National Aeronautics and Space Administration Small Business Technology Transfer (STTR) Phase II Program Year 2022 Solicitation

Completed Proposal Package Due Date and Time: August 25, 2023 - 5:00 p.m. ET

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Executive Summary

This notice identifies the objectives for the Small Business Technology Transfer (STTR) Program Phase II projects, deadlines, funding information, eligibility criteria for projects and offerors, and instructions to submit a complete proposal package.

STTR facilitates cooperative research and development (R&D) between small business concerns and U.S. research institutions – with potential for commercialization. The STTR program has a statutory requirement to stimulate a partnership of ideas and technologies between innovative Small Business Concerns (SBCs) and Research Institutions through federally funded research or research and development (R/R&D). STTR also adheres to SBA directives to increase participation by Women-Owned, Service-Disabled Veteran-Owned and Small Disadvantaged Businesses and outreach to Historically Black Colleges and Universities (HBCUs) and Minority Serving Institutions. Outreach is also made to underrepresented areas/regions of the country.

The NASA STTR program focuses on the following:

- Stimulate technological innovation in the private sector.
- Strengthen the role of SBCs in meeting Federal research and development needs.
- Foster and encourage participation of socially and economically disadvantaged persons and womenowned small businesses.
- Increase the commercial application of these research results.
- Foster technology transfer through cooperative R&D between small businesses and research institutions.

Different from most other investors, the NASA STTR Program funds early or "seed" stage research and development that has commercial potential. The program provides equity-free funding at the earliest stages of company and technology development.

NASA requests proposal packages for the STTR Program Phase II as follow-on work that originally started and was completed under the fiscal year (FY) 2022 STTR Phase I. Only small businesses that had a FY 2022 NASA STTR Phase I award are allowed to submit a proposal for Phase II.

The solicitation period for Program Year 2022 Phase II submission of completed proposal packages begins on July 14, 2023, and ends at 5 p.m. Eastern Time on August 25, 2023.

Note: If an offeror has received a no-cost extension on their Phase I contract, the <u>original</u> period of performance date of the contract applies as the deadline. Therefore, the new period of performance date for the extension <u>does not</u> apply and cannot be used as the deadline to submit a Phase II Proposal.

NASA uses an electronic submission system called the Electronic Handbook (EHB) <u>https://sbir.gsfc.nasa.gov/submissions/login</u> and all offerors must use the EHB for submitting a completed proposal package. The EHB guides firms through the steps for submitting a complete proposal package. All submissions are through a secure connection and most communication between NASA and the firm is through either the EHB or email via the helpdesk at <u>agency-sbir@mail.nasa.gov</u>. For more information see section 3.

The SBIR and STTR Extension Act of 2022 (<u>https://www.congress.gov/bill/117th-congress/senate-bill/4900/text</u>) reauthorizes through FY 2025 and modifies the Small Business Innovation Research (SBIR) program, the Small Business Technology Transfer (STTR) program, and related pilot programs.

The bill requires agencies with an SBIR or STTR program to assess the security risks presented by offerors with financial ties or obligations to certain foreign countries. The programs may not make awards to businesses with certain connections to foreign entities. See sections 1.1.1 Due Diligence Program to Assess Security Risks and 2.3.1 Disclosures of Foreign Affiliation or Relationships to Foreign Countries for additional details.

1. Program Description

1.1 Legislative Authority and Background

The SBIR and STTR Extension Act of 2022 (Pub. L. 117-183.) amended 15 U.S.C. § 638 of the Small Business Act to extend the SBIR/STTR programs until September 30, 2025. The policy is provided by the Small Business Administration (SBA) through the combined Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs <u>Policy Directive</u>. The main purpose of the legislation is to stimulate technological innovation in the Federal Research/Research and Development (R/R&D) sector and increase private sector commercialization in both the SBIR and STTR programs. Accordingly, the NASA STTR program is in a unique position to meet both goals by transforming scientific discovery and innovation to be used in NASA programs and missions as well as emphasizing private-sector commercialization.

The STTR program is Congressionally mandated and intended to support scientific excellence and technological innovation through the investment of Federal research funds to build a strong national economy by stimulating technological innovation in the private sector; strengthening the role of small businesses in meeting Federal research and development needs; increasing the commercial application of federally supported research results; fostering and encouraging participation by socially and economically disadvantaged and women-owned small businesses; and fostering technology transfer through cooperative R&D between small businesses and research institutions.

1.1.1 Due Diligence Program to Assess Security Risks

The SBIR and STTR Extension Act of 2022 requires NASA, in coordination with the SBA, to establish and implement a due diligence program to assess security risks presented by offerors seeking a Federally funded award. As noted above, the NASA SBIR/STTR Programs follow the policies and practices of the SBA SBIR/STTR Policy Directive. Revisions to the Policy Directive are in effect as of May 3, 2023 and the Federal Register Notice is available at: https://www.federalregister.gov/documents/2023/04/03/2023-06870/small-business-innovation-researchprogram-and-small-business-technology-transfer-program-policy. This revision is incorporated into this solicitation, including Appendix III, "Disclosures of Foreign Affiliations or Relationships to Foreign Countries" as reflected in the Disclosures of Foreign Affiliations or Relationships to Foreign Countries form (see section 2.3.1).

In accordance with Section 4 of the SBIR and STTR Extension Act of 2022, NASA will review all proposals submitted in response to this solicitation to assess security risks presented by offerors seeking an SBIR or STTR award. NASA will use information provided by the offeror in response to the Disclosures of Foreign Affiliations or Relationships to Foreign Countries form and the 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 financial ties and obligations (which shall include surety, equity, and debt obligations) of the offeror and its employees to a foreign country, foreign person, or foreign entity. NASA 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(o)(17).

1.2 Purpose and Priorities

The purpose of Phase II is to continue the R/R&D developed under Phase I with a goal to commercialize and bring the innovation to either Federal or commercial markets, or both, as the Phase II project completes. Phase II will require a more comprehensive application, outlining the proposed effort in detail and the commercialization strategy for the effort. NASA recognizes that Phase II awards may not be sufficient in either dollars or time for the firm to complete the total R/R&D and the commercialization activities required to bring the project results to the marketplace. Therefore, completion of the research under these circumstances may have to be carried into Post Phase II opportunities or Phase III.

This solicitation includes instructions for Small Business Concerns (SBCs) in collaboration with a Research Institution (RI) to submit a Phase II completed proposal package to the NASA STTR program. Furthermore, program background information, eligibility requirements for participants, information on the three program phases, and information for submitting completed and responsive proposal packages to NASA-specific research subtopics are contained herein. **The solicitation period for Program Year 2022 Phase II submission of completed proposal packages begins on July 14, 2023, and ends at 5 p.m. Eastern Time on August 25, 2023.**

The Space Technology Mission Directorate (STMD) provides overall policy direction for the implementation of the NASA STTR program. The NASA SBIR/STTR Program Management Office (PMO), hosted at the NASA Ames Research Center, operates the program in conjunction with NASA mission directorates and centers. Additionally, the NASA Shared Services Center (NSSC) provides the overall procurement management for the programs.

For the STTR program, NASA research and technology areas that were solicited in Phase I serve as the basis for the Phase II proposal. Under this solicitation, there will not be a listing of research topics to be solicited. Offerors are expected to provide proposals that are follow-on work from the prior 2022 Phase I award. See FY 2022 STTR Phase I Solicitation Chapter 9 for reference.

1.3 Three-Phase Program

The NASA STTR program is carried out in three separate phases. Only Phase II is described below as offerors will have already completed Phase I to submit under this solicitation. The three phases are described in detail on the NASA SBIR/STTR website: <u>http://sbir.nasa.gov/content/nasa-sbirsttr-basics</u>.

Phase II

Phase II proposals continue the R/R&D developed under Phase I to bring the innovation closer to infusion into a NASA program or mission and/or commercialization of the innovation in the marketplace. Phase II will require a more comprehensive proposal, outlining the proposed effort in detail and the commercialization strategy for the effort. Only prior Phase I awardees are eligible to submit a Phase II proposal at the conclusion of the Phase I contract.

| Phase II Contracts | STTR |
|-------------------------------|-----------|
| Maximum Contract Value | \$850,000 |
| Maximum Period of Performance | 24 months |

Post-Phase II Opportunities for Continued Technology Development

NASA recognizes that Phase I and II awards may not be sufficient in either dollars or time for the firm to complete the total R/R&D and the commercialization activities required to make the project ready for infusion or the commercial marketplace. Therefore, NASA has several initiatives for supporting its small business partners beyond their Phase I and Phase II awards.

Please refer to <u>http://sbir.nasa.gov/content/post-phase-ii-initiatives</u> for Post Phase II eligibility, application deadlines, matching requirements, and further information.

Phase III

Phase III is the commercialization of innovative technologies, products, and services resulting from either a Phase I or Phase II contract. This includes further development of technologies for transition into NASA programs, other Government agencies, or the private sector. Phase III contracts are funded from sources other than the STTR program and may be awarded without further competition.

Please refer to <u>https://sbir.nasa.gov/content/post-phase-ii-initiatives#Phase-III</u> for Phase III information.

1.4 Availability of Funds

There is no commitment by NASA to fund any proposal or to make a specific number of awards and NASA may elect to make several or no awards in any specific research subtopic. The number of awards will be based on the level of appropriated funding provided to the program in FY 2023.

It is anticipated the STTR Phase II completed proposal packages will be selected for negotiation of firm-fixedprice contracts for a period of performance not to exceed twenty-four (24) months.

1.5 Eligibility Requirements

1.5.1 Small Business Concern (SBC)

Each Phase II offeror must submit a certification stating that it meets the size, ownership, and other requirements of the STTR program at the time of a completed proposal package submission, award, and at any other time set forth in SBA's regulations at <u>13 CFR §§ 121.701-121.705</u>. Socially and economically disadvantaged and women-owned SBCs are particularly encouraged to propose.

1.5.2 SBC Size

A Phase II offeror, combined with its affiliates (as defined in 13 CFR § 121.702), must not have more than 500 employees. The SBC must be the primary performer of the proposed Phase II research effort.

1.5.3 STTR Restrictions on Level of Small Business Participation

To be awarded an STTR Phase II contract, at least 40% of the research or analytical effort must be performed by the offeror, and at least 30% of the effort must be performed by a single research institution.

1.5.4 Place of Performance and American-made Products and Equipment

All work <u>shall</u> be performed in the United States. When purchasing equipment or a product under the SBIR/STTR funding agreement, purchase only American-made items whenever possible. However, based on a rare and unique circumstance (for example, if a supply, material, or other item or project requirement is not available in the United States), NASA may allow a particular portion of the research or work to be performed or obtained in a country outside of the United States.

Completed proposal packages must clearly indicate if any work will be performed outside the United States, including subcontractor performance, and justification must be provided by downloading and completing the "Request to Use a Foreign Vendor/Purchase of Items from a Foreign Vendor" form found at https://sbir.gsfc.nasa.gov/submissions/learning-support/firm-templates and while completing the budget under section 3.4.

Prior to award, approval by the Contracting Officer for such specific condition(s) must be in writing.

