due to system requirements, however, these questions cannot be removed from the submission portal and**

**answers to these questions must be provided in the submission portal for a proposal to be submitted. Proposers are therefore advised to answer “No” to these questions and should understand that these answers will be neither reviewed nor considered. Those proposers that have previously answered these questions are not required to revise or change their answers now and are advised that their previous answers will not be reviewed or considered.**

1. Does the company currently employ foreign nationals?
2. Does/did the company or employees have relationships with foreign academic institutions, research centers, or affiliated academic organizations over the past seven years?
3. Has the company received investment or financing from one or more foreign-based entities?
4. Has the company received investment or financing from one or more foreign-owned entities domiciled in the US?
5. Has the company received investment or financing from a US entity managing or receiving foreign sources of capital?
6. Does the company have substantial business operations in other countries?

## **b. Technical Volume (Volume 2)**

### **(1) Format**

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

**Length Limitation:** The Slide Deck is limited to twenty-five (25) slides; slides in excess of the 25-slide limitation will not be considered for review or award. The optional white paper is limited to five (5) pages. Pages in excess of five will not be considered for review or award.

**Layout:** Number all proposal slides consecutively. Each slide should contain the company name, topic number, and proposal number assigned by DSIP when the Cover Sheet was created.

### **(2) Content**

There are **11 required slides** and **4 additional slides that are required only if applicable** to the proposal. The remaining slides are not required and may be used at the proposer’s discretion.

**Proposals without the required slides will not be considered.**

Full instructions for the Slide Deck are provided in Appendix A. A sample slide deck is provided at Attachment 3. The white paper is optional and the content is at the offeror’s discretion; therefore, a template is not provided.

## **c. Cost Volume (Volume 3)**

Complete the Cost Volume in the format shown in the Cost Breakdown Guidance by using the online cost volume form on DSIP. It is possible not all items in the cost breakdown guidance will apply to the proposed project. If not, there is no need to provide information them. Enough information must be provided to understand the company’s plan for use of the requested funds if selected. The Cost Volume must be adequate to enable AF personnel to determine the purpose, necessity, and reasonableness of each cost element. The Cost Volume will cover two months of technical effort (see Chart 1) and one month for

reporting. Provide sufficient detail (1-4 below) on how funds will be used if the contract is awarded. The itemized listing may be placed in the “Explanatory Material” section of the on-line Cost Volume (if enough room), or in Volume 5, Supporting Documents, under the “Other” dropdown options. Note: Only one file can be uploaded to DSIP.

- (1) Direct Labor Costs: Identify key personnel by name if possible or by labor category if specific names are not available. The number of hours, labor overhead and/or fringe benefits and actual hourly rates for each individual are also necessary.
- (2) Direct Material Costs: Justify costs for materials, parts, and supplies with an itemized list of types, quantities, and price and, where appropriate, purpose. If proposing direct material costs, justification information (to include vendor quotes, historical costs, etc.) can be included as “Supplemental Cost Information” in Volume 5, Other Supporting Documents.
- (3) Other Direct Costs: This category of costs includes specialized services such as machining or milling, special testing or analysis, cost incurred in obtaining temporary use of specialized equipment. Proposals, which include leased hardware, must provide an adequate lease vs. purchase justification or rationale. If proposing other direct costs, additional information can be included as “Supplemental Cost Information” in Volume 5, Other Supporting Documents.
  - a) Travel: Include travel costs in “Other Direct Costs.” Travel costs must relate to the needs of the project. Break out travel cost by trip, with the number of travelers, airfare, per diem, lodging, etc. Reflect the number of trips required, as well as the destination and purpose of each trip. Recommend budgeting at least one (1) trip to the Air Force location managing the contract. For the special topic, greater travel expectations will be required as noted topic statements and corresponding SBIR/STTR Interactive Topic Information System (SITIS) Q&A. Estimation of travel costs need not be an overly onerous exercise, and your actual travel cost may differ from your proposed travel; however, this information allows the Contracting Officer to ensure travel costs are not excessive.
  - b) Subcontracts: Include subcontract/consultant costs in “Other Direct Costs.” Involvement of university or other consultants in the planning and/or research stages of the project may be appropriate. If the offeror intends such involvement, describe in detail and include information in the Cost Volume. The proposed total of all consultant fees, facility leases, and/or usage fees, and other subcontract or purchase agreements may not exceed one-third of the total contract price or cost, unless otherwise approved in writing by the Contracting Officer. Support subcontract costs with copies of the subcontract agreements. The supporting agreement documents must adequately describe the work to be performed. At a minimum, an offeror must include a Statement of Work (SOW) with a corresponding detailed Cost Volume for each planned subcontract.
  - c) Consultants: Provide a separate agreement letter for each consultant. The letter should briefly state what service or assistance will be provided, the number of hours required, and hourly rate.
- (4) Special Tooling/Test Equipment/Material: The inclusion of equipment and materials will be carefully reviewed relative to need and appropriateness of the work proposed.

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

**PLEASE ROUND ALL COSTS TO THE NEAREST DOLLAR!**

NOTE: If no exceptions are taken to an offeror's proposal, the Government may award a contract with only clarifications. Therefore, the offeror's initial proposal should contain the offeror's best terms from a cost or price and technical standpoint. If there are questions regarding the award document, contact the Phase I Contracting Officer listed on the selection notification.

**d. Company Commercialization Report (Volume 4):**

The Company Commercialization Report (CCR) allows companies to report funding outcomes resulting from prior SBIR and STTR awards. The Company Commercialization Report (CCR) is **required** for Phase I and Direct to Phase II proposals.

Small businesses must complete the CCR by logging into their account at <https://www.sbir.gov/>. To view or print the information currently contained in the Company Registry Commercialization Report, navigate to My Dashboard > My Documents. To create or update the commercialization record, from the company dashboard, scroll to the "My Commercialization" section, and click the create/update Commercialization tab under "Current Report Version". Please refer to the "Instructions" and "Guide" documents contained in this section of the Dashboard for more detail on completing and updating the CCR.

Once the report is certified and submitted on SBIR.gov, click the "Company Commercialization Report" PDF under the My Documents section of the dashboard to download a PDF of the CCR. This PDF of the CCR must be uploaded to Vol. IV: Company Commercialization Report in the Firm Information section of DSIP by the Firm Admin. All other firm users will have read-only access to the CCR from the proposal submission page, in order to confirm that the CCR has been uploaded by the Firm Admin to complete the Volume 4 requirement.

**e. Supporting Documents (Volume 5)**

This Volume is provided for small businesses to submit additional documentation to support the Technical (Volume 2) and the Cost (Volume 3) Volumes. If combining .pdf documents, ensure digital signatures are not stripped.

Beginning with the X21.1 SBIR CSO, all proposers are REQUIRED to submit the following documents to Volume 5:

-Contractor Certification Regarding Provision of Prohibited Video Surveillance and Telecommunications Services and Equipment (REQUIRED)

- **Foreign Ownership or Control Disclosure (Proposers must review Attachment 5: Foreign Ownership or Control Disclosure to determine applicability)**

Additional documents acceptable for inclusion in Volume 5 below. PLEASE NAME UPLOADED INFORMATION AS TITLED BELOW:

- 1) **Coversheet Supplement:** Depending on answers to the online coversheet questions, more information may be needed. The list of questions, and additional information **required** based on certain responses is provided at Appendix B. Failure to provide supplemental information when required may result in disqualification.
- 2) **Supplemental Cost Information:** This document is used to provide additional information regarding the online Cost Volume (Volume 3) form. Supplemental Cost Information detail must enable AF personnel to determine each Cost Volume element's purpose, necessity and reasonability. Information include the following, where applicable:
  - a. **Direct Labor:** For significant costs, e.g., large number of hours, very high hourly wages, significant labor overhead/fringe rates, etc., provide justification. Helpful resources for determining average rates are [https://www.bls.gov/oes/current/oes\\_nat.htm](https://www.bls.gov/oes/current/oes_nat.htm).
  - b. **Direct Material Costs:** Provide an itemized list of types, quantities, price, and purpose for proposed materials, parts, and supplies. For the materials, provide the cost basis, e.g., historical information, vendor quotes, catalogs, etc.
  - c. **Travel included in Other Direct Costs:** If travel was proposed as an Other Direct Cost, funding requested must related to the project's needs. Provide the number of trips, travelers per trip, specific locations, and purpose. Also include the sources of estimated costs for flights, lodging, meals, and ground transportation. A useful resource for this section is <https://www.gsa.gov/travel-resources>.
  - d. **Special Tooling/Test Equipment/Material:** While special tooling/ test equipment/material costs may be included for Phase I, it will be carefully reviewed to determine need and appropriateness for the proposed work. Special tooling and test equipment purchases must, in the Government CO's opinion, be advantageous to the Government and directly related to the fic effort. This can include innovative instrumentation or automatic test equipment. Typically title to property furnished by the Government or acquired with Government funds will be vested with the DoD Component. Only if it is determined title transfer to the contractor would be more cost effective than equipment recovery will it be otherwise dispositioned.
  - e. **Copies of Subcontract Agreements:** If the offeror intends to utilize consultants, subcontractors, academia, etc., describe the relationship in detail, including information in the Cost Volume. The proposed total of all consultant fees, facility leases/usage fees, and/or other subcontract or purchase agreements, may not exceed one-third of the total contract price/cost, unless otherwise approved in writing by the Government CO. Provide copies of subcontract agreements. The supporting agreement documents must adequately describe the work to be performed. **At a**

**minimum, an offeror must include a Statement of Work (SOW) with a corresponding, detailed Cost Volume for each planned subcontract.**

- f. **Copies of Consultant Agreements:** Provide a separate agreement letter for each consultant. The letter should briefly state the tasks to be provided, hours required, and hourly rate.

Some firms seek assistance from subcontractors or consultants to determine their solution's feasibility for a specific DoD customer. **If working with a customer discovery firm like this, the associated agreement is required to be included in the proposal.**

- g. **Cost Match/Share:** Cost match/share is NOT permitted for Phase I proposals under this CSO.

NOTE: When a proposal is selected for award, the Government CO may request further documentation to substantiate costs.

- 3) **Resumes of Key Personnel:** Full resumes, including a publications list, for the PI and other key technical personnel shall be included in Volume 5.
- 4) **Non-Proprietary Work Plan:** Please include a complete, standalone, non-proprietary work plan in this section, free of any proprietary markings. It will likely be attached to the final contract, if selected. Failure to provide the work plan as requested will necessitate a new document and delay contract award.
- 5) **DoD Funding Agreement Certification (Signed):** A Funding Agreement Certification must be completed, signed, and included in Volume 5 at proposal submission. This certification can be found at: <https://www.afsbirsttr.af.mil/Program/Phase-I-and-II/> under "Phase I and II Certification – Funding Agreement."
- 6) **DD Form 2345 - ITAR/EAR Certification:** For proposals whose solutions fall under export-controlled regulations (either International Traffic in Arms (ITAR) or 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.dla.mil/HQ/InformationOperations/Offers/Products/LogisticsApplications/JCP/DD2345Instructions.aspx>. Approval of the DD Form 2345 will be verified if proposal is chosen for award.
- 7) **Letters of Support:** Letters of support demonstrate that the proposed innovation, if developed, would solve a valid market need. More generally, letters of support can validate commercial and defense impact claims made in the proposal. Therefore, letters from potential technology end users (e.g., customers and corporate partners/collaborators) are appropriate, as well as letters from actual or potential investors. Some specific items that are suitable for inclusion in a Letter of Support are: the name of organization that is interested in the solution, the problem that stands to be solved by the proposed solution, the impact of that problem being solved (referencing dollars, hours, lives saved, etc.), and the signature of the letter provider. All letters should be uploaded in a single .pdf file organized logically. NOTE: When combining .pdf documents, ensure digital signatures are not stripped
- 8) **Allocation of Rights:** If subcontracting to a research institution or other organization, the firm may wish

to complete an allocation of rights agreement. This is not required for SBIR awards but may be used at the company's discretion. See example at <https://www.afsbirsttr.af.mil/Portals/60/Pages/Phase%20I-II/Model%20agreement%20for%20the%20allocation%20of%20rights.pdf>

9) **Lifecycle Certification:** See example at <https://www.afsbirsttr.af.mil/Portals/60/Pages/Phase I-II/SBIR-STTR-Phase-I-II-Life Cycle Certifications.pdf>)

#### **f) Contractor Certification Regarding Provision of Prohibited Video Surveillance and Telecommunications Services and Equipment**

The DoD must comply with Section 889(a)(1)(B) of the National Defense Authorization Act (NDAA) for Fiscal Year 2019, and is working to reduce or eliminate contracts with entities that use any equipment, system, or service that uses covered telecommunications equipment or services (as defined in the attachment) as a substantial or essential component of any system, or as critical technology as part of any system.

All proposals must include certifications in Federal Acquisition Regulation clauses 52.204-24, 52-204-25, and 52-204-26, executed by the proposer's authorized company representative. These Federal Acquisition Regulation clauses may be found attached. **These certifications must be signed by the authorized company representative and uploaded as a separate PDF file in the supporting documents sections of Volume 5 for all proposal submissions.**

The effort to complete the required certification clauses includes due diligence on the part of the proposer and for any contractors that may be proposed as a part of the submission including research partners and suppliers. Therefore, proposers are strongly encouraged to review the requirements of these certifications early in the proposal development process. Failure to submit or complete the required certifications as a part of the proposal submission process may be cause for rejection of the proposal submission without evaluation.

#### **g) Foreign Ownership or Control Disclosure**

~~If the proposer answers YES to any of the questions contained in the Firm Certifications section of the DSIP proposal submission page regarding foreign involvement (accessible only by the DSIP Firm Admin), an authorized firm representative must complete the Foreign Disclosure Addendum (attached).~~ **Proposers must review Attachment 5: Foreign Ownership or Control Disclosure to determine applicability. If applicable, an authorized firm representative must complete the Foreign Ownership or Control Disclosure (Attachment 5).** The completed and signed disclosure must be uploaded to Volume 5 of the proposal submission.

#### **h) Fraud, Waste and Abuse Training (Volume 6)**

The Fraud, Waste and Abuse (FWA) training is **required** for Phase I and Direct to Phase II proposals. The training provides information on what represents FWA in the SBIR/STTR Programs, the most common mistakes leading to FWA, and the penalties and ways to prevent FWA. This training material must be thoroughly reviewed once per year. Plan ahead and leave ample time to complete this training based on the proposal submission deadline.

**NOTE TO PHASE I OFFERORS:** Inclusion of a Customer Memorandum will be mandatory for the Phase II proposal. A mandatory template will be made available. This Customer Memorandum formally captures interest from the empowered and committed AF end-users and customers. The Customer Memorandum is also used for technical review purposes as discussed in Section 8.0, Phase II Review Criteria. Phase II proposals without a signed Customer Memorandum will not be considered for award.

## 6.0 PHASE I REVIEW CRITERIA

All Phase I proposals will be evaluated on a competitive basis. Proposals will initially be screened to determine responsiveness. Proposals passing this initial screening will be peer reviewed by engineers or scientists to determine the most promising technical and scientific approaches. Each proposal will be judged on its own merits. An offeror may submit, and subsequently receive awards for, multiple proposals under a single solicitation provided the successful proposals do not contain essentially equivalent work. AF is under no obligation to fund a specific number of Phase I proposals and may elect to award none.

Proposals will be peer reviewed based on the criteria below. Selections will represent best value to the Government considering the following factors, which are of equal importance:

1. The potential for Government or private sector commercialization and benefits expected to accrue from commercialization.
  - The SBC's record of commercializing SBIR or other research, as indicated by pre-sales, pilots, sales, revenue, active users, subscriptions, downloads, and/or other forms of traction/adoption.
  - Phase II follow-on commitments for the subject research are also evidence of commercialization potential.
2. The appropriateness, relevance, and specificity of an identified Defense Need. While not required, signed letters of support from AF customers and/or end-users may be indicators of the appropriateness, relevance, and specificity of an identified Defense Need. (Content discussed in 5.3(b)(7).) The adequacy of the proposed effort and its relationship to fulfilling the identified Defense Need.
3. The soundness, technical merit, and innovation of the proposed approach as well as its differentiation from current customer alternatives, and incremental progress toward fulfilling the identified Defense need. Includes the proposed Principal Investigators'/Project Managers', supporting staff, and consultants' qualifications to execute the proposed approach.

Price reasonableness and realism will be considered to the extent appropriate. In accordance with 15 USC 638(dd)(7), investment by venture capital, private equity firms, or hedge funds shall not be used as an award criterion.

Peer reviewers will base conclusions only on information contained in the proposals. It cannot be assumed reviewers are acquainted with the firm, key individuals or referenced experiments.

Other Factors Considered During the Selection Process:

- National security concerns;
- Pursuant to EO 13329, high priority is accorded to proposals advancing innovation in U.S. small business manufacturing
- The Energy Independence and Security Act of 2007 (Act), 19 December 2007, P.L. 110-140. requires SBIR/STTR agencies to give high priority to energy efficiency or renewable energy system R&D project. The Act encourages eligible US-owned SBCs accomplishing biomedical research in the areas of energy efficiency or renewable energy systems to submit proposals.

Total program cost to the Government may be considered to determine the successful offeror when more than one proposal is found to be equal in technical merit.



## 7.0 PHASE II PROPOSAL

This section applies to Phase II proposals. A more specific proposal request will be provided to all Phase I awardees as described in Section 7.1. The AF reserves the right to modify Phase II submission requirements. Should requirements change, all Phase I awardees will be notified. The AF also reserves the right to change administrative procedures to improve program management.

