

**DEPARTMENT OF THE AIR FORCE (DAF)
SMALL BUSINESS INNOVATION RESEARCH PROGRAM
COMMERCIAL SOLUTIONS OPENING (CSO)
DIRECT-TO-PHASE-II (D2P2) X24.6**

Proposal Submission Timelines

- **24 April 2024:** DAF begins accepting proposals
- **23 May 2024:** Full proposals due **no later than 12:00 p.m. ET**
- **Deadline for Receipt:** No exceptions will be made to the above submission deadline. DAF recommends early submission, as computer traffic intensifies near announcement closing. **Do not wait until the end of the submission period to submit proposal materials. DAF is not responsible for missed proposal submission due to system lag or inaccessibility.**

Proposal Submission Overview

- **A small business concern may only submit one (1) proposal in response to this solicitation.** Refer to Table 1 below for more details.
- All proposals must be prepared and submitted through the Defense SBIR/STTR Innovation Portal (DSIP), <https://www.dodsbirsttr.mil/>.
- Ensure applicant email address is accurate. DAF is not responsible for missed notifications due to applicants changing mailing addresses/email addresses/company points of contact after submission without notifying DAF.
- DSIP is the official portal for Defense SBIR/STTR proposal submission. Applicants are required to submit proposals via DSIP; proposals submitted by any other means will be disregarded. Applicants submitting through this site for the first time will be asked to register. Applicants are required to register for a Login.gov account and link it to their DSIP account.
- **Classified proposals are NOT accepted.**

SBIR/STTR 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.

DSIP Support Desk: Refer to the Customer Support Document at https://www.defensesbirsttr.mil/Portals/122/Documents/DSIP_Customer_Support.pdf for general information regarding the DoD SBIR/STTR process. For additional assistance with the DSIP application, please visit <https://www.dodsbirsttr.mil/submissions/learning-support/>.

- Email DSIP Support at DoDSBIRSupport@reisystems.com only for further assistance with issues pertaining directly to the DSIP application. Questions submitted to DSIP Support will be addressed in the order received during normal operating hours (Monday through Friday, 9:00 a.m. to 5:00 p.m. ET).
- Applicants are responsible for following ALL troubleshooting guidance provided by DSIP Support. Applicants are responsible for reengaging with DSIP Support if provided troubleshooting tips do not resolve applicant proposal submission issues. Applicant proposal submission failure is rarely, if ever, attributable to DSIP performance issues.

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Table 1: CSO Information at a Glance	
Solicitation Topic Numbers	AFX246-DPCSO1; AFX246-DPCSO2
Solicitation Topic Names	Direct-to-Phase-II Open Call for Innovative Defense-Related Dual-Purpose Technologies/Solutions with a Clear Air Force Stakeholder Need; Direct-to-Phase-II Open Call for Innovative Defense-Related Dual-Purpose Technologies/Solutions with a Clear Space Force Stakeholder Need
CSO Submission Deadline	23 May 2024 at 12:00pm (noon) ET; proposals submitted after this date will not be considered for award.
Maximum Period of Performance	Twenty-one (21) Months; proposals that exceed this duration will not be considered for award. Note, this is the TOTAL duration of the award. The DAF will not make distinctions between “technical” and “reporting” periods.
Maximum SBIR Funding Amount	\$1,250,000.00; proposals that exceed this amount will not be considered for award.
Technical Volume Page Limit	15 pages; include page numbers. Pages in excess of 15 will not be reviewed. Coversheet, Glossary, and Table of Contents do NOT count against the 15 page limit.
Technical Volume Format	White Paper
Minimum Performance of Work Requirement	A minimum of one-half (50%) of the research and/or analytical work must be performed by the proposing firm. The percentage of work is measured by both direct and indirect costs, not including profit. Occasionally, deviations from these Performance of Work requirements may occur. Each specific condition must be approved in writing. The Government will consider such requests only after individual proposals have been Selected for negotiations and award. The DAF is unable to consider such requests before that time.
Anticipated Number of Awards	The Government currently anticipates making approximately 131 awards under this CSO. The Government reserves the right to make no awards under this solicitation. Any per-award or per-topic funding caps are budgetary estimates

	<p>only, and more or less funding may become available. The Government is not responsible for costs incurred before award receipt. Multiple procurements are planned and anticipated to be awarded as a result of the topic. Each proposal is considered a separate procurement and will be evaluated on its own merit. The Government may award all, some, or none of the proposals received in response to this solicitation.</p>
<p>SBIR and STTR Extension Act of 2022 (Pub. L. 117-183)</p>	<p>This CSO incorporates mandatory foreign disclosure requirements and other important programmatic changes as required by the SBIR and STTR extension Act of 2022 (Pub. L. 117-183). Proposals that do not include the completed attachments Disclosures of Foreign Affiliations or Relationships to Foreign Countries (Attachment 8) and will be deemed non-compliant and will not receive an evaluation. Small business concerns are highly encouraged to review the full CSO to remain apprised of any additional recent programmatic changes.</p>
<p>Customer Memorandum Required</p>	<p>A completed and signed Customer Memorandum is required in order for proposals to be considered for award.</p> <p>Applicants must use the most recent version of the Customer Memorandum when submitting your proposal. Ensure that the solicitation number in the document heading corresponds with the solicitation to which you are responding. This will ensure you have the latest (and only acceptable) version.</p> <p>Your Proposal is limited to ONE completed Customer Memorandum with three digital, CAC-enabled signatures. Multiple Memorandums with individual signatures are not accepted and will result in disqualification. Note that scans, photos, and image reproductions of the form are also not accepted, as they do not allow for digital signature verification. Avoid using Adobe Distiller to complete or modify the form – use Adobe Acrobat to mitigate data corruption issues. Failure to comply with these requirements may be grounds for disqualification.</p>

	See Table 2, Table 3, Table 5 "Phase I-Type 'Feasibility Study' Results", Table 9, Section 7.
<p>Limitations on Proposal Submission and Program on Innovation Open Topics</p>	<p>Section 7 of the SBIR and STTR Extension Act of 2022 requires the DoD to establish innovation open topic activities in order to:</p> <ul style="list-style-type: none"> (A) Increase the transition of commercial technology to the DoD; (B) Expand the small business non-traditional industrial base; (C) Increase commercialization derived from investments of the DoD; and (D) Expand the ability for qualifying small business concerns to propose technology solutions to meet the needs of the DoD. <p>Unlike conventional topics, which specify the desired technical objective and output, open topics can use generalized mission requirements or specific technology areas to adapt commercial products or solutions to close capability gaps, improve performance, or provide technological advancements in existing capabilities.</p> <p>A small business concern may only submit one (1) proposal under this solicitation. This means that an a small business concern may apply to one, but not both, topics contained in this solicitation. If more than one proposal from a small business concern is received for either or both open topics contained in this solicitation, only the most recent proposal to be certified and submitted prior to the submission deadline will receive an evaluation. All prior proposals submitted by the applicant for the same open topic will be marked as non-responsive and will not receive an evaluation.</p>

I. Program and Award Information

1. Program Description

The Department of the Air Force (DAF) invites small business firms to submit proposals under this CSO for the Small Business Innovation Research (SBIR) Program. The DAF encourages firms with the capability to conduct research and development (R&D) and to commercialize results in accordance with the DAF-related topics described herein to apply to this solicitation.

a. Use of Commercial Item Procedures

The Government may acquire innovative commercial items, technologies, or services using a competitive procedure called a Commercial Solutions Opening (CSO) using DFARS Subpart 212.70. Under a 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 DFARS Subpart 212.70 is considered competitive for the purposes of 10 U.S.C. chapter 127 and FAR 6.102. The DAF will treat items, technologies, and services acquired under this 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 to be an already-developed, off-the-shelf item.

b. Types of Technical Solutions Sought

This CSO seeks innovative commercial technologies proposed to create new DAF solutions or potential new capabilities that fulfill requirements, close capability gaps, and provide potential technological advancements. This CSO is seeking varying technical/scientific approaches and/or varying and new technologies for transition into the DAF. 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.

c. Multiple Procurements Planned

Multiple procurements are planned and anticipated to be awarded as a result of the topic. Each proposal is considered a separate procurement and will be evaluated on its own merit. The Government may award all, some, or none of the proposals. Any per-award or per-topic funding caps are budgetary estimates only, and more or less funding may become available. Funding decisions are made with complete disregard to the other awards under the same topic.

d. Treatment of Proposals Received

The DAF 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.

e. Information Related to Small Business Programs

Information related to the AF Small Business Program is found at <https://www.airforcesmallbiz.af.mil/>. The site contains contracting opportunities within the DAF, as well as business information and upcoming

outreach/conference events. Other informative sites include the Small Business Administration (SBA), www.sba.gov, the DoD Office of Small Business Programs, <https://business.defense.gov/>, and Procurement Technical Assistance Centers, <http://www.aptac-us.org>. These centers provide Government contracting assistance and guidance to small businesses, typically at no cost.

f. Objectives

The DAF 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 United States Department of the Air Force has identified 7 Operational Imperatives: Space Order of Battle; Operationally Focused Air Battle Management Systems (ABMS); Moving Target Engagement; Tactical Air Dominance; Resilient Basing; Global Strike; Readiness to Deploy and Fight. These Operational Imperatives are the critical operational capabilities and functions the Department of the Air Force must invest in to protect the United States' ability to deter conflict and project power against pacing challenges.

NOTE: The possibility exists for a solution to provide a strategic capability in an area other than the above-referenced Operational Imperatives. Therefore, if the applicant believes the proposed solution does not fit within one of the listed Operational Imperatives, reference "BLUE SKY", including an explanation of the solution's ability to provide increased strategic capability within the context of AF, national, and global constraints.

Department of the Air Force Operational Imperatives:

https://www.af.mil/Portals/1/documents/2023SAF/OPERATIONAL_IMPARITIVES_INFOGRAPHIC.pdf

The AF SBIR Program follows the policies and practices of the Small Business Administration (SBA) SBIR/STTR Policy Directive (3 May 2023),

https://www.sbir.gov/sites/default/files/SBA%20SBIR_STTR_POLICY_DIRECTIVE_May2023.pdf.

g. Due Diligence Program to Assess Security Risks

The SBIR and STTR Extension Act of 2022 (Pub. L. 117-183) requires the Department of Defense, in coordination with the Small Business Administration, to establish and implement a due diligence program to assess security risks presented by small business concerns seeking a Federally funded award. The full text of the SBIR and STTR Exception Act of 2022 is available at:

<https://www.congress.gov/117/plaws/publ183/PLAW-117publ183.pdf>.

This revision is incorporated into this CSO, including the utilization of the Appendix III, Disclosure Questions.

In accordance with Section 4 of the SBIR and STTR Extension Act of 2022, the DAF will review all proposals submitted in response to this CSO to assess security risks presented by small business concerns seeking a Federally funded award. The DAF will use information provided by the small business concern in response to the Disclosure of Foreign Affiliations or Relationships to Foreign Countries and the

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proposal to conduct a risk-based due diligence review on the cybersecurity practices, patent analysis, employee analysis, and foreign ownership of a small business concern, including the small business concern and employees of the small business concern to a foreign country, foreign person, or foreign entity. The DAF will also assess proposals utilizing open-source analysis and analytical tools, for the nondisclosures of the information set forth in 15 U.S.C. 638(g)(13). If the DAF assesses that a small business concern has security risk(s), the DAF will review the proposal, the evaluation, and the security risks and may choose to either 1) create a plan to mitigate the risk(s) or 2) the DAF may decide not to select the proposal for award based upon a totality of the review.

The DoD has partnered with Project Spectrum to provide an online course on Understanding Foreign Ownership, Control, or Influence (FOCI). This course defines FOCI, explains what it means to be under FOCI, and details FOCI's effect on a company seeking initial or continued eligibility for access to a federally funded award. Small business concerns can register and access this course by following the instructions below:

- Go to projectspectrum.io
- Click "Profile/Dashboard" in the top right and then click "Sign Up" from the dropdown menu.
- Follow the instructions to sign up for an account. Descriptions of the account types are provided below each option.
- Verify your email by entering the code sent to the email address you provided when signing up.
- Log in to Project Spectrum by clicking "Profile/Dashboard > Login" in the top right.
- Find the Training Course on "Understanding Foreign Ownership, Control, or Influence (FOCI)" by clicking "Courses > Training Courses"
- Copy the provided password.
- Click on the course and log in to Encite.io using your email address and the copied password.
- Enroll in the course and click "Enter" to begin.

For assistance with registration or access to the Project Spectrum website, please contact support@projectspectrum.io.

h. Three Phase Program

i. Phase I (Generally)

Phase I involves a solicitation of proposals to conduct feasibility-related experimental or theoretical R/R&D related to described agency requirements. The object of this phase is to determine the scientific and technical merit and feasibility of the proposed effort and the quality of performance of the SBC with a relatively small agency investment before consideration of further Federal support in Phase II.

ii. Phase II (Generally)

The object of Phase II is to continue the R/R&D effort from the completed Phase I. Unless awarded using an agency's D2P2 authority, only SBIR/STTR Phase I awardees are eligible to participate in Phase II. In certain instances, a Phase II awardee may receive one additional sequential Phase II award to continue the work of an initial Phase II award.

iii. Phase III (Generally)

Under Phase III, the applicant is required to obtain funding from either the private sector, a non-SBIR Government source, or both, to develop the technology developed in a prior phase into a viable product or non-R&D service for sale in military or private sector markets. SBIR Phase III refers to work that derives from, extends, or completes an effort made under prior SBIR funding agreements, but is funded by sources other than the SBIR Program. Phase III work is typically oriented towards commercialization of SBIR research or technology.

i. Definitions

Note, additional definitions applicable to the SBIR/STTR program are available in the SBIR/STTR Policy Directive located at

https://www.sbir.gov/sites/default/files/SBA%20SBIR_STTR_POLICY_DIRECTIVE_May2023.pdf.

Commercialization

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

Essentially Equivalent Work

Work that is substantially the same research, which is proposed for funding in more than one contract proposal or grant application submitted to the same Federal agency or submitted to two or more different Federal agencies for review and funding consideration; or work where a specific research objective and the research design for accomplishing the objective are the same or closely related to another proposal or award, regardless of the funding source.

Export Control

The International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120 through 130, and the Export Administration Regulations (EAR), 15 CFR Parts 730 through 799, will apply to all projects with military or dual-use applications that develop beyond fundamental research, which is basic and applied research ordinarily published and shared broadly within the scientific community. More information is available at https://www.pmddtc.state.gov/ddtc_public.

NOTE: Export control compliance statements found in this document are not meant to be all inclusive.

They do not remove any liability from the applicant to comply with applicable ITAR or EAR export control restrictions or from informing the Government of any potential export restrictions as fundamental research and development efforts proceed.

Foreign Persons

A foreign person is 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” (or someone who is a “lawful permanent resident”) 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 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 2-year period.

Funding Agreement

Any contract, grant, or cooperative agreement 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. Only contracts and other transaction authority (OTA) agreements will be used by the DAF for SBIR awards. Additionally, all awards made under this CSO will be Firm-Fixed-Price.

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

Any activity that is:

- a. A systematic, intensive study directed toward greater knowledge or understanding of the subject studied.
- b. A systematic study directed specifically toward applying new knowledge to meet a recognized need;
- c. A systematic application of knowledge toward the production of useful materials, devices, and systems or methods, including design, development, and improvement of prototypes and new processes to meet specific requirements.

Small Business Concern (SBC)

A concern that meets the requirements set forth in 13 C.F.R. § 121.702 (available here: <https://www.ecfr.gov/current/title-13/chapter-I/part-121/subpart-A/subject-group-ECFRb7921b3fcf04228/section-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.)

2. Certifications

a. Eligibility

Each applicant must qualify as a small business concern as defined by 13 C.F.R §§ 701-705 at time of award and is required to certify to this in the Cover Sheet section of the proposal. The eligibility requirements for the SBIR/STTR programs are unique and do not correspond to those of other small business programs.

All research or research and development work typically must be performed by the small business concern and its subcontractors in the United States. However, based on a rare and unique circumstance, the DAF may approve a particular portion of the R/R&D work to be performed or obtained in a country outside of the United States, for example, if a supply or material or other item or project requirement is not available in the United States.