Note: NASA will not approve purchases from or work with countries that appear on the list of Designated Countries. For reference, please see <u>https://www.nasa.gov/oiir/export-control.</u>

| Requirements | STTR |
|--------------------|---|
| Primary Employment | The primary employment of the Principal Investigator (PI) shall be with the SBC or the |
| | Research Institution (RI) under the STTR program. |
| Employment | The offeror must certify in the completed proposal package that the primary |
| Certification | employment of the PI will be with the SBC or the RI at the time of award and during the |
| | execution of the project. Primary employment means that more than 50 percent of the |
| | PI's total employed time (including all concurrent employers, consulting, and self- |
| | employed time) is spent with the SBC or RI at the time of award and during the entire |
| | period of performance. Primary employment with an SBC precludes full-time |

1.5.5 Principal Investigator (PI) Employment Requirement

| | employment at another organization. If the PI does not currently meet these primary employment requirements, then the offeror must explain how these requirements will be met if the proposal is selected for contract negotiations that may lead to an award. |
|----------------------|--|
| Co-PIs | Not allowed. |
| Deviation Request | Any deviation requests will be reviewed during the negotiation of the award and either approved or declined before the final award by the funding agreement officer. |
| Misrepresentation of | This shall result in a decline of the completed proposal package or termination of the |
| Qualifications | contract. |
| Substitution of PIs | Requires prior approval from NASA after award. |

Note: NASA considers full-time employment to include salaried employees and employees who regularly work a 40-hour workweek. NASA considers a 19.9-hour or more workweek elsewhere to conflict with this rule. In rare occasions, minor deviations from this requirement may be necessary; however, any minor deviation must be approved in writing prior to the award by the Contracting Officer after consultation with the NASA SBIR/STTR Program Manager/Business Manager.

1.5.6 Restrictions on Venture-Capital-Owned Businesses

At the current time, small businesses owned in the majority part by multiple venture capital operating companies, hedge funds, or private equity firms are not eligible to submit a proposal package under this NASA STTR Phase II solicitation.

1.5.7 Joint Ventures or Limited Partnerships

Both joint ventures and limited partnerships are permitted, provided the entity created qualifies as an SBC in accordance with the definition of an SBC here: <u>http://sbir.nasa.gov/content/nasa-sbirsttr-program-definitions</u>. A statement of how the workload will be distributed, managed, and charged should be included in the completed proposal package. See definitions for Joint Ventures along with examples at <u>13 CFR 121.103(h)</u>.

A copy or comprehensive summary of the joint venture agreement or partnership agreement should be included when uploading the completed proposal package.

1.6 NASA Technology Available (TAV) for STTR Use

Offerors that proposed to use technology developed by NASA (Technology Available (TAV)) under their Phase II project should plan to continue to move the technology towards commercialization after Phase II. For more information on the NASA Technology Transfer program go to <u>http://technology.nasa.gov</u>.

Whether or not a firm proposes the use of a NASA patent or computer software within its proposed effort will not in any way be a factor in the selection for the award.

1.6.1 Use of NASA Software

If an offeror intends to use NASA software, a Software Usage Agreement (SUA), on a nonexclusive, royalty-free basis, is necessary, and the clause at 48 CFR 1852.227-88, Government-Furnished Computer Software and Related Technical Data, will apply to the contract. The SUA shall be requested from the appropriate NASA center Software Release Authority (SRA), after the contract award.

1.6.2 Use of NASA Patent

All offerors submitting a completed proposal package that includes the use of a NASA patent must apply for a nonexclusive, royalty-free evaluation license. After firms have identified a patent to license in the NASA patent portfolio (<u>http://technology.nasa.gov</u>), a link on the patent webpage ("Apply Now to License this Technology") will direct them to NASA's Automated Licensing System (ATLAS) to finalize their license with the appropriate field center technology transfer office. The completed evaluation license application must be provided with the proposal following the directions in section 3.4. Such grant of nonexclusive evaluation license will be set

forth in the successful offeror's STTR contract. The evaluation license will automatically terminate at the end of the STTR contract. License applications will be treated in accordance with Federal patent licensing regulations as provided in 37 CFR Part 404.

In addition to an evaluation license, if the proposed work includes the making, using, or selling of products or services incorporating a NASA patent, successful awardees will be given the opportunity to negotiate a nonexclusive commercialization license or, if available, an exclusive commercialization license to the NASA patent. Commercialization licenses are also provided in accordance with 37 CFR Part 404.

An STTR awardee that has been granted a nonexclusive, royalty-free evaluation license to use a NASA patent under the STTR award may, if available and on a noninterference basis, also have access to NASA personnel knowledgeable about the NASA patent. Licensing executives located at the appropriate NASA field center will be available to assist awardees requesting information about a patent that was identified in the STTR contract and, if available and on a noninterference basis, provide access to the inventor or surrogate for the purpose of knowledge transfer.

Note: Access to the inventor for the purpose of knowledge transfer will require the requestor to enter into a Non-Disclosure Agreement (NDA) or other agreement, such as a Space Act Agreement. The awardee may be required to reimburse NASA for knowledge transfer activities.

1.7 Technical and Business Assistance (TABA)

The 15 U.S.C. § 638(q) permits STTR awardees to enter into agreements with one or more vendors to provide Technical and Business Assistance (TABA). TABA allows an additional supplement to the award (up to \$50,000 for Phase II) and is aimed at improving the commercialization success of STTR awardees. TABA may be obtained from entities such as public or private organizations, including an entity established or funded by a U.S. state that facilitates or accelerates the commercialization of technologies or assists in the creation and growth of private enterprises that are commercializing the technology.

In accordance with the Small Business Act, NASA may authorize the recipient of a NASA Phase II STTR award to purchase technical and business assistance services through one or more outside vendors. These services may, as determined appropriate, include access to a network of non-NASA scientists and engineers engaged in a wide range of technologies, assistance with product sales, intellectual property protections, market research, market validation, and development of regulatory plans and manufacturing plans, or access to technical and business literature available through online databases, for the purpose of assisting such concerns in:

- 1. Making better technical decisions concerning such projects.
- 2. Solving technical problems that arise during the conduct of such projects.
- 3. Minimizing technical risks associated with such projects; or,
- 4. Commercializing new products and processes resulting from such projects, including intellectual property protections.

For information on how to request TABA at Phase II, please see Section 3.4.15, Phase II Request for Use of Technical and Business Assistance Funds. Technical and business assistance does not count toward the maximum award amount of your Phase II contract. Approval of technical and business assistance is not guaranteed and is subject to review by the Contracting Officer and the SBIR/STTR Program Management Office. A description of any technical and business assistance obtained under this section, Section 3.4.15, and the benefits and results of the technical or business assistance provided will be a required deliverable of your contract.

1.8 Phase II Intern Diversity Supplement (IDS) Program

Offerors that are successful in receiving a Phase II award are eligible to apply for an intern diversity supplement to be effective only in the summer months of the second year of their Phase II project period. Instructions for requesting a diversity supplement will be provided directly to Phase II awardees prior to the application period which is anticipated to be in January 2025.

<u>PURPOSE</u>

The purpose of a Phase II intern diversity supplement is to improve the diversity of the research workforce by recruiting and supporting undergraduate and graduate students from groups that have been shown to be underrepresented in the U.S. science and engineering workforce.

Fostering diversity by encouraging the participation of individuals from nationally underrepresented groups in the scientific and engineering research workforce is a longstanding interest of Congress, and a key component of the NASA SBIR/STTR outreach strategy to identify, develop, support, and maintain the quality of its scientific and engineering workforce. Similarly, fostering and encouraging participation from women, socially and economically disadvantaged individuals, and other individuals in nationally underrepresented groups in the science and engineering workforce are equally critical to the success of the SBIR and STTR programs. Scientists, engineers, and entrepreneurs from underrepresented backgrounds and life experiences bring different perspectives, creativity, and individual enterprise to address complex scientific problems.

This diversity supplement is designed to provide support for research and entrepreneurial experiences for candidates whose participation will improve the SBIR/STTR program by promoting diversity in the small business community throughout the continuum from undergraduate to graduate level. Continuation of this program in the future will depend on the evaluation of the career outcomes of the supported individuals as well as continuing assessments of the diversity of the small business programs by the U.S. Small Business Administration and the National Academies.

In all cases, the proposed research experience must be an integral part of the approved ongoing research of the eligible NASA Phase II award and must have the potential to contribute to the research and entrepreneurial career development of the candidates.

CANDIDATES

SBCs are encouraged to identify women, individuals from nationally underrepresented groups, individuals with a commitment to diversifying the science and engineering workforce, and/or individuals meeting the SBA definition of socially and economically disadvantaged at 13 CFR §124.103 and 13 CFR § 124.104.

Members of socially disadvantaged groups as defined by Executive Order on Advancing Racial Equity and Support for Underserved Communities Through the Federal Government dated January 20, 2021, are:

 Black, Latino, Indigenous, and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality Black Americans.

An economically disadvantaged individual candidate for a diversity supplement must have:

- A net worth less than \$750,000 (not including his or her primary residence and the value of the individual's ownership interest in a socially and economically disadvantaged SBC, if any),
- An average adjusted gross income of \$350,000 or less for the preceding three years, and
- The fair market value of all his or her assets (including his or her primary residence and the value of the individual's ownership interest in a socially and economically disadvantaged SBC, if any) does not exceed \$6 million.

Please review 13 CFR §§ 124.103 and 104 for more information and for exclusions from the threshold amounts. For purposes of the diversity supplement, the definitions above apply to the individual candidates, not the SBC Phase II offeror applying for the supplement.

As part of this supplement program, undergraduate, baccalaureate and master's degree, and gradulate students who have a demonstrated interest in or desire to pursue science, technology, engineering, or math (STEM) training and entrepreneurship, may participate in a Phase II research project during the summer months. This experience is separate from any requirement of the regular academic program.

The duration of the program is normally 10 weeks but could be extended with a no-cost extension request and approval from the Contracting Officer.

This supplement program is limited to citizens or non-citizen nationals of the United States or individuals who have been lawfully admitted for permanent residence in the United States.

1.9 Small Business Administration (SBA) Applicant Resources

The SBA oversees the Federal SBIR and STTR programs. The SBA has resources that small businesses can take advantage of in learning about each of the programs and obtaining help in developing a completed proposal package to submit to a Federal SBIR/STTR program. Offerors are encouraged to review the information that is provided at the following links: www.sbir.gov/nesources, https://www.sbir.gov/nesources.

1.10 NASA Mentor-Protégé Program (MPP)

The purpose of the NASA Mentor-Protégé Program (MPP) is to provide incentives to NASA contractors, performing under at least one active approved subcontracting plan negotiated with NASA, to assist protégés in enhancing their capabilities to satisfy NASA and other contract and subcontract requirements. The NASA MPP established under the authority of Title 42 U.S.C. § 2473(c)(1) and managed by the Office of Small Business Programs (OSBP), includes an Award Fee Pilot Program. Under the Award Fee Pilot Program, a mentor is eligible to receive an award fee at the end of the agreement period based upon the mentor's performance of providing developmental assistance to an active STTR Phase II contractor in a NASA Mentor-Protégé agreement (MPA).

The evaluation criterion is based on the amount and quality of technology transfer and business development skills that will increase the protégé's Technology Readiness Levels (TRLs). TRLs measure technology readiness on a scale of 1 to 9. A mentor should attempt to raise the TRL of the protégé and outline the goals and objectives in the MPA and the award fee plan. A separate award fee review panel set up by NASA OSBP will use the semiannual reports, annual reviews, and the award fee plan in order to determine the amount of award fee given at the end of the performance period of the agreement.

For more information on the Mentor-Protégé Program, please visit <u>https://www.nasa.gov/osbp/mentor-protege-program</u>.

1.11 Fraud, Waste, Abuse, and False Statements

Fraud is described as "any false representation about a material fact or any intentional deception designed to deprive the United States unlawfully of something of value or to secure from the United States a benefit, privilege, allowance, or consideration to which an individual or business is not entitled."

Note: The Federal Government reserves the right to decline any completed proposal packages that include plagiarism and false claims.

Note: 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., section 1001), punishable by a fine and imprisonment of up to 5 years in prison. The Office of the Inspector General (OIG) has full access to all completed proposal packages submitted to NASA.