### 7.1 Introduction

Phase II is the demonstration of technology found feasible in Phase I. Only Phase I awardees are eligible to submit Phase II proposals. **Phase I awardees may only submit one Phase II proposal per successful Phase I effort.** All successful Phase I awardees will be sent a notification with the Phase II submission date/time and detailed proposal preparation instructions.

### 7.2 Proposal Provisions

**IMPORTANT** -- 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 solicitations, it is unlawful to enter into contracts or grants requiring essentially equivalent effort. If there is any question concerning this, it must be disclosed to the soliciting agency as early as possible. If a proposal submitted for a Phase II effort is substantially the same as a previously funded proposal, is now being funded, or is pending award with another Federal Agency, DoD Component, or AF organization, it must be noted on the Cover Sheet and required information included in Section 5.4.c(11).

Due to agency specific limitations on funding and number of awards made to a particular firm per topic using SBIR/STTR funds, Head of Agency determinations are now required before another agency may make an award under that topic. This limitation does not apply to Phase III funding. Please contact the original sponsoring agency before submitting a Phase II proposal to an agency other than the original topic sponsor.

Section 4(b)(1)(i) of the SBIR and the STTR Policy Directives states, at the agency's discretion, projects awarded a Phase I under a SBIR solicitation may transition to STTR in Phase II and vice versa. A firm wishing to transfer from one to the other must contact the designated technical monitor to discuss the basis and the agency's ability to support it. The transition may be proposed prior to award or during Phase II performance. Agency disapproval of a change request shall not be grounds for granting relief from contractual performance requirements. All approved transitions requiring a research institution's removal and revision to work percentages must be noted in the Phase II award or modification signed by the Contracting Officer.

### 7.3 How to Submit

Phase I awardees will be notified when the Phase II submission period opens. Each Phase II proposal must be submitted through the DSIP, <https://www.dodsbirsttr.mil/>. Each proposal submission must contain a Proposal Cover Sheet, Technical Volume, Cost Volume, Company Commercialization Report, Supporting Documents and Fraud, Waste and Abuse Training. The preferred format for proposal submission is.pdf. Graphics must be distinguishable in black and white. Please virus-check all submissions.

The term "Command" on the Cover Sheet refers to the soliciting AF organization, which should be AFWERX (AF211-CSO1 and AF211-DCSO1) or AFRL-RX (AF211-DCSO2). **Proposals submitted to the wrong Command will not be considered for award.**

NOTE: The Government is not obligated to make any Phase II awards nor is it responsible for offeror expenditures prior to award. All awards are subject to successful negotiations and funds availability.

## 8.0 PHASE II REVIEW CRITERIA

All Phase II proposals will be evaluated on a competitive basis. Proposals will initially be screened to determine responsiveness. Proposals passing this initial screening will be peer reviewed by engineers or scientists to determine the most promising technical and scientific approaches. Each proposal will be judged on its own merits. Phase I companies can submit NO MORE THAN one Phase II proposal per Phase I award. AF is under no obligation to fund a specific number of Phase II proposals and may elect to award none.

Proposals will be peer reviewed based on the criteria below. Selections will represent best value to the Government considering the following factors of equal importance:

1. The potential for Government or private sector commercialization and benefits expected to accrue from commercialization.

- The SBC's record of commercializing SBIR or other research, as indicated by pre-sales, pilots, sales, revenue, active users, subscriptions, downloads, and/or other forms of traction/adoption;
- The existence of Phase II follow-on commitments for the subject research;
- Funding commitments related to the subject effort, whether from Government sources, as documented in the Air Force Customer Memorandum, or private sources, as documented through a letter of commitment, are evidence of commercialization potential.
- A sound transition strategy in the Air Force Customer Memorandum is also evidence of commercialization potential.

2. The appropriateness, relevance, and specificity of an identified Defense Need. A complete and compelling Air Force Customer Memorandum, (mandatory template will be provided with Phase II request for proposal), signed by an appropriate end-user and customer, indicates the appropriateness, relevance, and specificity of an identified Defense Need. While not required for Phase I, signed letters of interest (content guidance will be provided in the Phase II request for proposal) from other AF customers/end-users, may be indicators of the appropriateness, relevance, and specificity of an identified Defense Need. Adequacy of the proposed effort and its relationship to fulfilling the identified Defense Need.

Price reasonableness and realism will be considered to the extent appropriate. IAW 15 USC 638(dd)(7), investment by venture capital, private equity firms, or hedge funds shall not be used as an award criterion.

Peer reviewers will base their conclusions only on information contained in the proposals. It cannot be assumed reviewers are acquainted with the firm, key individuals, or referenced experiments.

Other Factors Considered During the Selection Process:

- National security concerns.
- Pursuant to EO 13329, high priority is accorded to proposals advancing innovation in U.S. small business manufacturing
- The Energy Independence and Security Act of 2007 (Act), 19 December 2007, P.L. 110-140. requires SBIR/STTR agencies to give high priority to energy efficiency or renewable energy system R&D projects. The Act encourages eligible US-owned SBCs accomplishing biomedical research in the areas of energy efficiency or renewable energy systems to submit proposals.

Combined funding commitments directly related to the subject Phase II effort from private and/or non-SBIR Government sources may be considered to determine the successful offeror when multiple proposals are equal in technical merit.

## 9.0 DIRECT TO PHASE II (D2P2) PROPOSAL

### 9.1 Introduction

15 U.S.C. §638(cc), as amended by NDAA FY12, Sec. 5106, and further amended by NDAA FY19, Sec. 854, PILOT TO ALLOW PHASE FLEXIBILITY, allows the AF to make SBIR Phase II awards to small business concerns without regard to whether the small business concerns were provided awards under Phase I of the program for the same proposed project. The Air Force is implementing D2P2 CSO opportunities under this authority. This does not guarantee future D2P2 opportunities will be offered. Proposals under this CSO must include documentation to determine Phase I feasibility has been met.

Awards will provide funds to conduct further RDT&E for non-Defense commercial solutions to meet specific Air Force end-users' and customers' need. These Phase II awards are intended to provide a commercialization path, and are not the proposed solutions' final step. Second phase commitments from non-SBIR Federal and non-Federal sources are not mandatory. Cost-share is also not required. However, second phase commitments serve as commercial potential evidence in accordance with 15 USC 638(e)(4)(B)(ii).

Offerors must adequately document completion of the Phase I feasibility requirement\*. Offerors must demonstrate completion of R/R&D through means not solely based on previous efforts under the SBIR/STTR Programs to establish Phase II proposal feasibility based on criteria provided in the D2P2 topic descriptions. Phase II proposals require a comprehensive, detailed effort description. Proposals should demonstrate sufficient technical progress or problem-solving results to warrant more extensive RDT&E. Developing technologies with commercial and military potential is extremely important. Particularly, AF is seeking proposals emphasizing technologies' dual-use applications and commercialization.

\* NOTE: The offeror shall provide information to enable the agency to make the 15 U.S.C. 638(cc) determination of scientific and technical feasibility and merit. Offerors are required to provide information demonstrating scientific and technical merit and feasibility has been established as part of the Technical Volume described in Section 9.7. The AF will not review the Phase II proposals if it is determined the offeror 1) fails to demonstrate technical merit and feasibility are established or 2) the feasibility documentation does not support substantial performance by the offeror and/or the PI. Refer to the Phase I description within the topic to review the minimum requirements needed to demonstrate scientific and technical feasibility. **Feasibility documentation MUST NOT be solely based on work performed under prior or ongoing Federally-funded SBIR or STTR work.**

A complete proposal consists of the following:

- 0. Registration**
  - 0.1. DUNS Number
  - 0.2. Commercial or Government Entity (CAGE) Code
  - 0.3. SBA Small Business Concern (SBC) Control ID
- 1. Volume 1: Proposal Cover Sheet**
  - 1.1. CAGE, DUNS
  - 1.2. Certification Questions
  - 1.3. Business Information
  - 1.4. Proposal Information
  - 1.5. Contact Information
- 2. Volume 2: Technical Volume**
  - 2.1. 25 Page Slide Deck ([Sample Slide Deck at Attachment 1.](#))
  - 2.2. 15 Page White Paper
- 3. Volume 3: Cost Volume**
  - 3.1. Direct Labor Costs
  - 3.2. Direct Material Costs
  - 3.3. Other Direct Costs

- 3.4. Second Phase Commitment and/or Cost Share
- 4. Volume 4: Company Commercialization Report**
- 5. Volume 5: Supporting Documents**
  - 5.1. Signed Customer Memorandum (Mandatory template for Topic AF211-DCSO1 at Attachment 1.)
  - 5.2. Coversheet Supplement
  - 5.3. Supplemental Cost Information
  - 5.4. Resumes of Key Personnel
  - 5.5. \*Non-Proprietary\* Work Plan
  - 5.6. DoD Funding Agreement Certification (Signed)
  - 5.7. DD Form 2345, Militarily Critical Technical Data Agreement (if applicable)
  - 5.8. Allocation of Rights (optional)
  - 5.9. Lifecycle Certification (required prior to award, if selected)
  - 5.10. SBIR/STTR Environment, Safety and Occupational Health (ESOH)
  - 5.11. Phase II Funding Commitment Documentation
    - 5.11.1. Phase II Fund Commitment Form (Mandatory template for Topic AF211-DCSO1 at Attachment 2; may be used for Topic AF211-DCSO2.)
    - 5.11.2. Private Investment Letter (if applicable)
  - 5.12. Additional Letters of Support (if applicable)
  - 5.13. Contractor Certification Regarding Provision of Prohibited Video Surveillance and Telecommunications Services and Equipment (REQUIRED)
  - 5.14. **Foreign Ownership or Control Disclosure (Proposers must review Attachment 5: Foreign Ownership or Control Disclosure to determine applicability)**
- 6. Volume 6: Fraud, Waste and Abuse Training**

Refer to [Chart 1](#) for AFWERX topic submission requirements. Information for other topics may be found in the individual material. Proposals shall be submitted to DSIP. Upon initiation of a Proposal Cover Sheet, a proposal number is assigned. **Please retain the proposal number for future reference.** The proposer may add volumes or modify the Proposal Cover Sheet until the CSO closes.

Beginning with the X21.1 SBIR CSO, all proposers are required to submit Volume 4: Company Commercialization Report (CCR), Volume 5: Contractor Certification Regarding Provision of Prohibited Video Surveillance and Telecommunications Services and Equipment, Volume 5: **Foreign Ownership or Control Disclosure (Proposers must review Attachment 5: Foreign Ownership or Control Disclosure to determine applicability)**, and Volume 6: Fraud, Waste and Abuse training.

The Government is not obligated to make D2P2 awards nor is it responsible for offeror expenditures prior to award. All awards are subject to successful negotiations and funds availability.

## 9.2 Government and Private Funding Commitments

Proposers wishing to include Phase II funding commitments, Government or private, in their proposals must submit the information via a completed mandatory Phase II Funding Commitment form, as described in “Volume 5” (this section).

For Governmental second phase commitments, if the funds are to be applied directly to the D2P2 contract, the funds must be received by AFRL/SBRF within 30 days of CSO closing. Initiate Governmental commitment transfer, the interested Government organization should contact AFRL/SBRF at [AFRL.SBIR.STTR@us.af.mil](mailto:AFRL.SBIR.STTR@us.af.mil). The organization will receive an automated response with the fund transfer request template and additional guidance. NOTE – if other than RDT&E 3600 funds will be provided, the corresponding proposal’s milestones must clearly delineate deliverables for which the non-RDT&E funds will be used. Additionally, the providing and receiving Comptrollers must agree with use of the funds for the specified deliverables.

If the presence of a related Phase III award will be used to satisfy a Government second phase funding commitment, it must be awarded within 60 days of the D2P2 award selected under this solicitation. Information regarding the impending Phase III award should be detailed in the Customer Memorandum.

For private investment, a letter as detailed in Section 9.4.e.11 must be submitted with the proposal. Additionally, the awardee must provide evidence of funds receipt within 90 days of award and provide it to the Government Agreements Officer. It is anticipated Phase II efforts with Federal second phase commitments will be awarded via FAR-based fixed price contracts. Proposed efforts with private investment will be awarded via OTs for Prototype.

Additional Private Investment Reporting Requirement: The Phase II final report for awards including private investment shall include a brief description in company format of investor funding expenditures in support of the project. This report shall be submitted by the deadline specified in the award document.

**9.3 Marking Proprietary Proposal Information:** Offerors including data in proposals not to be disclosed to the public, or used by the Government except for evaluation purposes, shall:

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

(2) Mark each sheet of data it wishes to restrict with the following legend: "Use or disclosure of data contained on this page is subject to the restriction on the first page of this volume."

The DoD assumes no liability for disclosure or use of unmarked data and may use or disclose such data for any purpose. Restrictive notices notwithstanding, proposals and final reports submitted through DSIP may be handled, for administrative purposes only, by support contractors. All support contractors are bound by appropriate non-disclosure agreements.

#### 9.4 Direct to Phase II Proposal Instructions

A Phase II proposal should provide sufficient information to persuade the AF the proposed effort represents an innovative solution worthy of support under the stated criteria.

##### a. Proposal Cover Sheet (Volume 1)

Prepare the Proposal Cover Sheet in DSIP. **Do not include proprietary or classified information in the Proposal Cover Sheet.** Once the Cover Sheet is saved, the system will assign a proposal number. The cover sheet may be modified as often as necessary until the CSO closes.

~~Beginning January 2021, proposers will be required to disclose foreign involvement. The DSIP Firm Admin must review the below questions to determine if the Foreign Disclosure Addendum (Attachment 5) needs to be submitted with the proposal. The DSIP Firm Admin will either certify the questions do not apply, or certify the questions apply and the Foreign Disclosure Addendum will be uploaded to Volume 5.~~

**The questions below regarding disclosure of foreign involvement in the firm certifications section of the proposal submission are no longer required and responses to these questions will NOT be**

**considered. Due to system requirements, however, these questions cannot be removed from the submission portal and answers to these questions must be provided in the submission portal for a proposal to be submitted. Proposers are therefore advised to answer “No” to these questions and should understand that these answers will be neither reviewed nor considered. Those proposers that have previously answered these questions are not required to revise or change their answers now and are advised that their previous answers will not be reviewed or considered.**

1. Does the company currently employ foreign nationals?
2. Does/did the company or employees have relationships with foreign academic institutions, research centers, or affiliated academic organizations over the past seven years?
3. Has the company received investment or financing from one or more foreign-based entities?
4. Has the company received investment or financing from one or more foreign-owned entities domiciled in the US?
5. Has the company received investment or financing from a US entity managing or receiving foreign sources of capital?
6. Does the company have substantial business operations in other countries?

Technical Abstract: The technical abstract should include a brief program objective/effort description. Technical abstracts are submitted to the Office of the Secretary of Defense (OSD) for public release. Therefore, they shall not contain proprietary or classified information. The term “Component” on the Cover Sheet refers to the soliciting AF organization, AFWERX or AFRL.

Anticipated Benefits/Potential Commercial Applications of R/R&D: The first line of the ‘Anticipated Benefits’ section should follow this format: *We solved [AF problem] by providing [advantage], to help [AF end-user organization] accomplish [AF end-user’s] goal. We will recognize profit by charging [non-Defense commercial customer organizations] to get [non-Defense commercial benefit].* Be very explicit regarding the proposed AF end user and customer, if different, which is likely, and potential non-SBIR funding sources after successful Phase II completion. This list should also include non-proprietary, non-Defense commercial customers. Do not include specific AF names or non-Defense customers, as this section will be publicly released.

List of maximum 8 Key Words or Phrases, separated by commas, describing the project: This section will be used to categorize the application. These keywords may also be used to identify Phase III transition partners within the Government. Therefore, consider more than technical key words. A potentially useful analogy is Search Engine Optimization (SEO) Keywords.

## **b. Technical Volume (Volume 2)**

### **(1) Format**

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

**Length Limitation:** The slide deck is limited to 25 slides; slides in excess of 25 will not be considered. The white paper is limited to 15 pages; pages in excess of 15 will not be considered.

**Layout:** Number all proposal slides and pages consecutively. Each slide and page should contain the company name, topic number, and proposal number assigned by DSIP when the Cover Sheet was created. For the white paper, use type no smaller than 10-point on standard 8-1/2" x 11" paper with one-inch margins; the header may be included in the one-inch margin.

## (2) Content

For Direct-to-Phase II, the Technical Volume must include a Slide Deck AND a white paper.

**Slide Deck:** There are 11 required slides and 4 additional slides to be used only if applicable to the proposal. The remaining slides are not required and may be used at the proposer's discretion. **Proposals without the required slides will not be considered.** Full instructions for the mandatory slide deck are provided in Appendix A. A sample slide deck is provided at Attachment 3.

**White Paper:** Full instructions for the mandatory white paper are provided in Appendix C.

### c. Cost Volume (Volume 3)

Complete the Cost Volume as shown in the Cost Breakdown Guidance. This is accomplished by using the online cost volume form in DSIP. Some items may not apply to the proposed project. If not, do not provide information for those items. Enough information shall be provided for AF to understand the company's plan to utilize the requested funds, i.e., the purpose, necessity, and reasonableness of each expenditure.

Fixed price payments shall be tied to measurable milestones, as agreed to with the Government. For Phase II efforts including Government second phase funding commitments wherein SBRF receives non-SBIR, Governmental funding for a Phase II effort, the cost proposal should clearly identify SBIR-funded tasks and non-SBIR-funded tasks. Government second phase funding commitments awarded as Phase IIIs and private investment should not be included in the Cost Volume.