See Attachment 13 “SBIR/STTR Funding Agreement Certification” for additional information about eligibility.

i. Joint Ventures

Joint ventures and limited partnerships are eligible to submit proposals to this solicitation, provided that the entity created qualifies as a small business IAW the Small Business Act, 13 U.S.C. § 121.701. Proposing small business concerns must disclose joint ventures with existing (or planned) relationships/partnerships with any foreign entity or foreign government-controlled companies (see Attachment 8). A small business joint venture must submit with its proposal the representation found at Attachment 10 of this solicitation.

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

Proposing small business concerns that are owned in majority part by multiple venture capital operating companies (VCOCs), hedge funds, or private equity funds are eligible to submit applications and receive awards under this CSO. Any proposing small business concern that is owned, in whole or in part, by any VCOC, hedge fund, and/or private equity fund must identify each foreign national, foreign entity, foreign person, or foreign government holding or controlling greater than a 5% equity stake in the proposing small business concern, whether such equity stake is directly or indirectly held. The proposing small business concern must also identify any and all of its ultimate parent owner(s) and any other entities and/or individuals owning more than a 5% equity stake in its chain of ownership.

See evaluation criteria for additional information regarding SBCs owned in majority part by multiple VCOCs, hedge funds, or private equity firms.

b. Performance Benchmarks

Applicants 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 of each year.

- i. For all applicants with greater than 20 Phase I awards over the past five fiscal years, excluding the most recent year (currently FY 2017-2021), the ratio of Phase II awards to Phase I awards must be at least 0.25.
- ii. For all applicants with greater than 15 Phase II awards over the last ten fiscal years excluding the last two years (currently FY 2018-2022), the applicant 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:

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.

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 <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.

c. Defense SBIR/STTR Innovation Portal

Individuals from applicant firms must be registered in the Defense SBIR/STTR Innovation Portal (DSIP) in order to prepare and submit proposals. The DSIP application is only accessible from within the United States, which is defined as the fifty states, the territories and possessions of the Federal Government, the Commonwealth of Puerto Rico, the Republic of the Marshall Islands, the Federated States of Micronesia, the Republic of Palau, and the District of Columbia. All users are required to have an individual user account to access DSIP. As DSIP user accounts are authenticated by Login.gov, all users, who do not already have a Login.gov account, will be required to create one. If you already have a Login.gov account, you can link your existing Login.gov account with your DSIP account. Job Aids and Help Videos to walk you through the process are in the Learning & Support section of DSIP, can be accessed here: <https://www.dodsbirsttr.mil/submissions/learning-support/training-materials>.

Be advised that the sharing of accounts and passwords is a violation of the Terms of Use for Login.gov and DoD policy. The practice of sharing accounts and passwords is also likely to cause technical issues associated with proposal submission, and many difficulties applicants encounter are directly attributable to these practices.

Please note that the email address you use for Login.gov should match the email address associated with your existing DSIP account. If you do not recall the email address associated with your DSIP account, or if you already have an existing Login.gov account using a different email address, you will need your Firm's DUNS number and your Firm PIN in order to link your Login.gov account with your DSIP account. If the email address associated with your existing DSIP account has been used for multiple DSIP accounts within your Firm, you will also need your Firm's DUNS number and your Firm PIN in order to link your Login.gov account with your DSIP account. The Firm PIN can be obtained from your Firm Admin. You can view the Firm Admin's contact information by entering your Firm's DUNS number when prompted. If you are the Firm Admin, please ensure that you contact all DSIP users in your Firm and provide them with the Firm PIN.

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

d. SAM.gov

Before the DAF can award a contract, applicant firms must be registered in the System for Award Management (SAM). SAM allows firms interested in conducting business with the federal government to provide basic information on business structure and capabilities as well as financial and payment information. To register, visit <http://www.sam.gov>. Firms should login to SAM and ensure the firm's registration is active and representations and certifications are up-to-date to avoid delay in award.

On April 4, 2022, the DUNS Number was replaced by the Unique Entity ID (SAM). The Federal Government will use the UEI (SAM) to identify organizations doing business with the Government. The DUNS number will no longer be a valid identifier. If the firm has an entity registration in SAM.gov (even if the registration has expired), a UEI (SAM) has already been assigned. This can be found by signing into SAM.gov and selecting the Entity Management widget in the Workspace or by signing in and searching entity information. For firms with established Defense SBIR/STTR Innovation Portal (DSIP) accounts, update the firm profile with the UEI (SAM) as soon as possible.

For new firm registrations, follow instructions during SAM registration on how to obtain a Commercial and Government Entry (CAGE) code and be assigned the UEI (SAM). Once a CAGE code and UEI (SAM) are obtained, update the firm's profile on the DSIP at <https://www.dodsbirsttr.mil/submissions/>.

SAM.gov registration should reflect ALL AWARDS for Purpose of Registration. Firms registered to receive grants only will be ineligible.

3. Proposal Preparation Instructions and Requirements

The DAF 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 called Contracting Sprints. Such speed dictates stringent administrative practices in the proposal submission process. The DAF reserves the right to disqualify proposals for failing to meet the requirements below.

a. Additional Reporting

In addition to the standard federal and DoD procurement certifications, the SBA SBIR/STTR Policy Directive requires the collection of certain information from firms at time of award and during the award life cycle. Each firm must provide this additional information at the time of the Phase I and Phase II

award, prior to final payment on the Phase I award, prior to receiving 50% of the total award amount for a Phase II award, and prior to final payment on the Phase II award.

b. Administrative Proposal Matters

i. Prior, Current, or Pending Support of Similar Proposals or Awards

Applicants are permitted, with proper notification, to submit identical proposals or proposals containing a significant amount of **Essentially Equivalent Work** 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 DAF as early as possible.

ii. 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.

iii. Disclosures Regarding Ties to People's Republic of China and Other Foreign Countries

Each proposing small business concern is required to complete Attachment 8 of this CSO, "Disclosures of Foreign Affiliations or Relationships to Foreign Countries" and upload the form to Volume 5, Supporting Documents. Proposals that do not include Attachment 8 in Volume 5 will be deemed noncompliant and will not receive an evaluation. All applicants/proposal identifying information and a response to every question on the form must be provided.

iv. Classified Proposals

Applicants may **not** submit classified proposals in response to this CSO. If efforts will require classified work during Phase II performance, the applicant must have or obtain a facility clearance.

Additional information on facility and personnel clearance procedures and requirements can be found at the Defense Counterintelligence and Security Agency site, <https://www.dcsa.mil/>

v. Research Involving Human Subjects (RIHS)

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

"Human Use" protocols apply to all research that meets any of the following criteria:

- i. Any research involving an intervention or an interactions with a living person that would not be occurring or would be occurring in some other fashion but for this research.
- ii. 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 identify of the subject is known, or the identity might be readily ascertained by the investigator or associated with the data/information/specimens.

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

Organizations 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 Federalwide Assurance. Additional Federal Assurance documentation may be requested by the DAF prior to award. All institutions engaged in human subjects 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 for negotiations and award, applicants 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 in 32 CFR 219. As part of the IRB review process, evidence of appropriate training for all investigators should accompany the proposal. 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 factors 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 DAF will review the protocol and the IRB's determination to ensure that the research will be conducted in compliance with DAF policies. The DAF review process can last between three to six months. Ample time should be allotted in the schedule 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. Applicants proposing research involving human and/or animal use are encouraged to separate those tasks in the technical proposal and cost proposal in order to avoid potential delay of contract award.**

vi. Research Involving Animal Subjects

All activities involving animal subjects shall be conducted in accordance with DoDI 3216.01 "Use of Animals in DoD Programs," 9 C.F.R. parts 1-4 "Animal Welfare Regulations," National Academy of Sciences Publication "Guide for the Care & Use of Laboratory Animals," as amended, and the Department of Agriculture rules implementing the Animal Welfare Act (7 U.S.C. §§ 2131-2159), as well as other applicable federal and state law and regulation and DoD instructions.

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.**

vii. 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.

viii. 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.**

ix. Proposal Status and Feedback

The PI and Corporate Official indicated on the Proposal Cover Sheet will be notified by email regarding proposal selection or non-selection. The small business will receive one notification for each proposal submitted. Please note the referenced proposal number and read each notification carefully. If changes occur to the company mail or email addresses or points of contact after proposal submission, the information must be provided to the DAF via AF SBIR/STTR One Help Desk.

Feedback requests will be provided to applicants with proposals designated as "Not Selected". The notification letter will include instructions for submitting a feedback request. Applicants are entitled to no more than one feedback document per proposal. The DAF anticipates fulfilling feedback requests using automated standardized language associated with peer review/technical evaluation scores. As such, applicants will not be provided with selection decision documentation nor will feedback documents constitute selection documentation. NOTE: Feedback is not the same as a FAR Part 15 debriefing.

Acquisitions under this solicitation are awarded via "other competitive procedures." Therefore, applicants are neither entitled to nor will they be provided FAR Part 15 debriefs.

x. Proposal Review Information.

The Air Force anticipates 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 for proposal status before that time.

xi. CSO, Selection, and Award Protests

Interested parties may have the right to protest this CSO by serving the Air Force SBIR/STTR Program Contracting Officer, Mr. Daniel J. Brewer, Daniel.Brewer.13@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 Mr. Brewer 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 DAF Legal Operations Agency within one day of filing. Protests of a selected firm's small business status should be directed to the SBA.

Note, as indicated below, all applicants have ample opportunities to seek clarification regarding solicitation terms and provisions prior to the solicitation closing. In accordance with FAR 33.103(b), the DAF uses its best efforts to resolve concerns raised by interested parties at the contracting officer level through open and frank discussions.

xii. Questions About This CSO and CSO Topics

i. Air Force One SBIR/STTR Help Desk

The Help Desk is available to address general questions about this CSO and other program-related topics. The Help Desk can be reached at usaf.team@afsbirsttr.us. Please CC the Air Force SBIR/STTR Program Contracting Officer Daniel J. Brewer (Daniel.Brewer.13@us.af.mil) on such inquiries. The Air Force will respond only to administrative questions such as SBIR/STTR program eligibility, technical proposal/cost proposal structure and page count, budget and duration limitations, or proposal due dates.

ii. DSIP Support

Email DSIP Support at DoDSBIRSupport@reisystems.com only for assistance with using the DSIP application. Questions regarding DSIP can be emailed to DSIP Support and will be addressed in the order received, during normal operating hours (Monday through Friday, 9:00 a.m. to 5:00 p.m. ET). Please include information on your firm, a proposal number (if applicable), and screenshots of any pertinent errors or issues encountered.

DSIP Support cannot provide updates to proposal status after submission, such as proposal selection/non-selection status or contract award status. Do not attempt to directly submit proposal documents to the above email address. Such transmissions do not constitute proposal submission and such materials will be discarded.

iii. Topic Q&A

Once the DAF begins accepting proposals on 24 April 2024, no direct contact between applicants and topic authors is allowed. However, applicants may submit written questions through Topic Q&A at <https://www.dodsbirsttr.mil/submissions/login>. In Topic Q&A, all questions and answers are posted electronically for general viewing. Identifying information for the questioner and respondent is not posted.

Questions submitted through the Topic Q&A are limited to technical information related to improving the understanding of a topic's requirements. **Any other questions, such as those asking for advice or guidance on solution approach, or administrative questions, such as SBIR or STTR program eligibility, technical proposal/cost proposal structure and page count, budget and duration limitations, or proposal due date WILL NOT receive a response.** As indicated above, applicants have

ample opportunities to seek clarification regarding solicitation terms and provisions prior to the solicitation closing.

The Topic Q&A for this CSO opens on 24 April 2024 and closes to new questions on 9 May 2024 at 12:00 PM ET. Once the CSO closes to proposal submission, no communication of any kind with the topic author or through Topic Q&A regarding your submitted proposal is allowed.

iv. 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 (3 May 2023), and DoD Financial Management Regulation (FMR), Vol. 2A, Chapter 1, Section 0102, Funding Policies (June 2004, as amended).

Phase II Conditions:

Consistent with 15 U.S.C. 638 and the SBA SBIR/STTR Policy Directive (3 May 2023), 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 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 aka a “Phase I-type effort”). **Feasibility documentation cannot be based upon or logically extend from any prior or ongoing federally funded SBIR or STTR work.**

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

Direct to Phase II awards are conditioned upon the awarding agency’s determination the applicant’s idea has sufficient scientific and technical feasibility and merit despite the lack of Phase I award. If the applicant fails to demonstrate technical merit and feasibility equivalent to the Phase I level, the D2P2 proposal will not be accepted or evaluated.

v. 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.

vi. 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).

vii. 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.

viii. 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.

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.

ix. 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/local-assistance> for further information.

x. 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, MTSI, Reef Systems, Earnst & Young, Wright Brothers Institute, Parallax, TEC Solutions, Inc. 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 Air Force SBIR/STTR Contracting and Agreements Officer (Daniel.Brewer.13@us.af.mil) with concerns regarding the listed contractors.

xi. Requirement for Standard Form 424 (SF424), Research and Related Senior/Key Person Profile (Expanded) Form

If selected for award, applicants shall submit a completed Standard Form (SF 424), Research and Related Senior/Key Person Profile (Expanded) Form for all Senior/Key Personnel proposed in support of the requirement (Attachment 5). Additionally, the applicant shall submit a completed Security Program Questionnaire (Attachment 4).

Applicants may also be asked to provide a mitigation plan for any identified S&T Protection risks. The Government reserves the right not to award if the submitted SF 424 and Security Program Questionnaire are not acceptable to the Government.

c. Direct-to-Phase-II Proposal

i. See Table 3: Proposal Volume Contents (All Volumes)

ii. Authority and Feasibility Requirements

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 DAF 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-type” feasibility has been met.

Awards will provide funds to conduct further RDT&E for non-Defense commercial solutions to meet specific DAF end-users’ and customers’ needs. 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 may serve as commercial potential evidence in accordance with 15 USC 638(e)(4)(B)(ii).

Applicants must adequately document completion of the Phase I feasibility requirement*. 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, DAF is seeking proposals emphasizing technologies’ dual-use applications and commercialization.

*NOTE: The applicant shall provide information to enable the agency to make the 15 U.S.C. 638(cc) determination of scientific and technical feasibility and merit. Applicants are required to provide

information demonstrating scientific and technical merit and feasibility has been established as part of the Technical Volume described in Table 5. **Feasibility documentation cannot be based upon or logically extend from any prior or ongoing federally funded SBIR or STTR work.**

iii. Proposal Cover Sheet (Volume 1)

See Table 4: Proposal Cover Sheet Contents (Volume 1)

iv. Technical Volume (Volume 2)

See Table 5: Technical Volume Content Description (Volume 2)

See Table 6: Non-Proprietary Phase II Work Plan Outline (Included in Volume 2)

See Table 7: Commercialization Plan Outline (Included in Volume 2)

v. Cost Volume (Volume 3)

See Table 8: Cost Volume Description (Volume 3)

vi. Company Commercialization Report (Volume 4)

The Company Commercialization Report (CCR) allows companies to report funding outcomes resulting from prior SBIR and STTR awards. SBIR and STTR awardees are required by SBA to update and maintain their organization's CCR on SBIR.gov. Commercialization information is required upon completion of the last deliverable under the funding agreement. Thereafter, SBIR and STTR awardees are requested to voluntarily update the information in the database annually for a minimum period of five years.

If the proposing firm has prior DoD and/or non-DoD Phase I and/or Phase II SBIR/STTR awards, regardless of whether the project has any commercialization to date, a PDF of the CCR must be downloaded from SBIR.gov and uploaded to the Firm Forms section of DSIP by the Firm Admin. Firm Forms are completed by the DSIP Firm Admin and are applied across all proposals the firm submits. The DSIP CCR requirement is fulfilled by completing the following:

1. Log into the firm account at <https://www.sbir.gov/>.
2. Navigate to My Dashboard > My Documents to view or print the information currently contained in the Company Registry Commercialization Report.
3. Create or update the commercialization record, from the company dashboard, by scrolling to the "My Commercialization" section, and clicking 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. Ensure the report is certified and submitted.
4. Click the "Company Commercialization Report" PDF under the My Documents section of the dashboard to download a PDF of the CCR.
5. Upload the PDF of the CCR (downloaded from SBIR.gov in the previous step) to the Company Commercialization Report in the Firm Forms section of DSIP. This upload action must be completed by the Firm Admin.

This version of the CCR, uploaded to DSIP from SBIR.gov, is inserted into all proposal submissions as Volume 4.