Pursuant to NASA policy, any company representative who observes a crime, fraud, waste, abuse, or mismanagement or receives an allegation of a crime, fraud, waste, abuse, or mismanagement from a federal employee, contractor, grantee, contractor, grantee employee, or any other source will report such observation or allegation to the Office of Inspector General (OIG). NASA contractor employees and other individuals are also encouraged to report crime, fraud, waste, and mismanagement in NASA's programs to the OIG. The OIG offers several ways to report a complaint:

NASA OIG Hotline: 1-800-424-9183 (TDD: 1-800-535-8134)

NASA OIG Cyber Hotline: https://oig.nasa.gov/cyberhotline.html

Or by mail: NASA Office of Inspector General P.O. Box 23089 L'Enfant Plaza Station Washington, DC 20026

1.12 NASA Procurement Ombudsman Program

The NASA Procurement Ombudsman Program is available under this solicitation as a procedure for addressing concerns and disagreements concerning the terms of the solicitation, the processes used for the evaluation of completed proposal packages, or any other aspect of the STTR procurement. The clause at NASA Federal Acquisition Regulation (FAR) Supplement (NFS) 1852.215-84 ("Ombudsman") is incorporated into this solicitation.

The cognizant ombudsman is:

Marvin Horne, Procurement Ombudsman Office of Procurement NASA Headquarters Washington, DC 20546-0001 Telephone: 202-358-4483 Fax: 202-358-3082 Email: agency-procurementombudsman@nasa.gov

Offerors are advised that, in accordance with NFS 1852.215-84, the ombudsman does not participate in any way with the evaluation of completed proposal packages, the source selection process, or the adjudication of formal contract disputes. Therefore, before consulting with the ombudsman, offerors must first address their concerns, issues, disagreements, and/or recommendations to the Contracting Officer for resolution. Offerors are further advised that the process set forth in this solicitation provision (and described at NFS 1852.215-84) does not augment their right to file a bid protest or otherwise toll or elongate the period in which to timely file such a protest.

1.13 General Information

1.13.1 Questions About This Solicitation and Means of Contacting NASA STTR Program

To ensure fairness, questions relating to the intent and/or content of research subtopics in this solicitation cannot be addressed during the open solicitation period. Only questions requesting clarification of the completed proposal package instructions and administrative matters will be addressed.

The cutoff date and time for receipt of Phase II solicitation questions requesting clarification of completed proposal package instructions and administrative matters are August 25, 2023, at 12:00 p.m. ET.

Offerors that have questions requesting clarification of completed proposal package instructions and administrative matters should refer to the NASA SBIR/STTR website or contact the NASA SBIR/STTR helpdesk.

- 1. NASA SBIR/STTR website: <u>http://sbir.nasa.gov</u>
- 2. Help Desk: The NASA SBIR/STTR Help Desk can answer any questions regarding clarification of completed proposal package instructions and any administrative matters. The Help Desk may be contacted by:
 - a. Email: <u>agency-sbir@mail.nasa.gov</u>
 - b. The requestor must provide the name and telephone number of the person to contact, the organization name and address, and the specific questions or requests.

1.14 Definitions

A comprehensive list of definitions related to the programs is available at <u>http://sbir.nasa.gov/content/nasa-sbirsttr-program-definitions</u>. These definitions include those from the SBA SBIR/STTR programs Policy Directive as well as terms specific to NASA. Offerors are strongly encouraged to review these prior to submitting a completed proposal package.

2. Registrations, Certifications, and Other Completed Proposal Package Information

2.1 Small Business Administration (SBA) Company Registry

All SBCs that are applying to any STTR solicitation are required to register with the STTR Company Registry which is managed by the SBA. In addition, all SBCs must update their commercialization status through the STTR Company Registry. Information related to the steps necessary to register with the STTR Company Registry can be found at https://www.sbir.gov/registration.

After an SBC registers with SBA and/or updates its commercialization information, the offeror needs to obtain a portable document format (PDF) copy of the SBC registration. In addition, the SBC must provide their unique SBC Control ID (assigned by the SBA upon completion of the Company Registry registration) and must upload the PDF copy of the SBC registration in the EHB. Offerors should complete the Firm Certifications form in the EHB and will be provided instructions on how to complete it at the time of submission. Firm Certifications are applicable across all completed proposal packages submitted by the SBC for the specific solicitation.

2.2 System for Award Management (SAM) Registration

Offerors are <u>required to register with SAM prior to submitting a completed proposal package</u>. To be eligible for STTR awards, firms must be registered under the applicable North American Industry Classification System (NAICS) codes for the STTR Phase II awards (codes 541713 or 541715). Offerors without an active SAM registration by the due date for a completed proposal package will be ineligible for award. Offerors who started the registration process but did not complete the registration by the due date for a completed proposal package will be ineligible for the award.

<u>Offerors who are not registered should consider applying for registration immediately upon receipt of this</u> <u>solicitation. Typically, SAM registration and updates to SAM registration have required a processing period</u> <u>of several weeks.</u>

Offerors and contractors may obtain information on SAM registration and annual confirmation requirements at <u>https://www.sam.gov/SAM/pages/public/index.jsf</u> *or by calling 866-606-8220.*

SAM, maintained by the GSA's Federal Acquisition Service, is the primary repository for contractor information required to conduct business with NASA. To be registered in SAM, all mandatory information, including the Unique Entity Identifier (UEI) and a Commercial and Government Entity (CAGE) code, must be validated in SAM.

Note: It is recommended to list the Purpose of Registration as "All Awards" on your SAM Registration.

2.3 Certifications

Offerors must complete the Firm and Proposal Certifications section in the Electronic Handbook (EHB), answering "Yes" or "No" to certifications as applicable. Firms should carefully read each of the certification statements. The Federal Government relies on the information to determine whether the business is eligible for an STTR program award. A similar certification will be used to ensure continued compliance with specific program requirements at the time of award and 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 programs Policy Directive, and any statutory and regulatory provisions referenced in those authorities.

All STTR Phase II contractors shall also complete the life cycle certifications at the midpoint and the end of the contract period of performance. The certifications shall be completed by the contractor via the EHB unless otherwise authorized or directed by the Contracting Officer.

If the Contracting Officer believes that the business may not meet certain eligibility requirements at the time of award, the business is required to file a size protest with the SBA, which will determine eligibility. At that time, SBA will request further clarification and supporting documentation to assist in the eligibility determination. Additionally, the Contracting Officer may request further clarification and supporting documentation regarding eligibility to determine whether a referral to SBA is required.

2.3.1 Disclosures of Foreign Affiliation or Relationships to Foreign Countries

Each offeror is required to complete the "Disclosures of Foreign Affiliations or Relationships to Foreign Countries" form as part of their proposal submission. Please note that even if you do not have any foreign relationships, you must complete this form to represent that such relationships do not exist. Failure to submit this form will result in declination of your proposal during the administrative screening process and your proposal will not be evaluated. The disclosure of information related to foreign involvement or investment is required and does not independently disqualify an offeror but failing to disclose such affiliations or relationships may result in denial of an award.

The disclosures require the following information:

 (A) the identity of all owners and covered individuals of the small business concern who are a party to any foreign talent recruitment program of any foreign country of concern, including the People's Republic of China;

- (B) the existence of any joint venture or subsidiary of the small business concern that is based in, funded by, or has a foreign affiliation with any foreign country of concern, including the People's Republic of China;
- (C) 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;
- (D) whether the small business concern is wholly owned in the People's Republic of China or another foreign country of concern;
- (E) the percentage, if any, of venture capital or institutional investment by an entity that has a general partner or individual holding a leadership role in such entity who has a foreign affiliation with any foreign country of concern, including the People's Republic of China;
- (F) any technology licensing or intellectual property sales to a foreign country of concern, including the People's Republic of China, during the five-year period preceding submission of the proposal; and
- (G) any foreign entity, offshore entity, or entity outside the United States related to the small business concern.

After reviewing the above listed disclosures of the offeror, and if determined appropriate by NASA, the program may ask the offeror to provide true copies of any 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 in effect during the five-year period preceding submission of the proposal with respect to which the offeror made the disclosures.

Throughout the duration of the award, the awardee will be required to regularly report to NASA any changes to a required disclosure.

2.4 Federal Acquisition Regulation (FAR) and NASA Certifications and Clauses

SAM contains required certifications offerors may access at <u>https://www.acquisition.gov/browsefar</u> as part of the required registration (see FAR 4.1102). Offerors must complete these certifications to be eligible for an award.

Offerors should be aware that SAM requires all offerors to provide representations and certifications electronically via the website and to update the representations and certifications as necessary, but at least annually, to keep them current, accurate, and complete. NASA will not enter into any contract wherein the contractor is not compliant with the requirements stipulated herein.

In addition, there are clauses that offerors will need to be aware of if selected for a contract. For a complete list of FAR and NASA clauses see Appendix C.

2.5 Software Development Standards

Offerors proposing projects involving the development of software may be required to comply with the requirements of NASA Procedural Requirements (NPR) 7150.2A, NASA Software Engineering Requirements, available online at https://ndis3.gsfc.nasa.gov/npg img/N PR 7150 002C /N PR 7150 002C .pdf.

2.6 Human and/or Animal Subject

Offerors should be aware of the requirement that an approved protocol by a NASA review board is required if the proposed work includes human or animal subjects. An approved protocol shall be provided to the Contracting Officer prior to the initiation of any human and/or animal subject research. Offerors shall identify the use of human or animal subjects in the Proposal Certifications form. For additional information, contact the NASA SBIR/STTR Program Support Office at agency-sbir@mail.nasa.gov. Reference 14 CFR 1230 and 1232.

2.7 Homeland Security Presidential Directive 12 (HSPD-12)

Offerors that require access to Federally controlled facilities or access to a Federal information system (Federally controlled facilities and Federal information systems are defined in FAR 2.101(b)(2)) for 6 consecutive months or more must adhere to Homeland Security Presidential Directive 12 (HSPD-12), Policy for a Common Identification Standard for Federal Employees and Contractors, and Federal Information Processing Standards Publication (FIPS PUB) Number 201, Personal Identity Verification (PIV) of Federal Employees and Contractors, which require agencies to establish and implement procedures to create and use a Government-wide secure and reliable form of identification no later than October 27, 2005. See https://nvlpubs.nist.gov/nistpubs/FIPS/NIST.FIPS.201-2.pdf.

This is in accordance with FAR clause 52.204-9, Personal Identity Verification of Contractor Personnel, which states in part that the contractor shall comply with the requirements of this clause and shall ensure that individuals needing such access shall provide the personal background and biographical information requested by NASA.

Note: Additional information regarding PIV credentials can be found at <u>https://csrc.nist.gov/Projects/PIV</u>.

3. Phase II Proposal Preparation Instructions and Requirements

3.1 Phase II Proposal

The Phase II proposal is to continue the R/R&D developed under Phase I with a goal to commercialize and bring the innovation to Federal and commercial markets as the Phase II project completes. Phase II will require a more comprehensive application, outlining the proposed effort in detail and the commercialization strategy for the effort. NASA recognizes that Phase II awards may not be sufficient in either dollars or time for the firm to complete the total R/R&D and the commercialization activities required to bring the project results to the marketplace. Therefore, completion of the research under these circumstances may have to be carried into NASA Post-Phase II or Phase III opportunities.

3.2 Proprietary Information in the Proposal Submission

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 follows:

(A) The following "italicized" legend must appear on the title page of the proposal:

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 the award is made as a result of the submission of this proposal. The information subject to these restrictions is contained on all pages of the proposal except for pages [insert page numbers or other identification of pages that contain no restricted information]. (End of Legend); and

(B) The following legend must appear on each page of the proposal that contains information the applicant wishes to protect:

Use or disclosure of information contained on this sheet is subject to the restriction on the title page of this proposal.

Information contained in unsuccessful proposals will remain the property of the applicant. However, the Government will retain copies of all proposals in accordance with its records retention schedule.

3.3 Release of Certain Proposal Information

In submitting a proposal, the offeror agrees to permit the Government to disclose publicly the information contained in the Contact Information form, and Proposal Summary form, which includes the Technical Abstracts, and Briefing Chart. Other proposal data is considered to be the property of the offeror, and NASA will protect it from public disclosure to the extent permitted by law, including requests submitted under the Freedom of Information Act (FOIA).