For direct costs, include substantiating information such as vendor quotes, previous orders, historical data, etc. Costs without substantiating justification should be detailed through the cost estimating process. All substantiating evidence should be included in the 'Additional Cost Information' section of the Volume 5, Supporting Documents. If selected for award, the Government may require further documentation to substantiate costs.

Provide sufficient detail, as found in 1-4 below, regarding funds' use if the contract is awarded. The itemized listing may be placed in the "Explanatory Material" section of the on-line Cost Volume (if enough room) or submitted in Volume 5, Supporting Documents, under the "Other" dropdown option. Note: Only one file can be uploaded to DSIP.

Information in the online Cost Volume form includes but is not limited to:

- (1) Direct Labor Costs: Identify key personnel by name, if possible, or by labor category if specific names are not available. The number of hours, labor overhead and/or fringe benefits, and actual hourly rates for each individual are required.
- (2) Direct Material Costs: Provide an itemized list including types, quantities, price, and, when appropriate purpose, for materials, parts, and supplies. If proposing direct material, justification information, including vendor quotes, historical costs, etc., can be included as "Supplemental Cost Information" in Volume 5, Other Supporting Documents.
- (3) Other Direct Costs: This category of costs includes specialized services such as machining or milling, special testing or analysis, and/or cost incurred in obtaining

temporary use of specialized equipment. Proposals, which include leased hardware, must provide an adequate lease vs. purchase justification or rationale. If proposing other direct costs, additional information can be included as “Supplemental Cost Information” in Volume 5, Other Supporting Documents.

- a) Travel: Include travel costs in “Other Direct Costs.” Travel costs must relate to the needs of the project. Break out travel cost by trip, number of travelers, airfare, per diem, lodging, etc. The number of trips required, as well as the destination and purpose of each should be included. Recommend budgeting at least one (1) trip to the Air Force location managing the contract. Greater travel expectations will be required as noted in some topic statements and corresponding SBIR/STTR Interactive Topic Information System (SITIS) Q&A. Estimation of travel costs need not be an overly onerous exercise, and actual travel cost may differ from your proposed travel. This information allows the Government CO to ensure travel costs are not excessive.
- b) Subcontracts: Include subcontract/consultant costs in “Other Direct Costs.” Involvement of university or other consultants in the planning and/or research stages of the project may be appropriate. If so, describe in detail and include information in the Cost Volume. The proposed total of all consultant fees, facility leases or usage fees, and other subcontract or purchase agreements may not exceed one-third of the total contract price or cost, unless otherwise approved in writing by the Contracting Officer. Support subcontract costs with copies of the subcontract agreements. The supporting agreement documents must adequately describe the work to be performed. At a minimum, an offeror must include a Statement of Work (SOW) with a corresponding detailed Cost Volume for each planned subcontract.
- c) Consultants: Provide a separate agreement letter for each consultant. The letter should briefly state what service or assistance will be provided, the number of hours required and hourly rate
- d) Special Tooling/Test Equipment/Material: The inclusion of equipment and materials will be carefully reviewed relative to need and appropriateness of the work proposed. The purchase of special tooling and test equipment must, in the opinion of the CO, be advantageous to the Government and relate directly to the specific effort. They may include such items as innovative instrumentation and/or automatic test equipment. Title to property furnished or funded by the Government will be vested with the AF, unless determined that title transfer to the contractor is more cost effective than equipment recovery by the Government.

**PLEASE ROUND ALL COSTS TO THE NEAREST DOLLAR!**

NOTE: If no exceptions are taken to an offeror’s proposal, the Government may award a contract with only clarifications. Therefore, the initial proposal should contain an offeror’s best terms from a cost/ price and technical standpoint. For questions regarding the award document, contact the AF SBIR/STTR CO, Kris Croake, [kristina.croake@us.af.mil](mailto:kristina.croake@us.af.mil).

**d. Commercialization Report (Volume 4)**

The Company Commercialization Report (CCR) allows companies to report funding outcomes resulting from prior SBIR and STTR awards. The Company Commercialization Report (CCR) is **required** for Phase I and Direct to Phase II proposals.

Small businesses must complete the CCR by logging into their account at <https://www.sbir.gov/>. To view or print the information currently contained in the Company Registry Commercialization Report, navigate to My Dashboard > My Documents. To create or update the commercialization record, from the



company dashboard, scroll to the “My Commercialization” section, and click the create/update Commercialization tab under “Current Report Version”. Please refer to the “Instructions” and “Guide” documents contained in this section of the Dashboard for more detail on completing and updating the CCR.

Once the report is certified and submitted on SBIR.gov, click the “Company Commercialization Report” PDF under the My Documents section of the dashboard to download a PDF of the CCR. This PDF of the CCR must be uploaded to Vol. IV: Company Commercialization Report in the Firm Information section of DSIP by the Firm Admin. All other firm users will have read-only access to the CCR from the proposal submission page, in order to confirm that the CCR has been uploaded by the Firm Admin to complete the Volume 4 requirement.

**e. Supporting Documents (Volume 5)**

Used to submit additional documentation supporting the Technical Volume (Volume 2) and the Cost Volume (Volume 3). NOTE – when combining .pdf documents, ensure digital signatures are not stripped.

Beginning with the X21.1 SBIR CSO, all proposers are REQUIRED to submit the following documents to Volume 5:

1. Contractor Certification Regarding Provision of Prohibited Video Surveillance and Telecommunications Services and Equipment (REQUIRED)
2. **Foreign Ownership or Control Disclosure (Proposers must review Attachment 5: Foreign Ownership or Control Disclosure to determine applicability)**

Documents acceptable for inclusion in Volume 5 are:

- 1) Mandatory Signed Customer Memorandum: The Customer Memorandum formally captures interest from the empowered and committed AF end-users and customers. Customer Memoranda must be uploaded to the ‘*Letters of Support*’ Section. Proposals must include at least one signed memorandum from a specific empowered AF end-user and customer, likely not the same entity, ready and willing to participate in the proposed solution’s trial. This should include specific objectives and measurable (quantitative) key results the proposed solution can achieve to meet the AF end-user and customer’s needs. See Attachment 1 for the mandatory template. Memoranda from other Federal agencies are acceptable, but the proposal must include at least one signed memorandum from an AF end-user and customer. **Proposals without a Customer Memorandum signed by an AF organization and/or for which the Memorandum is not completed IAW the mandatory template at Attachment 1 will not be considered for award.**

**NOTE: If proposing to work with more than one AF end-user, all Customer Memoranda must be consolidated into a single, coherent Customer Memorandum reflecting consolidated Work Plan milestones, signed by the lead AF Phase II point of contact.**

- 2) **Coversheet Supplement**: The online coversheet asks many question, depending on the answers more information may be needed. The list of questions, and additional information **required** based on responses to those questions, are provided in Appendix B. Failure to provide supplemental information, when required, may result in company ineligibility.
- 3) **Supplemental Cost Information**: This document is used to provide additional cost information to augment the Cost Volume (Volume 3) provided in the online form. The Supplemental Cost Information detail must be adequate to enable Air Force personnel to determine the purpose, necessity, and reasonableness of each cost element provided in the Cost Volume. Information in

this section should include the following where applicable:

- a. For significant costs, e.g., large number of hours, very high hourly wages, substantial labor overhead/fringe rates, etc., provide justification. Helpful resources for determining average rates are [https://www.bls.gov/oes/current/oes\\_nat.htm](https://www.bls.gov/oes/current/oes_nat.htm).
- b. **Direct Material Costs:** Provide an itemized list of types, quantities, price, and purpose for proposed materials, parts, and supplies. For the materials, provide the cost basis, e.g., historical information, vendor quotes, catalogs, etc.
- c. **Travel included in Other Direct Costs:** If travel was proposed as an Other Direct Cost, funding requested must related to the project's needs. Provide the number of trips, travelers per trip, specific locations, and purpose. Also include the sources of estimated costs for flights, lodging, meals, and ground transportation. A useful resource for this section is <https://www.gsa.gov/travel-resources>.
- d. **Special Tooling/Test Equipment/Material:** While special tooling/ test equipment/material costs may be included for Phase I, it will be carefully reviewed to determine need and appropriateness for the proposed work. Special tooling and test equipment purchases must, in the Government CO's opinion, be advantageous to the Government and directly related to the effort. This can include innovative instrumentation or automatic test equipment. Typically title to property furnished by the Government or acquired with Government funds will be vested with the DoD Component. Only if it is determined title transfer to the contractor would be more cost effective than equipment recovery will it be otherwise dispositioned.
- e. **Copies of Subcontract Agreements:** If the offeror intends to utilize consultants, subcontractors, academia, etc., describe the relationship in detail, including information in the Cost Volume. The proposed total of all consultant fees, facility leases/usage fees, and/or other subcontract or purchase agreements, may not exceed one-third of the total contract price/cost, unless otherwise approved in writing by the Government CO. Provide copies of subcontract agreements. The supporting agreement documents must adequately describe the work to be performed. **At a minimum, an offeror must include a Statement of Work (SOW) with a corresponding, detailed Cost Volume for each planned subcontract.**
- f. **Copies of Consultant Agreements:** Provide a separate agreement letter for each consultant. The letter should briefly state the tasks to be provided, hours required, and hourly rate. Some firms seek assistance from subcontractors or consultants to determine their solution's feasibility for a specific DoD customer. **If working with a customer discovery firm like this, the associated agreement is required to be included in the proposal.**
- g. **Facilities/Equipment:** Describe instrumentation and/or physical/digital facilities necessary and available to carry out the proposed effort. Justify equipment to be purchased, including in 'Additional Cost Information,' as necessary. State whether proposed performance locations meet Federal, state, and local government environmental

laws and regulations for airborne emissions, waterborne effluents, external radiation levels, outdoor noise, solid/bulk waste disposal practices, toxic/hazardous material handling/storage, and others as identified.

- h. **Indirect Costs:** The proposal should identify the specific rates used and allocation bases to which they are applied. Provide proposed rates and applications per FY throughout the anticipated performance period. Do not propose composite rates.

NOTE: If selected, offerors may be requested to provide additional documentation to the Government to substantiate costs, e.g., explain cost estimates for equipment, materials, and consultants or subcontractors.

- 4) **Resumes of Key Personnel:** Full resumes, including a publications lists, for the Primary Investigator and other key technical personnel shall be included.
- 5) **Non-Proprietary Work Plan:** Provide a complete, non-proprietary work plan, free of proprietary markings. Attach as a stand-alone document, if possible, for inclusion in the contact document, if selected. Failure to provide this document will necessitate a request for revision and may delay contract award.
- 6) **DoD Funding Agreement Certification (Signed):** Funding Agreement Certifications must be completed and signed at time of proposal submission and included in Volume 5. This certification can be found at: <https://www.afsbirsttr.af.mil/Program/Phase-I-and-II/> under “Phase I and II Certification – Funding Agreement.”
- 7) **DD Form 2345 - ITAR/EAR Certification:** For proposals whose solutions fall under export-controlled regulations (either International Traffic in Arms (ITAR) or 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.dla.mil/HQ/InformationOperations/Offers/Products/LogisticsApplications/JCP/DD2345Instructions.aspx>. Approval of the DD Form 2345 will be verified if proposal is chosen for award.
- 8) **Allocation of Rights:** If subcontracting to a research institution or other organization, the firm may wish to complete an allocation of rights agreement. This is not required for SBIR awards but may be used at the company’s discretion. Example: <https://www.afsbirsttr.af.mil/Portals/60/Pages/Phase%20I-II/Model%20agreement%20for%20the%20allocation%20of%20rights.pdf>
- 9) **Lifecycle Certification:** All SBIR/STTR Phase II awardees must complete a certification document at award (Phase I and II and D2P2), prior to receipt of more than half the total contract award amount (Phase II and D2P2), and before final payment receipt (Phase I and II and D2P2). All questions must be answered and an authorized officer of the company must sign and date prior to submission. The document is found at <https://www.afsbirsttr.af.mil/Portals/60/Pages/Phase%20I-II/SBIR-STTR-Phase-I-II-Life%20Cycle%20Certifications.pdf>.
- 10) **SBIR/STTR Environment, Safety and Occupational Health (ESOH) Questionnaire:** Include a completed SBIR/STTR Environment, Safety, and Occupational Health (ESOH) Questionnaire in Volume 5, Supporting Documents, “Other” section. Form can be found at [https://www.afsbirsttr.af.mil/Portals/60/Pages/Phase%20I-II/SBIR\\_Ph\\_II\\_ESOH\\_Questionnaire.pdf](https://www.afsbirsttr.af.mil/Portals/60/Pages/Phase%20I-II/SBIR_Ph_II_ESOH_Questionnaire.pdf).

- 11) **Phase II Second Phase Funding Commitment Documentation:** If proposed, include the following:
- a. **A completed Phase II Funding Commitment form**, found at Attachment 2 (mandatory template)
  - b. **Private Investor/Non-SBIR Governmental Funding Documentation:**
    - Private investors must provide documentation commitment to provide Phase II funding in cash, contingent on selection for award. Milestones for private investment funding must be appropriately structured to avoid front-loading and unbalanced SBIR funds expenditure. Specifically, non-SBIR Government or private funds cannot be conditioned on expenditure of all or the majority of SBIR funds before non-SBIR Government or private funds are expended.
    - A page or less statement describing the investor's (i) experience evaluating companies' ability to successfully commercialize technology; and (ii) the particular technology's market assessment, including the company's ability to bring it to market.

12) **Additional Letters of Support:** Letters of support demonstrate that the proposed innovation, if developed, would solve a valid market need. More generally, letters of support can validate commercial impact claims made in the proposal. Therefore, letters from potential technology end users (e.g., customers and corporate partners/collaborators) are appropriate, as well as letters from actual or potential investors. All letters should be uploaded in a single .pdf file organized logically. NOTE: When combining .pdf documents, ensure digital signatures are not stripped.

**f. Contractor Certification Regarding Provision of Prohibited Video Surveillance and Telecommunications Services and Equipment**

The DoD must comply with Section 889(a)(1)(B) of the National Defense Authorization Act (NDAA) for Fiscal Year 2019, and is working to reduce or eliminate contracts with entities that use any equipment, system, or service that uses covered telecommunications equipment or services (as defined in the attachment) as a substantial or essential component of any system, or as critical technology as part of any system.

All proposals must include the certifications found in Federal Acquisition Regulation clauses 52.204-24, 52-204-25, and 52-204-26, executed by the proposer's authorized company representative. These Federal Acquisition Regulation clauses may be found attached. **These certifications must be signed by the authorized company representative and uploaded as a separate PDF file in Volume 5 for all proposal submissions.**

Completion of the required certification clauses requires due diligence for contractors proposed as a part of the submission, including research partners and suppliers. Therefore, proposers are strongly encouraged to review certification requirements early in the proposal development process. Failure to complete and/or submit the required certifications with the proposal may be cause for rejection without evaluation.

**g. Foreign Ownership or Control Disclosure**

~~If the proposer answers YES to any of the questions contained in the Firm Certifications section of the DSIP proposal submission page regarding foreign involvement (accessible only by the DSIP Firm Admin), an authorized firm representative must complete the Foreign Disclosure Addendum (attached).~~ **Proposers must review Attachment 5: Foreign Ownership or Control Disclosure to determine applicability. If applicable, an authorized firm representative must complete the Foreign Ownership or Control Disclosure (Attachment 5).** The completed and signed disclosure must be uploaded to

Volume 5 of the proposal submission.

#### **h. Fraud, Waste and Abuse Training (Volume 6)**

The Fraud, Waste and Abuse (FWA) training is **required** for Phase I and Direct to Phase II proposals. The training provides information on what represents FWA in the SBIR/STTR Programs, the most common mistakes leading to FWA, and the penalties and ways to prevent FWA. This training material must be thoroughly reviewed once per year. Plan ahead and leave ample time to complete this training based on the proposal submission deadline.

## **10.0 DIRECT TO PHASE II (D2P2) REVIEW CRITERIA**

**APPLIES TO TOPIC AF211-DCSO1 ONLY.** *Criteria for Topic AF211-DCSO2 is provided in the topic.*

Proposals will be evaluated on a competitive basis. Proposals will initially be screened to determine responsiveness. Proposals passing this initial screening will be peer reviewed by engineers or scientists to determine the most promising technical and scientific approaches. Each proposal will be judged on its own merits. An offeror may submit, and subsequently receive awards for, multiple D2P2 proposals under a single solicitation provided the successful proposals do not contain essentially equivalent work. AF is under no obligation to fund a specific number of Phase I proposals and may elect to award none.

Proposals will be peer reviewed based on the criteria below. Selections will represent best value to the Government considering the following factors listed in descending order of importance:

1. The potential for Government or private sector commercialization and benefits expected to accrue from commercialization.
  - The SBC's record of commercializing SBIR or other research, as indicated by pre-sales, pilots, sales, revenue, active users, subscriptions, downloads, and/or other forms of traction/adoption.
  - The existence of Phase II follow-on commitments for the subject research, and funding commitments related to the subject effort, whether from Government sources, as documented in the Air Force Customer Memorandum, or private sources, as documented through a letter of commitment, are evidence of commercialization potential.
  - A sound transition strategy in the Air Force Customer Memorandum is also evidence of commercialization potential.
2. The appropriateness, relevance, and specificity of an identified Defense Need. A complete and compelling Air Force Customer Memorandum (using the mandatory template provided at Attachment 1), signed by an appropriate end-user and customer, indicates the appropriateness, relevance, and specificity of an identified Defense Need. While not required for Phase I, signed letters of interest from other government personnel (content defined in section 9.0) may be indicators of the appropriateness, relevance, and specificity of an identified Defense Need. Adequacy of the proposed effort and its relationship to fulfilling the identified Defense Need.
3. The soundness, technical merit, and innovation of the proposed approach, as well as its differentiation from current customer alternatives, and incremental progress toward fulfilling the identified Defense need. Includes the proposed Principal Investigators'/Project Managers', supporting staff, and consultants' qualifications to execute the proposed approach.