During proposal submission, the applicant will be prompted with the question: “Do you have a new or revised Company Commercialization Report to upload?”. There are three possible courses of action:

1. If the proposing firm has prior DoD and/or non-DoD Phase I and/or Phase II SBIR/STTR awards, and DOES have a new or revised CCR from SBIR.gov to upload to DSIP, select YES.
 - a. If the user is the Firm Admin, they can upload the PDF of the CCR from SBIR.gov directly on this page. It will also be updated in the Firm Forms and be associated with all new or in-progress proposals submitted by the firm. If the user is not the Firm Admin, they will receive a message that they do not have access and must contact the Firm Admin to complete this action.
 - b. WARNING: Uploading a new CCR under the Firm Forms section of DSIP or clicking “Save” or “Submit” in Volume 4 of one proposal submission is considered a change for ALL proposals under any open BAAs or CSOs. If a proposing firm has previously certified and submitted any Phase I or Direct to Phase II proposals under any BAA or CSO that is still open, those proposals will be automatically reopened. Proposing firms will have to recertify and resubmit such proposals. If a proposing firm does not recertify or resubmit such proposals, they will not be considered fully submitted and will not be evaluated.
2. If the proposing firm has NO prior DoD and/or non-DoD Phase I and/or Phase II SBIR/STTR awards, the upload of the CCR from SBIR.gov is not required and firm will select NO. The CCR section of the proposal will be marked complete.
3. If the proposing firm has prior DoD and/or non-DoD Phase I and/or Phase II SBIR/STTR awards, and DOES NOT have a new or revised CCR from SBIR.gov to upload to DSIP, select NO.
 - a. If a prior CCR was uploaded to the Firm Forms, the applicant will see a file dialog box at the bottom of the page and can view the previously uploaded CCR. This read-only access allows the applicant to confirm that the CCR has been uploaded by the Firm Admin.
 - b. If no file dialog box is present at the bottom of the page that is an indication that there is no previously uploaded CCR in the DSIP Firm Forms. To fulfill the DSIP CCR requirement the Firm Admin must follow steps 1-5 listed above to download a PDF of the CCR from SBIR.gov and upload it to the DSIP Firm Forms to be included with all proposal submissions.

While all proposing firms with prior DoD and/or non-DoD Phase I and/or Phase II SBIR/STTR awards must report funding outcomes resulting from these awards through

the CCR from SBIR.gov and upload a copy of this report to their Firm Forms in DSIP.
The Air Force will not consider the CCR during proposal evaluations.

Supporting Documents (Volume 5)

See Table 9: Supporting Documents (Volume 5)

vii. Direct-to-Phase-II Proposal Standard

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

viii. Common Disqualifiers:

The following are common reasons for which proposals are disqualified. It is not a comprehensive list of potential reasons for disqualification, but is meant to be instructive. Applicants shall read ALL solicitation instructions to ensure compliance.

- System for Award Management is not properly updated to include eligibility for ALL AWARDS.
- Customer Memorandum missing required number of signatures and/or content. See note in “Attachments” table.
- Minimum Performance Percentage of Work is not allocated properly.
- Work as proposed does not meet the definition of R/R&D required for funding.
- Proposal submitted beyond deadline. In the event of technical difficulty contact DSIP Help Desk immediately.
- Proposal submitted exceeds the maximum SBIR funding amount (\$1,250,000.00)
- Proposal submitted exceeds the maximum specified duration (21 months).
- Proposal claims data rights assertions without including a Data Rights Assertions table (as found in [DFARS 252.227-7017](#)) in Volume 5 of the proposal.
- Proposal does not include Disclosures of Foreign Affiliations or Relationships to Foreign Countries (Attachment 8).
- Proposal does not include Regulatory Compliance Information for Phase II (Attachment 13).
- If DAF assesses that a small business concern has security risk(s), DAF will review the proposal, the evaluation, and the security risks and may decide not to select the proposal for award based upon a totality of the review of the circumstances described in the Evaluation Criteria in Section 4 of this CSO.

4. Method of Selection and Evaluation Criteria

Table 2: Technical Evaluation Criteria

All Phase II proposals will be evaluated on a competitive basis. This CSO is seeking varying technical/scientific approaches and/or varying and new technologies that would be responsive to the problem statement(s) and area(s) of interest of the topic, each proposal is considered a separate procurement and will be evaluated on its own merit, and the Government may aware all, some, or none of the proposals. 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. The DAF is under

no obligation to fund a specific number of proposals and may elect to award none. Any per-award or per-topic funding caps are budgetary estimates only, and more or less funding may become available. Funding decisions are made with complete disregard to the other awards under the same topic. 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.

CRITERIA A: Commercial Potential

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

- a. 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.
- b. The size of the market & potential for revenue.
- c. The clarity of the SBC's business plan.
- d. 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 DAF Customer Memorandum, or private sources, as documented through a letter of commitment, are evidence of commercialization potential.
- e. A sound transition strategy in the DAF Customer Memorandum is also evidence of commercialization potential.

CRITERIA B: Defense Need

The Defense Need being fulfilled and ability of the proposal to impact that Defense Need

- a. The appropriateness, relevance, and specificity of an identified Defense Need. A complete and compelling Customer Memorandum using the mandatory template, signed by an appropriate end-user, customer, and TPOC indicates the appropriateness, relevance, and specificity of an identified Defense Need. While not required, signed letters of support from other Government personnel may be indicators of the appropriateness, relevance, and specificity of an identified Defense Need.
- b. Adequacy of the proposed effort and its relationship to fulfilling the identified Defense Need.
- c. The level of defense mission impact and urgency of the Defense Need.
- d. The breadth of applicability of the solution.

CRITERIA C: Technical Merit

- a. The clarity of the problem statement, technical approach, soundness, technical merit, and innovation of the proposed technical approach.
- b. The differentiation from current customer alternatives.
- c. Includes the proposed Principal Investigators'/Project Managers', supporting staff, and consultants' qualifications to execute the proposed approach.

All evaluation criteria other than cost or price, when combined, are significantly more important than cost or price. Where technical evaluations are essentially equal in merit, cost and/or price will be considered in determining the successful applicant(s).

The Department of the Air Force will accept proposals from Small Business Concerns (SBCs) that are owned in majority by multiple venture capital operating companies, hedge funds, or private equity firms in response to this solicitation. In accordance with 15 U.S.C. 638(dd), the Air Force is prohibited from awarding more than 15% of its SBIR budget to SBCs with the

previously-mentioned ownership structures. In addition to the criteria above, once the value of Selected proposals from such SBCs reaches 15% of the Government's SBIR budget, proposals from such SBCs will no longer be considered for award.

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:

- o National security concerns.
- o Pursuant to EO 13329, high priority is accorded to proposals advancing innovation in U.S. small business manufacturing.
- o 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.

Denial of Awards

The DAF will not make an award under the SBIR program if it determines that—

- (A) the small business concern submitting the proposal –
 - (i) has an owner or covered individual that is party to a malign foreign talent recruitment program;
 - (ii) has a business entity, parent company, or subsidiary located in the People’s Republic of China or another foreign country of concern; or
 - (iii) has an owner or covered individual that has a foreign affiliation with a foreign entity located in the People’s Republic of China or another foreign country of concern; and
- (B) the relationships and commitments described in clauses (i) through (iii) of subparagraph (A)—
 - (i) interfere with the capacity for activities supported by the DoD to be carried out;
 - (ii) create duplication with activities supported by the DoD;
 - (iii) present concerns about conflicts of interest;
 - (iv) were not appropriately disclosed to the DoD;
 - (v) violate Federal law or terms and conditions of contracts or other agreements awarded by the DoD; or
 - (vi) pose a risk to national security.

The DAF will also assess proposals utilizing open-source analysis and analytical tools, for the nondisclosures of the information set forth in 15 U.S.C. 638(g)(13). If DoD assesses that a small business concern has security risk(s), DoD will review the proposal, the evaluation, and the security risks and may choose either to:

- 1) Create a plan to mitigate the risk(s) or
- 2) Decide not to select the proposal for award based upon a totality of the review of the circumstances described in B(i) through B(vi) and the relationships or commitments outlined in A(i) through A(iii).

5. Considerations

a. Number of Awards.

The Government currently anticipates making approximately 131 awards under this CSO. The Government reserves the right to make no awards under this solicitation. The Government is not responsible for costs incurred before award receipt. Multiple procurements are planned and anticipated to be awarded as a result of the topic. Each proposal is considered a separate procurement and will be evaluated on its own merit. The Government may award all, some, or none of the proposals. Any per-award or per-topic funding caps are budgetary estimates only, and more or less funding may become available.

b. Type of Funding Agreement.

Awards are executed as firm-fixed-price contracts or Other Transactions Authority (OTA) under 10 USC 4021 (Research Projects), 10 USC 4022 (Prototype), or 10 USC 4023 (Procurement for Experimental Purposes). Follow-on production OTs are possible as a result of OT awards made under this solicitation.

c. Fee or Profit

The DAF is required to provide reasonable fee or profit, consistent with normal profit margins provided to profit-making firms for R/R&D work. As such, the Government reserves the right to reject any proposal that fails to account for reasonable profit or fee.

d. Approximate Dollar Value of Awards

The SBIR funding maximum for awards made under this solicitation is \$1,250,000.00. Proposals that exceed this amount will not be considered for award.

e. Payment Schedule

The frequency of payments under resulting awards will be determined by the agreed-upon milestone schedules incorporated into the award document. See Attachment 1 for a sample milestone schedule. Award schedules are subject to negotiation and approval by the Government. Technical Milestone schedules are used as a means to monitor technical progress, to mitigate technical and cost risk, and to address the cashflow needs of awardees.

f. Proprietary Information in Proposals

The DAF 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.

Information contained in unsuccessful proposals will remain the property of the Applicant. The Federal Government may, however, retain copies of all proposals. Public release of information in any proposal submitted will be subject to existing statutory and regulatory requirements. If proprietary information is provided by an Applicant in a proposal, which constitutes a trade secret, commercial or financial information, it will be treated in confidence, to the extent permitted by law, provided that the proposal is clearly marked by the applicant as indicated in Table 5.

g. 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, except that the Government obtains a royalty-free license to use such technical data only for Government purposes during the period commencing with contract award and ending twenty years after completion of the project under which the data were generated.

As detailed in DFARS 252.227-7018(b)(1) Class Deviation 2020-O0007 Revision 1, the Government shall have unlimited rights in specific technical data or computer software generated under SBIR/STTR contracts, to include form, fit, and function data and data necessary for installation, operation, maintenance, and training purposes. Aside from the unlimited rights afforded under DFARS 252.227-7018(b)(1) Class Deviation 2020-O0007 Revision 1, the Government shall have SBIR data rights in all other technical data or computer software generated under this contract for a period of 20 years, commencing upon contract award. This data should be marked with the restrictive legend specified in DFARS 252.227-7018 Class Deviation 2020-O0007 Revision 1. 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 Class Deviation 2020-O0007 Revision 1, "Rights in Noncommercial Technical Data and Computer Software – Small Business Innovation Research (SBIR) Program".

If an applicant plans to submit assertions IAW DFARS 252.227-7017, DFARS 252.227-7018 Class Deviation 2020-O0007 Revision 1 or similar award term, see instructions in Attachment 6 and Table 9.

h. 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 to contain an appropriate acknowledgment and disclaimer statement.

i. 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.

j. 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.

k. Final Reports

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 [is available at: https://www.gsa.gov/reference/forms/report-documentation-page](https://www.gsa.gov/reference/forms/report-documentation-page). Additionally, the final report shall contain a completed DD Form 882, "Report of Inventions and Subcontracts." This report shall be no more than 25 pages.

- i. SF 298 Form "Report Documentation Page" Preparation:
 - i. 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 Class Deviation 2020-O0007 Revision 1 or similar protection. AF will review the awardee's Block 12 information and assign the final distribution statement.
 - ii. For additional distribution statement guidance, visit the DTIC site: https://discover.dtic.mil/wp-content/uploads/2023/02/GuideToMarkingDocuments_2023.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.

Block 15 (Subject Terms) 298 must include the term "SBIRReport".

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 Band C of contract, and Appendix A of Other Transaction for Prototype, award documents.

I. 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. Questions regarding the complete terms and conditions must be directed to the Air Force SBIR/STTR Contracting and Agreements Officer, Daniel.Brewer.13@us.af.mil.

i. Standards of Work

Work performed under the award must conform to professional standards.

ii. Inspection

Work performed under the award is subject to Government inspection and evaluation at all reasonable times.

iii. 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.

iv. Termination For Cause

The Government may terminate the award for failure to perform the negotiated effort.

v. 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.

vi. Disputes

Any award dispute not resolved by agreement shall be decided by the Contracting or Agreements Officer with right of appeal.

vii. 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.

viii. Equal Opportunity

The firm will not discriminate against any employee or employee applicant because of race, color, religion, sex, or national origin.

ix. Affirmative Action for Veterans

The awardee will not discriminate against any employee or applicant for employment because he or she is a disabled veteran.

x. Affirmative Action for Handicapped Individuals

The awardee will not discriminate against any employee or applicant for employment because he or she is physically or mentally handicapped.

xi. Officials Not to Benefit

No Federal Government official may benefit personally from the SBIR/STTR funding agreement.

xii. 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.

xiii. Gratuities

The Government may terminate the award if gratuities have been offered to any Government representative to secure the award.

xiv. Patent Infringement

The awardee shall report each notice or patent infringement claim based on contract performance.

xv. Military Security Requirements

The awardee shall safeguard classified information associated with the contracted work IAW applicable regulations.

xvi. 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.

xvii. 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 or similar verbiage.

xviii. Publication Approval/Disclosure of Information

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.

xix. Animal Welfare

Awards involving research, development, test, evaluation, or training on vertebrate animals will incorporate DFARS clause 252.235-7002 or similar verbiage.

xx. Protection of Human Subjects

Effective 29 July 2009, awards 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.

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 Air Force policy/guidelines for human subject protection.

Institutions to be awarded funding for research involving human subjects (RIHS) 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 Federalwide Assurance (<http://www.hhs.gov/ohrp>). Additional Federal Assurance documentation may also be requested by the DAF. All institutions engaged in human subject research, to include subcontractor, 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.

As a condition of award, 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 in 32 C.F.R. 219. As part of the IRB review process, evidence of appropriate training for all investigators will need to be provided.

xxi. 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.

xxii. Similar verbiage will be included in OT awards unless determined exempt through comparable determination.

xxiii. 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. Note, DFARS clauses 252.204-7019 and 252.204-7020 also apply to this solicitation.

xxiv. Safeguarding Covered Defense Information Control

As prescribed in DFARS 252.204- 7008, for covered contractor information systems that are not part of an information technology service or system operated on behalf of the Government, the SBC represents that it will implement the security requirements specified by National Institute of Standards and Technology (NIST) Special Publication (SP) 800-171, “Protecting Controlled Unclassified Information in Nonfederal Information Systems and Organizations”.

xxv. Limitations on the Use or Disclosure of Third- Party Contractor Reported Cyber Incident Information

As required in DFARS 252.204-7009, the Contractor must agree that certain conditions apply to any information it receives or creates in the performance of a resulting contract that is information obtained from a third-party's reporting of a cyber incident pursuant to DFARS clause 252.204-7012, Safeguarding Covered Defense Information and Cyber Incident Reporting (or derived from such information obtained under that clause).

xxvi. Notice of NIST SP 800-171 DoD Assessment Requirements

As prescribed by DFARS 252.204-7019, in order to be considered for award, the SBC is required to implement NIST SP 800-171. The SBC shall have a current assessment (see 252.204-7020) for each covered contractor information system that is relevant to the offer, contract, task order, or delivery order. The Basic, Medium, and High NIST SP 800-171 DoD Assessments are described in the NIST SP 800-171 DoD Assessment Methodology located at <https://www.acq.osd.mil/asda/dpc/cp/cyber/docs/safeguarding/NIST-SP-800-171-Assessment-Methodology-Version-1.2.1-6.24.2020.pdf>. In accordance with DFARS 252.204-7020, the SBC shall provide access to its facilities, systems, and personnel necessary for the Government to conduct a Medium or High NIST SP 800-171 DoD Assessment, as described in NIST SP 800-171 DoD Assessment Methodology, linked above.

xxvii. Contractor Certification Regarding Provision of Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment

In accordance with DFARS Subpart 204.21, DFARS provisions 252.204-7016, 252.204-7017, and clause 252.204-7018 are incorporated into this solicitation. This subpart implements section 1656 of the National Defense Authorization Act for Fiscal Year 2018 (Pub. L. 115-91) and section 889(a)(1)(A) of the National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232). Full text of the provisions and clause and required applicant representations can be found in Attachment 7 of this CSO.

xxviii. Basic Safeguarding of Covered Contractor Information Systems

FAR 52.204-21, Basic Safeguarding of Covered Contractor Information Systems, is incorporated into this solicitation. In accordance with FAR 52.204-21, the contractor shall apply basic safeguarding requirements and procedures when the contractor or a subcontractor at any tier may have Federal contract information residing in or transiting through its information system.

xxix. Prohibition on Contracting with Persons Who Have Business Operations with the Maduro Regime

DFARS 252.225-7055, Representation Regarding Business Operations with the Maduro Regime, is incorporated into this solicitation. In accordance with section 890 of the National Defense Authorization Act for Fiscal Year 2020 (Pub. L. 116-92), DoD is prohibited from entering into a contract for the procurement of products or services with any person that has business operations with an authority of the government of Venezuela that is not recognized as the legitimate government of Venezuela by the United States Government, unless the person has a valid license to operate in Venezuela issued by the Office of Foreign Assets Control of the Department of the Treasury.

xxx. Prohibition on a ByteDance Covered Application

FAR 52.204-27, Prohibition on a ByteDance Covered Application, is incorporated into this solicitation. In accordance with FAR 52.204-27, contractors are prohibited from having or using a covered application on any information technology owned or managed by the Government, or on any information technology used or provided by contractors under contracts, including on equipment provided by the Contractor's employees.

xxxi. Agency Recovery Authority and Ongoing Reporting

In accordance with Section 5 of the SBIR and STTR Extension Act of 2022, the DAF will-

- 1) Require a small business concern receiving an award under its SBIR program to repay all amounts received from the DAF under the award if—
 - the small business concern makes a material misstatement that the DAF determines poses a risk to national security; or
 - there is a change in ownership, change to entity structure, or other substantial change in circumstances of the small business concern that the Federal DAF determines poses a risk to national security; and
- 2) Require a small business concern receiving an award under its SBIR program to regularly report to the DAF and the Administration throughout the duration of the award on
 - any change to a disclosure required under the subparagraphs above;
 - any material misstatement made under the subparagraphs above; and
 - any change described above

m. 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>.