3.4 Requirements to Submit a Phase II Completed Proposal Package

3.4.1 General Requirements

Phase II proposals are more comprehensive than those required for Phase I. Submission of a Phase II proposal is in accordance with Phase I contract requirements and is voluntary. NASA assumes no responsibility for any proposal preparation expenses.

Note: Offerors may only submit one Phase II proposal per Phase I award. Offerors are only allowed to submit a Phase II proposal at the end of the Phase I contract period of performance. NASA will not accept Phase II

proposals from prior Phase I awardees that did not submit a proposal at the end of the Phase I contract period of performance.

The proposal will provide the planning for a focused project that builds upon Phase I results and encompasses technical, market, financial, and business factors relating to the development and demonstration of the proposed innovation and its transition into products and services for NASA mission programs, other Government agencies (Federal and State), and non-Government markets.

3.4.2 Format Requirements

Note: NASA administratively screens all proposals and reserves the right to decline any proposal that does not conform to the following formatting requirements.

Page Limitations

Note: Technical proposal uploads with any page(s) going over the required page limit will not be accepted.

A Phase II technical proposal shall not exceed a total of 46 standard letter sizes (8.5- by 11-inch or 21.6- by 27.9-cm) pages. Proposals uploaded with more than 46 pages will prompt a warning that will prevent the completed proposal from being submitted. Each page shall be numbered consecutively at the bottom. The additional forms required for proposal submission will not count against the 46-page limit.

Margins

Margins should be 1.0 inch (2.5 cm).

Suggested Page Limits

Section 3.4.4 gives suggested page limits for each part of the technical proposal. These are guidelines and are not strict requirements, <u>except for the minimum page requirement stated for Part 7: Commercialization and</u> <u>Business Plan</u>. Offerors are still required to meet the total page-limit proposal requirements as described above.

Type Size

No type size smaller than 10 points shall be used for text or tables, except as legends on reduced drawings. Proposals prepared with smaller font sizes may be declined without consideration.

Header/Footer Requirements

Headers shall include the firm name, proposal number, and project title. Footers must include the page number and proprietary markings if applicable. Margins can be used for header/footer information.

Classified Information

NASA does not accept proposals that contain classified information.

Embedded Animation, Video, and Further Reading

Embedded animation or video, as well as reference technical papers for "further reading," will not be considered for evaluation.

Project Title

The proposal project title shall be concise and descriptive of the proposed effort. The title should not use acronyms or words like "development of" or "study of." The NASA research topic title must not be used as the proposal title.

A Complete Proposal Package Contains

Each complete proposal package submitted shall contain the following items:

- 1. Proposal Contact Information (Section 3.4.3.1)
- 2. Proposal Certifications (Section 3.4.3.2)
- 3. Proposal Summary (Section 3.4.3.3)
- 4. Proposal Budget (Section 3.4.3.4)
 - a. Including letters of commitment for Government resources and subcontractors/consultants (if applicable)
 - Foreign Vendor form (if applicable) Note: NASA and the Office of Management and Budget (OMB) have issued a policy that requires a review of any request to purchase materials or supplies from foreign vendors.
- 5. Technical Proposal—10 Parts in the order specified, not to exceed 46 pages, including all graphics, and starting with a table of contents. (Section 3.4.4)
- 6. Briefing Chart (Section 3.4.5)
- 7. NASA Evaluation License Application, only if TAV is being proposed (Section 1.6)
- 8. Capital Commitments Addendum Supporting Phase II and Phase III (optional) (Section 3.4.6)
- 9. Technical and Business Assistance (TABA) Request, if applicable (Section 3.4.15)
- 10. Firm-Level Forms (completed once for all proposals submitted to a single solicitation)
 - a. Firm Certifications (Section 3.4.7)
 - b. Audit Information (Section 3.4.9)
 - c. Prior Awards Addendum (Section 3.4.10)
 - d. Commercialization Metrics Survey (CMS) (Section 3.4.11)
 - e. Disclosures of Foreign Affiliations or Relationships to Foreign Countries (Section 3.4.8)
- 11. Electronic Endorsement in the EHB by the Small Business Official and Principal Investigator (PI)
- 12. STTR Research Agreement and endorsement of this agreement by the Research Institution (RI) official (Section 3.4.12)

Previews of all forms and certifications are available via the NASA SBIR/STTR Resources website, located at http://sbir.gsfc.nasa.gov/sbir/firm_library/index.html.

Note: Letters expressing general technical interest are not required or desired and will not be considered during the review process. However, if submitted, such letter(s) will count against the page limit. Letters of funding support commitments are allowable for Phase II proposals but will only be considered under Factor 4: Commercial Potential and Feasibility. Letters of funding support commitments should be submitted as part of the Capital Commitments Addendum as described under Part 7: Commercialization and Business Plan.

Note: The EHB will not allow the upload of relevant technical papers, product samples, videotapes, slides, or other ancillary items, and they will not be considered during the review process.

3.4.3 Forms

All form submissions shall be done electronically and do not count toward the 46-page limit. Samples of all forms can be found on the NASA SBIR/STTR Resources website: http://sbir.gsfc.nasa.gov/sbir/firm_library/index.html.

3.4.3.1 Contact Information

The offeror shall provide complete information for each contact person and submit the form as required in section 6.

Note: Contact Information is public information and may be disclosed.

3.4.3.2 Proposal Certifications

The offeror shall provide complete information for each item and submit the form as required in section 6.

3.4.3.3 Proposal Summary

The offeror shall provide complete information for each item and submit the form as required in section 6.

Note: The Proposal Summary, including the Technical Abstract, is public information and may be disclosed. Do not include proprietary information in this form.

3.4.3.4 Proposal Budget

The offeror must complete the Budget Summary following the instructions provided with the sample form. The total requested funding for the Phase II effort shall not exceed \$850,000. Contextual help is provided on the electronic budget form for additional explanation. Information shall be submitted to explain the offeror's plans for the use of the requested funds to enable NASA to determine whether the proposed price is fair and reasonable.

Note: The Government is not responsible for any monies expended by the firm before the award of any contract. Successful offerors are responsible for reimbursing NASA for resources utilized in the performance of the effort, and the cost of such resources will be included in their contract values (not to exceed capped amounts).

In addition, the following documents and information as directed by the EHB must be submitted with the Proposal Budget form, as applicable:

Proposal Requirements for Use of Government Resources

In cases where an offeror seeks to use NASA or another Federal department or agency laboratory services, equipment, or facilities (collectively, "resources"), the offeror shall provide the following:

- 1. A statement, signed by the appropriate Government official at the affected Federal department or agency laboratory, verifying that the resources should be available during the proposed period of performance. Offerors must upload this letter in the Proposal Budget form.
- 2. A signed letter on company letterhead from the contractor's Small Business Official explaining why the STTR research project requires the use of Government resources, including data that verifies the absence of non-Federal facilities or personnel capable of supporting the research effort, and the associated cost estimate. Offerors must upload this letter in the Proposal Budget form.

See Part 8 of the Technical Proposal instructions and section 5.13 for additional information on the use of Government Resources.

Use of Subcontractors and Consultants

Subject to the restrictions set forth below, the offeror may establish business arrangements with other entities or individuals to participate in the performance of the proposed R/R&D effort. Subcontractors' and consultants' work have the same place-of-performance restrictions as stated in section 1.5.4.

Note:

- 1. Offerors should list consultants by name and specify, for each, the number of hours and hourly costs.
- 2. The breakdown of the subcontractor budget should mirror the offeror's own breakdown in the Proposal Budget form and include breakdowns of direct labor, other direct costs, and profit, as well as indirect rate agreements.
- 3. A signed letter of commitment is required for each subcontractor and/or consultant. For educational institutions that will serve as a subcontractor, the letter must be from the institution's Office of Sponsored Programs.

The RI's budget must be submitted at the time of proposal submission, and if the RI is an educational institution, the RI must submit a letter from the institution's Office of Sponsored Programs.

The following restrictions apply to the use of subcontractors/consultants, and the formula below must be used in preparing budgets with subcontractors/consultants:

A minimum of 40 percent of the research or analytical work must be performed by the proposing SBC, and a minimum of 30 percent must be performed by the RI. Any subcontracted business effort other than that performed by the RI shall not exceed 30 percent of the research and/or analytical work [as determined by the total cost of the subcontracting effort (to include the appropriate overhead (OH) and general and administrative expense (G&A) in comparison to the total effort funded by the government (total contract price including cost sharing, if any, less profit, if any)].

Deviations from these STTR requirements are not allowed, as the performance-of-work requirements are specified in statute at 15 U.S.C. 638(e).

| Example: | Total price to include profit | \$850,000 | |
|----------|--|--|--|
| | Profit | \$21,750 | |
| | Total price less profit | \$850,000 – \$21,750 = \$828,250 | |
| | Subcontractor cost | \$250,000 | |
| | G&A | 5% | |
| | G&A on subcontractor cost | \$250,000 × 5% = \$12,500 | |
| | Subcontractor cost plus G&A | <u> \$250,000 + \$12,500 = \$262,500</u> | |
| | Percentage of subcontracting effort* | \$262,500/\$828,250 = 31.6% | |
| | *Subcontractor cost plus G&A/total price less profit | | |

For an STTR Phase II, where there is a subcontract with a company other than the RI, this is unacceptable because it is above the 30 percent limitation.

See Part 9 of the Technical Proposal for additional information on the use of subcontractors and consultants.

Milestone Plan

For Phase II, offerors shall submit a proposed quarterly milestone plan with the Proposal Budget form. The milestone plan shall be in accordance with the proposed work plan, outlining the work to be accomplished each quarter and the cost proposed associated with each of the quarterly milestones. The cost breakdown shall be similar to the Proposal Budget form for each of the proposed quarterly milestones (i.e., each milestone should include the labor, supplies, travel, and profit associated with those tasks to be accomplished that quarter). The proposed cost associated with each quarterly milestone must be realistic for the work to be accomplished but is not required to be equally distributed across each quarter.

3.4.4 Technical Proposal

This part of the submission shall not contain any budget data and consists of all 10 parts listed below in the given order. All 10 parts of the technical proposal should be numbered and titled. Parts that are not applicable should be included and marked "Not applicable." The table of contents is provided below:

Part 1:Table of Contents.....Page XPart 2:Identification and Significance of the Innovation
and Results of the Phase I Proposal....Page XPart 3:Technical Objectives...Page XPart 4:Work Plan....Page XPart 5:Related R/R&DPart 6:Key Personnel and Bibliography of Directly Related Work...Page XPart 7:Commercialization and Business Plan...Page X

Phase II Table of Contents

| Part 8: | Facilities/EquipmentPage | ×Χ |
|----------|---|----|
| Part 9: | Subcontractors and ConsultantsPage | X |
| Part 10: | Related, Essentially Equivalent, and Duplicate Proposals and AwardsPage | эX |

Part 1: Table of Contents (Suggested page limit – 0.5 page)

The technical proposal should begin with a brief table of contents indicating the page numbers of each of the parts of the proposal (see above).

Part 2: Identification and Significance of the Innovation and Results of the Phase I Award (Suggested page limit – 15 pages)

Provide a summary of your Phase I results and, building on those results, succinctly describe the Phase II proposed work, including

- The proposed innovation,
- The relevance and significance of the proposed innovation to interest, need, or needs within the subtopic that aligned with the completed Phase I work, and
- The proposed innovation is relative to the state of the market, the state of the art, and its feasibility.

Please be advised that the evaluators may review the Phase I final technical report to verify the accuracy of this summary. However, offerors should not rely on this and should include relevant results in the Phase II proposal.