Price reasonableness and realism will be considered to the extent appropriate. IAW 15 USC 638(dd)(7), investment by venture capital, private equity firms, or hedge funds shall not be used as an award criterion.

Peer reviewers will base their conclusions only on information contained in the proposals. It cannot be assumed reviewers are acquainted with the firm, key individuals, or referenced experiments.

**Other Factors Considered During the Selection Process:**

- National security concerns.
- Pursuant to EO 13329, high priority is accorded to proposals advancing innovation in U.S. small business manufacturing.
- The Energy Independence and Security Act of 2007 (Act), 19 December 2007, P.L. 110-140, requires SBIR/STTR agencies to give high priority to energy efficiency or renewable energy system R&D projects. The Act encourages eligible US-owned SBCs accomplishing biomedical research in the areas of energy efficiency or renewable energy systems to submit proposals.

Combined funding commitments directly related to the subject Phase II effort from private and/or non-SBIR Government sources may be considered to determine the successful offeror when multiple proposals are equal in technical merit.

## 11.0 CONTRACTUAL REQUIREMENTS

### 11.1 Other Contractual Requirements

Awardees will be required to make certain legal commitments through acceptance of Government contract clauses or OT articles. The following outline is illustrative of provisions required by the FAR or statute for inclusion in Phase II awards. This is not a complete list, nor does it contain specific clause/article wording.

- a. **Standards of Work.** Work performed under the award must conform to professional standards.
- b. **Inspection.** Work performed under the award is subject to Government inspection and evaluation at all reasonable times.
- c. **Examination of Records.** The Comptroller General (or a fully authorized representative) shall have the right to examine any directly pertinent awardee records involving award transactions.
- d. **Default.** The Government may terminate the award for failure to perform the negotiated effort.
- e. **Termination for Convenience.** The Government may terminate the award at any time if it deems termination in its best interest. The firm will be compensated for work performed and reasonable termination costs.
- f. **Disputes.** Any award dispute not resolved by agreement shall be decided by the Contracting or Agreements Officer with right of appeal.
- g. **Contract/OT Work Hours.** The awardee may not require an employee to work more than eight hours a day or forty hours a week unless compensated accordingly through overtime pay.
- h. **Equal Opportunity.** The firm will not discriminate against any employee or employee applicant because of race, color, religion, sex, or national origin.
- i. **Affirmative Action for Veterans.** The awardee will not discriminate against any employee or applicant for employment because he or she is a disabled veteran.
- j. **Affirmative Action for Handicapped.** The awardee will not discriminate against any employee or applicant for employment because he or she is physically or mentally handicapped.
- k. **Officials Not to Benefit.** No Federal Government official may benefit personally from the SBIR/STTR funding agreement.
- l. **Covenant Against Contingent Fees.** No person or agency has been employed to solicit or secure the award upon an understanding for compensation except bona fide employees or commercial agencies maintained by the awardee for the purpose of securing business.
- m. **Gratuities.** The Government may terminate the contract if gratuities have been offered to any Government representative to secure the awardee.
- n. **Patent Infringement.** The awardee shall report each notice or patent infringement claim based on contract performance.
- o. **Military Security Requirements.** The awardee shall safeguard classified information associated with the contracted work IAW applicable regulations.
- p. **American Made Equipment and Products.** The awardee will purchase equipment and/or products in support of the SBIR award from U.S.-based sources whenever possible.
- q. **Unique Identification (UID).** If hardware will be delivered to the Government under the award, there is potential unique item identification will be required IAW DFARS 252.211-7003.
- r. **Publication Approval.** Government review and approval will be required prior to dissemination or publication, except within and between the awardee and its subcontractors (if any), of classified and non-fundamental information developed under this award or contained in reports to be furnished pursuant to this award.
- s. **Animal Welfare.** Awards involving research, development, test, evaluation, or training on vertebrate animals will incorporate DFARS clause 252.235-7002 or similar verbiage.
- t. **Protection of Human Subjects.** Effective 29 July 2009, contracts including or potentially including research involving human subjects IAW 32 CFR Part 219, DoD Directive 3216.02, and 10 U.S.C. 980, including research meeting exemption criteria under 32 CFR 219.101(b), will incorporate DFARS clause 252.235-7004 or similar verbiage.

- u. **E-Verify.** Contracts exceeding the simplified acquisition threshold may include the FAR clause 52.222-54 “Employment Eligibility Verification” unless exempted by the conditions listed at FAR 22.1803. Similar verbiage will be included in OT awards unless determined exempt through comparable determination.
- v. **ITAR.** IAW DFARS 225.7901-4, Export Control Contract Clauses, the clause found at DFARS 252.225-7048, Export-Controlled Items (June 2013), must be included in all solicitations and contracts; therefore, all awards resulting from this CSO will include DFARS 252.225-7048 or similar verbiage. Full text: <https://www.acquisition.gov/dfars/part-252-clauses#DFARS-252.227-7018>.
- w. **Cybersecurity.** Awardees are required to provide adequate security on all covered business information systems. Specific security requirements are listed in DFARS 252.204.7012, and compliance is mandatory.
- x. **Disclosure of Ownership or Control by a Foreign Government.** DFARS 252.209-7002, Disclosure of Ownership or Control by a Foreign Government (JUN 2010), is incorporated into this solicitation. In accordance with DFARS 252.209-7002, any SBC submitting a proposal in response to this solicitation is required to disclose, by completing Attachment 2 to this solicitation, Foreign Ownership or Control Disclosure, any interest a foreign government has in the SBC when that interest constitutes control by a foreign government, as defined in DFARS provision 252.209-7002. If the SBC is a subsidiary, it is also required to disclose any reportable interest a foreign government has in any entity that owns or controls the subsidiary, including reportable interest concerning the SBC’s immediate parent, intermediate parents, and the ultimate parent.

## 11.2 Commercialization Updates in Phase II

After Phase II award, the awardee shall be required to periodically update the following Phase II commercialization results at <https://www.dodsbirsttr.mil/submissions>.

- a. Sales revenue from Phase II-developed products and non-R&D services;
- b. Additional investment from non-Federal SBIR/STTR Program in activities furthering Phase II technology development and/or commercialization;
- c. Phase II technology used in a fielded DoD system or acquisition program and, if any, which system or program;
- d. The number of patents resulting from SBIR/STTR Program awards;
- e. Growth in number of firm employees; and
- f. Completion of an initial public offering of stock (IPO), if any, resulting all or in part from the Phase II project.

Project updates will be required one year after Phase I performance starts, at Phase II completion, and when the firm submits a new SBIR or STTR proposal to DoD. Firms not submitting new proposals to DoD will update annually after Phase II completion.

## 11.3 Copyrights

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

## 11.4 Patents

Awardees normally retain the principal worldwide patent rights to Government-funded inventions. The Government receives a royalty-free license, reserves the right to require the patent holder to license others in



certain limited circumstances, and requires anyone exclusively licensed to sell the invention in the United States to manufacture it domestically. As authorized by 35 USC 205, the Government will not publicly disclose a Government-supported invention for a period of five years to allow the awardee to pursue a patent. See also Invention Reporting in Section 11.6.

### 11.5 Technical Data Rights

Rights in technical data, including software, developed under the award terms resulting from proposals submitted under this CSO, generally remain with the awardee. The Government obtains a royalty-free license to use such technical data only for Government purposes during the period commencing with contract/Other Transaction award and ending after 20 years. This data should be marked with the restrictive legend specified in DFARS 252.227-7018 or similar. Upon expiration of the 20 year restrictive license, the Government has Government Purpose Rights in the SBIR data. During the license period, the Government may not release or disclose SBIR data to any entity other than its support services contractors except (1) for evaluation purposes; (2) as expressly permitted by the contractor; or (3) use, release, or disclosure is necessary for emergency repair or overhaul of Government-operated items. See DFARS clause 252.227-7018, "Rights in Noncommercial Technical Data and Computer Software – Small Business Innovation Research (SBIR) Program" at [https://www.ecfr.gov/cgi-bin/text-idx?rgn=div5;node=48%3A3.0.1.8.48#se48.3.252\\_1227\\_67018](https://www.ecfr.gov/cgi-bin/text-idx?rgn=div5;node=48%3A3.0.1.8.48#se48.3.252_1227_67018). If a proposer plans to submit assertions IAW DFARS 252.227-7017 or similar award term, those assertions must be identified and restrictions MUST be included in the proposal submission. Award cannot be executed until assertions are approved or mutually agreed-upon during negotiations.

### 11.6 Invention Reporting

SBIR awardees must report inventions to the Component within two months of the inventor's report to the awardee. The inventions report may be accomplished by submitting paper documentation.

### 11.7 Final Technical Reports:

- a. **Content:** A final report is required for each award. The reports must contain detail regarding the project objectives, work performed, results obtained, and estimates of technical feasibility. A completed SF 298, "Report Documentation Page," will be used as the report's first page. The Report Documentation Page may be prepared and printed from Defense Technical Information Center's (DTIC's) site at [http://www.dtic.mil/dtic/submit/guidance\\_on\\_submitting\\_docs\\_to\\_dtic.html](http://www.dtic.mil/dtic/submit/guidance_on_submitting_docs_to_dtic.html). Additionally, the final technical report shall contain a completed DD Form 882, "Report of Inventions and Subcontracts."
- b. **SF 298 Form "Report Documentation Page" Preparation:**
  1. For unclassified reports, the submitting company should fill in Block 12 (Distribution/Availability Statement) of the SF 298, "Report Documentation Page," with the following statement: "Distribution authorized to U.S. Government only; Proprietary Information, (Date of Determination). Other requests for this document shall be referred to the Component SBIR Program Office." Note: Data developed under SBIR/STTR awards is subject to DFARS 252.227-7018 or similar protection. AF will review the awardee's Block 12 information and assign the final distribution statement.
  2. For additional distribution statement guidance, visit the DTIC site: [http://www.dtic.mil/dtic/pdf/distribution\\_statements\\_and\\_reasons.pdf](http://www.dtic.mil/dtic/pdf/distribution_statements_and_reasons.pdf)

Block 14 (Abstract), "Report Documentation Page" must include as the first sentence, "Report developed under SBIR/STTR contract (or OT) for topic [insert topic number]. [Follow with the topic title, if possible.]" The abstract must identify the work's purpose and briefly describe that conducted, the findings/results, and potential applications. The abstract will be published by the DoD. Therefore, **it**

**shall not contain proprietary or classified data.** Type “UU” in Block 17.

3. Block 15 (Subject Terms) 298 must include the term "SBIR Report".
- c. **Submission:** All final reports are submitted to the awarding AF organization IAW the award document. Companies shall not submit Final Reports directly to DTIC. Delivery is normally required within 30 calendar days after technical program completion. Requirements regarding other deliverables' submission will be defined in Sections B and C of contract, and Appendix A of Other Transaction for Prototype, award documents. Special submission instructions for CLASSIFIED reports will be defined in the award's delivery schedule. DO NOT E-MAIL classified or controlled unclassified reports, or reports containing SBIR/STTR Data Rights protected under DFARS 252.227-7018.

## 12.0 VOLUNTARY PHASE II FUNDING COMMITMENT GUIDANCE

Below guidance discusses relationships between small companies and outside investors for voluntary Phase II funding commitments. Such commitments are evidence of commercial potential pursuant to 15 USC 638(e). There is no requirement to provide such commitments, and proposals including them do not receive preference during peer review. Each applicant's commercial potential is evaluated on its own merits IAW non-exclusive criteria in 15 USC 638(e).

### 12.1 Examples of Voluntary Phase II Funding Commitments:

- Funding from small business affiliates in support of the proposed RDT&E is generally considered such a commitment.
- Investment from **outside** sources, which includes other companies, state or local Governments, venture capital firms, individual "angel" investors, non-SBIR/non-STTR Federal Government programs, or any combination thereof, is considered such a commitment. This does not include the small business's owner, family members, and/or "affiliates" of the small business, as defined in 13 CFR Section 121.103, as highlighted below:
  - Concerns are affiliates 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.
  - Factors such as ownership, management, previous relationships with or ties to another concern, and contractual relationships are considered in making affiliation determinations.
  - Individuals or firms with identical or substantially identical business or economic interests, such as family members, persons with common investments, or firms economically dependent through contractual or other relationships, may be treated as one party with such interests aggregated. While the proposal must state whether funding is from external or internal sources, the CO and the SBA have the discretion to designate an entity as an "outside investor," regardless of the designation in the proposal.
- Such a commitment may also 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; Federal funds transferred to the AF SBIR/STTR Center of Excellence Finance Division (AFRL/SBRF) via Military Interdepartmental Purchase Request (MIPR); or any combination thereof.

The AF SBIR/STTR CoE reserves the right to adjust these guidelines at any time. Any changes to these guidelines will be sent to the eligible companies and posted online via amendment to this solicitation.

### 12.2 Voluntary Phase II Funding Commitment 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 second state commitment?***

Yes, provided E is an outside investor and the other Voluntary Second Stage Commitment 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 second stage commitment?***

For Angel Investor I's investment in Small Company B to qualify Small Company A for such a commitment, AF must determine if A and B are substantially the same entity as evidenced, for example, by meeting the "affiliates"

definition " in 13 C.F.R. Sec.121.103. If AF determines A and B are substantially the same entity, I's investment in B could qualify A as a second stage commitment. Of course, the parties must also meet the other conditions, e.g., I must be an outside investor.

***(3) Can Entity E's investment in Small Company S before the submission of S's Direct to Phase II SBIR proposal qualify as a Phase II funding commitment?***

Yes, provided E is an outside investor and the other second stage commitment conditions are met. The investment can occur at any time after the **pre-release date** of Phase II proposal instructions, and no later than 90 calendar days after award.

## 13.0 Phase I and Direct to Phase II Topics

### 13.1 AF211-CSO1

**TITLE: Phase I Open Call for Innovative Defense-Related Dual-Purpose Technologies/Solutions with a Clear AF Stakeholder Need**

RT&L FOCUS AREA(S): Biotechnology Space; Quantum Sciences; Microelectronics; Hypersonics; Directed Energy; Cybersecurity; Network Command, Control and Communications; Nuclear; Autonomy; Artificial Intelligence/ Machine Learning; 5G; General Warfighting Requirements (GWR)

TECHNOLOGY AREA(S): Ground Sea, Nuclear, Weapons, Bio Medical, Sensors, Electronics, Chem Bio Defense, Space Platform, Materials, Information Systems, Human Systems, Air Platform Battlespace

OBJECTIVE: This is an AF Special Topic in partnership with AFWERX. Please see the above AF Special Topic instructions for further details. Phase I awards will have a maximum of \$50,000 SBIR funds. The period of performance will be three months, including two months technical effort and one month for reporting. Phase II awards will have a maximum of \$750,000 SBIR funds. The period of performance will be 15 months, including 12 months technical performance and three months for reporting. The objective of this topic is to explore Innovative Defense-Related Dual-Purpose Technologies not covered by other specific SBIR topics. Therefore, the topic will explore options for solutions outside the AF's current focus fields but could be useful. An additional objective is to grow the AF's industrial base. This topic is intended to reach companies capable of completing a feasibility study and prototype validated concepts under accelerated Phase I and II schedules. This topic is aimed at later stage research and development efforts rather than "front-end" or basic R/R&D.

DESCRIPTION: The AF is a large and complex organization consisting of many functions with similar counterparts in the commercial sector. The AF wishes to explore innovative technology domains with demonstrated commercial value in the non-Defense sector, i.e., through existing products/solution, in order to obtain Air Force applications, i.e., Dual-Purpose Technologies/ Solutions. It is impossible to release SBIR topics addressing every AF technological area. Therefore, this topic seeks open ideas and technologies including topics not currently covered. It is important potential solutions have a high probability of keeping pace with the technological change. Thus, they should be closely tied to commercial technologies and solutions supporting the solution's development.

This topic is meant for non-Defense commercial solutions to innovatively adapt to meet DoD stakeholders' needs in a short timeframe, at a low cost. Proposals will be peer reviewed based on the criteria below. Selections will represent best value to the Government considering the following factors, which are of equal importance:

1. The potential for Government or private sector commercialization and benefits expected to accrue from commercialization.
  - The SBC's record of commercializing SBIR or other research, as indicated by pre-sales, pilots, sales, revenue, active users, subscriptions, downloads, and/or other forms of traction/adoption.
  - Phase II follow-on commitments for the subject research are also evidence of commercialization potential.
2. The appropriateness, relevance, and specificity of an identified Defense Need. While not required, signed letters of support from AF customers and/or end-users may be indicators of the appropriateness, relevance, and specificity of an identified Defense Need. (Content discussed in 5.3(b)(7).) The adequacy of the proposed effort and its relationship to fulfilling the identified Defense Need.
3. The soundness, technical merit, and innovation of the proposed approach as well as its differentiation from current customer alternatives, and incremental progress toward fulfilling the identified Defense need. Includes the proposed Principal Investigators'/Project Managers', supporting staff, and

consultants' qualifications to execute the proposed approach.

Price reasonableness and realism will be considered to the extent appropriate. In accordance with 15 USC 638(dd)(7), investment by venture capital, private equity firms, or hedge funds shall not be used as an award criterion.