- i. Sales revenue from Phase II-developed products and non-R&D services;
- ii. Additional investment from non-Federal SBIR/STTR Program in activities furthering Phase II technology development and/or commercialization;
- iii. Phase II technology used in a fielded DoD system or acquisition program and, if any, which system or program;
- iv. The number of patents resulting from SBIR/STTR Program awards;
- v. Growth in number of firm employees; and
- vi. 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 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.

n. Additional Information

- i. This CSO is intended for informational purposes and reflects current planning. If there is any inconsistency between the information contained herein and the terms of any resulting SBIR/STTR Funding Agreement, the terms of the Funding Agreement control.
- ii. Before the award of a funding agreement, the DAF may request the Applicant to submit certain organizational, management, personnel, and financial information to assure responsibility of the Applicant.
- iii. The DAF is not responsible for any monies expended by the Applicant prior to award.
- iv. This solicitation is not an offer by the DAF and does not obligate the Government to make any specific number of awards. All awards are contingent upon the availability of funds.
- v. The DAF SBIR Program is not a substitute for existing unsolicited proposal mechanisms. As such, the DAF will not consider non-responsive proposals for any reason.
- vi. If an award is made pursuant to this solicitation, a representative of the contractor or grantee or party to a cooperative agreement will be required to certify that the concern has not previously been, nor is currently being, paid for Essentially Equivalent Work by any Federal Agency.

6. D2P2 Topics

Topic Number	AFX246-DPCSO1
Title	Direct-to-Phase-II Open Call for Innovative Defense-Related Dual- Purpose Technologies/Solutions with a Clear Air Force Stakeholder Need
OUSD(R&E) Strategic Vision and Critical Technology Areas	<p>Future Generation Wireless Technology (FutureG); Trusted AI and Autonomy; Biotechnology; Advanced Computing and Software; Integrated Sensing and Cyber; Directed Energy (DE); Hypersonics; Microelectronics; Integrated Network Systems-of-Systems; Quantum Science; Space Technology; Renewable Energy Generation and Storage; Advanced Materials; Human-Machine Interfaces; Advanced Infrastructure & Advanced Manufacturing; Combat Casualty Care; Emerging Threat Reduction; Military Infectious Diseases; Military Operational Medicine; Mission Readiness & Disaster Preparedness; Nuclear; Sustainment & Logistics</p> <p>Additional information can be found here: https://www.cto.mil/wp-content/uploads/2022/02/usdre_strategic_vision_critical_tech_areas.pdf</p>
Objective	<p>This Department of the Air Force (DAF) topic is seeking technologies for transition into the United States Air Force (USAF). This topic is offered in partnership with AFWERX.</p> <p>Primary objectives of this topic include exploring innovative technology solutions applicable to both defense and non-defense markets, scaling capability, and growing the industrial base for defense. This topic seeks companies with capability to prototype validated concepts under an accelerated Phase II schedule. This topic is aimed at applied research and development efforts rather than “front-end” or basic Research (R)/Research & Development(R&D).</p>
Description	<p>The DAF is a large and complex organization consisting of many functions, a vast majority of which have similar counterparts in the commercial sector. It is important that potential solutions have a high probability of keeping pace with technological change. Thus, solutions should be closely tied to commercial technologies and solutions supporting the proposed development. This topic is meant for non-defense commercial solutions to be adapted to meet Air Force stakeholders' needs.</p> <p>Proposed technical solutions should focus on the characteristics outlined in the Evaluation Criteria section of this solicitation.</p> <p>The topic is truly 'open' (agnostic of industry, technology, and problem area), but proposals for this topic should demonstrate a high probability of identifying a product-mission fit between a DAF (Air Force and/or Space Force) stakeholder and the proposed adaptation of the non-defense commercial solution.</p> <p>This is accomplished most effectively through a proposal with a mature non-Defense technical solution and a clear understanding of its adaptation to meet a DAF customer's specific need, supported by documentation from a specific</p>

	<p>motivated, empowered DAF end-user, customer, and technical point of contact (TPOC) ready and willing to participate in the proposed prototype solution's trial.</p> <p>As discussed supra p. 17, proposals should identify which of the 7 DAF Operational Imperatives the proposed solution addresses or otherwise reference "BLUE SKY", and include an explanation of the solution's ability to provide increased strategic capability within the context of AF, national, and global constraints.</p>
Phase I	<p>This topic is intended for technology proven ready to move directly into Phase II. Therefore, Phase I awards will not be made for this topic. The applicant is required to provide detail and documentation in the D2P2 proposal which demonstrates accomplishment of a "Phase I-type" 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-mission fit between the proposed solution and a potential Air Force and/or Space Force stakeholder. The applicant should have defined a clear, immediately actionable plan with the proposed solution and the DAF customer, end-user, and TPOC.</p> <p>The feasibility study should have:</p> <ol style="list-style-type: none"> 1. Clearly identified the potential stakeholders of the adapted solution for solving the Air Force need(s). 2. Described the pathway to integrating with DAF operations, to include how the applicant plans to accomplish core technology development, navigate applicable regulatory processes, and integrate with other relevant systems and/or processes. 3. Describe if and how the solution can be used by other DoD or Governmental customers.
Phase II	<p>Proposals should include development, installation, integration, demonstration and/or test and evaluation of the proposed solution prototype system.</p> <p>These activities should focus specifically on:</p> <ol style="list-style-type: none"> 1. Evaluating the adapted 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(s), 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. Identifying other specific DoD or Governmental customers for the solution.
Phase III Dual-Use	<p>Some solutions may go from Phase II to Phase III as soon as the</p>

	product-market fit is verified. Potential Phase III awardees will transition to 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	AFVentures will hold Ask Me Anything (AMA) webinars to answer applicant questions. For more information about the AFVentures Weekly Webinar series, applicants may visit: https://afwerx.com/divisions/afventures/weekly-webinar-series/ .
References	<ol style="list-style-type: none"> 1. FitzGerald, B., Sander, A.; Parziale, J. (2016). Future Foundry: A New Strategic Approach to Military- Technical Advantage. 2. Blank, S. (2016). The Mission Model Canvas - An Adapted Business Model Canvas for Mission-Driven Organizations. 3. US Department of Defense. (2018). 2018 National Defense Strategy of the United States Summary. 4. Chaplain, C. T. (2016). Space Acquisitions: Challenges Facing DOD as it Changes Approaches to Space Acquisitions. US Government Accountability Office Washington United States. 5. Space Capstone Publication, Spacepower (SCP). (2020)
Keywords	Open; Other; Disruptive; Radical; Dual-Use; Commercial

Topic Number	AFX246-DPCSO2
Title	Direct-to-Phase-II Open Call for Innovative Defense-Related Dual- Purpose Technologies/Solutions with a Clear Space Force Stakeholder Need
OUSD(R&E) Strategic Vision and Critical Technology Areas	<p>Future Generation Wireless Technology (FutureG); Trusted AI and Autonomy; Biotechnology; Advanced Computing and Software; Integrated Sensing and Cyber; Directed Energy (DE); Hypersonics; Microelectronics; Integrated Network Systems-of-Systems; Quantum Science; Space Technology; Renewable Energy Generation and Storage; Advanced Materials; Human-Machine Interfaces; Advanced Infrastructure & Advanced Manufacturing; Combat Casualty Care; Emerging Threat Reduction; Military Infectious Diseases; Military Operational Medicine; Mission Readiness & Disaster Preparedness; Nuclear; Sustainment & Logistics</p> <p>Additional information can be found here: https://www.cto.mil/wp-content/uploads/2022/02/usdre_strategic_vision_critical_tech_areas.pdf</p>
Objective	<p>This Department of the Air Force (DAF) topic is seeking technologies for transition into the United States Space Force (USSF). This topic is offered in partnership with SpaceWERX.</p> <p>Primary objectives of this topic include exploring innovative technology solutions applicable to both defense and non-defense markets, scaling capability, and growing the industrial base for defense. This topic seeks companies with capability to prototype validated concepts under an accelerated Phase II schedule. This topic is aimed at applied research and development efforts rather than “front-end” or basic Research (R)/Research & Development(R&D).</p>

<p>Description</p>	<p>The DAF is a large and complex organization consisting of many functions, a vast majority of which have similar counterparts in the commercial sector. It is important that potential solutions have a high probability of keeping pace with technological change. Thus, solutions should be closely tied to commercial technologies and solutions supporting the proposed development. This topic is meant for non-defense commercial solutions to be adapted to meet Space Force stakeholders' needs.</p> <p>Proposed technical solutions should focus on the characteristics outlined in the Evaluation Criteria section of this solicitation.</p> <p>The topic is truly 'open' (agnostic of industry, technology, and problem area), but proposals for this topic should demonstrate a high probability of identifying a product-mission fit between a Space Force stakeholder and the proposed adaptation of the non-defense commercial solution.</p> <p>This is accomplished most effectively through a proposal with a mature non-Defense technical solution and a clear understanding of its adaptation to meet a DAF customer's specific need, supported by documentation from a specific motivated, empowered DAF end-user, customer, and technical point of contact (TPOC) ready and willing to participate in the proposed prototype solution's trial.</p> <p>The United States Department of the Air Force has identified 7 Operational Imperatives: Space Order of Battle; Operationally Focused Air Battle Management Systems (ABMS); Moving Target Engagement; Tactical Air Dominance; Resilient Basing, Global Strike; Readiness to Deploy and Fight.</p> <p>These Operational Imperatives are the critical operational capabilities and functions the Department of the Air Force must invest in to protect the United States' ability to deter conflict and project power against pacing challenges.</p> <p>Applicants should identify which Operational Imperative the proposed solution addresses. It is possible for a solution to provide a strategic capability in a previously unconsidered area. Therefore, if the applicant feels the proposed solution does not fit within one of the listed capabilities, reference "BLUE SKY", including an explanation of the solution's ability to provide increased strategic capability within the context of AF, national, and global constraints.</p>
<p>Phase I</p>	<p>This topic is intended for technology proven ready to move directly into Phase II. Therefore, Phase I awards will not be made for this topic. The applicant is required to provide detail and documentation in the D2P2 proposal which demonstrates accomplishment of a "Phase I-type" 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-mission fit between the proposed solution and a potential Air Force and/or Space Force stakeholder. The applicant should have defined a clear,</p>

	<p>immediately actionable plan with the proposed solution and the DAF customer, end-user, and TPOC.</p> <p>The feasibility study should have:</p> <ol style="list-style-type: none"> 1. Clearly identified the potential stakeholders of the adapted solution for solving the Space Force need(s). 2. Described the pathway to integrating with DAF operations, to include how the applicant plans to accomplish core technology development, navigate applicable regulatory processes, and integrate with other relevant systems and/or processes. 3. Describe if and how the solution can be used by other DoD or Governmental customers.
Phase II	<p>Proposals should include development, installation, integration, demonstration and/or test and evaluation of the proposed solution prototype system.</p> <p>These activities should focus specifically on:</p> <ol style="list-style-type: none"> 1. Evaluating the adapted 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 Space Force need(s), 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. Identifying other specific DoD or Governmental customers for the solution.
Phase III Dual-Use	<p>Some solutions may go from Phase II to Phase III as soon as the product-market fit is verified. Potential Phase III awardees will transition to 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.</p>
Notes	<p>AFVentures will hold Ask Me Anything (AMA) webinars to answer applicant questions. For more information about the AFVentures Weekly Webinar series, applicants may visit: https://afwerx.com/divisions/afventures/weekly-webinar-series/.</p>
References	<ol style="list-style-type: none"> 1. FitzGerald, B., Sander, A.; Parziale, J. (2016). Future Foundry: A New Strategic Approach to Military- Technical Advantage. 2. Blank, S. (2016). The Mission Model Canvas - An Adapted Business Model Canvas for Mission-Driven Organizations. 3. US Department of Defense. (2018). 2018 National Defense Strategy of the United States Summary. 4. Chaplain, C. T. (2016). Space Acquisitions: Challenges Facing DOD as it Changes Approaches to Space Acquisitions. US Government Accountability Office Washington United States. 5. Space Capstone Publication, Spacepower (SCP). (2020)

Keywords	Open; Other; Disruptive; Radical; Dual-Use; Commercial
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II. Proposal Volume Documentation Requirements

Table 3: Proposal Volume Contents (All Volumes)	
Registration	-UEI Number -Commercial or Government Entity (CAGE) Code -SBA Small Business Concern (SBC) ID
Volume 1: Proposal Cover Sheet	-CAGE, EID -Certification Questions -Business Information -Proposal Information -Contact Information
Volume 2: Technical Volume	-15-Page White Paper; pages in excess of this amount will not be considered in evaluations. Coversheet, Glossary, and Table of Contents do NOT count against the 15 page limit.
Volume 3: Cost Volume	-Direct Labor Costs -Direct Material Costs -Other Direct Costs -Second Phase Commitment and/or Cost Share (if applicable)
Volume 4: CCR	-Completed through DSIP. -Not considered during proposal evaluations.
Volume 5: Supporting Documents Acceptable for Inclusion	Attachment 1: Customer Memorandum Attachment 2: DoD SBIR/STTR Lifecycle Certification Attachment 3: SBIR/STTR Environment, Safety, and Occupational Health (ESOH) Questionnaire Attachment 4: Security Program Questionnaire Attachment 5: Research & Related Senior/Key Person Profile Attachment 6: Certification Questions and Coversheet Supplement Attachment 7: DoD SBIR/STTR Contractor Certification Regarding Provision of Prohibited Video Surveillance and Telecommunications Services and Equipment. Attachment 8: Disclosures of Foreign Affiliations or Relationships to Foreign Countries Attachment 9: Verification of Eligibility of Small Business Joint Ventures Attachment 10: Phase II Funding Commitment Form

	<p>Attachment 11: SBIR/STTR Funding Agreement Certification</p> <p>Attachment 12: Regulatory Compliance Information for Phase II</p> <ul style="list-style-type: none"> -Supplemental Cost Information Supporting Documentation -Subcontractor Agreements -Copies of Consultant Agreements -Additional Letters of Support -Resumes of Key Personnel -Non-Proprietary Work Plan (required) -DD Form 2345, Military Critical Technical Data Agreement (required if applicable) -Allocation of Rights (optional) -Data Rights Assertion Table (required, if applicable) -NIST SP-800 171 Assessment Documentation
Volume 6: Fraud, Waste, and Abuse Training	All applicants must complete the fraud, waste, and abuse training (Volume 6) located on DSIP (https://www.dodsbirsttr.mil). Please follow guidance provided on DSIP to complete the required training.