Part 3: Technical Objectives (Suggested page limit – 2 pages)

State the specific objectives of the Phase II effort as it relates to the problem statement(s) posed in the original subtopic description for Phase I.

Proposed Deliverables: Indicate the proposed deliverables at the end of the Phase II effort and how they match up to the subtopic.

Note: All offerors submitting proposals who are planning to use NASA Intellectual Property (IP) must describe their planned developments with the IP. The NASA Evaluation License Application should be added as an attachment under Proposal Certifications (see section 1.6).

Part 4: Work Plan (Suggested page limit – 10 pages)

Include a detailed description of the Phase II R/R&D plan to meet the technical objectives. The plan should indicate what will be done, where it will be done, and how the R/R&D will be carried out. Discuss in detail the methods planned to achieve each task or objective. Task descriptions, schedules, resource allocations, estimated task hours for each key personnel, and planned accomplishments, including project milestones, shall be included. Offerors should ensure that the estimated task hours provided in the work plan for key personnel are consistent with the hours reported in the Proposal Budget form. If the offeror is a joint venture or limited partnership, a statement of how the workload will be distributed, managed, and charged should be included in the proposal.

In addition, the work plan will specifically address the percentage and type of work to be performed by the SBC and the RI. The plan will provide evidence that the SBC will exercise management direction and control of the performance of the STTR effort, including situations in which the PI may be an employee of the RI.

Part 5: Related R/R&D (Suggested page limit – 1 page)

Describe significant current and/or previous R/R&D that is directly related to the proposal, including any conducted by the PI or by the offeror. Describe how it relates to the proposed effort and any planned coordination with outside sources. The offeror must persuade reviewers of his or her awareness of key recent R/R&D conducted by others in the specific subject area.

Part 6: Key Personnel and Bibliography of Directly Related Work (Suggested page limit – 5 pages)

Identify all key personnel involved in Phase II activities whose expertise and functions are essential to the success of the project. Provide biographical information, including directly related education and experience. Where resume/vitae are extensive, summaries that focus on the most relevant experience or publications are desired and may be necessary to meet proposal size limitations.

The PI is considered key to the success of the effort and must make a substantial commitment to the project. The following requirements are applicable:

Functions: The functions of the PI are planning and directing the project, leading it technically and making substantial personal contributions during its implementation, serving as the primary contact with NASA on the project, and ensuring that the work proceeds according to contract agreements. The Phase II proposal shall describe the nature of the PI's activities and the amount of time that the PI will personally apply to the project. The amount of time the PI proposes to spend on the project must be acceptable to the Contracting Officer. Competent management of PI functions is essential to project success.

Qualifications: The qualifications and capabilities of the proposed PI and the basis for PI selection are to be clearly presented in the proposal. NASA has the sole right to accept or decline a PI based on factors such as education, experience, demonstrated ability and competence, and any other evidence related to the specific assignment.

Eligibility: This part shall also establish and confirm the eligibility of the PI and shall indicate the extent to which existing projects and other proposals recently submitted or planned for submission in the year commit the time of the PI concurrently with this proposed activity. Any attempt to circumvent the restriction on PIs working more than half-time for an academic or a nonprofit organization by substituting an ineligible PI will result in a decline of the proposal.

Note: If the Phase II PI is different than the PI proposed under Phase I, please provide a rationale for the change.

Part 7: Commercialization and Business Plan (Required minimum of 2 pages; no more than 8 pages)

NASA requires Phase II offeror to provide commercialization and business planning information in the proposal and is enforcing a requirement that firms provide a <u>minimum</u> and a <u>maximum</u> amount of information as required by page length. Firms that do not meet this requirement may be considered nonresponsive to this requirement and the proposal may not receive a score under Section 4.4.2: Factor 4: Commercialization and Business Planning, which could result in an overall lower score for the proposal.

The Commercialization Plan should provide the following information to communicate and validate that the firm has the knowledge and ability to commercialize the innovation being proposed. Offerors shall provide at a minimum the following information in the Commercialization Plan.

- Market Feasibility and Competition Strategy: Describe (a) the target market(s) of the innovation and the
 associated product or service; (b) the competitive advantage(s) of the product or service; (c) key
 potential customers and applications, including NASA mission programs, prime contractors, and nonNASA commercial customers as applicable; (d) projected market size (NASA, other Government and/or
 non-Government); (e) the projected time to market and estimated market share within five years from
 market-entry; and (f) anticipated competition from alternative technologies, products, and services
 and/or competing domestic or foreign entities.
- 2. Commercialization Strategy: Present the commercialization strategy for the innovation and associated product or service and its relationship to the offeror's business plans for the next five years. Describe

experience and record in technology commercialization, and any existing and projected commitments (e.g., Government Phase III funding, Industry Investment, etc.).

- 3. Financial Strategy: Delineate private financial resources committed to the development and transition of innovation into market-ready products or services. Describe current investment, sales, licensing, and other indicators of commercial potential and feasibility. Describe the projected financial requirements and the expected or committed capital and funding sources necessary to support the planned commercialization of the innovation. Provide evidence of current financial condition (e.g., standard financial statements including a current cash flow statement).
- 4. Intellectual Property: Describe plans and current status of efforts to secure intellectual property rights (e.g., patents, copyrights, trade secrets) necessary to obtain investment, attain at least a temporary competitive advantage, and achieve planned commercialization.
- 5. Assistance and Mentoring: Describe the plans for securing needed technical or business assistance through mentoring, partnering, or through arrangements with state assistance programs, Small Business Development Centers (SBDCs), Federally funded research laboratories, Manufacturing Extension Partnership Centers, Federal programs, or other assistance providers. Identify if any assistance and mentoring are being requested under your TABA needs assessment and provide details in this section of the Commercialization Plan. The TABA needs assessment is reviewed separately from the Commercialization Plan.

*Note: Letters of funding support commitments should be submitted as part of the Capital Commitments Addendum found in section 3.4.5 and will be considered only under Factor 4: Commercial Potential and Feasibility (section 4). Any formal letters of commitment or intent submitted in the Capital Commitments Addendum will not count toward the page limits of the proposal.

Part 8: Facilities/Equipment (Suggested page limit – 2 pages)

The narrative description of resources should support the proposed approach and documentation in the Proposal Budget form. If an offeror requests to use Government-furnished laboratory equipment, facilities, or services (collectively, "Government resources") the offeror shall describe in this part why the use of such Government resources is necessary and not reasonably available from the private sector. See sections 3.4.3.4 and 5.13 for additional requirements when proposing the use of such Government resources.

Part 9: Subcontractors and Consultants (Suggested page limit – 2 pages)

The offeror must describe all subcontracting or other business arrangements and identify the relevant organizations and/or individuals with whom arrangements are planned. The expertise to be provided by the entities must be described in detail, as well as the functions, services, number of hours, and labor rates. Offerors are responsible for ensuring that all organizations and individuals proposed to be utilized are actually available for the time periods proposed. Subcontract costs shall be documented in the Subcontractors/Consultants section of the Proposal Budget form and supporting documentation should be uploaded for each (appropriate documentation is specified in the form). The narrative description of subcontractors and consultants in the technical proposal should support the proposed approach and documentation in the Proposal Budget form.

Part 10: Related, Essentially Equivalent, and Duplicate Proposals and Awards (Suggested page limit – 0.5 page)

WARNING: While it is permissible with proper notification to submit identical proposals or proposals containing a significant amount of essentially equivalent work for consideration under numerous Federal program solicitations, it is unlawful to enter into funding agreements requiring essentially equivalent work.

If an offeror elects to submit identical proposals or proposals containing a significant amount of essentially equivalent work under other Federal program solicitations, a statement must be included in each such proposal indicating the following:

- 1. The name and address of the agencies to which proposals were submitted or from which awards were received.
- 2. Date of proposal submission or date of award.
- 3. Title, number, and date of solicitations under which proposals were submitted or awards received.
- 4. The specific applicable research topics for each proposal submitted for the award received.
- 5. Titles of research projects.
- 6. Name and title of the principal investigator or project manager for each proposal submitted or award received.

Offerors are at risk when submitting essentially equivalent proposals and therefore are strongly encouraged to disclose these issues to the soliciting agency to resolve the matter prior to award.

A summary of essentially equivalent work information, as well as related research and development on proposals and awards, is also required on the Proposal Certifications form (if applicable).

3.4.5 Briefing Chart

A one-page briefing chart is required to assist in the ranking and advocacy of proposals prior to selection and contains the following sections:

- Identification and Significance of Innovation
- Technical Objectives
- Proposed Deliverables
- NASA Applications
- Non-NASA Applications
- Graphic

The briefing chart shall not contain any proprietary data or International Traffic in Arms Regulation (ITAR)restricted data. An electronic form will be provided during the submission process.

Note: The briefing chart is public information and may be disclosed. Do not include proprietary information in this form.

3.4.6 Capital Commitments Addendum

Letters of capital commitment act as an indication of market validation for the proposed innovation and add significant credibility to the proposed effort. Although NASA can be a future stakeholder/buyer and could possibly issue a Phase III contract for the innovation to be infused in a future mission or program, NASA's goal under the STTR program is for small businesses to commercialize innovations in markets that are larger than just NASA. Letters of capital commitment should demonstrate that the company has initiated dialogue with relevant stakeholders in commercial markets that are relevant to NASA (potential customers, end users, strategic partners, investors, etc.) for the proposed innovation and that a legitimate business opportunity may exist should the innovation prove feasible outside of NASA.

The letter(s) must not exceed 2 pages in length; should come directly from potential customers, end users, strategic partners, investors, etc.; and must contain affiliation information and contact information for the signatory stakeholder. Letters and supporting documents that only support the development of the innovation with no capital funding commitment as described above will not be reviewed. Letters and supporting documents from state, local, and Congressional representatives are NOT considered letters of capital commitment. They should not be submitted as part of the application and will not be reviewed.

If letters of capital commitment are not appropriate for this stage of innovation due to business considerations, then the offeror must clearly justify why letters of capital commitment are not being included in the proposal. The justification should relate to the technical and commercial considerations of the innovation proposed in the application.

3.4.7 Firm Certifications

Firm certifications that are applicable across all proposal submissions submitted to this solicitation must be completed via the Firm Certifications section of the Proposal Submissions EHB. The offeror shall answer "Yes" or "No" as applicable.

Note: The designated firm administrator, typically the first person to register your firm, is the only individual authorized to update the certifications.

3.4.8 Disclosures of Foreign Affiliation or Relationships to Foreign Countries

Each offeror is required to complete the Disclosures of Foreign Affiliations or Relationships to Foreign Countries form. See section 2.5 for additional information on these disclosures. The offeror shall answer "Yes" or "No" as applicable and provide the requested information related to each "yes" response.

Please note that even if you do not have any foreign relationships, you must complete the "Disclosures of Foreign Affiliations or Relationships to Foreign Countries form." to represent that such relationships do not exist. Failure to complete and include this form will result in the declination of your application during the administrative screening.

Note: The designated firm administrator, typically the first person to register your firm, is the only individual authorized to update the disclosures.

3.4.9 Audit Information

Although firms are not required to have an approved accounting system, the knowledge that a firm has an approved accounting system facilitates NASA's determination that rates are fair and reasonable. To assist NASA, the offeror shall complete the questions in the Audit Information form regarding the firm's rates and upload the Federal agency audit report or related information that is available from the last audit. There is a separate Audit Information section in the Proposal Budget form that shall also be completed. If your firm has never been audited by a federal agency, then answer "No" to the first question and you do not need to complete the remainder of the form. An electronic form will be provided during the submission process.

The Contracting Officer will use this Audit Information to assist with negotiations if the proposal is selected for an award. The Contracting Officer will advise offerors on what is required to determine reasonable costs and/or rates in the event the Audit Information is not adequate to support the necessary determination of rates.

Note: The designated firm administrator, typically the first person to register your firm, is the only individual authorized to update the audit information.