In summary, proposals for this topic should demonstrate a high probability of identifying a product-market fit between an AF end user and the proposed solution through a non-Defense commercial solution's adaptation. This is initiated through proposal of R/R&D being applied to a mature non-Defense technical solution and a starting point to find an AF Customer.

The topic is truly 'Open' (agnostic of industry, technology, and problem area), to facilitate streamlined customer discovery for Phase I companies. In Phase I, certain problem areas for which potential customers and/or funding exists have already been identified.

The USAF S&T Strategy identifies five (5) Strategic Capabilities, listed below. The alignment between a proposal and an S&T Strategic Capability can strengthen an application. Note, this does not change the requirement to demonstrate the Defense need, but may complement it. This also does not preclude companies looking to solve other problems not listed in the S&T Strategic Capabilities. It is simply intended to give indications of AF special emphasis areas at this time. As applicable, the offeror should address the solution's connection to one or multiple of them in the Technical Volume.

1. Global Persistent Awareness
2. Resilient Information Sharing
3. Rapid, Effective Decision-Making
4. Complexity, Unpredictability, and Mass
5. Speed and Reach of Disruption and Lethality
6. BLUE SKY\*

US Air Force S&T Strategy:

<https://www.af.mil/Portals/1/documents/2019%20SAF%20story%20attachments/Air%20Force%20Science%20and%20Technology%20Strategy.pdf?ver=2019-04-17-131216-723&timestamp=155530064092>

\*NOTE: While the S&T strategy document contains only five capabilities, it is possible for a solution to provide a strategic capability in a previously unconsidered area. Therefore, if the offeror feels their solution does not fit within one of the listed capabilities, they can reference the "BLUE SKY" strategic capability, including an explanation of the solution's ability to provide increased strategic capability within the context of USAF, national, and global constraints.

PHASE I: Determine, insofar as possible, the scientific and technical merit and feasibility of ideas that appear to have commercial potential. Additionally, must validate the product-market fit between the proposed solution and a potential AF stakeholder. Define a clear, immediately actionable plan with the proposed solution and the AF customer. This feasibility study should directly address:

1. Clearly identify the prime potential AF end user(s) from the non-Defense commercial offering to solve the AF need, i.e., how it has been modified.
2. Describe integration cost and feasibility with current mission-specific products.
3. Describe if and how the demonstration can be used by other DoD or Governmental customers

The funds obligated on R&D to develop a prototype system determined to be the most feasible solution during the Phase I study. This demonstration should focus specifically on:

1. Evaluating the proposed solution against the objectives and measurable key results defined in the Phase I feasibility study.

2. Describing in detail how the solution differs from the non-Defense commercial offering to solve the AF need and how it can be modified for scale.
3. The proposed solution's clear transition path including consideration of all affected stakeholders' inputs. This would include, but not be limited to, end users, engineering, sustainment, contracting, finance, legal, and cyber security.
4. Providing specific details about the solution's integration with other current and future solutions.
5. Explaining the solution's sustainability, i.e., supportability.
6. Identifying other DoD or Governmental customers interested in the solution.

PHASE II: Continue RDT&E to develop, install, integrate, demonstrate, and/or test and evaluate a prototype system determined to be the most feasible solution during the Phase I study. This demonstration should focus specifically on:

1. Evaluating the proposed solution against the objectives and measurable key results defined in the Phase I feasibility study.
2. Describing in detail how the solution differs from the non-Defense commercial offering to solve the AF need and how it can be modified for scale.
3. The proposed solution's clear transition path including consideration of all affected stakeholders' inputs. This would include, but not be limited to, end users, engineering, sustainment, contracting, finance, legal, and cyber security.
4. Providing specific details about the solution's integration with other current and future solutions.
5. Explaining the solution's sustainability, i.e., supportability.
6. Identifying other DoD or Governmental customers interested in the solution.

PHASE III DUAL USE APPLICATIONS: Some solutions may go straight from Phase I to Phase III as soon as the product-market fit is verified. The contractor will transition the adapted non-Defense commercial solution to provide expanded mission capability for a broad range of potential Governmental and civilian users and alternate mission applications.

#### NOTES:

- a. To answer questions about this topic, AFWERX will utilize teleconferences. Details will be made available at <https://www.afwerx.af.mil/sbir.html> when plans are finalized. Submit questions to the email contact address identified in the Solicitation until that time.
- b. AF SBIR/STTR Phase I awards are FAR-based firm fixed price purchase orders. Phase II awards are either FAR-based firm fixed price contracts or Other Transactions for Prototype. Firms' SAM registrations shall reflect ALL AWARDS for "Purpose of Registration". Otherwise, the proposal will not be considered for award. For more information, visit SAM.gov.
- c. If already registered in SAM, ensure the CAGE code, company name, address information, DUNS numbers, etc., are correct and current.
- d. Purchase orders shall be signed and emailed back to AFRL/SBRK at [sbrk.sprints@us.af.mil](mailto:sbrk.sprints@us.af.mil) within five business days of receipt or the award will not be issued.
- e. Proposed technologies may be restricted under the International Traffic in Arms Regulations (ITAR) which control Defense-related materials/services import/export, or the Export Administration Regulations (EAR), controlling dual use items.

Offerors must review the U.S. Munitions List, <https://www.law.cornell.edu/cfr/text/22/121.1>, and provide a tentative determination regarding applicability to their proposed efforts. If determined applicable, a certified DD Form 2345, Militarily Critical Technology Agreement, must be submitted with the proposal. Information regarding the application process and instructions for form completion are found at <https://www.dla.mil/HQ/LogisticsOperations/Services/JCP/DD2345Instructions/>.

NOTE: Export control compliance statements are not all-inclusive and do not remove submitters' liability to 1) comply with applicable ITAR/EAR export control restrictions or 2) inform the Government of

potential export restrictions as efforts proceed.

REFERENCES:

- FitzGerald, B., Sander, A., & Parziale, J. (2016). Future Foundry: A New Strategic Approach to Military-Technical Advantage. Retrieved 12 June 2018, <https://www.cnas.org/publications/reports/future-foundry>.
- Blank, S. (2016). The Mission Model Canvas: An Adapted Business Model Canvas for Mission-Driven Organizations. Retrieved 12 June 2018, <https://steveblank.com/2016/02/23/the-mission-model-canvas-an-adapted-business-model-canvas-for-mission-driven> ;
- DoD 2018 National Defense Strategy of the United States Summary, 11. Retrieved from <https://www.Defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>

KEYWORDS: Open, Other, Disruptive, Radical, Dual-Use, Commercial



## 13.2 AF211-DCSO1

**TITLE: Direct to Phase II Call for Innovative Defense-Related Dual-Purpose Technologies/Solutions with a Clear Air Force Stakeholder Need**

RT&L FOCUS AREA(S): Biotechnology Space; Quantum Sciences; Microelectronics; Hypersonics; Directed Energy; Cybersecurity; Network Command, Control and Communications; Nuclear; Autonomy; Artificial Intelligence/ Machine Learning; 5G; General Warfighting Requirements (GWR)

TECHNOLOGY AREA(S): Ground Sea, Nuclear, Weapons, Bio Medical, Sensors, Electronics, Chem Bio Defense, Space Platform, Materials, Information Systems, Human Systems, Air Platform Battlespace

OBJECTIVE: A D2P2 may be awarded for a maximum period of 15 months, including 12 months technical performance and three months for reporting, at a maximum of \$750,000 SBIR funds. The objective of this topic is to explore Innovative Defense-Related Dual-Purpose Technologies not be covered by other specific SBIR topics, exploring options for solutions potentially outside the current Technology Areas but useful to the AF. This topic seeks companies with capability to complete a feasibility study and prototype validated concepts under an accelerated Phase II schedule. This topic is aimed at later stage research and development efforts rather than “front-end” or basic R/R&D.

DESCRIPTION: The Air Force is a large and complex organizations consisting of many functions with similar commercial sector counterparts. The AF is interested in exploring innovative technology domains with demonstrated clear commercial value in the non-Defense sector through existing products/solutions for potential AF applications. It is impossible to cover all technology areas with SBIR topics. Thus, this topic is a call for open ideas and technologies covering topics not currently listed. It is important potential solutions have a high probability of keeping pace with technological change. They should be closely tied to commercial technologies supporting solution development. This topic is intended to identify non-Defense commercial solutions to be adapted and expanded innovatively through R/R&D to meet DoD stakeholders’ needs in a short timeframe at low cost. Selections will represent best value to the Government considering the following factors listed in descending order of importance:

1. The potential for Government or private sector commercialization and benefits expected to accrue from commercialization.
  - The SBC’s record of commercializing SBIR or other research, as indicated by pre-sales, pilots, sales, revenue, active users, subscriptions, downloads, and/or other forms of traction/adoption.
  - The existence of Phase II follow-on commitments for the subject research, and funding commitments related to the subject effort, whether from Government sources, as documented in the Air Force Customer Memorandum, or private sources, as documented through a letter of commitment, are evidence of commercialization potential.
  - A sound transition strategy in the Air Force Customer Memorandum is also evidence of commercialization potential.
  
2. The appropriateness, relevance, and specificity of an identified Defense Need. A complete and compelling Air Force Customer Memorandum (using the mandatory template provided at Attachment 1), signed by an appropriate end-user and customer, indicates the appropriateness, relevance, and specificity of an identified Defense Need. While not required for Phase I, signed letters of interest from other government personnel (content of defined in section 9.0) may be indicators of the appropriateness, relevance, and specificity of an identified Defense Need. Adequacy of the proposed effort and its relationship to fulfilling the identified Defense Need.

3. The soundness, technical merit, and innovation of the proposed approach, as well as its differentiation from current customer alternatives, and incremental progress toward fulfilling the identified Defense need. Includes the proposed Principal Investigators'/Project Managers', supporting staff, and consultants' qualifications to execute the proposed approach.

Price reasonableness and realism will be considered to the extent appropriate. IAW 15 USC 638(dd)(7), investment by venture capital, private equity firms, or hedge funds shall not be used as an award criterion.

Proposals should demonstrate a product-market fit between an AF end-user and the proposed R/R&D adaptation of an existing or emerging non-Defense commercial solution. This is accomplished most effectively through a proposal with a mature non-Defense technical solution and a clear understanding of its adaptation to meet an AF customer's specific need, supported by documentation from a specific motivated, empowered AF end-user and customer ready and willing to participate in the proposed prototype solution's trial.

The USAF S&T Strategy identifies five (5) Strategic Capabilities, listed below. The alignment between a proposal and an S&T Strategic Capability can strengthen an application. Note, this does not change the requirement to demonstrate the Defense need, but may complement it. This also does not preclude companies looking to solve other problems not listed in the S&T Strategic Capabilities. It is simply intended to give indications of AF special emphasis areas at this time. As applicable, the offeror should address the solution's connection to one or multiple of them in the Technical Volume.

1. Global Persistent Awareness
2. Resilient Information Sharing
3. Rapid, Effective Decision-Making
4. Complexity, Unpredictability, and Mass
5. Speed and Reach of Disruption and Lethality
6. BLUE SKY\*

US Air Force S&T Strategy:

<https://www.af.mil/Portals/1/documents/2019%20SAF%20story%20attachments/Air%20Force%20Science%20and%20Technology%20Strategy.pdf?ver=2019-04-17-131216-723&amp;timestamp=155530064092>

\*NOTE: While the S&T strategy document contains only five capabilities, it is possible for a solution to provide a strategic capability in a previously unconsidered area. Therefore, if the offeror feels their solution does not fit within one of the listed capabilities, they can reference the "BLUE SKY" strategic capability, including an explanation of the solution's ability to provide increased strategic capability within the context of USAF, national, and global constraints.

PHASE I: This topic is intended for technology proven ready to move directly into a Phase II. Therefore, a Phase I award is not required. The offeror is required to provide detail and documentation in the Direct to Phase II proposal which demonstrates accomplishment of a "Phase I-like" effort, including a feasibility study and customer discovery. This includes determining, insofar as possible, the scientific and technical merit and feasibility of ideas appearing to have commercial potential. It must have validated the product-market fit between the proposed solution and a potential AF stakeholder. The offeror should have defined a clear, immediately actionable plan with the proposed solution and the AF customer. The feasibility study should have:

- Identified the prime potential AF end user(s) for the non-Defense commercial offering to solve the AF need, i.e., how it has been modified;
- Described integration cost and feasibility with current mission-specific products;
- Described if/how the demonstration can be used by other DoD or Governmental customers.

PHASE II: Proposals should include development, installation, integration, demonstration and/or test and evaluation of the proposed solution prototype system. This demonstration should focus specifically on:

1. Evaluating the proposed solution against the proposed objectives and measurable key results.
2. Describing in detail how the installed solution differs from the non-Defense commercial offering to solve the Air Force need, as well as how it can be scaled for wide adoption, i.e., modified for scale.
3. Identifying the proposed solution's clear transition path, taking into account input from affected stakeholders, including but not limited to, end users, engineering, sustainment, contracting, finance, legal, and cyber security.
4. Specifying the solution's integration with other current and potential future solutions.
5. Describing the solution's sustainability, i.e., supportability.
6. Identifying other specific DoD or Governmental customers for the solution

PHASE III DUAL USE APPLICATIONS: Phase II solutions may transition quickly to Phase III after the product-market fit is verified. The firm will transition the adapted non-Defense commercial solution to provide expanded mission capability to a broad range of potential Government/civilian users and alternate mission applications.

#### NOTES:

- a. To answer questions about this topic, AFWERX will utilize teleconferences. Details will be made available at <https://www.afwerx.af.mil/sbir.html> when plans are finalized. Submit questions to the email contact address identified in the Solicitation until that time.
- b. SBIR solicitations result in contracts and Other Transactions for Prototype, NOT grants. Therefore, SAM.gov registration should reflect ALL AWARDS for "Purpose of Registration". Firms registered to receive grants only will be ineligible.
- c. Registration in SAM is required to be eligible for award. Please verify the firm's CAGE code, company name, address information, DUNS numbers, etc., prior to submitting a proposal. It is the firm's responsibility to ensure the proposal and SAM.gov are consistent.
- d. Proposed technologies may be restricted under the International Traffic in Arms Regulations (ITAR) which control Defense-related materials/services import/export, or the Export Administration Regulations (EAR), controlling dual use items.

Offerors must review the U.S. Munitions List, <https://www.law.cornell.edu/cfr/text/22/121.1>, and provide a tentative determination regarding applicability to their proposed efforts. If determined applicable, a certified DD Form 2345, Militarily Critical Technology Agreement, must be submitted with the proposal. Information regarding the application process and instructions for form completion are found at <https://www.dla.mil/HQ/LogisticsOperations/Services/JCP/DD2345Instructions/>.

NOTE: Export control compliance statements are not all-inclusive and do not remove submitters' liability to 1) comply with applicable ITAR/EAR export control restrictions or 2) inform the Government of potential export restrictions as efforts proceed.

#### REFERENCES:

- FitzGerald, B., Sander, A., & Parziale, J. (2016). Future Foundry: A New Strategic Approach to Military-Technical Advantage. Retrieved June 12, 2018: <https://www.cnas.org/publications/reports/future-foundry>
- Blank, S. (2016). The Mission Model Canvas – An Adapted Business Model Canvas for Mission-Driven Organizations. Retrieved June 12, 2018: [https://steveblank.com/2016/02/23/the-mission-model-canvas-an-adapted-business-model-canvas-for-mission-driven](https://steveblank.com/2016/02/23/the-mission-model-canvas-an-adapted-business-model-canvas-for-mission-driven-) ;
- US Department of Defense. (2018). 2018 National Defense Strategy of the United States Summary, 11. Retrieved from: <https://www.Defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>

KEYWORDS: Open, Other, Disruptive, Radical, Dual-Use, Commercial

### 13.3 AF211- DCSO2

#### TITLE: **Advanced Manufacturing and Sustainment Pitch Day**

RT&L FOCUS AREA(S): Space; Microelectronics; Hypersonics; Network Command, Control and Communications; Artificial Intelligence/ Machine Learning; 5G; General Warfighting Requirements (GWR)

TECHNOLOGY AREA(S): Weapon; Nuclear, Sensors Electronics; Chem Bio Defense; Space Platform; Materials; Information Systems; Human Systems; Air Platform; Battlespace

ITAR: NO

OBJECTIVE: Develop/demonstrate/identify innovative Advanced Manufacturing and Sustainment technologies and processes to rapidly develop, produce, and sustain weapon systems while significantly improving overall cost, availability, and safety.

DESCRIPTION: The AF is seeking to identify innovative Advanced Manufacturing and Sustainment technologies and processes to rapidly develop, produce, and sustain weapon systems while significantly reducing overall costs. These innovations include, but are not limited to advanced robotics, controls and process automation; adaptive machining; automated test equipment and tracking systems; low volume/ high mix repair and part sourcing; 3D printing/additive manufacturing; manufacturing support in austere environments; nondestructive evaluation; manufacturing process modeling; digital representations of human-machine interactions; artificial intelligence and machine learning for sustainment practices; data analysis and diagnostics to include reverse engineering tools and software to support technical data packages for legacy systems; digital thread and digital twin process integration and development.

Collider events may be held prior to or during the X21.1 SBIR pre-release period. These events bring together small companies, academia, and others to learn more about the Government's current requirements, network with other attendees to discover potential collaborations, and provide information regarding their potential solutions during one-on-one meetings with Government requirements organizations. Further details will be published as they are finalized on beta.SAM ([www.beta.sam](http://www.beta.sam)) and the Defense Innovation Marketplace (<https://defenseinnovationmarketplace.dtic.mil/>).