Table 4: Proposal Cover Sheet Contents (Volume 1)	
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 [DAF problem] by providing [advantage], to help [DAF end-user organization] accomplish [DAF 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 DAF 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 DAF 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.

Table 5: Technical Volume Content Description (Volume 2)

Item	Description
Type of File	<p>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.</p> <p>Do not include or embed active graphics such as videos, moving pictures, or other similar media in the document.</p>
Length Limitation	<p>The White Paper is limited to 15 pages; any pages in excess of 15 will not be considered. Coversheet, Glossary, and Table of Contents do NOT count against the 15 page limit.</p>
Layout	<p>Number all pages consecutively. Each page should contain the company name, topic number, and proposal number assigned by DSIP when the Cover Sheet was created. Use no smaller than 10-point font.</p>
Proprietary Information in Proposals	<p>The following legend must appear on each page of the proposal that contains information the applicant wishes to protect: <i>Use or disclosure of information contained on this sheet is subject to the restriction on the title page of this proposal.</i></p>
Content	
Table of Contents	<p>Include a table of contents immediately following the Proposal Cover Sheet. <u>Does not count against the 15 page limit.</u></p> <p>Proposing SBCs that include data that they do not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes, shall mark the first page of the proposal submission with the following legend: <i>This proposal contains information that shall not be disclosed outside the Federal Government and shall not be duplicated, used, or disclosed in whole or in part for any purpose other than evaluation of this proposal, unless authorized by law. The Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract if award is made as a result of the submission of this proposal. The information subject to these restrictions are contained on all pages of the proposal except for pages [insert page numbers or other identification of pages that contain no restricted information].</i></p>
Glossary	<p>Include a glossary of acronyms and abbreviations used in the proposal. <u>Does not count against the 15 page limit.</u></p>

Technical Summary	
Identification and Significance of the Problem or Opportunity	Briefly describe the specific problem/opportunity addressed in the feasibility study and its relationship to the Phase II effort.
Department of the Air Force Operational Imperatives	Identify which of the 7 DAF Operational Imperatives the proposed solution addresses or otherwise reference "BLUE SKY", and include an explanation of the solution's ability to provide increased strategic capability within the context of AF, national, and global constraints.
Non-Defense Commercial Solution	<p>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:</p> <p>Does the proposed solution represent an entirely novel standalone solution or does it modify/build upon an existing product or service?</p> <p>Has the proposed solution been (i) sold, leased, or licensed to the public; OR (ii) offered for sale, lease, or license to the public? Provide quantifiable data evidencing this sale, lease, or licensing.</p> <p>What is the non-defense market opportunity of your proposed solution? Can this be quantified or described?</p> <p>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?</p> <p>What are the end-user use cases for the proposed solution and how does the proposed solution fulfill these use cases?</p> <p>How is the proposed solution different from similar competitor solutions?</p> <p>What are the proposed solution's technical risks and how are they mitigated?</p> <p>What is the proposed solution's technical readiness level, and have any previous results shown the technology's viability?</p>

	<p>Include, where applicable pre-sales, pilots, sales, revenue, active users, subscriptions, downloads, and/or other forms of traction/adoption for the proposed solution.</p> <p>Broad adoption and commercial success can be indicators of commercial potential and reduced technical risk, but are not mandated. Clearly delineate between the proposed solution’s commercial success and the overall company’s success.</p> <p>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.</p>
<p>Proposed Adaptation of Non-Defense Commercial Solution</p>	<p>Describe the proposed R/R&D adaptation of or the T&E (strictly for use in technical or weapons systems) to be performed on the non-Defense commercial solution to meet a US Government end-user need. In this section, answer the following questions:</p> <ul style="list-style-type: none"> • 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 DAF 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 DAF 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?
<p>Phase I-Type “Feasibility Study” Results</p>	<p>The Proposal shall detail the proposed solution’s ability to meet DAF End-Users’ and Customers’ needs. These results shall be framed in the context of DAF End-User and Customer Exploration previously performed for the effort.</p> <ul style="list-style-type: none"> · Scientific or Technical R/R&D effort, including research questions, methods, results, and relevant literature.

	<ul style="list-style-type: none"> · DAF End-User and Customer Exploration Methods: Describe methods, both successful and unsuccessful, used to perform technical and scientific feasibility analysis, as well as DAF Customer and End-User Exploration, for adapting the non-Defense commercial solution to a specific DAF end-user’s needs. This should include detailed reports of at least one in-depth interview with a DAF End-User and one in-depth interview with a DAF Customer. · Empower and Committed DAF End-Users: list and describe specific DAF 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 DAF End-User’s problem or benefit area. · Empowered and Committed DAF Customers: list and describe the specific DAF Customer (e.g., a Program Manager at a System Program Office) willing to assist with transitioning the proposed D2P2 solution to 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 DAF need. In these cases, the Primary TPOC must be from the DAF. · Empowered and Committed US Non-DAF Government End-Users: commitments from US non-DAF Government end-users will also be considered. However, there MUST be at least one DAF/Joint End-User and Customer as described above. · Inclusion of a Customer Memorandum is mandatory for all proposals. Proposals without a signed Customer Memorandum or proposals that do not follow the mandatory template will not be considered for award. Customer Memoranda must be uploaded to the “Letters of Support” Section in Volume 5, Supporting Documents.
Compliance and Regulatory Activities	Completion of Attachment 12, REGULATORY COMPLIANCE INFORMATION FOR PHASE II, in its entirety is required as part of the proposal submission. Failure to submit Attachment 12 or submission of an incomplete Attachment 12 will result in the proposal being disqualified.
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 DAF 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

	<p>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 DAF end- user. Non-quantitative key results shall be clearly measurable.</p> <p>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 applicant’s immediate control and plans to work within those constraints.</p>
Phase II Work Plan Outline	Outline provided in Table 6.
Commercialization Strategy	Outline provided in Table 7.
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 from 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.
Foreign Person	Identify all foreign persons and 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 proposed technology 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 nationals from acting in key positions such as Principal Investigator, Senior Engineer, etc. Additional information may be requested during negotiations to verify foreign persons’ eligibility.

	<p>If the proposed work is ITAR Restricted or otherwise export-controlled, the information and materials provided pursuant to or resulting from that proposal are restricted under the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120 - 130, which controls the export of defense-related material and services, including the export of sensitive technical data. Non-U.S. citizens may perform work under an award resulting from this topic only if they are “Lawfully Admitted for Permanent Residence”, as defined in 8 U.S.C. 1101(20) , or are designated as “Protected Individuals” as defined by 8 U.S.C. 1324b(a)(3). If a proposal for an ITAR-restricted technology involves participation of a non-U.S. citizen who is not in one of the above two categories, the proposal may be rejected.</p>
Key Personnel	<p>Identify key personnel involved in the project, including subcontractors and consultants. The applicant 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.</p>
Non-Defense Commercial Customers	<p>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.</p> <p>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: Ongoing or completed projects/sales, such as those in section 2.5.1, are strongly preferred to potential projects.</p>
Investors and Partners	<p>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.</p>
Related Work	<p>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 applicant’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.</p>

Table 6: Non-Proprietary Phase II Work Plan Outline (Included in Volume 2)

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 discernible 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.

Work Plan Item

Scope	List the effort's major requirements and specifications.
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/RGF 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. For those proposals that implicate Research Involving Human Subjects (RIHS) , specifically indicate which tasks fit the definition of RIHS.
Milestone Schedule	<p>Include the mutually agreed upon milestone schedule from your signed Customer Memorandum. This schedule will be used to validate adherence to the Period of Performance.</p> <p>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.</p> <p>NOTE: Pricing information from non-Defense commercial customers is likely proprietary and should be marked as such.</p>
Deliverables	Include a section clearly describing the specific sample/prototype hardware/software to be delivered, as well as data deliverables, schedules, and quantities.
Unique Item Identification	DFARS 252.211-7003, Item Identification and Valuation, may be required. Applicants should provide a unique item identifier (UID)

	for all items for which the Government's unit acquisition cost is \$5,000.00 or more.
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	A completed SF 298, "Report Documentation Page," will be used as the report's first page. This will include 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. This report shall be no more than 25 pages.
Status Reports	Status reports are due quarterly, at a minimum. These shall be concise documents describing progress in meeting the selected DAF 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 zero (0) and one (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.
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: <ul style="list-style-type: none"> ● Preliminary Hazard Analysis (Report, if applicable): If hardware is to be developed, the contract shall include at least a preliminary hazard analysis included in the deliverables. ● Hazardous Material Report: If use of hazardous material is anticipated, the following are required: Materials identification; Materials purpose; and possible alternative/procedures/safeguards to minimize risk.
Additional Reporting	The DAF end-user or customer may require additional reporting or documentation including: <ul style="list-style-type: none"> 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.
Funding Commitments Guidance	The final Phase II status report must include a brief accounting, in company format, regarding investor funds' expenditures to support the project.

Table 7: Commercialization Plan Outline (Included in Volume 2)	
The SBA and DAF 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 items below:	
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 further necessary funding.
Assistance and Mentoring	<p>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 DAF Mentor-Protégé Program, or other assistance providers.</p> <p>Specifically address the following questions:</p> <ul style="list-style-type: none"> ● What is the first product into which the technology will be incorporated? ● 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? ● Does the company possess marketing expertise? If not, how will it be obtained? ● What companies are your competitors, and what is the firm’s price and/or quality advantage over them? ● 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

	<p>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 or have signed term sheets. Also note if commitments are conditional on receiving a Phase II award.</p> <ul style="list-style-type: none"> ● Has your company received or will it receive any foreign investment? If so, what is the source and the received or anticipated amount? ● Are there Phase III (Government or commercial) follow-on commitments for the proposed technology? ● 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. ● What is the last 12 months' total revenue from non-Defense commercial solution sales? ● State the proposed Phase II's anticipated end results, specifically plans to transition to a Phase III with a potential Government customer.
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Table 8: Cost Volume Description (Volume 3)	
<p>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 DAF to understand the company's plan to utilize the requested funds, i.e., the purpose, necessity, and reasonableness of each expenditure.</p> <p>Provide sufficient detail, as found 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 there is enough room) or submitted in Volume 5, Supporting Documents, under the "Other" dropdown option. Note: Only one file can be uploaded to DSIP.</p> <p>ROUND ALL COSTS TO THE NEAREST DOLLAR!</p> <p>NOTE: If no exceptions are taken to an applicant's proposal, the Government may make award without further communications. Therefore, the initial proposal should contain an applicant's best terms from a cost/ price and technical standpoint. For questions regarding the award document, contact the AF SBIR/STTR CO, Daniel Brewer, Daniel.Brewer.13@us.af.mil.</p>	
Measurable Milestones	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 RGK 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.
Direct Labor Costs	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. 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.
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.
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.	
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. 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.
Subcontracts	Subcontracts: Include subcontractor/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-half 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 applicant must include a Statement of Work (SOW) with a corresponding detailed Cost Volume for each planned subcontract.
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.
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. Such items 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.

Table 9: Supporting Documents (Volume 5)
This volume is 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.
Documents Required at Proposal Submission
Attachment 1: Customer Memorandum The Customer Memorandum is found at the following location: https://afwerx.com/wp-content/uploads/23.7E-24.6-D2P2-Customer-Memorandum-AFRL-2024-1083.pdf Note 1: Applicants must use the version of the fillable template linked in this solicitation in order to fulfill this requirement. Proposals that source Customer Memoranda elsewhere will be disqualified. Note 2: Previous versions of the Customer Memorandum do not satisfy this solicitation’s Customer Memorandum requirement. Proposals that use previous versions of the Customer Memorandum will be disqualified. Note 3: Proposals including documents purporting to be Customer Memoranda that are not completed using the mandatory template will be disqualified. Note 4: Do not presume that any previous versions of the Customer Memorandum are identical to the version included in this solicitation. They are not, and proposals that

<p>include previous versions of the Customer Memorandum in order to fulfill this solicitation's Customer Memorandum requirement will be disqualified.</p> <p>Note 5: Documents that are substantively or substantially similar and/or identical to the Customer Memorandum, but authored without the use of the mandatory template, will not be accepted by the Government and proposals containing such documents will be disqualified.</p>	
Attachment 2: DoD SBIR/STTR Lifecycle Certification	
Attachment 3: SBIR/STTR Environment, Safety, and Occupational Health (ESOH) Questionnaire	
Attachment 4: Security Program Questionnaire	
Attachment 5: Research & Related Senior/Key Person Profile	
Attachment 6: Certification Questions and Coversheet Supplement	
Attachment 7: DoD SBIR/STTR Contractor Certification Regarding Provision of Prohibited Video Surveillance and Telecommunications Services and Equipment	
Attachment 8: Disclosures of Foreign Affiliations or Relationships to Foreign Countries	
Attachment 12: Regulatory Compliance Information for Phase II	
Required (If Applicable) Documents	
Attachment 9: Verification of Eligibility of Small Business Joint Ventures (if applicant is a small business joint venture)	
Attachment 10: Phase II Funding Commitment Form (if applicant proposes matching Non-SBIR Government funding or matching private funding)	
Recommended at Proposal Submission	
Attachment 11: SBIR/STTR Funding Agreement Certification (required prior to award)	
NIST SP-800 171 Assessment Documentation	
Documents Acceptable for Inclusion in Volume 5	
Supplemental Cost Information	<p>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 Department of the Air Force personnel to determine the purpose, necessity, and reasonableness of each cost element provided in the Cost Volume.</p> <p>For significant costs, e.g. large number of hours, very high hourly wages, substantial labor overhead/fringe rates, etc., provide justification. A helpful resource for determining average rates is https://www.bls.gov/oes/current/oes_nat.htm.</p>
Direct Material Costs Supporting Documentation	See Table 8.
Travel Included in Other Direct Costs	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 .

Special Tooling/ Test Equipment Costs	See Table 8.
Subcontractor Agreements	If the applicant 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-half 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 applicant must include a Statement of Work (SOW) with a corresponding, detailed Cost Volume for each planned subcontract.
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.
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.
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.
Resumes of Key Personnel	Resumes of Key Personnel: Full resumes, including a publications list, for the Primary Investigator and other key technical personnel shall be included.
Non-Proprietary Work Plan	Provide a standalone, complete, non-proprietary work plan, free of proprietary markings. Failure to provide this document will necessitate a request for revision and may delay contract award. Note, this document is separate from the Work Plan Outline contained in Volume 2. The DAF often uses the Volume 5 version

	of the Work Plan as the initial draft of the Statement of Work (SOW) for the award.
DD Form 2345	<p>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/DD 2345Instructions.aspx. Approval of the DD Form 2345 will be verified if the proposal is chosen for award.</p> <p>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.</p>
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://rt.cto.mil/wp-content/uploads/STTR-Model-Agreement-for-the-Allocation-of-Rights.pdf
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.
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.
Data Rights Assertions	If an applicant plans to submit assertions IAW DFARS 252.227-7017 Class Deviation 2020-O0007 or similar award term, those assertions must be identified and restrictions MUST be included in the proposal submission in Volume 5. Award cannot be executed

	<p>until assertions are approved or mutually agreed-upon during negotiations. Any SBIR/STTR Data delivered by the Awardee, and in which the Awardee intends to limit the Federal Government’s rights to SBIR/STTR Data Rights, must be delivered with restrictive markings. The Federal Government assumes no liability for the access, use, modification, reproduction, release, performance, display, disclosure, or distribution of SBIR/STTR Data without markings. The Awardee or its subcontractors shall conspicuously and legibly mark all such SBIR/STTR Data with the appropriate legend, placed on each page of the SBIR/STTR Data.</p>
<p>NIST SP 800-171 Assessment Documentation</p>	<p>Prior to award, success applicants are required to implement NIST SP 800-171. The SBC is required to have a current assessment (see 252.204-7020) for each covered contractor information system that is relevant to the offer, contract, task order, or delivery order.</p>
<p>Research Involving Human Subjects (RIHS)</p>	<p>Proposals that implicate RIHS 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.</p>

7. Attachments
<p>Attachment 1: Customer Memorandum The Customer Memorandum is found at the following location: https://afwerx.com/wp-content/uploads/23.7E-24.6-D2P2-Customer-Memorandum-AFRL-2024-1083.pdf Note 1: Applicants must use the version of the fillable template linked in this solicitation in order to fulfill this requirement. Proposals that source Customer Memoranda elsewhere will be disqualified. Note 2: Previous versions of the Customer Memorandum do not satisfy this solicitation’s Customer Memorandum requirement. Proposals that use previous versions of the Customer Memorandum will be disqualified. Note 3: Proposals including documents purporting to be Customer Memoranda that are not completed using the mandatory template will be disqualified. Note 4: Do not presume that any previous versions of the Customer Memorandum are identical to the version included in this solicitation. They are not, and proposals that include previous versions of the Customer Memorandum in order to fulfill this solicitation’s Customer Memorandum requirement will be disqualified. Note 5: Documents that are substantively or substantially similar and/or identical to the Customer Memorandum, but authored without the use of the mandatory template, will not be accepted by the Government and proposals containing such documents will be disqualified.</p>
Attachment 2: DoD SBIR/STTR Lifecycle Certification
Attachment 3: SBIR/STTR Environment, Safety, and Occupational Health (ESOH) Questionnaire
Attachment 4: Security Program Questionnaire
Attachment 5: Research & Related Senior/Key Person Profile
Attachment 6: Certification Questions and Coversheet Supplement
Attachment 7: DoD SBIR/STTR Contractor Certification Regarding Provision of Prohibited Video Surveillance and Telecommunications Services and Equipment
Attachment 8: Disclosures of Foreign Affiliations or Relationships to Foreign Countries
Attachment 12: Regulatory Compliance Information for Phase II
Required (If Applicable) Documents
Attachment 9: Verification of Eligibility of Small Business Joint Ventures (if applicant is a small business joint venture)
Attachment 10: Phase II Funding Commitment Form (if applicant proposes matching Non-SBIR Government funding or matching private funding)
Recommended at Proposal Submission
Attachment 11: SBIR/STTR Funding Agreement Certification (required prior to award)

ATTACHMENT 1 CUSTOMER MEMORANDUM

The Customer Memorandum is found at the following URL:

<https://afwerx.com/divisions/afventures/open-topic/>

Note 1: Applicants must use the version of the fillable template linked in this solicitation in order to fulfill this requirement. Proposals that source Customer Memoranda elsewhere will be disqualified.