3.4.10 Prior Awards Addendum

If the offeror has received more than 15 Phase II awards in the prior 5 fiscal years, submit the name of the awarding agency, solicitation year, phase, date of award, funding agreement/contract number, and topic or subtopic title for each Phase II. If your firm has received any SBIR or STTR Phase II awards, even if it has received fewer than 15 in the last 5 years, it is still recommended that you complete this form for those Phase II awards your firm did receive. This information will be useful when completing the Commercialization Metrics Survey (CMS) and in tracking the overall success of the SBIR and STTR programs. Any NASA Phase II awards your firm has received will be automatically populated in the electronic form, as are any Phase II awards

previously entered by the SBC during prior submissions (you may update the information for these awards). An electronic form will be provided during the submission process.

Note: The designated firm administrator, typically the first person to register your firm, is the only individual authorized to update the addendum information.

3.4.11 Commercial Metrics Survey (CMS)

NASA has instituted a comprehensive commercialization survey/data-gathering process for firms with prior NASA SBIR/STTR awards. If the SBC has received any Phase III awards resulting from work on any NASA SBIR or STTR awards, provide the related Phase I or Phase II contract number, name of Phase III awarding agency, date of award, Funding Agreement number, amount, project title, and period of performance. The survey will also ask for firm financial, sales, and ownership information, as well as any commercialization success the firm has had as a result of SBIR or STTR awards. This information must be updated annually during proposal submission via the EHB. This information will allow firms to demonstrate their ability to carry SBIR/STTR research through to achieve commercial success and allows agencies to track the overall commercialization success of their SBIR and STTR programs. The survey should be limited to the information requested above. An electronic form will be provided during the submission process.

Note: Information received from SBIR/STTR awardees completing the survey is kept confidential and will not be made public except in broad aggregate, with no firm-specific attribution.

The CMS is a required part of the proposal submissions process and must be completed via the Proposal Submissions EHB. Companies with no SBIR/STTR awards or only recent SBIR/STTR awards will not be penalized under past performance for the lack of past SBIR/STTR commercialization.

3.4.12 Contractor Responsibility Information

No later than 10 business days after the notification of selection for negotiations, the offeror shall provide a signed statement from the firm's financial institution(s), on the financial institution's letterhead, stating whether or not the firm is in good standing and how long the firm has been with the institution.

3.4.13 Research Agreement

The Research Agreement (different from the Allocation of Rights Agreement; see <u>http://sbir.nasa.gov/content/nasa-sbirsttr-program-definitions</u>) is a single-page document electronically submitted and endorsed by the SBC and RI. A model agreement is provided, or firms can create their own custom agreement. The Research Agreement shall be submitted as required in section 6.

All STTR Phase II proposals must provide sufficient information to convince NASA that the proposed SBC/RI cooperative effort represents a sound approach for converting technical information residing at the RI into a product or service that meets a need described in a solicitation research topic.

3.4.14 Allocation of Rights Agreement

An SBC, before receiving an STTR award, must negotiate a written agreement between the SBC and the partnering Research Institution (RI), allocating intellectual property (IP) rights, if any, to carry out follow-on research, development, or commercialization. This written agreement must be signed by authorized representatives of the SBC, RI, and subcontractors and consultants, as applicable.

The SBC must submit this agreement with the proposal by uploading it in the Proposal Budget form. This will help to expedite contract negotiations.

3.4.15 Phase II Request for Use of Technical and Business Assistance (TABA) Funds

Offerors are not required to request TABA at Phase II, and there is no prerequisite that an offeror must request and use Phase I TABA funding to obtain TABA under a Phase II award.

If an offeror decides to request TABA in Phase II, the offeror must request TABA authority from NASA in the Phase II proposal submission. Requests for TABA funding will not be reviewed under the technical evaluation of the proposal, and the request for TABA will not be part of the decision to make a Phase II award. All TABA requests will be reviewed after a proposal is selected for the award and during the contract negotiation process.

If an offeror chooses to request up to \$50,000 for TABA at Phase II, the offeror will be required to provide a TABA plan and coordinate with the selected vendors to obtain the vendor qualification statement(s) and submit these via the Electronic Handbook (EHB). Below is an example of the type of information that will be requested under each.

TABA Plan

- Name, contact information, website, and company information including Sam.gov Unique Entity Identifier (UEI) for TABA vendor(s) that will provide the TABA services.
 - Note: All TABA vendors must be a legal business in the United States, and NASA will review the U.S. Government-wide System for Award Management (SAM) excluded parties list to ensure the proposed TABA vendor can receive Federal funds. NASA will consider TABA requests that are missing any requested TABA information (e.g., DUNS number, Vendor Qualification Statements, etc.) as incomplete and may not review the TABA request or provide TABA approval under the award.
- Description of TABA vendor(s) expertise and knowledge of providing technical and business assistance services.
- An itemized list of services and costs.
- Expected metric and outcome for each service to be provided.
- Plan to submit a deliverable summarizing the outcome of the TABA services with expected supporting information.
- TABA costs are reflected in the budget forms.

Vendor Qualification Statement(s)—A 3-page qualification statement for each of the selected vendors(s) that provides the following:

- Statement on the selected vendor(s) letterhead and signed by an authorizing entity within the vendors' organization that can attest to the services being provided.
- Documentation that the vendor is a legal business in the United States.
- A capabilities statement that
 - Indicates the qualifications, expertise, and knowledge to provide the TABA services requested by the offeror.
 - Indicates the level of expertise and knowledge of the Federal SBIR/STTR program and specifically any prior support provided to Phase I or II awardees.
 - Describes the overall metrics of success for the services requested by the offeror.
 - Describes the plans to report to the offeror so the offeror can report back to NASA as a deliverable on the outcomes and success of the TABA services and what information will be provided to validate the results.

NASA reserves the right to withhold funds requested for TABA until a formal review and approval of the requested vendor(s) is completed. If the project is selected for the award and the offeror demonstrates this requirement sufficiently as determined by the Government, NASA will permit the awardee to acquire the requested assistance, in an amount up to \$50,000 for the Phase II project, as an allowable cost of the SBIR/STTR award. Approval or denial of TABA funding will be provided during the contract negotiation period and before the award. The amount will be in addition to the Phase II award value, is not subject to any profit or fee by the requesting firm, and cannot be used in the calculation of indirect cost rates or General and Administrative Expenses (G&A). The amount is based on the original period of performance. Requests for TABA funding outside of the Phase II period of performance will not be considered.

Schedule of Deliverables and Payments for TABA—Offerors that are approved to receive TABA under a Phase II award will be reimbursed for TABA expenses. Firms may request TABA reimbursement at the midpoint of the contract when submitting the midterm report and/or at the end of the contract when submitting the final report. Awardees requesting reimbursement will be required to submit invoices for services received when submitting the contract reports.

3.4.16 Phase II Request for the Intern Diversity Supplement (IDS) Program

Offerors that are successful in receiving a Phase II award are eligible to apply for a diversity supplement to be effective only in the summer months of the second year of their Phase II project period. Instructions for requesting a diversity supplement will be provided directly to Phase II awardees prior to the application period which is anticipated to be in January 2025.

ANTICIPATED CONTENT FOR APPLICATION

SALARY, BUDGET, TERMS, AND CONDITIONS

All NASA diversity supplements are subject to the terms and conditions, cost principles, and other considerations described in the NASA SBIR/STTR Specific Terms and Conditions that accompany every Phase II award. Application budgets are limited to no more than \$11,000 (up to \$10,000 for the cost of the intern and \$1,000 for supplies and travel). The budget must reflect the actual needs of the proposed project. NASA will consider whether the budget and the requested period of support are fully justified and reasonable in relation to the proposed Phase II research. If approved, the request will be provided as a supplement above the Phase II award amount. This program does not require cost sharing. The amount will be in addition to the Phase II award value, is not subject to any profit or fee by the requesting firm, and cannot be used in the calculation of indirect cost rates or General and Administrative Expenses (G&A).

The duration of the program is normally 10 weeks but could be extended with a no-cost extension request and approval from the Contracting Officer.

<u>Undergraduate Students, Baccalaureate and Master's Degree Holders, and Graduate (Predoctoral) Students:</u> The salary for a student should be consistent with SBC salary policies. Students are expected to devote the equivalent of at least 10 weeks of full-time effort to the research project and related activities during the period of performance for the award. Exceptions to these requirements will be considered, depending on the circumstances of the Phase II award circumstances warranting the specific request.

An IDS application may consist of the following information:

- A header with Proposal Title and Number, Company Name, Business Official Name, and Pl Name.
- Internship candidate's full name
- Address of Primary Site where the proposed supplement activities will be performed.
 - The supplemental activities must principally take place at the awardees' place of business. Applications that request supplemental funding for activities that occur principally at a sub recipient location will be declined. If a portion of the proposed supplement activities will be performed at any other sites, identify all locations.
- Diversity Justification:
 - Address the six (6) review criteria listed in section 1.8 in two (2) pages or fewer and provide evidence to support a focus on the enhancement of the research and entrepreneurial capability of the underrepresented intern and how that experience is intended to provide opportunities for development as a productive researcher or future small business leader.
- Research and Mentoring Plan:
 - In two (2) pages, please include a research and mentoring plan for the candidate intern to interact with other individuals on the Phase II award, to contribute intellectually to the research, and to enhance his/her research skills and knowledge regarding the selected area of R&D along with business and entrepreneurship.

- Budget:
 - Please provide a budget and a budget justification showing the amount requested and how the funds will be used.
- Intern resume (should not exceed one page) that includes:
 - Evidence of STEM achievement and entrepreneurial interest.
 - A statement from the intern candidate that confirms their availability and commitment to participate in the internship.
 - Any source(s) of current and pending funding for research or projects that the intern is working on.
 - o A statement from the candidate outlining his/her research objectives and career goals.

Schedule of Deliverables and Payments for IDS—Awardees that are approved to receive IDS under a Phase II award will be reimbursed for IDS expenses (not to exceed \$10,000 for the cost of the intern and \$1,000 for supplies and travel). Firms may request IDS reimbursement at the end of the contract when submitting the final report. Awardees requesting reimbursement will be required to submit documentation in the final report on intern performance and how the awardee has provided the intern support.

4. Phase II Selection Process and Evaluation Criteria

4.1 Selection Process

All Phase II proposals will be evaluated on a competitive basis. Proposals will be initially screened to determine responsiveness using a two-stage review process:

- All proposals received by the published deadline will undergo an administrative review to determine if the proposal meets the requirements found in section 3, Proposal Preparation Instructions and Requirements. Proposals that are found to be noncompliant with the requirements in section 3 will be eliminated from consideration. NASA will notify the offeror that their proposal has been eliminated and will provide the reason.
- 2. Proposals determined to be responsive to the administrative requirements will be evaluated.

Proposals passing this initial screening will be moved forward to be evaluated and ranked on a competitive basis.

Proposals shall provide all information needed for a complete evaluation. Evaluators will not seek additional information. Proposals will be technically evaluated by subject matter experts to determine the most promising technical and scientific approaches. The commercialization and business plan will be evaluated by a panel of 3rd party commercialization reviewers who are experts in determining commercial potential. Offerors should not assume that evaluators are acquainted with the offeror, key individuals, or with any experiments or other information. Any pertinent references or publications should be noted in Part 5 of the technical proposal.

Each proposal will be evaluated on its own merit. NASA is under no obligation to fund any proposal or any specific number of proposals on a given topic. It also may elect to fund several or none of the proposed approaches to the same topic or subtopic.