DIRECT TO PHASE II PROPOSAL PREPARATION/REVIEW/SELECTION: Awards under this topic will include a maximum of \$1.5M SBIR funds. **THIS FUNDING AMOUNT PERTAINS TO AF211-DCSO2 ONLY**. The period of performance will be no more than 15 months, including 12 months for technical effort and three months for reporting.

Please follow Section 9.0, "Direct to Phase II Proposal Instructions," when preparing proposals, with the exception of the Customer Memorandum requirement, found in the following areas:

- Section 9.4.e.1) – Guidance in this section does not apply in total.
- Section 14.3, Appendix C, third bullet on page.
- Appendix C, VOLUME 5: Supporting Documents, first item in Supporting Documents list, found on a page 48, and bulleted item titled Mandatory Signed Customer Memorandum, found on page 49.

**Proposals submitted to this topic DO NOT require a Customer Memorandum.** NOTE: Please carefully read and follow the entire solicitation as there may be additional requirements beyond those listed in Section 9.0.

The technical areas are not meant to be all-inclusive; this is an open topic for any Advanced Manufacturing and Sustainment technologies potentially impacting present or future AF missions. Matching funds from non-SBIR Federal and non-Federal sources are not mandatory. Cost-sharing is also not required. However, cost share or match serves as evidence of commercial potential in accordance with 15 USC 638(e)(4)(B)(ii).

Phase II proposals will be evaluated using a two-step process. After proposal receipt, an initial evaluation will be

conducted IAW the criteria below. Based on the results of that evaluation, selectable companies will be provided the opportunity to attend the AF Advanced Manufacturing and Sustainment Pitch Day, dates and location (or virtual) to be determined. Once there, companies will present their concepts and transition plans. These pitches will be peer reviewed a second time based on the below criteria and funding selections made. Selections will represent best value to the Government considering the following factors which are of descending order of importance:

1. The adequacy of the proposed effort and its relationship to fulfilling Air Force programmatic need(s).
2. The potential for commercial (Government or private sector) application and benefits expected to accrue from commercialization. The SBC's record of commercializing SBIR or other research, the existence of Phase II follow-on commitments for the subject research, and Phase II funding commitments, whether from Government or private sources, are evidence of commercialization potential.
3. The soundness, technical merit, and innovation of the proposed approach and its incremental progress toward fulfilling the identified Defense need and the qualifications of the proposed Principal Investigators/Project Managers, supporting staff, and consultants to execute against the proposed approach.

PHASE I: This topic is intended for technology proven ready to move directly into a Phase II. Therefore, a Phase I award is not required. The offeror is required to provide detail and documentation in the Direct to Phase II proposal which demonstrates accomplishment of a "Phase I-like" effort, including a feasibility study. This includes determining, insofar as possible, the scientific and technical merit and feasibility of ideas appearing to have commercial potential. It must have validated the product-market fit between the proposed solution and a potential AF stakeholder. The offeror should have defined a clear, immediately actionable plan with the proposed solution and the AF customer. The feasibility study should have:

- Identified the prime potential AF end user(s) for the non-Defense commercial offering to solve the AF need, i.e., how it has been modified;
- Described integration cost and feasibility with current mission-specific products;
- Described if/how the demonstration can be used by other DoD or Governmental customers.

PHASE II: Eligibility for D2P2 is predicated on the offeror having performed a "Phase I-like" effort at least in part separate from the SBIR Programs. Under the phase II effort, the offeror shall sufficiently develop the technical approach, product, or process in order to conduct a small number of advanced manufacturing and/or sustainment relevant demonstrations. Identification of manufacturing/production issues and or business model modifications required to further improve product or process relevance to improved sustainment costs, availability, or safety, should be documented. Air Force sustainment stakeholder engagement is paramount to successful validation of the technical approach. These Phase II awards are intended to provide a path to commercialization, not the final step for the proposed solution.

PHASE III DUAL USE APPLICATIONS: Phase III efforts will focus on transitioning the developed technology to a working commercial or warfighter solution. If a viable business model for the procurement of Advanced Manufacturing and Sustainment technologies and processes is demonstrated, the offeror or identified transition partners would be in a position to supply future processes to the Air Force and other DoD components as this new process is adopted.

#### REFERENCES:

1. Defense Primer: DoD Maintenance Depots; Congressional Research Service, March 19, 2020
2. Depot Maintenance Strategic Plan; Office of the Secretary of Defense for Sustainment; February 2011

KEYWORDS: Advanced Robotics, Controls and Process Automation; Nondestructive Evaluation; Digital Representations of Human-Machine Interactions; Additive Manufacturing; Artificial Intelligence And Machine Learning-Based Algorithms; Analytics; Digital Thread; Process Modeling;

## 14.0 Appendices

### 14.1 Appendix A – Technical Volume Slide Deck Instructions (applies to AF211-CSO1 and AF211-DCSO1)

The Technical Volume should contain a MAXIMUM of 25 slides, although fewer is permissible. Brevity and clarity are important when communicating complex topics.

There are **11 required slides** and **4 additional slides that are required only if applicable** to the proposal. The remaining slides are not required and may be used at the proposer’s discretion. Proposals without the required slides will not be considered.

The Slide Deck should cover the following items in the order given below. A sample Slide Deck is available at Attachment 3. While the notes in the template are suggestions, the items described below are required. Additionally, offerors are not required to use the template’s style/format. As these instructions cover both Phase I and Direct-to-Phase II, each section identifies whether it applies to “P1 Only”, “D2P2 Only” or both “P1 and D2P2”.

#### REQUIRED SLIDES

1. **(P1 and D2P2) Overall Summary Slide** - Include company name and proposal overview.
2. **(P1 and D2P2) Technical Merit** – Clearly communicate the scientific merit of the solution’s central and/or enabling technological concepts. Identify the scientific and technical baseline, referencing relevant scientific and technical literature, and describe the RDT&E effort’s advancement of this baseline.
3. **(P1 and D2P2) Concept and Significance of Problem/Opportunity** – Define the specific problem or opportunity addressed and its strategic and/or operational importance. Communicate how and if the private sector variant of the proposed solution is different from the DoD-variant. Work proposed for SBIR programs must be R/R&D (Phase I) or RDT&E (Phase II) per Section 4.4.16. Non-RDT&E procurement of commercially-available solutions is not appropriate for the SBIR Program.
4. **(P1 and D2P2) Summary of Commercialization Potential** – Effectively demonstrate the firm’s ability to commercialize the solution in both DoD AND commercial markets. Include pre-sales, pilots, sales, revenue, active users, subscriptions, downloads and/or other types of market research, shared investment, or other efforts demonstrating viable investment and customer markets for the solution. Describe the solution’s competitive landscape and potential to scale the proposed solution.
5. **(P1 and D2P2) Team’s Ability to Perform and Commercialize the Proposed Solution** – Identify the team, including all partnerships, and highlight relevant education, experience, and/or capabilities demonstrating the ability to develop the solution AND adapt it to prospective AF customer needs. Full resumes, including a publications list, for the PI and other key technical personnel shall be included in Volume 5: Supplemental Documents.
6. **(P1 and D2P2) Defense Need** – Demonstrate knowledge of prospective AF End-User(s)/Customer(s) and their most reasonable use-case for your solution. Highlight previous DoD funding for the solution or underlying technology (e.g., AFOSR research grants, etc.). Include a description of the proposed

solution and how it compares to the user's current alternative. If applicable, reference a Strategic Capability area, as described in Section 2.1.

7. **(P1 and D2P2) Objectives and Key Metrics** – The content of this slide will depend on the proposal's Phase:
  - (a) **P1** – Enumerate the specific Phase I objectives, including R/R&D effort's methods to determine the proposed approach's feasibility. Describe how success will be measured in helping the prospective users and the plan to identify stakeholders other than end-users, e.g. safety, test or certification authorities, cybersecurity, acquisition specialists supporting prospective end-users, etc.
  - (b) **D2P2** - Enumerate the specific Phase II objectives, including the R/R&D adaptations or changes to the non-Defense commercial solution. This should include all required to meet the AF end-user's/customer's needs and/or T&E to be performed on the solution. Describe how success/failure will be measured during the solution's trial.
  
8. **(P1 Only) Work Plan Outline (including Subcontractors' Efforts)**: Provide a clear description of the P1 approach. Indicate what tasks are planned, how and where the work will be conducted, a schedule of major events, and the final product(s) to be delivered. The Phase I effort should attempt to determine the technical feasibility of the proposed concept. Include an outline of the work plan in the following format:
  - **Scope**: List the major requirements and specifications of the effort.
  - **Task Outline**: Provide a brief outline of the work to be accomplished over the span of the Phase I effort.
  - **Deliverables**
  - **Kickoff meeting** within 30 calendar days of contract start
  - **Progress report (Only 1 for AF Special Topics)**
  - **Final report** with SF 298 and DD Form 882
  
9. **(P1 and D2P2) Transition Plan** – Describe your plan to transition your solution into the Air Force.
  - (a) **P1** – Describe \*briefly\* how your proposed solution could integrate with the existing efforts of your proposed Air Force customer. The list of high-level Air Force 'Customers' (Program Executive Offices) can be found here:  
<https://www.dropbox.com/s/e00ljab5qjddb9d/AF%20Acquisitions%20%28PEOs%29%20Cheat%20Sheet.pdf?dl=0>
  - (b) **D2P2** - Reference the specific transition strategy with your identified Defense Customer (as outlined in your signed Customer Memorandum)
  
10. **(D2P2 Only) RDT&E Nature of the Proposed Work** – Reference section 4.4.16 of the solicitation, 'Identifying RDT&E in SBIR/STTR Proposals', and communicate how the proposed effort constitutes Research, Development, Test and/or Evaluation (RDT&E).
  
11. **(P1 and D2P2) Related Work** – Describe significant activities directly related to the proposed effort, including any conducted by the PI, proposing firm, consultants, or others. Describe these activities' interface with the proposed project and discuss planned coordination with outside sources. The technical volume must persuade reviewers of the proposer's awareness of the state-of-the-art in the specific topic. Describe similar previous and parallel work not directly related to the proposed effort. Provide the following: (1) short description, (2) client POC name/phone number, and (3) completion date. Describe Defense customers and interviews with them, if any. Describe the Defense customers and interviews with them, if any. As RDT&E programs, SBIR/STTR efforts are subject to scientific and technical literature searches in order to establish technical baseline, avoid duplication, and justify funding IAW AFI 61-201, *Management of Scientific and Technical Information (STINFO)* (29 January 2019) and AFRL/CA guidance, *Streamlined and Waivered SBIR/STTR Specified Requirements* (05 Aug 2019).

12. **(P1 and D2P2) Clearances/Certifications/Approvals/Registrations** – Include the DUNS, CAGE code, and SBA SBIR/STTR ID number. If the firms does not have these numbers, include the date on which the application was submitted. Note: A valid CAGE code is required at submission or the proposal may be disqualified.
- (a) **D2P2** - Also identify the applicable clearances, certifications, approvals and/or waivers required to conduct the Phase II RDT&E effort and outline the plan for ensuring timely completion of said authorizations.

**SLIDES TO INCLUDE AS APPLICABLE** – Include the following slides if they apply to the proposed effort. If not, do not include them in the slide deck.

13. **(P1 and D2P2) Foreign Citizens.** Identify any foreign citizens or individuals holding dual citizenship expected to be involved on this project as a direct employee, subcontractor, or consultant. For these individuals, please specify their country of origin, the type of visa or work permit under which they are performing, and the tasks they will be assigned for the proposed effort.
- (a) Offerors frequently assume individuals with dual citizenship or a work permit will be allowed to work on a SBIR project and do not report them. This is not necessarily the case. The proposal will be rejected if the requested information is not provided. Therefore, firms should report all foreign citizens expected to be involved on this project. The firm may be asked to provide additional information during negotiations in order to verify the foreign citizen’s eligibility to participate.
  - (b) Supplemental information provided in response to this paragraph will be protected in accordance with the Privacy Act (5 U.S.C. 552a), if applicable, and the Freedom of Information Act (5 U.S.C. 552(b)(6)).
14. **(P1 and D2P2) Facilities/Equipment.** Describe available instrumentation and physical facilities necessary to carry out the effort. Justify equipment purchases, including detailed pricing information in the Cost Volume. Verify facilities where the proposed work will be performed meet environmental laws and regulations of Federal, state (name), and local governments. This includes, 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. **(P1 and D2P2) Prior, Current, or Pending Support of Similar Proposals or Awards.** If a proposal submitted in response to this CSO is substantially the same as another proposal previously, currently, or pending award by another AF organization, DoD component, or Federal agency, the offeror must state so on the Proposal Cover Sheet and provide the following information:
- (a) Other entity’s name and the topic number under which the proposal was or will be submitted, or from which an award is pending or has been received.
  - (b) Proposal submission or award date.
  - (c) Proposal title.
  - (d) Principal investigator’s name for each proposal submitted or award.
  - (e) Title, number, and date of CSO/solicitation(s) under which the proposal was submitted, will be submitted, or under which award is pending or has been received.
  - (f) If award was received, provide contract number.
16. **(P1 and D2P2) Technical Data Rights (Assertions):** Rights in technical data, including software, developed under the terms of any contract resulting from proposals submitted in response to this CSO generally remain with the contractor. The Government obtains a royalty-free license to use the technical data for Government purposes commencing with contract award and ending five years after project completion. This data should be marked with the restrictive legend specified in DFARS 252.227-7018. See Section 11.5 for additional discussion. Upon expiration of the twenty-year restrictive license, the Government has unlimited rights in the SBIR data. During the license period, the Government may not



release or disclose SBIR data to any person other than its support services contractors except (1) for evaluation purposes; (2) as expressly permitted by the contractor; or (3) for use, release, or disclosure necessary for emergency repair or overhaul of items operated by the Government. See DFARS clause 252.227-7018, "Rights in Noncommercial Technical Data and Computer Software – Small Business Innovation Research (SBIR) Program."

Offerors wishing to assert data rights shall include the following table in the proposal:

Technical Data or Computer Software to be Furnished With Restrictions (Be as specific as possible!)	Basis for Assertion <ul style="list-style-type: none"> <li>• None</li> <li>• Developed exclusively at private expense</li> <li>• Developed partially at private expense</li> </ul>	Asserted Rights Category <ul style="list-style-type: none"> <li>• None</li> <li>• Government Purpose Rights</li> <li>• Limited Rights (Technical Data)</li> <li>• Restricted Rights (Software)</li> <li>• Specifically Negotiated License</li> <li>• Rights in SBIR Data</li> </ul>	Name of Person Asserting Restrictions
(LIST)	(LIST)	(LIST)	(LIST)

If a proposer plans to submit assertions IAW DFARS 252.227-7017, identification and assertion of use, release, or disclosure restrictions MUST be included with the proposal submission. If selected, the contract will not be awarded until assertions are negotiated and/or approved.

## 14.2 Appendix B – Certification Questions and Coversheet Supplement

**Certification/Eligibility Check:** The online coversheet asks many questions and, depending on the answers, more information may be needed. The list of the questions is reflected below along with any additional information needed; required additional information should be provided in Volume 5, Supporting Documents. Consolidate all required items below (including the question that triggered the requirement) into a single .pdf file with the title “Coversheet Supplement”.

- 1) Do you allow for the release of contact information to Economic Development Organizations?  
Either answer is awardable.
- 2) Are you a small business as described in section 3.15 of this CSO, with no more than 500 employees including affiliates?
  - i. If your firm is NOT an eligible small business, your proposal will be disqualified.
- 3) Does your business concern meet the ownership and control requirements in 13 CFR 121.702?
  - i. If your firm does NOT meet the ownership and control requirements, your proposal will be disqualified.
- 4) Is 50% or more of your firm owned or managed by a corporate entity?
  - i. **(If YES, additional information required in Volume 5)** If YES, and the corporate entity is also a small business as described in section 3.15 of this CSO, please include in this section a description of the corporate relationship, including other affiliates of the owning corporate entity.
  - ii. If the firm is 50% or more owned or managed by a corporate entity that is not a small business, the proposal will be disqualified.
- 5) At a minimum, will two-thirds (for Phase I) or half (for Phase II) the research and/or analytical work be carried out by your small business as described in section 4.2 of this CSO?
  - i. If your firm will NOT perform the prescribed percentage of the research and/or analytical work, your proposal will be disqualified.
- 6) Is primary employment of the principal investigator with your firm as described in section 4.2 of this CSO?
  - i. If primary employment of the Principal Investigator for this project is NOT with the firm at award and throughout performance, the proposal will be disqualified.
- 7) Has your firm been convicted of a fraud-related crime involving SBIR and/or STTR funds or found civilly liable for a fraud-related violation involving Federal funds?
  - i. If your firm has been convicted of a fraud-related crime involved SBIR and/or STTR funds, your proposal will be disqualified.
- 8) Has your firm’s Principal Investigator (PI) or Corporate Official (CO), or owner been convicted of a fraud-related crime involving SBIR and/or STTR funds or found civilly liable for a fraud-related violation involving Federal funds?
  - i. If the Principal Investigator or Corporate Official has been convicted of a fraud-related crime involved SBIR and/or STTR funds, your proposal will be disqualified.
- 9) Has your firm met the performance benchmarks in section 3.1 of this CSO and listed by the SBA on their website as eligible to participate? Either answer is awardable.