Note 2: Previous versions of the Customer Memorandum do not satisfy this solicitation's Customer Memorandum requirement. Proposals that use previous versions of the Customer Memorandum will be disqualified.

Note 3: Proposals including documents purporting to be Customer Memoranda that are not completed using the mandatory template will be disqualified.

Note 4: Do not presume that any previous versions of the Customer Memorandum are identical to the version included in this solicitation. They are not, and proposals that include previous versions of the Customer Memorandum in order to fulfill this solicitation's Customer Memorandum requirement will be disqualified. Note 5: Documents that are substantively or substantially similar and/or identical to the Customer Memorandum, but authored without the use of the mandatory template, will not be accepted by the Government and proposals containing such documents will be disqualified.

ATTACHMENT 2
SBIR/STTR FUNDING AGREEMENT CERTIFICATION LIFECYCLE CERTIFICATION

All SBIR/STTR Phase I and Phase II Awardees must complete this certification at all times set forth in the Funding Agreement (see § 8(j) of the SBIR/STTR Policy Directive). This includes checking all of the boxes (unless otherwise directed) and having an authorized officer of the Awardee sign and date the certification each time it is requested.

Please read carefully the following certification statements. The Federal Government relies on the information to ensure compliance with specific program requirements during the life of the Funding Agreement. The definitions for the terms used in this certification are set forth in the Small Business Act, the SBIR/STTR Policy Directive, and also any statutory and regulatory provisions referenced in those authorities.

If the Funding Agreement officer believes that the business is not meeting certain Funding Agreement requirements, the agency may request further clarification and supporting documentation in order to assist in the verification of any of the information provided.

Even if correct information has been included in other materials submitted to the Federal Government, any action taken with respect to this certification does not affect the Government's right to pursue criminal, civil or administrative remedies for incorrect or incomplete information given in the certification. Each person signing this certification may be prosecuted if they have provided false information.

The undersigned has reviewed, verified and certifies that (all boxes must be checked except where otherwise directed):

(1) The Principal Investigator/Project Manager will spend more than one half of his/her time (based on a 40 hour workweek) as an employee of the Awardee (or Research Institution – STTR only) or the Awardee has requested and received a written deviation from this requirement from the Funding Agreement officer.

Yes No Deviation approved in writing by Funding Agreement officer: %

(2) All Essentially Equivalent Work, or a portion of the work, performed under this project (check the applicable line):

Has not been submitted for funding to this Agency or another Federal Agency.

Has been submitted for funding to this Agency or another Federal agency but has not been funded under any other grant, contract, subcontract or other transaction.

A portion has been funded by another grant, contract, or subcontract as described in detail in the proposal and approved in writing by the Funding Agreement officer.

(3) Upon completion of the award, the Awardee will have performed the applicable percentage of work, unless a deviation from this requirement is approved in writing by the Funding Agreement officer (check the applicable line and fill in if needed):

- SBIR Phase I: at least two-thirds (66 2/3%) of the research.
- SBIR Phase II: at least half (50%) of the research.
- STTR Phase I or Phase II: at least forty percent (40%) of the research.
- Deviation approved in writing by the Funding Agreement officer (SBIR ONLY): %

(4) The work is completed and the small business Awardee has performed the applicable percentage of work, unless a deviation from this requirement is approved in writing by the Funding Agreement officer (check the applicable line and fill in if needed):

- SBIR Phase I: at least two-thirds (66 2/3%) of the research.
- SBIR Phase II: at least half (50%) of the research.
- STTR Phase I or Phase II: at least forty percent (40%) of the research.
- Deviation approved in writing by the Funding Agreement officer: %
- N/A because work is not completed

(5) The R/R&D is performed in the United States unless a deviation is approved in writing by the Funding Agreement officer.

- Yes No Waiver has been granted

(6) The R/R&D is performed at the Awardee's facilities by the Awardee's employees, except as otherwise indicated in the SBIR/STTR application and approved in the Funding Agreement.

- Yes No

(7) I will notify this Agency immediately if all or a portion of the work authorized and funded under this award is subsequently funded by another Federal Agency.

(8) I understand that the information submitted may be given to Federal, State, and local agencies for determining violations of law and other purposes

(9) I am an officer of the Awardee business concern authorized to represent it and sign this certification on its behalf. By signing this certification, I am representing on my own behalf, and on behalf of the business concern, that the information provided in this certification, the application, and all other information submitted in connection with the award, is true and correct as of the date of submission. I acknowledge that any intentional or negligent misrepresentation of the information contained in this certification may result in criminal, civil or administrative sanctions, including but not limited to: (1) fines, restitution and/or imprisonment under 18 U.S.C. 1001; (2) treble damages and civil penalties under the False Claims Act (31 U.S.C. 3729 et seq.); (3) double damages and civil penalties under the Program

Fraud Civil Remedies Act (31 U.S.C. 3801 et seq.); (4) civil recovery of award funds, (5) suspension and/or debarment from all Federal procurement and non-procurement transactions (FAR subpart 9.4 or 2 CFR part 180); and (6) other administrative penalties including termination of SBIR/STTR awards.

(10) If the information herein changes between proposal receipt and award (if selected), the company shall notify the awarding Contracting Officer.

Signature: _____

Print Name: (First, Middle, Last): _____

Title: _____

Business Name: _____

**ATTACHMENT 3
SBIR/STTR ENVIRONMENT, SAFETY, AND OCCUPATIONAL HEALTH (ESOH)
QUESTIONNAIRE**

Company Name:

Title:

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

Yes No

If the answer is "yes," list materials:

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

Yes No

Explosives and ammunition mean:

(a.) Liquid and solid propellants and explosives, pyrotechnics, incendiaries and smokes in the following:

- (i) Bulk;
- (ii) Ammunition;
- (iii) Rockets;
- (iv) Missiles;
- (v) Warheads;
- (vi) Devices; and
- (vii) Components of (i) through (vi), except for wholly inert items.

(b.) This definition does not include the following, unless the contractor is using or incorporating these materials for initiation, propulsion, or detonation as an integral or component part of an explosive, an ammunition or explosive end item, or of a weapon system.

- (i) Inert components containing no explosives, propellants, or pyrotechnics;
- (ii) Flammable liquids;

- (iii) Acids;
- (iv) Oxidizers;
- (v) Powdered metals; or
- (vi) Other materials having fire or explosive characteristics.

If the answer is "yes," list items:

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

Yes No

If the answer is "yes," list processes:

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

Yes No

If the answer is "yes," list facilities:

5. Will the award require the purchase, storage use or delivery of any chemicals or hazardous material to USAF facilities?

Yes No

If the answer is "yes," list chemicals or hazardous materials:

6. Will any hazardous chemical or waste be generated during the course of this research?

Yes No

If the answer is “yes,” specify the hazardous chemical or waste to be generated:

7. Will any Class I ozone depleting substances (ODSs) be required in this research?

A list of Class I ODSs is located at the following website: <http://www.epa.gov/ozone/ods.html>

Yes No

If the answer is “yes,” list substances:

8. Does the award involve the purchase or use of any radioactive materials?

Yes No

If the answer is “yes,” specify the radioactive materials:

9. Will the award involve any asbestos, radiation, or chemical generating/using components that will be delivered to USAF facilities?

Yes No

If the answer is “yes,” specify the components:

10. Will the award involve special atmospheric or water resource requirements?

Yes No

If “yes” specify the requirements.

ATTACHMENT 4 SECURITY PROGRAM QUESTIONNAIRE

Objective: This questionnaire is used to review the security program and practices of the institutions receiving research funding.

Intended Audience/User: Completed by Contractor/Recipient; reviewed by S&T Protection Lead. Date Submitted:

Applicant Name:

Cage Code/SCL and level (if applicable):

Completed by Name:

Position/Title:

1. What are your physical security plans?
2. What information security processes are in place?
3. Where will information for this effort be stored? (examples: computers, cloud, file cabinets, etc.)
4. What procedures are in place for transmission/transportation of information for this effort?
5. What procedures are in place for disposal and destruction of information for this effort?
6. What procedures are in place for reproduction of information for this effort?
7. What safeguards are in place for personnel who can access information for this effort?
8. What is the plan for safeguarding GFE/GFI?
9. What procedures are in place for cybersecurity or network protection?
10. What operations security processes are in place to prevent adversaries' access to information for this effort or actions that would compromise your projects?
11. What processes are in place to deter, detect, and mitigate actions of insider threat?
12. What procedures are in place to handle if information for this effort is compromised?
13. Are you willing to provide AFRL S&T Protection training to all personnel with access annually?

Additional comments:

**ATTACHMENT 5
RESEARCH & RELATED SENIOR/KEY PERSON PROFILE**

PROFILE - Project Director/Principal Investigator		
Prefix:	* First Name:	Middle Name:
* Last Name:		Suffix:
Position/Title:		
Department:		
Organization Name:		
Division:		
* Street1:		
Street2:		
* City:	County/ Parish:	
* State:	Province:	
* Country: USA: UNITED STATES		* Zip / Postal Code:
* Phone Number:	Fax Number:	
* E-Mail:		
Credential, e.g., agency login:		
* Project Role:		PD/PI Other Project Role Category:
Degree Type:		
Degree Year:		
PROFILE – Additional Senior/Key Person(s) Description(s)		

Prefix:	* First Name:	Middle Name:
* Last Name:		Suffix:
Position/Title:		
Department:		
Organization Name:		
Division:		
* Street1:		
Street2:		
* City:	County/ Parish:	
* State:		Province:
* Country: USA: UNITED STATES		* Zip / Postal Code:
* Phone Number:	Fax Number:	
* E-Mail:		
Credential, e.g., agency login:		
* Project Role:	Other Project Role Category:	
Degree Type:		
Degree Year:		

ATTACHMENT 6 CERTIFICATION QUESTIONS AND COVERSHEET SUPPLEMENT

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 may be awardable.
2. Is your firm a small business as described in 13 CFR 121.702(c), with no more than 500 employees including affiliates?
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(b)?
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?
 - (If YES, additional information required in Volume 5) If YES, and the corporate entity is also a small business, please include in this section a description of the corporate relationship, including other affiliates of the owning corporate entity.
5. At a minimum, will 50% of the research and/or analytical work be carried out by your small business, as described in Table 1 of this solicitation?
 - If your firm will NOT perform the prescribed percentage of the research and/or analytical work, your proposal will be disqualified.
6. Is the primary employment of the principal investigator with your firm?
 - If the primary employment of the principal investigator is NOT with the proposing SBC, your 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?
 - 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?
 - 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 2(d) of this CSO and listed by the SBA on its website as eligible to participate? Either answer may be 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?

- (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.

11. Is your firm more than 50% owned by a single Venture Capital Owned Company (VCOC), hedge fund, or private equity firm?

- (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.

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.

12. Number of employees including all affiliates (average for preceding 12 months):

- If your firm and affiliates have employed, on average over the last 12 months, more than 500 employees, your proposal will be disqualified.

13. Is your firm affiliated as set forth in 13 CFR 121.103?

- (If YES, additional information required in Volume 5) If yes, then please detail your affiliations as described at

<https://www.ecfr.gov/current/title-13/chapter-I/part-121>

- 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.

14. As defined by SBA: All answers may be "yes" or "no" without impacting eligibility.

a. Are you a socially or economically disadvantaged small business?

b. Are you a Woman-Owned small business (WOSB)?

c. Are you a certified HUBZone small business concern?

d. Are you a Service-Disabled Veteran-Owned small business (SDVOSB)?

15. 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 may be awardable.

16. Does the proposed cost include Technical and Business Assistance (TABAs)? The AF does not allow for TABAs.

17. Has a proposal for essentially equivalent work (Section (3)(b)(i) of this CSO) been submitted to other US government agencies or DOD components?

Applicants are permitted, with proper notification, to submit identical proposals or proposals containing a significant amount of essentially equivalent work for consideration under multiple Federal program solicitations. However, a small business concern may only submit one (1) proposal to each open topic.

o (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:

Technical Data/ Computer Software Furnished with Restriction	Basis for Assertion <ul style="list-style-type: none"> • None • Developed exclusively at private expense • Developed partially at private expense • Developed under a SBIR award 	Asserted Rights Category <ul style="list-style-type: none"> • None • Government Purpose Rights • Limited Rights (Technical Data) • Restricted Rights (Software) • Specifically Negotiated License • Rights in SBIR Data 	Name of Person Asserting Restriction

18. Has a contract been awarded for any of the proposals listed above?

- If your firm has been awarded a contract from the US Government for essentially equivalent work, your proposal will be disqualified.

19. Are you submitting assertions in accordance with DFARS 252.227-7017 "Identification and Assertions of Use, Release, or Disclosure Restrictions" or DFARS 252.227-7018 Class Deviation 2020-O0007 Revision 1?

- (If YES, additional information required in Volume 5) If you answered 'yes' to this question, you must include the table found in DFARS 252.227-7017 DFARS 252.227-7017 or DFARS 252.227-7018 Class Deviation 2020-O0007 Revision 1 in Volume 5 of your proposal.

- The contract cannot be awarded until assertions have been approved.

- o If claiming data rights assertions without including an appropriate 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 awardee.

As detailed in DFARS 252.227-7018(b)(1) Class Deviation 2020-O0007 Revision 1, the Government shall have unlimited rights in technical data, including software generated under the award, that are form, fit, and function data; necessary for installation, operation, maintenance, or training purposes (other than detailed manufacturing or process data); corrections or changes to Government-furnished technical data or computer software; otherwise publicly available or have been released or disclosed by the Awardee or a subawardee without restrictions on further use, release or disclosure other than a release or disclosure resulting from the sale, transfer, or other assignment of interest in the technical data or computer software to another third party or the sale or transfer of some or all of a business entity or its assets to another party; data or software in which the Government has acquired previously unlimited rights under another Government contract or through a specific license; and SBIR data upon expiration of the SBIR data rights period.

The Government shall have limited rights in technical data, that were not generated under this contract, pertaining to items, components, or processes developed exclusively at private expense that are marked in accordance with the marking instructions of DFARS 252.227-7018(f)(1) Class Deviation 2020-O0007 Revision 1 with the legend prescribed in 252.227-7018(f)(2) Class Deviation 2020-O0007 Revision 1.