4.1.1 Non-NASA Reviewers

In addition to utilizing Government personnel in the review process, NASA, at its discretion and in accordance with NASA FAR Supplement (NFS) section 1815.207-71, may utilize individuals from outside the Government with highly specialized expertise not found in the Government. Qualified experts outside of NASA (including industry, academia, and other Government agencies) may assist in performing evaluations as required to determine or verify the merit of a complete proposal package. Any decision to obtain an outside evaluation shall take into consideration requirements for the avoidance of organizational or personal conflicts of interest

and any competitive relationship between the prospective contractor or subcontractor(s) and the prospective outside evaluator. Any such evaluation will be under agreement with the evaluator that the information (data) contained in the complete proposal package will be used only for evaluation purposes and will not be further disclosed.

4.1.2 Non-NASA Access to Confidential Business Information

In the conduct of processing proposal packages and potential contract administration, the Agency may find it necessary to provide access to the complete proposal package to other NASA contractors and subcontractor personnel. NASA will provide access to such data only under contracts that contain an appropriate NFS 1852.237-72 Access to Sensitive Information clause that requires the contractors to fully protect the information from unauthorized use or disclosure and where the contractor has implemented the appropriate processes and procedures to protect the information.

4.2 Phase II Evaluation Criteria

NASA intends to select for award those proposals that offer the most advantageous R/R&D and deliver technological innovations that contribute to NASA's missions, provides societal benefit, and grow the U.S. economy. NASA will give primary consideration to the scientific and technical merit and feasibility of the proposal and its benefit to NASA interests. Each proposal will be evaluated using the factors described below:

Note: Past performance is not a separate evaluation factor but will be assessed under Factors 1 and 4 (as applicable) below.

Factor 1: Scientific/Technical Merit and Feasibility

The proposed R/R&D effort will be evaluated on its originality, the feasibility of the innovation, and potential technical value. In addition, past performance of Phase I will be evaluated to determine the degree to which Phase I objectives were met, and whether the Phase I results indicate a Phase II project is appropriate. The evaluators may review the Phase I final technical report to verify the Phase I results.

Factor 2: Experience, Qualifications, and Facilities

The technical capabilities and experience of the PI or project manager, key personnel, staff, consultants and subcontractors, if any, are evaluated for consistency with the research effort and their degree of commitment and availability. The necessary instrumentation or facilities required must be shown to be adequate and any reliance on external sources, such as Government-furnished equipment or facilities, must be addressed (section 3.4.4, Part 8).

Factor 3: Effectiveness of the Proposed Work Plan

The work plan will be reviewed for its comprehensiveness, effective use of available resources, labor distribution, and the proposed schedule for meeting the Phase II objectives. The methods planned to achieve each objective or task should be discussed in detail. The proposed path beyond Phase II for further development and infusion into a NASA mission or program will also be reviewed.

The clear delineation of responsibilities of the SBC and RI for the success of the proposed cooperative R/R&D effort will be evaluated. The offeror must demonstrate the ability to organize for effective conversion of intellectual property into products and services of value to NASA and the commercial marketplace.

Factor 4: Commercialization and Business Planning: The proposal will be evaluated for the commercial potential and feasibility of the proposed innovation and associated products and services as described in Part 7. Evaluation of the commercialization and business plan will include consideration of the following areas:

1. Commercial Potential—Quantitative Market Analysis: This includes an assessment of

- a. The market segmentation and the commercial Total Addressable Market (TAM).
- b. The proposed innovation in terms of target customers (e.g., NASA, other Federal agencies, commercial enterprise).
- c. The competitive landscape, by identifying potential competitors.

2. Commercial Intent-Value Proposition: This includes assessing

- a. The commercial development plan by providing a development timeline to bring the innovation to market.
- b. The applicable business model (spin-out, license, OEM, etc.) the offeror would use to bring innovation to market.
- c. The risks to the commercial development plan and what mitigations, if any, can be taken over a reasonable period of time to lessen the risks.

3. Commercial Capability—Pro Forma Financial Projections: This includes an assessment of

- a. The current and future company capitalization efforts.
- b. As applicable, the description of the approach, path to market, and revenues from past commercialization(s) resulting from SBIR/STTR awards are disclosed in the CMS.

4. Intellectual Property (IP): This includes assessment of

a. How the offeror will protect the IP that results from the innovation?

5. Assistance and Mentoring: This includes assessment of

- a. The existing and future business relationships in terms of any formal partnerships, joint ventures, or licensing agreements with other companies/organizations.
- The plans for securing needed technical or business assistance through mentoring, partnering, or through arrangements with state assistance programs, Small Business Development Centers (SBDCs), Federally funded research laboratories, Manufacturing Extension Partnership Centers, Federal programs, TABA, or other assistance providers.
- 6. Capital Commitments Addendum: This includes an assessment of
 - a. Any letters of commitment describing follow-on funding, product sales, or matching funding to be provided for a future post-Phase II opportunity application.
 - b. Letter of intent or evidence of negotiations to provide funding should the Phase II project be successful, and the market need still exists.
 - c. A specific plan to secure Phase III funding.

Factor 5: Price Reasonableness

The offeror's cost proposal will be evaluated for price reasonableness based on the information provided in the Proposal Budget form. NASA will comply with the FAR and NASA FAR Supplement (NFS) to evaluate the proposed price/cost to be fair and reasonable.

Scoring and Weight of Factors, Ranking, and Programmatic Balancing

Factors 1, 2, 3, and 4 will be scored numerically, with Factor 1 worth 45 percent, Factors 2 and 3 each worth 25 percent, and Factor 4 worth five percent. The sum of the scores for Factors 1, 2, 3, and 4 will constitute the Technical Merit score. After ranking proposals using the Technical Merit score, the agency may consider additional programmatic balance factors such as portfolio balance across NASA programs, centers, and mission directorates, available funding, first-time awardees/participants, historically underrepresented communities, and geographic distribution, to recommend proposals for negotiations.

Factor 5 will be evaluated as part of the negotiation's decision, i.e., NASA will only make an award when the price is fair and reasonable.

4.3 Selection

The SSO has the final authority for choosing specific proposals for contract negotiation. In making such a selection determination, the SSO, in their discretion may consider additional programmatic balance factors such as portfolio balance across NASA programs, centers, and mission directorates, available funding, first-time awardees/participants, historically underrepresented communities, and geographic distribution.

After the SSO selection has been finalized, the list of proposals selected for negotiation will be posted on the NASA SBIR/STTR website (<u>http://sbir.nasa.gov</u>). All firms selected by the SSO will receive a formal notification letter. Each proposal selected for negotiation will be evaluated for cost/price reasonableness. After completion of the evaluation for cost/price reasonableness and a determination of responsibility, the Contracting Officer will negotiate and award an appropriate contract to be signed by both parties before work begins. The Government may request the offeror to submit certain organizational, management, personnel, and financial information to establish the responsibility of the offeror. Contractor responsibility includes all resources required for contractor performance (e.g., financial capability, workforce, and facilities).

4.3.1 Denial of Awards

Pursuant to the SBIR and STTR Extension Act of 2022, NASA will not make an award under the SBIR or STTR program to an offeror if NASA has determined that:

- The small business concern submitting the proposal or application
 - has an owner or covered individual that is party to a malign foreign talent recruitment program;
 - has a business entity, parent company, or subsidiary located in the People's Republic of China or another foreign country of concern; or
 - has an owner or covered individual that has a foreign affiliation with a research institution located in the People's Republic of China or another foreign country of concern; and
- The relationships and commitments described above
 - o interfere with the capacity for activities supported by NASA to be carried out;
 - \circ ~ create duplication with activities supported by NASA;
 - $\circ \quad \text{present concerns about conflicts of interest;} \\$
 - \circ were not appropriately disclosed to NASA;
 - \circ ~ violate Federal law or terms and conditions of NASA; or
 - pose a risk to national security.

4.4 Technical and Business Assistance (TABA)

NASA conducts a separate review of all requests for TABA after the SSO makes the final selection of projects to enter into negotiation for a Phase II contract. This process consists of the SBIR/STTR Program conducting the initial evaluation of the TABA request to determine if the request meets the requirements found in section 3.4.15 and the statute. The Contracting Officer makes the final determination to allow TABA funding to be used under the contract.

The review of Phase II TABA requests will include the following:

- A review to determine if the Awardee provided a Phase II TABA Needs Assessment that describes the specific services being requested.
- A review of the vendor(s) expertise and knowledge of providing technical and business assistance services as described in the TABA Needs Assessment and the vendor qualification statements.
 - A review of the vendor information including name, contact information, website, and company information including Sam.gov UEI to validate the ability of the vendor to provide services.
- A review of the costs is to be provided to the TABA vendor(s).
- Proposed plans to submit the two required deliverables summarizing the outcome of the TABA services with expected supporting information.

• Verification that TABA costs are reflected in the budget forms.

4.5 Intern Diversity Supplement (IDS) Program

NASA conducts a separate review of all requests for IDS. This process consists of the SBIR/STTR Program conducting the initial evaluation of the IDS request to determine merit with respect to the overall impact on diversity and entrepreneurship and if the request meets the requirements found in section 3.4.13. The SBIR/STTR Program makes the final determination to allow funding to be used and informs the Contracting Officer to issue the funding under the contract.

The review of Phase II IDS requests includes the following:

- The description of how the internship will promote diversity in the small business and promote entrepreneurship opportunities for the intern.
- The resume of the intern indicates career goals, prior research training, research potential, and any relevant experience.
- The awardee indicates that the proposed experience will expand and foster the research and entrepreneurial capabilities, knowledge, and/or skills of the intern, that the activities of the intern will be an integral part of the project, and that the intern will receive research and entrepreneurial career mentoring.
- The awardee provides a plan and timeline for the proposed research and career development experiences in the supplemental request and its relationship to the Phase II award.

4.6 Notification and Feedback to Unsuccessful Offerors

After Phase II selections for negotiation have been announced, a notification will be sent to the Small Business Official designated in the proposal according to the processes described below.

Note: Due to the competitive nature of the program and limited funding, recommendations to fund or not fund a proposal will be final. Applicants are encouraged to use the written feedback to understand the outcome of their proposal review and to develop plans to strengthen future proposals.

Unsuccessful Phase II offerors cannot resubmit their unsuccessful Phase II proposal to a future Phase II solicitation and if planning to apply for a new Phase I, the Phase I proposal must be different and cannot duplicate the prior Phase I work.

4.6.1 Phase II Feedback

For Phase II, NASA uses a two-stage process to notify offerors of the outcome of their proposal.

- 1. At the time of the public selection announcement, the Small Business Official will receive an email indicating the outcome of the proposal.
- Per the requirements in the email notification and this solicitation, offerors must send a feedback request via email to the NASA SBIR/STTR Program Support Office at <u>agency-sbir@mail.nasa.gov</u> within 60 days after the selection announcement. *Late requests will not be honored.*

5. Considerations

5.1 Requirement for Contracting

Upon award of a Funding Agreement, the Awardee will be required to make certain legal commitments through acceptance of numerous clauses in Phase II Funding Agreements. The outline that follows is illustrative of the types of clauses to which the contractor would be committed. This list is not a complete list of clauses to be included in Phase II Funding Agreements and is not the specific wording of such clauses. Copies of the complete terms and conditions are available by following the links in appendix C.