- 10) Is your firm registered in the SBA's venture capital database as majority-owned by venture capital operating companies, hedge funds, or private equity firms?
- i. **(If YES, additional information required in Volume 5)** If YES, please state whether the VCOC, hedge fund, or private equity firm is also a small business as defined by the SBA. If so, then the VCOC, hedge fund, or private equity firm may count as an 'affiliate' and their employee numbers will need to be added to your employee total.
  - ii. If your firm is majority-owned by venture capital operating companies, hedge funds, or private equity firms, your proposal will be disqualified.
- 11) Is your firm more than 50% owned by a single Venture Capital Owned Company (VCOC), hedge fund, or private equity firm?
- i. **(If YES, additional information required in Volume 5)** If YES, please state whether the VCOC, hedge fund, or private equity firm is also a small business as defined by the SBA. If so, then the VCOC, hedge fund, or private equity firm may count as an 'affiliate' and their employee numbers will need to be added to your employee total.
  - ii. If your firm is more than 50% owned by a single venture capital operating company, hedge fund, or private equity firm, your proposal will be disqualified.
- 12) Is your firm more than 50% owned by multiple business concerns that are VCOCs, hedge funds, or private equity firms?
- i. If your firm is more than 50% owned by multiple venture capital operating companies, hedge funds, or private equity firms, your proposal will be disqualified.

**NOTE (applies to questions 10, 11, and 12):** If questions 10 or 11 are answered 'YES', then explain the ownership structure of the firm and its investors. If the VCs, hedge funds or PE firms owning equity in the company are themselves small businesses as defined by the SBA, the proposal may be still eligible for award. More information can be found here:

[https://www.jhuapl.edu/vendorforms/forms/data\\_rights\\_assertion\\_table.pdf](https://www.jhuapl.edu/vendorforms/forms/data_rights_assertion_table.pdf).

- 13) Number of employees including all affiliates (average for preceding 12 months):
- i. If your firm and affiliates have employed, on average over the last 12 months, more than 500 employees, your proposal will be disqualified.
- 14) Is your firm affiliated as set forth in 13 CFR 121.103?
- i. **(If YES, additional information required in Volume 5)** If yes, then please detail your affiliations as described at <https://www.sba.gov/document/support--affiliation-guide-size-standards>.
  - ii. Note: This may include investors, i.e., VCs, hedge funds or PE firms, and their other controlled entities, if they own a controlling share of the company.

**NOTE (applies to questions 13 and 14):** A business that is wholly or substantially owned by investment companies or development companies licensed or qualified under the Small Business Investment Act of 1958 (SBIA), they are not considered affiliates of those investment companies or development companies.

- 15) As defined by SBA: All answers may be "yes" or "no" without impacting eligibility.
- i. Are you a socially or economically disadvantaged small business?
  - ii. Are you a Woman-Owned small business (WOSB)?
  - iii. Are you a certified HUBZone small business concern?
  - iv. Are you a Service-Disabled Veteran-Owned small business (SDVOSB)?

- 16) Has the Defense Contracting Audit Agency (DCAA) or other agreed upon agency, performed a review of the firm’s accounts or records in connection with Government contracts or subcontracts within the past 12 months? Either answer is awardable.
- 17) Does the proposed cost include Technical and Business Assistance (TABAs)? The AF does not allow for TABAs.
- 18) Has a proposal for essentially equivalent work (Section 3.3 of this CSO) been submitted to other US government agencies or DOD components?
- i. **(If YES, additional information required in Volume 5)** If a proposal submitted in response to this CSO is substantially the same as another proposal that was funded, is now being funded, or is pending with another Federal Agency, or another or the same DoD Component, you must reveal this on the Proposal Cover Sheet (Volume 1) and provide the following information in the Coversheet Supplement:

Name of Federal Agency to which the Proposal was submitted, or from which an award is expected or has been received	Date of proposal submission or date of award	Title of Proposal (if SBIR/STTR, include Proposal Number and SBIR/STTR topic number)	Name and Title of Principal Investigator for each proposal submitted or award received	Was awarded? If so, include contract number
(LIST)	(LIST)	(LIST)	(LIST)	(LIST)

The identification of similar proposals or awards is particularly important for the special topics, as they are broader in nature than many of the traditional SBIR/STTR topics. **Failure to disclose similar proposals or awards will result in your proposal being disqualified.** Additionally, reusing parts or whole proposals from previously awarded proposals will likely result in your proposal being deemed essentially equivalent.

- 19) Has a contract been awarded for any of the proposals listed above?
- i. If your firm has been awarded a contract from the US Government for essentially equivalent work, your proposal will be disqualified.
- 20) Are you submitting assertions in accordance with DFARS 252.227-7017 "Identification and assertions use, release, or disclosure restriction"?
- i. **(If YES, additional information required in Volume 5)** If you answered ‘yes’ to this question, you must include the table in Volume 5 of your proposal, which can be found at: [https://www.jhuapl.edu/vendorforms/forms/data\\_rights\\_assertion\\_table.pdf](https://www.jhuapl.edu/vendorforms/forms/data_rights_assertion_table.pdf)
- The contract cannot be awarded until assertions have been approved.
- ii. If claiming data rights assertions without including a Data Rights Assertions Table, the proposal will be disqualified.

NOTE - Rights in technical data, including software, developed under the terms of any contract resulting from proposals submitted in response to this CSO generally remain with the contractor, except that the Government obtains a royalty-free license to use such technical data only for

Government purposes during the period commencing with contract award and ending 20 years later. This data should be marked with the restrictive legend specified in DFARS 252.227-7018. Upon expiration of the 20 year restrictive license, the Government has Government Purpose Rights in the SBIR data. During the license period, the Government may not release or disclose SBIR data to any person other than its support services contractors except: (1) For evaluation purposes; (2) As expressly permitted by the contractor; or (3) A use, release, or disclosure that is necessary for emergency repair or overhaul of items operated by the Government. See DFARS clause 252.227-7018, "Rights in Noncommercial Technical Data and Computer Software – Small Business Innovation Research (SBIR) Program."

- 21) Is the firm proposing research utilizing human/animal subjects or recombinant DNA as described in section 3.11, 3.12, and 3.13 of the solicitation?
- i. **(If YES, additional information required in Volume 5)** If the firm intends to perform research involving 1) human subjects, 2) animal subjects, or 3) recombinant DNA molecules, please include the following information (add attachments as needed):
    - For 1) please provide a current Federal Assurance of Compliance with Federal regulation for human subject protection and evidence of completed appropriate training in human subject protection for all involved personnel from your firm;
    - for 2) documentation verifying review and approval for the research from the Institutional Animal Care and Use Committee; and for
    - 3) evidence of approval by the Institutional Biosafety Committee.
  - ii. Until such documents are provided, the firm cannot perform any work involving associated activities. This could lead to disqualification, depending on the effort's schedule.
- 22) Are teaming partners or subcontractors proposed?
- i. **(If YES, additional information required in Volume 5)** If yes, be sure to include this information in the proposal Coversheet (Volume 1), Cost Volume (Volume 3) and Supplemental Cost Information (Volume 5).
- 23) Is the firm proposing to use foreign nationals as defined in section 3.5 of the solicitation for work under the proposed effort?
- i. **(If YES, additional information required in Volume 5)** If yes, identify any foreign citizens or individuals holding dual citizenship expected to be involved on this project as a direct employee, subcontractor, or consultant. For these individuals, please specify their countries of origin, the type of visas or work permits under which they are performing, and the tasks they are anticipated to perform for this project, if awarded. The firm may be asked to provide additional information during negotiations to verify the foreign citizen's eligibility to participate the SBIR effort. Supplemental information provided in response to this paragraph will be protected in accordance with the Privacy Act (5 U.S.C. 552a), if applicable, and the Freedom of Information Act (5 U.S.C. 552(b) (6)). Proposals including the involvement of foreign nationals should include this table:

Full Name	Foreign National (Yes or No)	Country of Origin	Type of Visa or Work Permit Held	Description of Involvement (specific task(s) in the work plan)
(LIST)	(LIST)	(LIST)	(LIST)	(LIST)

- i. If the cognizant Government Program Manager does not concur with the individuals'

involvement or the information is not received by the specified date/time, the proposal maybe disqualified.

- 24) What percentage of the principal investigator's total time will be on the project?
- i. Any non-zero answer is awardable.
  - ii. **(If less than 25%, additional information required in Volume 5.)** If the answer is below 25%, please describe the principal investigator's other roles.
- 25) Is the principal investigator a woman? Either answer is awardable. This information is required for the SBA's Award Information Database.
- 26) Is the principal investigator socially/economically disadvantaged? Either answer is awardable. This information is required for the SBA's Award Information Database.

### 14.3 Appendix C – Direct-to-Phase II White Paper Instructions (applies to AF211-DCSO1; may be used for AF211-DCSO2, revised as needed.)

The NTE 15-page white paper is mandatory for AF211-DCSO1. The white paper should cover the following items in the order given below. You may use this appendix as a template for the white paper if desired.

**Table of Contents:** Include a table of contents immediately following the Proposal Cover Sheet. Does not count against the 15 page limit.

**Glossary:** Include a glossary of acronyms and abbreviations used in the proposal. Does not count against the 15 page limit.

#### 1 Technical Summary

- 1.1 **Identification and Significance of the Problem or Opportunity:** Briefly describe the specific problem/opportunity addressed in the feasibility study and its relationship to Phase II/Direct-to-Phase II.
- 1.2 **Non-Defense Commercial Solution:** Describe the non-Defense commercial solution, including its use by non-Defense commercial customers. Describe its technical specifications as well as the qualitative and quantitative value it brings to the solution’s users. Relevant supporting data such as journal articles, literature, Government publications, etc., should be contained or referenced in the proposal and will count toward the page limit. Additionally, answer the following questions:
  - Is the proposed item “of a type”, i.e., similar to a commercial item, customarily used by the public or by non-Governmental entities for non-Governmental purposes?
  - Has the proposed item been (i) sold, leased, or licensed to the public; OR (ii) offered for sale, lease, or license to the public?
  - Include, where applicable pre-sales, pilots, sales, revenue, active users, subscriptions, downloads, and/or other forms of traction/adoption. Broad adoption and commercial success can be indicators of commercial potential and reduced technical risk, but are not mandated. This is an RDT&E solicitation, not a Commercial-Off-the-Shelf resale solicitation. See FAR 2.101 for a full definition of commercial items.
- 1.3 **Proposed Adaptation of Non-Defense Commercial Solution:** Describe the proposed R/R&D adaptation of or the T&E to be performed on the non-Defense commercial solution to meet a US Government end-user need. In this section, answer the following questions:
  - How similar is the modified item to others sold in the commercial marketplace to non-US Government customers?
  - Does the supplier perform similar modifications for non-US Government customers?
  - Do AF unique modifications change the product’s essential use and purpose?
  - Are there differences in the production/manufacturing/delivery processes used to perform the modification for the Federal Government versus non-Government customers?
  - What are the quantitative benefits expected for identified AF end-users?
  - When adapting the commercial solution, what is the intended Commercial-Off-the-Shelf (COTs) or commercial product/process modification? Explain.
  - If applicable, what Test & Evaluation will be performed on the solution, and what Technical or Weapons System will the solution be integrated into. What is the desired outcome of that T&E. See Section 4.4.16 for more information on identifying RDT&E in SBIR/STTR Proposals.
- 1.4 **Phase I ‘Feasibility Study’ Results:** The proposal shall detail the solution’s ability to meet AF end-users’ and customers’ needs. These results shall be framed in the context of AF End User and Customer Exploration

previously performed for the effort.

- Scientific or Technical R/R&D effort, including research questions, methods, results, and relevant literature.
- AF End-User and Customer Exploration Methods: Describe methods, both successful and unsuccessful, used to perform technical and scientific feasibility analysis, as well as AF Customer and End-User Exploration, for adapting the non-Defense commercial solution to a specific AF end-user's needs. This should include detailed reports of at least one in-depth interview with an AF End-User and one in-depth interview with an AF Customer.
- Empowered and Committed AF End-Users: List and describe specific AF end-users, e.g., operators, willing to support further R&D, testing, evaluation, or trial for the proposed Phase II solution. Specifically explain how the proposed solution meets the end-user(s) needs. Describe in as much detail as possible the firm's understanding of the AF end-user's problem or benefit area.
- Empowered and Committed AF Customers: List and describe the specific AF customer, e.g., a Program Manager at a system program office, willing to assist with transitioning the proposed Phase II solution into a Phase III.
- Joint organizations may be the End-User or Customer, but the Customer Memorandum must clearly articulate how the Joint End-User/Customer represents a validated Air Force need. In these cases, the Primary TPOC must be from the Air Force.
- Empowered and Committed US Non-AF Government End-Users: Commitments from US non-AF Government end-users will also be considered. However, there MUST be at least one AF/Joint end-user and customer as described above.
- **NOTE: Inclusion of a Customer Memorandum is mandatory.** A template is available at Attachment 1. This Customer Memorandum formally captures interest from the empowered and committed AF end-users and customers described above. Proposals without a signed Customer Memorandum or proposals that do not follow the mandatory template will not be considered. Customer Memoranda must be uploaded to the '*Letters of Support*' Section in Volume 5, Supporting Documents.

1.5 **Phase II Technical Objectives and Key Results:** Clearly describe three to five objectives of the Phase II RDT&E effort. These objectives should be tied to specific proposed Phase II trial tasks. These objectives shall be qualitative and specific to the participating AF end-user(s). The objectives shall be tied to specific time periods, tangible and unambiguous regarding anticipated results. These objectives shall describe end-state outcomes (i.e. what will be done), rather than processes or activities (i.e., how it will be done). Each objective shall be accompanied by three to five specific 'key results', measurable throughout Phase II performance. These key results will likely be quantitative in nature, e.g., deliver X widgets to AF end user. Non-quantitative key results shall be clearly measurable.

- Required Stakeholders Needed to Accomplish Phase II: List anticipated interactions with stakeholders necessary to accomplish the Phase II trial. Such stakeholders may include lawyers, test range officials, information assurance officials, system program office engineers, etc. Clearly describe Phase II trial completion requirements not within the offeror's immediate control and plans to work within those constraints.

NOTE: This includes clearances, e.g., DD Form 254, Authorities to Operate (ATO) on DoD networks, etc. This is a crucial proposal component.

## 2 Phase II Work Plan

Proposals including private investment cost match should include the tasks to be supported with those funds in the Work Plan. Tasks to be executed with private investment should be discernable from SBIR-funded tasks. If awarded, the SBIR-funded and private investment-funded tasks are included in different parts of the award document. The Work Plan should be structured around the effort's purpose and requirements set forth in clear,



specific, and objective terms with measurable outcomes. The work plan has two mandatory features; (1) Work stated in terms of outcomes or results, rather than performance methods, and (2) measurable performance standards, including assessment methods for these standards. The plan should include the location and mechanics for accomplishing the proposed approach. Phase II projects shall attempt to demonstrate the Phase I-like effort's technical feasibility, including transition results to the private sector or Government customer.

- 2.1 **Scope:** List the effort's major requirements and specifications.
- 2.2 **Task Outline:** Provide an outline of work to be accomplished throughout the effort. For proposals with government funding commitments (where the funds will be sent to AFRL/SBRK to be included in the Phase II effort), clearly identify the tasks that will be funded by the SBIR program and the tasks that will be funded by the government organization that is committing funds.
- 2.3 **Milestone Schedule:** Include the mutually agreed upon milestone schedule from your signed Customer Memorandum. Each milestone marks the completion of a required deliverable (e.g., prototype component, test plan, prototype production, final report submission, etc.). Status reports cannot be milestones but are deliverables as described below. Describe how the milestones will be identified as completed. Milestone payments shall reflect justifiable costs to achieve completion. Supporting rationale, e.g., invoices from non-Defense commercial customers, will be included in Volume 5, Supporting Documents. NOTE: Pricing information from non-Defense commercial customers is likely proprietary and should be marked as such.
- 2.4 **Deliverables:** Include a section clearly describing the specific sample/prototype hardware/software to be delivered, as well as data deliverables, schedules, and quantities.
- 2.5 **Unique item identification:** IAW DFARS 252.211-7003, Item Identification and Valuation, may be required. For hardware, more information may be found at <https://www.acq.osd.mil/dpap/dars/dfars/html/current/252211.htm#252.211-7003>.
- 2.6 **Required Reports:** At a minimum, the following reports are required for ALL Phase II awards and must be included in the Work Plan. All are considered scientific and technical reports.
  - **Final Report:** The draft is due 30 calendar days after completion of the Phase II technical effort. The first page of the final report will include a single-page project summary, identifying the purpose of the work, providing a brief description of the effort accomplished, and listing potential results applications. The summary may be published by DoD. Therefore, it shall not contain proprietary information. It shall also contain project objectives met, work completed, results obtained, and technical feasibility estimates.
  - **Status Reports:** Status reports are due quarterly, at a minimum. These shall be concise documents describing progress in meeting the selected AF end-user's needs. Each status report shall be no longer than 15 slides. The status reports shall include progress toward Phase II objectives and key results, as well as a quantitative measure between 0 and 1 of progress toward each.
  - **Phase II Summary Report:** The Phase II summary report is due at technical effort completion. It shall be submitted via email to the cognizant AF CO/AO. Reports shall not exceed 700 words, including a description of the technology and anticipated applications/benefits for Government and/or private sector use.
  - **Additional Reporting:** The AF 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.

- **Additional Reporting Requirement for Efforts with Private funding commitments:** The final Phase II status report must include a brief accounting, in company format, regarding investor funds' expenditures to support the project.

2.7 **Safety Related Deliverables:** Safety requirements shall be followed in the proposed project's design and performance. The Work Plan 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.