Aside from the unlimited rights afforded under DFARS 252.227-7018(b)(1) Class Deviation 2020-O0007 Revision 1, the Government shall have SBIR data rights in all other technical data or computer software generated under this contract for a period of 20 years, commencing upon contract award. 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 Class Deviation 2020-O0007 Revision 1.

20. Is the firm proposing research utilizing human subjects, animal subjects, or recombinant DNA as described in the solicitation?

21. Are teaming partners or subcontractors proposed?

- (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).

22. Is the firm proposing to use foreign persons or non-U.S. citizens (Table 5) for work under the proposed effort?

a. (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 persons should include this table:

Full Name	Foreign Person (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)

b. 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 may be disqualified.

23. What percentage of the principal investigator's total time will be on the project?

a. Any non-zero answer is awardable.

b. (If less than 25%, additional information required in Volume 5.) If the answer is below 25%, please describe the principal investigator's other roles.

24. Is the principal investigator a woman? Either answer is awardable. This information is required for the SBA's Award Information Database.

25. Is the principal investigator socially/economically disadvantaged? Either answer is awardable. This information is required for the SBA's Award Information Database.

ATTACHMENT 7

DoD SBIR/STTR CONTRACTOR CERTIFICATION REGARDING PROVISION OF PROHIBITED VIDEO SURVEILLANCE AND TELECOMMUNICATIONS SERVICES AND EQUIPMENT

Contractor's Name	
Small Business Concern Name	
Office Tel #	
Mobile #	
Email	

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. DFARS Provisions Incorporated in Full Text:

DFARS 252.204-7016 COVERED DEFENSE TELECOMMUNICATIONS EQUIPMENT OR SERVICES—REPRESENTATION (DEC 2019)

- (a) Definitions. As used in this provision, “covered defense telecommunications equipment or services” has the meaning provided in the clause 252.204-7018 , Prohibition on the Acquisition of Covered Defense Telecommunications Equipment or Services.
- (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 defense telecommunications equipment or services”.
- (c) Representation. The Offeror represents that it [] does, [] does not provide covered defense 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)

DFARS 252.204-7017 PROHIBITION ON THE ACQUISITION OF COVERED DEFENSE TELECOMMUNICATIONS EQUIPMENT OR SERVICES—REPRESENTATION (MAY 2021)

The Offeror is not required to complete the representation in this provision if the Offeror has represented in the provision at 252.204-7016 , Covered Defense Telecommunications Equipment or Services—Representation, that it “does not provide covered defense 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.”

(a) Definitions. “Covered defense telecommunications equipment or services,” “covered mission,” “critical technology,” and “substantial or essential component,” as used in this provision, have the meanings given in the 252.204-7018 clause, Prohibition on the Acquisition of Covered Defense Telecommunications Equipment or Services, of this solicitation.

(b) Prohibition. Section 1656 of the National Defense Authorization Act for Fiscal Year 2018 (Pub. L. 115-91) prohibits agencies from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service to carry out covered missions that uses covered defense telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system.

(c) Procedures. The Offeror shall review the list of excluded parties in the System for Award Management (SAM) at <https://www.sam.gov> for entities that are excluded when providing any equipment, system, or service to carry out covered missions that uses covered defense telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless a waiver is granted.

Representation. If in its annual representations and certifications in SAM the Offeror has represented in paragraph (c) of the provision at 252.204-7016 , Covered Defense Telecommunications Equipment or Services—Representation, that it “does” provide covered defense 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, then the Offeror shall complete the following additional representation:

The Offeror represents that it [] will [] will not provide covered defense telecommunications equipment or services as a part of its offered products or services to DoD in the performance of any award resulting from this solicitation.

(e) Disclosures. If the Offeror has represented in paragraph (d) of this provision that it “will provide covered defense telecommunications equipment or services,” the Offeror shall provide the following information as part of the offer:

(1) A description of all covered defense telecommunications equipment and services offered (include brand or manufacturer; product, such as model number, original equipment manufacturer (OEM) number, manufacturer part number, or wholesaler number; and item description, as applicable).

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

(3) For services, the entity providing the covered defense telecommunications services (include entity name, unique entity identifier, and Commercial and Government Entity (CAGE) code, if known).

(4) For equipment, the entity that produced or provided the covered defense telecommunications equipment (include entity name, unique entity identifier, CAGE code, and whether the entity was the OEM or a distributor, if known).

(End of provision)

DFARS 252.204-7018 PROHIBITION ON THE ACQUISITION OF COVERED DEFENSE TELECOMMUNICATIONS EQUIPMENT OR SERVICES (JAN 2023)

Definitions. As used in this clause—

“Covered defense 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) Telecommunications services provided by such entities or using such equipment; or
- (3) Telecommunications equipment or services produced or provided by an entity that the Secretary of Defense reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

“Covered foreign country” means—

- (1) The People’s Republic of China; or
- (2) The Russian Federation.

“Covered missions” means—

- (1) The nuclear deterrence mission of DoD, including with respect to nuclear command, control, and communications, integrated tactical warning and attack assessment, and continuity of Government; or
- (2) The homeland defense mission of DoD, including with respect to ballistic missile defense.

“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).

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

(b) Prohibition. In accordance with section 1656 of the National Defense Authorization Act for Fiscal Year 2018 (Pub. L. 115-91), the contractor shall not provide to the Government any equipment, system, or service to carry out covered missions that uses covered defense telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless the covered defense telecommunication equipment or services are covered by a waiver described in Defense Federal Acquisition Regulation Supplement 204.2104 .

(c) Procedures. The Contractor shall review the list of excluded parties in the System for Award Management (SAM) at <https://www.sam.gov> for entities that are excluded when providing any equipment, system, or service, to carry out covered missions, that uses covered defense telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless a waiver is granted.

(d) Reporting.

(1) In the event the Contractor identifies covered defense 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, the Contractor shall report at <https://dibnet.dod.mil/dibnet/> the information in paragraph (d)(2) of this clause.

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

clause:

(i) Within 3 business days from the date of such identification or notification: the contract number; the order number(s), if applicable; supplier name; 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 30 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 a covered defense 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 products or commercial services.

(End of clause)

**ATTACHMENT 8
DISCLOSURES OF FOREIGN AFFILIATIONS OR RELATIONSHIPS TO FOREIGN COUNTRIES**

In accordance with the SBIR and STTR Extension Act of 2022 (Pub. L. 117-183) and the Small Business Administration (SBA) SBIR/STTR Policy Directive, small business concerns are required to disclose the information requested below about the small business’s investment and foreign ties. Small business concerns that 1) fail to submit this form in Volume 5 of the Defense SBIR/STTR Innovation Portal (DSIP) proposal submission; 2) do not use this form or Version 2 as provided in DoD SBIR BAA 24.1, as provided herein; 4) fail to provide the Government additional information regarding this form when requested; or 5) fail to sign this form, **will be deemed noncomplaint and will not receive an evaluation of their proposal.**

Relevant definitions can be found at the end of this document. An up-to-date list of countries determined to be countries of concern by the Secretary of State will be maintained and accessible on SBIR.gov.

Small Business Concern (SBC)	
Small Business Concern (SBC)	
Proposal # (assigned by DSIP when proposal is created)	
SBC Point of Contact (POC) Name	
SBC POC Phone #	
SBC POC Email	

Responses to disclosure questions may contain trade secrets or commercial or financial information that is privileged or confidential and is exempt from public disclosure. Such information shall be used or disclosed only for evaluation purposes or in accordance with an award between the submitter and the Government.

The information provided in response to the Disclosure Questions listed below is certified to be accurate and complete. Knowingly and willfully making any false, fictitious, or fraudulent statements or representations may be a felony under the Federal Criminal False Statement Act (18 U.S.C. Sec 1001), punishable by a fine of up to \$10,000, up to five years in prison, or both.

Name of person authorized to sign: _____

Signature of person authorized: _____

Date: _____

Disclosure Questions

1. Is any owner or covered individual of the applicant or awardee party to any malign foreign talent recruitment program?

Yes No

If yes, disclose the first and last name of each owner or covered individual, identify their role (i.e., owner or covered individual), and the malign foreign talent recruitment program.

2. Is there a parent company, joint venture, or subsidiary, of the applicant or awardee that is based in or receives funding from, any foreign country of concern?

Yes No

If yes, disclose the name, full address, applicant or awardee relationships (i.e., parent company, joint venture, or subsidiary) of each entity based in, or funded by, any foreign country of concern.

3. Does the applicant or awardee have any current or pending contractual or financial obligation or other agreement specific to a business arrangement, or joint venture-like arrangement with an enterprise owned by a foreign state or any foreign entity?

Yes No

If yes, disclose the name of each enterprise or foreign entity, type of obligation, agreement, or arrangement (i.e., contractual, financial, or other), description of obligation, agreement, or arrangement, and the foreign state(s) and/or the country of the foreign entity (or entities).

4. Is the applicant or awardee wholly owned in a foreign country?

Yes No

If yes, disclose the foreign country.

5. Does the applicant or awardee have any venture capital or institutional investment?

Yes No

If yes, proceed to question 5a. If no, proceed to question 6.

5a. Does the investing entity have a general partner or any other individual holding a leadership role who has a foreign affiliation with any foreign country of concern?

Yes No Unable to determine

If yes or unable to determine, disclose the venture capital or institutional investing entity's name, the percentage of ownership obtained by the investing entity, and the type of investment (i.e., equity, debt, or combination of equity and debt).

6. During the previous 5-year period, did the applicant or awardee have any technology licensing or intellectual property sales or transfers, to a foreign country of concern?

Yes No

If yes, disclose the name, address, and country, of the institution or entity that licensed, purchased, or received the technology or intellectual property.

7. Is there any foreign business entity, offshore entity, or entity outside the United States related to the applicant or awardee?

Yes No

If yes, disclose the entity name, relationship type (i.e., foreign business entity, offshore entity, entity outside the United States), description of the relationship to the applicant or awardee, and entity address and country.

8. Does the applicant or awardee have an owner, officer, or covered individual that has a foreign affiliation with a research institution located in a foreign country of concern?

Yes No

If yes, disclose the first and last name of each owner, officer, or covered individual that has a foreign affiliation with a foreign country of concern, identify their role (i.e., owner, officer, or covered individual), and the name of the foreign research institution and the foreign country of concern where it is located.

Relevant Definitions

Covered individual — An individual who contributes in a substantive, meaningful way to the scientific development or execution of a research and development (R&D) project proposed to be carried out with a Federally funded award from DoD. DoD has further designated covered individuals as including all proposed key personnel.

Federally funded award — A Phase I, Phase II (including Direct to Phase II, sequential Phase II/subsequent Phase II and cross-agency Phase II), or Phase III SBIR or STTR award made using a funding agreement.

Foreign affiliation — As defined in 15 U.S.C. § 638(e)(16), foreign affiliation means a funded or unfunded academic, professional, or institutional appointment or position with a foreign government or government-owned entity, whether full-time, part-time, or voluntary (including adjunct, visiting, or honorary). This includes appointments or positions deemed adjunct, visiting, or honorary with research institutions located in a foreign country of concern.

Foreign country of concern — As defined in 15 U.S.C. § 638(e)(17), foreign country of concern means the People’s Republic of China, the Democratic People’s Republic of Korea, the Russian Federation, the Islamic Republic of Iran, or any other country determined to be a country of concern by the Secretary of State.

Malign foreign talent recruitment program — As defined in 42 U.S.C § 19237, the term “malign foreign talent recruitment program” means-

- (C) any program, position, or activity that includes compensation in the form of cash, in-kind compensation, including research funding, promised future compensation, complimentary foreign travel, things of non de minimis value, honorific titles, career advancement opportunities, or other types of remuneration or consideration directly provided by a foreign country at any level (national, provincial, or local) or their designee, or an entity based in, funded by, or affiliated with a foreign country, whether or not directly sponsored by the foreign country, to the targeted individual, whether directly or indirectly stated in the arrangement, contract, or other documentation at issue, in exchange for the individual-
 - (x) engaging in the unauthorized transfer of intellectual property, materials, data products, or other nonpublic information owned by a United States entity or developed with a Federal research and development award to the government of a foreign country or an entity based in, funded by, or affiliated with a foreign country regardless of whether that government or entity provided support for the development of the intellectual property, materials, or data products;
 - (xi) being required to recruit trainees or researchers to enroll in such program, position, or activity;
 - (xii) establishing a laboratory or company, accepting a faculty position, or undertaking any other employment or appointment in a foreign country or with an entity based in, funded by, or affiliated with a foreign country if such activities are in violation of the standard terms and conditions of a Federal research and development award;
 - (xiii) being unable to terminate the foreign talent recruitment program contract or agreement except in extraordinary circumstances;
 - (xiv) through funding or effort related to the foreign talent recruitment program, being limited in the capacity to carry out a research and development award or required to engage in work that would result in substantial overlap or duplication with a Federal research and development award;

- (xv) being required to apply for and successfully receive funding from the sponsoring foreign government's funding agencies with the sponsoring foreign organization as the recipient;
 - (xvi) being required to omit acknowledgment of the recipient institution with which the individual is affiliated, or the Federal research agency sponsoring the research and development award, contrary to the institutional policies or standard terms and conditions of the Federal research and development award;
 - (xvii) being required to not disclose to the Federal research agency or employing institution the participation of such individual in such program, position, or activity; or
 - (xviii) having a conflict of interest or conflict of commitment contrary to the standard terms and conditions of the Federal research and development award; and
- (D) a program that is sponsored by-
- (v) a foreign country of concern or an entity based in a foreign country of concern, whether or not directly sponsored by the foreign country of concern;
 - (vi) an academic institution on the list developed under section 1286(c)(8) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 2358 note; 1 Public Law 115–232) ; or
 - (vii) a foreign talent recruitment program on the list developed under section 1286(c)(9) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 2358 note; 1 Public Law 115–232).

ATTACHMENT 9

VERIFICATION OF ELIGIBILITY OF SMALL BUSINESS JOINT VENTURES

A small business joint venture applicant must submit, with its offer, the representation required in paragraph (c) of FAR solicitation provision 52.212-3, Offeror Representations and Certifications- Commercial Products and Commercial Services, and paragraph (c) of FAR solicitation provision 52.219-1, Small Business Program Representations, in accordance with 52.204-8(d) and 52.212-3(b) for the following categories:

- (A) Small business;
- (B) Service-disabled veteran-owned small business;
- (C) Women-owned small business (WOSB) under the WOSB Program;
- (D) Economically disadvantaged women-owned small business under the WOSB Program; or
- (E) Historically underutilized business zone small business.

Contractor's Name	
Small Business Concern Name	
Office Tel #	
Mobile #	
Email	

Name of Person Authorized to Sign: _____

Signature of Person Authorized: _____

Date: _____

Joint Ventures and limited partnerships are eligible provided the entity created qualifies as a Small Business Concern as outlined in this CSO in Section 1(d).

**ATTACHMENT 10
PHASE II FUNDING COMMITMENT FORM**

1. For Governmental (other than SBIR) funding:

Government Funding Organization	Government POC Name/E-mail	Amount of Funding	Year/Type Funding, e.g., RDT&E, O&M, etc.

2. For private investment:

Private Organization Funding	Private POC Name/E-mail	Amount of Funding	Type of Funding, e.g., pre-sales, etc.

3. Total Government (other than SBIR) Funding Amount: \$ _____

4. Total Private Funding Amount: \$ _____

5. Total Requested SBIR Funding Amount: \$ _____

6. Government (other than SBIR) Funding Work Plan Summary:

[INSERT brief statement describing the project portion the Government sponsor will fund, i.e., how does it support the Phase II Work Plan, additional R&D, or marketing under the proposed SBIR project?]

7. Private Funding Work Plan Summary:

[INSERT brief statement describing the project portion the investor will fund, i.e., how does it support the Phase II Work Plan, additional R&D, or marketing under the proposed SBIR project?]

Voluntary Phase II Funding Commitment Guidance

i. Examples of Voluntary Phase II Funding Commitments

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:

ii. Affiliates

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.

iii. Affiliation Determinations

Factors such as ownership, management, previous relationships with or ties to another concern, and contractual relationships are considered in making affiliation determinations.

iv. Treatment as One Party

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.

v. Commitment Arrangements

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 AFWERX Financial Management (AFRL/RGF) via Military Interdepartmental Purchase Request (MIPR); or any combination thereof.

vi. The DAF 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.

vii. *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.

viii. *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.

ix. *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?*

- x. 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 release date of Phase II proposal instructions, and no later than 90 calendar days after award.

Applicants 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 (Attachment 10), as described in this section.

For Governmental second phase commitments that are to be applied directly to the contract, DRAFT funding documents (Form 9s/MIPRs) are due within 45 days of the solicitation closing. Once selection letters are sent, CERTIFIED funding documents are due five business days later. If certified funding documents are not provided, the effort will move forward without the second phase funding commitment considered. To initiate governmental funding transfer, the interested government organization should send an email to the AFRL/RGF Incoming Documents mailbox, AFRL.SBIR.STTR@us.af.mil. The sender will receive an auto-response with guidance regarding incoming funds submission and associated information required. RGF requests a draft MIPR/Form 9 be submitted to the same inbox before certification to ensure the document is complete and accurate.

NOTE 1: If sending funding via MIPR, RGF requires a signed MOA with the submitting Government organization.

NOTE 2: If providing other than RDT&E 3600 funds, the corresponding proposal milestones must clearly delineate deliverables for which the non-RDT&E funds will be used. Additionally, the submitting and receiving Comptrollers must agree to the funds propriety for the specified deliverables.

*The government organization must initiate communication with AFRL/RGF, not the small business. AFWERX can

**ATTACHMENT 11
SBIR/STTR FUNDING AGREEMENT CERTIFICATION**

All small businesses that are selected for award of an SBIR/STTR Funding Agreement must complete this certification at the time of award and any other time set forth in the Funding Agreement that is prior to performance of work under this award. This includes checking all of the boxes and having an authorized officer of the Awardee sign and date the certification each time it is requested.

Please read carefully the following certification statements. The Federal Government relies on the information to determine whether the business is eligible for a Small Business Innovation Research (SBIR) program or Small Business Technology Transfer (STTR) program award. A similar certification will be used to ensure continued compliance with specific program requirements during the life of the Funding Agreement. The definitions for the terms used in this certification are set forth in the Small Business Act, SBA regulations (13 CFR part 121), the SBIR/STTR Policy Directive and also any statutory and regulatory provisions referenced in those authorities.

If the Funding Agreement officer believes that the business may not meet certain eligibility requirements at the time of award, they are required to file a size protest with the U.S. Small Business Administration (SBA), which will determine eligibility. At that time, SBA will request further clarification and supporting documentation in order to assist in the verification of any of the information provided as part of a protest. If the Funding Agreement officer believes, after award, that the business is not meeting certain Funding Agreement requirements, the agency may request further clarification and supporting documentation in order to assist in the verification of any of the information provided.

Even if correct information has been included in other materials submitted to the Federal Government, any action taken with respect to this certification does not affect the Government's right to pursue criminal, civil or administrative remedies for incorrect or incomplete information given in the certification. Each person signing this certification may be prosecuted if they have provided false information.

The undersigned has reviewed, verified and certifies that (all boxes must be checked unless otherwise directed):

(1) The Awardee business concern meets the ownership and control requirements set forth in 13 CFR 121.702.

(2) If a corporation – all corporate documents (namely: articles of incorporation and any amendments, articles of conversion, by-laws and amendments, shareholder meeting minutes showing director elections, shareholder meeting minutes showing officer elections, organizational meeting minutes, all issued stock certificates, stock ledger, buy-sell agreements, stock transfer agreements, voting agreements, and documents relating to stock options, including the right to convert non-voting stock or debentures into voting stock) must evidence that the corporation meets the ownership and control requirements set forth in 13 CFR 121.702.

(Check one box) Yes N/A Explain why N/A:

(3) If a partnership -- the partnership agreement evidences that it meets the ownership and control requirements set forth in 13 CFR 121.702.

(Check one box) Yes N/A Explain why N/A:

(4) If a limited liability company – the articles of organization and any amendments, and operating agreement and amendments, evidence that it meets the ownership and control requirements set forth in 13 CFR 121.702.

(Check one box)

Yes N/A

Explain why N/A:

(5) The birth certificates, naturalization papers, or passports show that any individuals it relies upon to meet the eligibility requirements are U.S. citizens or permanent resident aliens in the United States.
(Check one box) Yes N/A Explain why N/A:

(6) The Awardee business concern has no more than 500 employees, including the employees of its Affiliates.

(7) SBA has not issued a size determination currently in effect finding that this business concern exceeds the 500 employee size standard.

(8) During the performance of the award, the Principal Investigator/Project Manager will spend more than one half of his/her time (based on a 40 hour workweek) as an employee of the Awardee (or Research Institution – STTR only) or has requested and received a written deviation from this requirement from the Funding Agreement officer. (Check one box)

Yes Deviation approved in writing by Funding Agreement officer: %

(9) All Essentially Equivalent Work, or a portion of the work, proposed under this project (check applicable line):

 Has not been submitted for funding to this Agency or another Federal agency.

 Has been submitted for funding to this Agency or another Federal agency but has not been funded under any other grant, contract, subcontract or other transaction.

 A portion has been funded by another grant, contract, or subcontract as described in detail in the proposal and approved in writing by the Funding Agreement officer.

(10) During performance of award, the Awardee will perform the applicable percentage of work unless a deviation from this requirement is approved in writing by the Funding Agreement officer (check applicable line and fill in if needed):

 SBIR Phase I: at least two-thirds (66 2/3%) of the research.

 SBIR Phase II: at least half (50%) of the research.

- STTR Phase I or Phase II: at least forty percent (40%) of the research.
- Deviation approved in writing by the Funding Agreement officer (SBIR ONLY): %

(11) During performance of award, the R/R&D will be performed in the United States unless a deviation is approved in writing by the Funding Agreement officer. (Check one box)

- Yes Waiver has been granted

(12) During performance of award, the R/R&D will be performed at the Awardee's facilities by the Awardee's employees, except as otherwise indicated in the SBIR/STTR application and approved in the Funding Agreement.

(13) The SBIR Awardee has registered itself on SBA's database as majority-owned by venture capital operating companies, hedge funds or private equity firms. (Check one box)

- Yes No N/A Explain why N/A:

(14) The SBIR Awardee is a Covered Small Business Concern (a Small Business Concern that:
(a) was not majority-owned by multiple venture capital operating companies (VCOCs), hedge funds, or private equity firms on the date on which it submitted an application in response to an SBIR solicitation; and
(b) on the date of the SBIR award, which is made more than 9 months after the closing date of the solicitation, is majority-owned by multiple venture capital operating companies, hedge funds, or private equity firms). (Check one box)

- Yes No

(15) I will notify this Agency immediately if all or a portion of the work authorized and funded under this award is subsequently funded by another Federal Agency.

(16) I understand that the information submitted may be given to Federal, State, and local agencies for determining violations of law and other purposes.

(17) I am an officer of the business concern authorized to represent it and sign this certification on its behalf. By signing this certification, I am representing on my own behalf, and on behalf of the business concern that the information provided in this certification, the application, and all other information submitted in connection with this application, is true and correct as of the date of submission. I acknowledge that any intentional or negligent misrepresentation of the information contained in this certification may result in criminal, civil or administrative sanctions, including but not limited to: (1) fines, restitution and/or imprisonment under 18 U.S.C. 1001; (2) treble damages and civil penalties under the False Claims Act (31 U.S.C. 3729 et seq.); (3) double damages and civil penalties under the Program Fraud Civil Remedies Act (31 U.S.C. 3801 et seq.); (4) civil recovery of award funds, (5) suspension and/or debarment from all Federal procurement and non-procurement transactions (FAR subpart 9.4 or 2 CFR part 180); and (6) other administrative penalties including termination of SBIR/STTR awards.

Signature: _____

Date: _____

Print Name: (First, Middle, Last): _____

Title: _____

Business Name: _____

Attachment 12: Regulatory & Compliance Information

Proposal #:

1. What are the deliverables for this activity? Please explain all deliverables.
 - Hardware
 - Software
 - Data Only
 - No deliverables
 - Unknown at this time

2. Will any government owned equipment be used for this activity? Explain equipment used.
 - Yes
 - No, exclusively contractor owned equipment will be used
 - Unknown at this time

3. Who will perform this activity? (Check all that apply)
 - Government (military or civilian)
 - Contractor
 - Other
 - Unknown at this time

4. Where will this activity occur? (Check all that apply)
 - Government owned facilities (specify base and/or building name if applicable)

 - Contractor owned facilities (specify the facility)

 - Military owned ranges (Specify military owned range)

 - Other National Airspace OCONUS Other (specify)

 - Unknown at this time

5. Will this activity occur indoor or outdoor? (Check all that apply)
 - Indoor (lab)
 - Outdoor (field)
 - Outdoor in an outdoor lab (field)
 - Unknown at this time

6. Will this activity regularly utilize an existing AFRL lab?
- Yes (specify lab(s))
 - No
 - Unknown at this time
7. Will AFRL be the lead testing organization for all efforts executed as part of this activity?
- Yes
 - No
 - Unknown at this time
8. Is this an extension of a previous program or work unit?
- Yes (specify)
 - No
9. Will this work unit have a follow on effort not covered under this form?
- Yes (briefly describe scope of effort of phases in notes)
 - No
 - Unknown at this time
10. Will this activity fall under approved Standard Operating Procedure(s) (SOP(s))?
- Yes (specify SOP(s))
 - No
 - Unknown at this time
11. Will this activity involve developing, testing, or operating any space system?
- Yes
 - No
 - Unknown at this time
12. Will any part of this activity include launching into orbit or occur in space?
- Yes
 - No
 - Unknown at this time

13. Will this activity include any flight? If yes - please complete the Flight Activity Information Worksheet (attached)
- Yes
 No
14. Will this activity NOT include flying but WILL include taxiing an aircraft (manned or unmanned)? If yes, please complete the Flight Activity Information Worksheet.
- Yes
 No
15. Will this activity include flight inside an enclosed facility? (Outdoor netted facility, indoor flight testing, etc.) If yes, please complete the Flight Activity Information Worksheet.
- Yes
 No
16. Will this activity use directed energy devices? This includes, but is not limited to, microwaves or lasers.
- Yes
 No
 Unknown at this time
17. Will this activity involve explosives of any size or type? This includes, but is not limited to, ammunitions, propellants, munitions, or energetic materials.
- Yes
 No
 Unknown at this time
18. Will this activity involve electromagnetic radiation? This includes, but is not limited to, radio waves, gamma rays, and X-rays.
- Yes
 No
 Unknown at this time
19. Will this activity involve a munitions system?
- Yes
 No
 Unknown at this time

20. Will this activity use any other kind of hazardous material not already specified in questions 21-24?

- Yes
- No
- Unknown at this time

21. Will the project involve interaction or intervention with humans?

- Yes
- No

22. Will the proposed activity involve infectious agents and toxins, human-derived materials, or recombinant DNA?

- Yes
- No

23. Will the project involve access to, collection, use, and analysis, or sharing of human data or human bio specimens?

- Yes
- No

24. Will this activity involve animals?

- Yes
- No

25. Will this activity include radio frequency (RF) use? This includes, but is not limited to, radios, radars, and datalinks. If yes, please work with the AFRL Frequency Managers (AFRL/DOO) to determine requirements.

- Yes
- No
- Unknown at this time

COMPLETE FLIGHT ACTIVITY INFORMATION WORKSHEET (Below)

Flight Activity Information Worksheet

General Details

Provide general description of the proposed flight test program (4000 characters max):

Concisely describe your general and specific test objectives (4000 characters max):

Describe the number and duration of flight test events (4000 characters max):

Anticipated Flight Test Date (MM/DD/YYYY):

Aircraft

- List each the name of each aircraft that will be involved in this activity; then
- Answer the series of questions afterward for each aircraft.

Type of Vehicle

What type of aircraft will be utilized?

- Fixed Wing
- Rotary Wing
- Unmanned Aerial System (UAS)
- Other

Provide the make/model and basic specifications such as size, weight, maximum altitude, and max air speed:

Identify if the air vehicle is a new design, modification of an existing design, or no modifications will be needed to execute your flight test:

Government Interests

Will the aircraft be leased?

Yes

No

If Yes, who will be leasing the aircraft at the time of the flight activity? (Provide specific contractor or government organization):

If No, who will own the aircraft at the time of the flight activity? (Provide specific contractor or government organization):

Does the government have an interest in owning the aircraft at a later time?

Yes

No

If Yes, please explain:

Does the government have an interest in owning any of the spectrum dependent equipment which is part of this system?

Yes

No

If Yes, please explain:

Will there be any government furnished equipment (GFE) on the aircraft?

Yes

No

If yes, please specify GFE proposed to be onboard the aircraft:

If yes, please specify the value of the GFE:

Will there be any spectrum dependent government furnished equipment (GFE) used during the test activity?

Yes

No

If Yes, Explain:

What is the cost of the aircraft to include any modifications or systems under test? (include ground equipment and equipment flown on other aircraft):

Are Humans at Risk?

Will the aircraft carry any personnel in addition to the required flight crew?

Yes

No

If Yes, describe role of all personnel onboard the air vehicle:

Liability

Who will operate the aircraft? (Select all that apply)

Contractor Employee

Subcontractor Employee

Government Employee

Other

If Other, please explain:

Is the aircraft insured for the proposed flight activity? (to include loss or damage of the vehicle, liability, injury to persons on board aircraft – please provide the declarations page of insurance policy or estimated future coverage as an attachment)

Yes

No

If yes, I have attached the declarations page of insurance policy or estimated future coverage as an attachment with my proposal.

COTS UAS

Section 848 of the 2020 National Defense Authorization Act prohibits operation and procurement of UAS or UAS components made in the People's Republic of China (PRC)

Does the UAS contain any components made in the PRC?

Yes

No

If Yes, please describe:

Location

Where will the aircraft be operated? (Select all that apply)

- Enclosed space (building, netted enclosure, etc.)
- Open Air

Where will the proposed flight operations take place (specify city, state, test range, facility, type of airspace, etc)? Note: Specify all proposed flight operations locations:

Other Implications

Are the proposed flight activities exclusively for testing purposes?

- Yes
- No

Will the aircraft be ferried as part of the contract before, during or after the test program?

- Yes
- No

If Yes, please describe:

Potential Risk

Will flight activities involve testing of aircraft subsystems?

Yes

No

If Yes, please specify which systems:

Will the aircraft be used to carry (either integrated into the aircraft or simply carried by the aircraft) the item being tested?

Yes

No

If Yes, please describe:

Will the flight activity be used to test development or reliability of aircraft components?

Yes

No

If Yes, please describe:

Will the flight activity be conducted to determine or demonstrate critical operating characteristics of an aircraft?

Yes

No

If Yes, please describe:

Will the flight activity involve high angle attack tests?

Yes

No

If Yes, please describe:

Will the flight activity be used to test development or reliability of aircraft components?

Yes

No

If Yes, please describe:

Will the light activity involve flutter tests?

Yes

No

If Yes, please describe:

Will the flight activity involve loads tests?

Yes

No

If Yes, please describe:

Will the flight activity involve critical stores separation tests?

Yes

No

If Yes, please describe:

Will the flight activity include flights to determine or expand flight or propulsion system envelopes?

Yes

No

If Yes, please describe:

Will the flight activity include flights to determine performance, flight characteristics, and/or handling qualities?

Yes

No

If Yes, please describe:

Will the flight activity include flights of an aircraft whose flight characteristics may have been altered by configuration changes?

Yes

No

If Yes, please describe:

Will the flight activity include initial flights of aircraft which have undergone “major modification”?

Yes

No

If Yes, please describe:

Will the flight activity include component development flights where failure of the test component would make the flight hazardous in nature and/or involve greater than normal risk?

Yes

No

If Yes, please describe:

CAO or PAO

The planned flights are to be executed as (please choose from below to identify how flight will be executed):

Civil Aircraft Operations (CAO), the activity will occur under FAA rules

Public Aircraft Operations (PAO) an aircraft operation is “public” when the aircraft is owned by the government, or is operated by the government or operates outside of the purview of the FAA airworthiness certificate

Will the aircraft be used for any military type activities (i.e. not just testing), such as carrying a weapon or launching a missile?

Yes

No

If Yes, please describe:

Proper Use Memo

Does the airborne system include any sensors that could be used to observe personnel on the ground? This may include any open-air data collection to include imagery, full motion video, electro optical/infrared (EQ/IR), Light Detection and Ranging (LIDAR), Synthetic Aperture Radar (SAR), Wide Area Motion Imagery.

Yes

No

If Yes, describe type of sensor:

Click or tap here to enter text.

If Yes, a Proper Use Memorandum may be needed to ensure compliance with laws regarding domestic intelligence collection