### 3 Commercialization Strategy

3.1 **Commercialization Plan:** The SBA and DoD require Phase II proposals include a commercialization plan. The plan should briefly describe the commercialization potential for the proposed project's anticipated results, as well as plans for exploitation in both the Defense and non-Defense markets. The plan must include the following:

- **Company Information.** Focused objectives/core competencies; specialization area(s); products with significant sales; and history of previous Federal and non-Federal funding, regulatory experience, and subsequent commercialization.
- **Customer and Competition.** Clear description of key technology objectives, current competition, and advantages compared to competing products or services; description of hurdles to innovation acceptance.
- **Market.** Milestones, target dates, market size analysis, and estimated market share after first year and fifth year sales; plan to obtain market share.
- **Intellectual Property.** Patent status, technology lead, trade secrets, or other demonstration of a plan to achieve sufficient protection to realize the commercialization stage and attain at least a temporal competitive advantage.
- **Financing.** Plans for securing necessary funding in Phase II.
- **Assistance and Mentoring.** Plans for securing needed technical or business assistance through mentoring, partnering, or through arrangements with State assistance programs, Small Business Development Centers, FFRDCs, Manufacturing Extension Partnership centers, the AF Mentor-Protégé Program, or other assistance providers.

Specifically address the following questions:

- 1) What is the first product into which the technology will be incorporated?
- 2) Who are the customers and what is the estimated market size? How much money is needed to bring the technology to market? How will the funding be raised?
- 3) Does the company possess marketing expertise? If not, how will it be obtained?
- 4) What companies are the proposing firm's competitors, and what is the firm's price and/or quality advantage over them?
- 5) Are there private sector or non-SBIR/STTR funding sources demonstrating commitment to Phase II

results? This includes both outside private investment such as venture capital, angel investors, state or local government programs, etc., and internal funding sources, such as funding from affiliates. Please delineate past and potential future investments, e.g., currently raising a round, have signed term sheets. Also note if commitments are conditional on receiving a Phase II award.

- 6) Has your company received or will it receive any foreign investment? If so, what is the source and the received or anticipated amount?
- 7) Are there Phase III (Government or commercial) follow-on commitments for the proposed technology?
- 8) Are there any other commercial potential indicators? Consider pre-sales, pilots, sales, revenue, active users, subscriptions, downloads, and/or other forms of traction/adoption and commercial signals of interest, demand, and faith in your team/solution.
- 9) What is the last 12 months' total revenue from non-Defense commercial solution sales?
- 10) State the proposed Phase II's anticipated end results, specifically plans to transition to a Phase III with a potential Government customer.

3.2 **Military Applications/DoD Customers:** Briefly describe the proposed solution's existing potential military requirement. Identify the DoD agency/organization most likely to become the solution's customer. In many cases the potential DoD customer will be different than the end user. For example, the user may be in an operational flying unit and the customer in a system program office for the related aircraft. State whether a DoD agency has expressed interest in, or commitment to, a non-SBIR, Federally-funded Phase III effort or a Phase II enhancement with matching SBIR funds. If so, please include relevant details regarding funding availability, e.g., fiscal year, for solution transition, and other relevant funding details, such as funding type, e.g., RDT&E, Operations and Maintenance, etc. Include agency points of contact names, email addresses, and telephone numbers.

### 3.3 **Non-Defense Commercial Customers**

- Past revenue from commercial customers of the proposed non-Defense commercial solution. Clearly list non-Defense commercial customers, including revenue received as a result of the proposed solution's sales. Do not include other solutions the company may offer.
- Potential revenue-generating projects directly related to the proposed non-Defense commercial solution or adaptation thereof. Separately list potential revenue-generating projects with Defense or non-Defense customers directly related to the proposed solution(s). NOTE: On-going or completed projects/sales, such as those in section 2.5.1, are strongly preferred to potential projects.

4 **Key Personnel:** Identify key personnel involved in the project, including subcontractors and consultants. The offeror shall address qualifications for conducting RDT&E in addition to qualifications for commercialization. Include information regarding education, experience, and citizenship. A technical resume for the PI, including publications, if any, shall be included.

4.1 **Non-U.S. Citizens:** Identify all non-U.S. citizens and dual citizens proposed 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 held, and explanation of their anticipated involvement level in the project, i.e., tasks to be assigned. 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 precludes foreign citizens from acting in key positions such as Principal Investigator, Senior Engineer, etc. Additional information may be requested during negotiations to verify foreign citizens' eligibility.

4.2 **Investors and Partners:** Identify company investors, shareholders, or strategic advisors making significant contributions to support the Phase II effort. Explain how their past experiences or track record will support the technical or commercialization efforts. This could include leveraging other entities in company investors'

portfolios or accessing other capital sources.

- 5 **Related Work:** Describe significant activities directly related to the proposed effort, including previous programs conducted by the Principal Investigator, proposing firm, consultants, or others, and their application to the proposed project. List reviewers providing comments regarding the offeror's knowledge of the state-of-the-art in the specific approach proposed. Specify related Government efforts, SBIR or otherwise, awarded, previously proposed, or intended for proposal.

**Attachment 4**  
**Department of Defense (DoD)**  
**Small Business Innovation Research (SBIR)/**  
**Small Business Technology Transfer (STTR) Program**

**CONTRACTOR CERTIFICATION REGARDING**  
**PROVISION OF PROHIBITED VIDEO SURVEILLANCE AND**  
**TELECOMMUNICATIONS SERVICES AND EQUIPMENT**

<b>Contractor's Name</b>	
<b>Company Name</b>	
<b>Office Tel #</b>	
<b>Mobile #</b>	
<b>Email</b>	

**Name of person authorized to sign:**

**Signature of person authorized:**

**Date:**

*The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.*

**FAR CLAUSES INCORPORATED IN FULL TEXT:**

**52.204-24 REPRESENTATION REGARDING CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT (AUG 2020)**

The Offeror shall not complete the representation at paragraph (d)(1) of this provision if the Offeror has represented that it “does not provide covered telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument” in the provision at 52.204-26, Covered Telecommunications Equipment or Services—Representation, or in paragraph (v) of the provision at 52.212-3, Offeror Representations and Certifications-Commercial Items.

(a) *Definitions.* As used in this provision-

*Backhaul, covered telecommunications equipment or services, critical technology, interconnection arrangements, reasonable inquiry, roaming, and substantial or essential component* have the meanings provided in the clause 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

**(b) Prohibition.** (1) Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. Nothing in the prohibition shall be construed to—

(i) Prohibit the head of an executive agency from procuring with an entity to provide a service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(ii) Cover telecommunications equipment that cannot route or redirect user data traffic or cannot permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(2) Section 889(a)(1)(B) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2020, from entering into a contract or extending or renewing a contract with an entity that uses any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. This prohibition applies to the use of covered telecommunications equipment or services, regardless of whether that use is in performance of work under a Federal contract. Nothing in the prohibition shall be construed to—

(i) Prohibit the head of an executive agency from procuring with an entity to provide a service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(ii) Cover telecommunications equipment that cannot route or redirect user data traffic or cannot permit visibility into any user data or packets that such equipment transmits or otherwise handles.

**(c) Procedures.** The Offeror shall review the list of excluded parties in the System for Award Management (SAM) (<https://www.sam.gov>) for entities excluded from receiving federal awards for “covered telecommunications equipment or services.”

**(d) Representations.** The Offeror represents that—

**(1)** It  **will**,  **will not** provide covered telecommunications equipment or services to the Government in the performance of any contract, subcontract or other contractual instrument resulting from this solicitation. The Offeror shall provide the additional disclosure information required at paragraph (e)(1) of this section if the Offeror responds “will” in paragraph (d)(1) of this section; and

**(2)** After conducting a reasonable inquiry, for purposes of this representation, the Offeror represents that—

It  **does**,  **does not** use covered telecommunications equipment or services, or use any equipment, system, or service that uses covered telecommunications equipment or services. The Offeror shall provide the additional disclosure information required at paragraph (e)(2) of this section if the Offeror responds “does” in paragraph (d)(2) of this section.

**(e) Disclosures.** (1) Disclosure for the representation in paragraph (d)(1) of this provision. If the Offeror has responded “will” in the representation in paragraph (d)(1) of this provision, the Offeror shall provide the

following information as part of the offer:

(i) For covered equipment—

(A) The entity that produced the covered telecommunications equipment (include entity name, unique entity identifier, CAGE code, and whether the entity was the original equipment manufacturer (OEM) or a distributor, if known);

(B) A description of all covered telecommunications equipment offered (include brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); and

(C) Explanation of the proposed use of covered telecommunications equipment and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(1) of this provision.

(ii) For covered services—

(A) If the service is related to item maintenance: A description of all covered telecommunications services offered (include on the item being maintained: Brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); or

(B) If not associated with maintenance, the Product Service Code (PSC) of the service being provided; and explanation of the proposed use of covered telecommunications services and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(1) of this provision.

(2) Disclosure for the representation in paragraph (d)(2) of this provision. If the Offeror has responded “does” in the representation in paragraph (d)(2) of this provision, the Offeror shall provide the following information as part of the offer:

(i) For covered equipment—

(A) The entity that produced the covered telecommunications equipment (include entity name, unique entity identifier, CAGE code, and whether the entity was the OEM or a distributor, if known);

(B) A description of all covered telecommunications equipment offered (include brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); and

(C) Explanation of the proposed use of covered telecommunications equipment and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(2) of this provision.

(ii) For covered services—

(A) If the service is related to item maintenance: A description of all covered telecommunications services offered (include on the item being maintained: Brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); or

(B) If not associated with maintenance, the PSC of the service being provided; and explanation of the

proposed use of covered telecommunications services and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(2) of this provision.

(End of provision)

**52.204-25 PROHIBITION ON CONTRACTING FOR CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT (AUG 2020)**

(a) *Definitions.* As used in this clause—

*Backhaul* means intermediate links between the core network, or backbone network, and the small subnetworks at the edge of the network (*e.g.*, connecting cell phones/towers to the core telephone network). Backhaul can be wireless (*e.g.*, microwave) or wired (*e.g.*, fiber optic, coaxial cable, Ethernet).

*Covered foreign country* means The People's Republic of China.

*Covered telecommunications equipment or services* means—

(1) Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities);

(2) For the purpose of public safety, security of Government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities);

(3) Telecommunications or video surveillance services provided by such entities or using such equipment; or

(4) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

*Critical technology* means—

(1) Defense articles or defense services included on the United States Munitions List set forth in the International Traffic in Arms Regulations under subchapter M of chapter I of title 22, Code of Federal Regulations;

(2) Items included on the Commerce Control List set forth in Supplement No. 1 to part 774 of the Export Administration Regulations under subchapter C of chapter VII of title 15, Code of Federal Regulations, and controlled—

(i) Pursuant to multilateral regimes, including for reasons relating to national security, chemical and biological weapons proliferation, nuclear nonproliferation, or missile technology; or

(ii) For reasons relating to regional stability or surreptitious listening;



(3) Specially designed and prepared nuclear equipment, parts and components, materials, software, and technology covered by part 810 of title 10, Code of Federal Regulations (relating to assistance to foreign atomic energy activities);

(4) Nuclear facilities, equipment, and material covered by part 110 of title 10, Code of Federal Regulations (relating to export and import of nuclear equipment and material);

(5) Select agents and toxins covered by part 331 of title 7, Code of Federal Regulations, part 121 of title 9 of such Code, or part 73 of title 42 of such Code; or

(6) Emerging and foundational technologies controlled pursuant to section 1758 of the Export Control Reform Act of 2018 (50 U.S.C. 4817).

*Interconnection arrangements* means arrangements governing the physical connection of two or more networks to allow the use of another's network to hand off traffic where it is ultimately delivered (e.g., connection of a customer of telephone provider A to a customer of telephone company B) or sharing data and other information resources.

*Reasonable inquiry* means an inquiry designed to uncover any information in the entity's possession about the identity of the producer or provider of covered telecommunications equipment or services used by the entity that excludes the need to include an internal or third-party audit.

*Roaming* means cellular communications services (e.g., voice, video, data) received from a visited network when unable to connect to the facilities of the home network either because signal coverage is too weak or because traffic is too high.

*Substantial or essential component* means any component necessary for the proper function or performance of a piece of equipment, system, or service.

**(b) Prohibition.** (1) Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. The Contractor is prohibited from providing to the Government any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR 4.2104.

(2) Section 889(a)(1)(B) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2020, from entering into a contract, or extending or renewing a contract, with an entity that uses any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR 4.2104. This prohibition applies to the use of covered telecommunications equipment or services, regardless of whether that use is in performance of work under a Federal contract.

**(c) Exceptions.** This clause does not prohibit contractors from providing—

(1) A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(2) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

**(d) Reporting requirement.** (1) In the event the Contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the Contractor is notified of such by a subcontractor at any tier or by any other source, the Contractor shall report the information in paragraph (d)(2) of this clause to the Contracting Officer, unless elsewhere in this contract are established procedures for reporting the information; in the case of the Department of Defense, the Contractor shall report to the website at <https://dibnet.dod.mil>. For indefinite delivery contracts, the Contractor shall report to the Contracting Officer for the indefinite delivery contract and the Contracting Officer(s) for any affected order or, in the case of the Department of Defense, identify both the indefinite delivery contract and any affected orders in the report provided at <https://dibnet.dod.mil>.

**(2) The Contractor shall report the following information pursuant to paragraph (d)(1) of this clause:**

(i) **Within one business day from the date of such identification or notification:** The contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

(ii) **Within 10 business days** of submitting the information in paragraph (d)(2)(i) of this clause: Any further available information about mitigation actions undertaken or recommended. In addition, the Contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

**(e) Subcontracts.** The Contractor shall insert the substance of this clause, including this paragraph (e), in all subcontracts and other contractual instruments, including subcontracts for the acquisition of commercial items.

(End of clause)

## **52.204-26 COVERED TELECOMMUNICATIONS EQUIPMENT OR SERVICES-REPRESENTATION (DEC 2019)**

(a) *Definitions.* As used in this provision, “covered telecommunications equipment or services” has the meaning provided in the clause [52.204-25](#), Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

**(b) Procedures.** The Offeror shall review the list of excluded parties in the System for Award Management

(SAM) (<https://www.sam.gov>) for entities excluded from receiving federal awards for “covered telecommunications equipment or services”.

(c) *Representation.* The Offeror represents that it  **does**,  **does not** provide covered telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument.

(End of provision)

**Department of Defense (DoD)**  
**Small Business Innovation Research (SBIR) Program**  
**Small Business Technology Transfer (STTR) Program**

## DISCLOSURE OF OFFEROR'S OWNERSHIP OR CONTROL BY A FOREIGN GOVERNMENT

In accordance with DFARS provision 252.209-7002, an offeror is required to disclose, by completing this form (and adding additional pages, as necessary), any interest a foreign government has in the offeror when that interest constitutes control by a foreign government, as defined in DFARS provision 252.209-7002. If the offeror is a subsidiary, it is also required to disclose any reportable interest a foreign government has in any entity that owns or controls the subsidiary, including reportable interest concerning the offeror's immediate parent, intermediate parents, and the ultimate parent.

<b>DISCLOSURE</b>		
Offeror's Point of Contact for Questions about Disclosure	Name:	
	Phone Number:	
Offeror	Name:	
	Address:	
Entity Controlled by a Foreign Government	Name:	
	Address:	
Description of Foreign Government's Interest in the Offeror		
Foreign Government's Ownership Percentage in Offeror		
Identification of Foreign Government(s) with Ownership or Control		

### DFARS 252.209-7002 Disclosure of Ownership or Control by a Foreign Government (JUN 2010)

(a) Definitions. As used in this provision—

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(1) “Effectively owned or controlled” means that a foreign government or any entity controlled by a foreign government has the power, either directly or indirectly, whether exercised or exercisable, to control the election, appointment, or tenure of the Offeror’s officers or a majority of the Offeror’s board of directors by any means, e.g., ownership, contract, or operation of law (or equivalent power for unincorporated organizations).

(2) “Entity controlled by a foreign government”—

(i) Means—

(A) Any domestic or foreign organization or corporation that is effectively owned or controlled by a foreign government; or

(B) Any individual acting on behalf of a foreign government.

(ii) Does not include an organization or corporation that is owned, but is not controlled, either directly or indirectly, by a foreign government if the ownership of that organization or corporation by that foreign government was effective before October 23, 1992.

(3) “Foreign government” includes the state and the government of any country (other than the United States and its outlying areas) as well as any political subdivision, agency, or instrumentality thereof.

(4) “Proscribed information” means—

(i) Top Secret information;

(ii) Communications security (COMSEC) material, excluding controlled cryptographic items when unkeyed or utilized with unclassified keys;

(iii) Restricted Data as defined in the U.S. Atomic Energy Act of 1954, as amended;

(iv) Special Access Program (SAP) information; or

(v) Sensitive Compartmented Information (SCI).

(b) Prohibition on award. No contract under a national security program may be awarded to an entity controlled by a foreign government if that entity requires access to proscribed information to perform the contract, unless the Secretary of Defense or a designee has waived application of 10 U.S.C. 2536(a).

(c) Disclosure. The Offeror shall disclose any interest a foreign government has in the Offeror when that interest constitutes control by a foreign government as defined in this provision. If the Offeror is a subsidiary, it shall also disclose any reportable interest a foreign government has in any entity that owns or controls the subsidiary, including reportable interest concerning the Offeror’s immediate parent, intermediate parents, and the ultimate parent. Use separate paper as needed, and provide the information in the following format:

Offeror’s Point of Contact for Questions about Disclosure

(Name and Phone Number with Country Code, City Code and Area Code, as applicable)

Name and Address of Offeror

# ATTACHMENT 5

Name and Address of Entity Controlled by a Foreign Government

Description of Interest, Ownership Percentage, and Identification of Foreign Government

(End of provision)