- (1) Standards of Work. Work performed under the Funding Agreement must conform to high professional standards.
- (2) Inspection. Work performed under the Funding Agreement is subject to Government inspection and evaluation at all times.
- (3) Examination of Records. The Comptroller General (or a duly authorized representative) must have the right to examine any pertinent records of the Awardee involving transactions related to this Funding Agreement.
- (4) Default. The Federal Government may terminate the Funding Agreement if the contractor fails to perform the work contracted.
- (5) Termination for Convenience. The Funding Agreement may be terminated at any time by the Federal Government if it deems termination to be in its best interest, in which case the Awardee will be compensated for work performed and for reasonable termination costs.
- (6) Disputes. Any dispute concerning the Funding Agreement that cannot be resolved by agreement must be decided by the contracting officer with the right of appeal.
- (7) Contract Work Hours. The Awardee may not require an employee to work more than 8 hours a day or 40 hours a week unless the employee is compensated accordingly (for example, overtime pay).
- (8) Equal Opportunity. The Awardee will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin.
- (9) Equal Opportunity for Veterans. The Awardee will not discriminate against any employee or application for employment because he or she is a disabled veteran or veteran of the Vietnam era.
- (10) Equal Opportunity for People with Disabilities. The Awardee will not discriminate against any employee or applicant for employment because he or she is physically or intellectually disabled.
- (11) Officials Not to Benefit. No Federal Government official may benefit personally from the STTR Funding Agreement.
- (12) Covenant Against Contingent Fees. No person or agency has been employed to solicit or secure the Funding Agreement upon an understanding for compensation except bona fide employees or commercial agencies maintained by the Awardee for the purpose of securing business.
- (13) Gratuities. The Funding Agreement may be terminated by the Federal Government if any gratuities have been offered to any representative of the Government to secure the award.
- (14) Patent Infringement. The Awardee must report each notice or claim of patent infringement based on the performance of the Funding Agreement.
- (15) American-Made Equipment and Products. When purchasing equipment or a product under the STTR Funding Agreement, purchase only American-made items whenever possible.

To simplify making contract awards and to reduce processing time, all contractors selected for Phase I contracts will ensure that:

- 1. All information in your completed proposal package is current (e.g., your address has not changed, the proposed PI is the same, etc.). If changes have occurred since the submittal of your completed proposal package, notify the Contracting Officer immediately.
- 2. Your firm is registered with System for Award Management (SAM) (section 2.2).
- 3. Your firm complies with the FAR 52.222-37 Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (VETS-4212) requirement (See Appendix D). Confirmation that a VETS-4212 report has been submitted to the Department of Labor, and is current, shall be provided to the Contracting Officer within 10 business days of the notification of selection for negotiation.
- 4. Your firm HAS NOT proposed a Co-Principal Investigator.
- 5. Your firm will provide timely responses to all communications from the NSSC Contracting Officer.
- 6. All proposed costs are supported with documentation, such as a quote, previous purchase order, published price lists, etc. All letters of commitment are dated and signed by the appropriate person with contact information. If a university is proposed as a subcontractor or a RI, the signed letter shall be on the university letterhead from the Office of Sponsored Programs. If an independent consultant is proposed, the signed letter should <u>not</u> be on university letterhead. If the use of Government facilities or
equipment is proposed, your firm shall submit a signed letter from the Government facility authorizing the use of the facility and stating the availability and the cost, if any, together with a signed letter from your firm justifying the need to use the facility.

From the time of the completed proposal package notification of selection for negotiation until the award of a contract, all communications shall be submitted electronically to <u>NSSC-SBIR-STTR@nasa.gov</u>.

Note: Costs incurred prior to and in anticipation of the award of a contract are entirely the risk of the contractor if a contract is not subsequently awarded. Notification of selection for negotiation is not to be misconstrued as an award notification to commence work.

5.2 Awards

5.2.1 Anticipated Number of Awards

NASA does not estimate the exact number of anticipated Phase II contract awards; however, the table below reflects the historical information for the program.

| Year | Number of STTR Phase II Proposals Reviewed | Number of STTR Phase II Awards | Percentage of STTR Phase II Awards |
|------|---|-----------------------------------|---------------------------------------|
| 2021 | 48 | 19 | 39.6% |
| 2020 | 58 | 22 | 37.9% |
| 2019 | 62 | 37 | 59.7% |

5.2.2 Award Conditions

NASA awards are electronically signed by a NASA Contracting Officer and transmitted electronically to the organization via email. NSSC will distribute the NASA STTR Phase II award with the following items.

- SF26—Contract Cover Sheet
- Contract Terms and Conditions—to include reference to the proposal and budget
- Attachment 1: Contract Distribution List
- Attachment 2: Final Summary Chart and Instructions
- Attachment 3: IT Security Management Plan
- Attachment 4: Applicable Documents List
- Phase II Frequently Asked Questions (FAQs)

5.2.3 Type of Contract

NASA STTR Phase II awards are made as firm-fixed-price contracts.

5.2.4 Model Contracts

Examples of the NASA STTR contracts can be found on the NASA SBIR/STTR Resources website: http://sbir.gsfc.nasa.gov/sbir/firm_library/index.html. Note: Model contracts are subject to change.

5.3 Reporting and Required Deliverables

An IT Security Management Plan is required at the beginning of the contract. Contractors interested in doing business with NASA and/or providing IT services or solutions to NASA should use the list found on the website of the Office of the Chief Information Officer (OCIO) as a reference for information security requirements: <u>https://www.nasa.gov/content/security-requirements-policies</u>. An example of an IT Security Management Plan can be found in the NASA SBIR/STTR Resources website:

http://sbir.gsfc.nasa.gov/sbir/firm_library/index.html. For more information, see NASA FAR Supplement clause 1852.204-76

All contracts shall require the delivery of technical reports that present (1) the work and results accomplished; (2) the scientific, technical, and commercial merit and feasibility of the proposed innovation and project results; (3) the proposed innovation's relevance and significance to one or more NASA interests (section 9); and (4) the strategy for development and transition of the proposed innovation and project results into products and services for NASA mission programs and other potential customers. Deliverables may also include the demonstration of the proposed innovation and/or the delivery of a prototype or test unit, product, or service for NASA testing and utilization if requested under Phase II.

The technical reports and other deliverables are required as described in the contract and are to be provided to NASA. These reports shall document progress made on the project and activities required for completion. Periodic certification for payment will be required as stated in the contract. A final report must be submitted to NASA upon completion of the Phase II R/R&D effort in accordance with applicable contract provisions.

A final New Technology Summary Report (NTSR) is due at the end of the contract, and New Technology Report(s) (NTR) are required if technology(ies) is/are developed under the award prior to submission of the final invoice. For additional information on NTSR and NTR requirements and definitions, see section 5.9.

If TABA and/or IDS are requested, Phase II contracts will require deliverables that summarize the outcome of the services with expected supporting information.

Report deliverables shall be submitted electronically via the EHB. For any reports that require an upload, NASA requests the submission in PDF or Microsoft Word format.

Note: To access contract management in the EHB, you will be required to have an identity in the NASA Access Management System (NAMS). This is the Agency's centralized system for requesting and maintaining accounts for NASA IT systems and applications. The system contains user account information, access requests, and account maintenance processes for NASA employees, contractors, and remote users such as educators and foreign users. A basic background check and completion of NASA IT Security Training are required for this account. Instructions to create an identity in NAMS will be provided during contract negotiations.

It is recommended that you begin this process immediately upon notification, as this access will be required to submit deliverables and invoices.

5.4 Payment Schedule

All NASA STTR contracts are firm-fixed-price contracts. The exact payment terms will be included in the contract.

Although invoices are submitted electronically through the Department of Treasury's Invoice Processing Platform (IPP), as a condition for payment, invoice certifications shall be completed in the EHB for each individual invoice. The certification is preset in the EHB, and it shall be completed before uploading each invoice in IPP. Upon completion of the certification, a link to IPP is automatically provided in the EHB.

If TABA and/or IDS are requested, Phase II awardees will be required to submit invoices for reimbursement per the payment schedule.

5.5 Profit or Fee

Contracts may include a reasonable profit. The reasonableness of the proposed profit is determined by the Contracting Officer during contract negotiations. Reference <u>FAR 15.404-4</u>.

5.6 Cost Sharing

Cost sharing is permitted for completed proposal packages under this program solicitation; however, cost sharing is not required. Cost sharing will not be an evaluation factor in consideration of your completed proposal package or will not be used in the determination of the percentage of Phase I work to be performed on the contract.

5.7 Rights in Data Developed Under STTR Funding Agreements

The STTR program provides specific rights for data developed under STTR awards. Please review the full text at the following <u>FAR 52.227-20 Rights in Data-SBIR Program</u> and <u>PCD 21-02 FEDERAL ACQUISITION REGULATION</u> (FAR) CLASS DEVIATION – PROTECTION OF DATA UNDER THE SMALL BUSINESS INNOVATIVE RESEARCH/SMALL <u>TECHNOLOGY TRANSFER RESEARCH (SBIR/STTR) PROGRAM</u>

5.8 Copyrights

The contractor may copyright and publish (consistent with appropriate national security considerations, if any) material developed with NASA support. NASA receives a royalty-free license for the Federal Government and requires that each publication contain an appropriate acknowledgment and disclaimer statement.

5.9 Invention Reporting, Election of Title, Patent Application Filing, and Patents

Awardees under the STTR program are required to provide New Technology Reports (NTR) for any new subject inventions, and the New Technology Summary Reports (NTSR) for the interim and final contract periods via the SBIR/STTR EHB at <u>http://sbir.nasa.gov</u> under the Handbooks section.

Please review the full STTR data rights and protection period text at the following: <u>https://www.sbir.gov/sites/default/files/SBA_SBIR_STTR_POLICY_DIRECTIVE_OCT_2020_v2.pdf</u>.

5.10 Export Control

The contractor shall comply with all U.S. export control laws including Export Administration Regulations (EAR) and International Traffic in Arms Regulations (ITAR). Offerors are responsible for ensuring that all employees who will work on this contract are eligible under export control laws, EAR, and ITAR. Any employee who is not a U.S. citizen or a permanent resident may be restricted from working on this contract if the technology is restricted under export control laws, ITAR, or EAR unless the prior approval of the Department of State or the Department of Commerce is obtained via a technical assistance agreement or an export license. Violations of these regulations can result in criminal or civil penalties.

For additional information on ITAR, please visit the Code of Federal Regulations at <u>https://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title22/22cfr120 main 02.tpl</u>. For additional information on EAR, please visit <u>https://www.bis.doc.gov/index.php/regulations/export-administration-regulations-ear</u>. For additional training, refer to <u>https://www.sbir.gov/tutorials/itar/</u>.

5.11 Government-Furnished and Contractor-Acquired Property

In accordance with the SBIR/STTR Policy Directive, the Federal Government may transfer title to the property provided by the STTR Participating Agency to the awardee or acquired by the awardee for the purpose of fulfilling the contract, where such transfer would be more cost-effective than the recovery of the property.

5.12 Essentially Equivalent Awards and Prior Work

If an award is made pursuant to a proposal or completed proposal package submitted under an STTR solicitation, the firm will be required to certify with every invoice that it has not previously been paid nor is currently being paid for essentially equivalent work by any agency of the Federal Government. Failure to report essentially equivalent or duplicate efforts can lead to the termination of contracts and/or civil or criminal penalties.

5.13 Additional Information

5.13.1 Precedence of Contract Over this Solicitation

This program solicitation reflects current planning. If there is any inconsistency between the information contained herein and the terms of any resulting STTR contract, the terms of the contract take precedence over the solicitation.

5.14 Use of Government Resources

Federal Departments and Agencies

Use of STTR funding for unique Federal/non-NASA resources from a Federal department or agency that does not meet the definition of a Federal laboratory as defined by U.S. law and in the SBA Policy Directive on the STTR program requires a waiver from the SBA. Completed proposal packages requiring waivers must include an explanation of why the waiver is appropriate. NASA will provide the offeror's request, along with an explanation to SBA, during the negotiation process. NASA cannot guarantee that a waiver can be obtained from SBA. Specific instructions to request the use of Government Resources are in section 3.5 of the solicitation.

Note: NASA facilities qualify as Federal laboratories.

Support Agreements for the Use of Government Resources

All offerors selected for the award who require the use of any Federal facility shall, within 20 business days of notification of selection for negotiations, provide to the NSSC Contracting Officer an agreement by and between the Contractor and the appropriate Federal facility/laboratory, executed by the Government official authorized to approve such use. The agreement must delineate the terms of use, associated costs, and facility responsibilities and liabilities. Having a signed agreement for the use of Government resources is a requirement for the award.

For the proposed use of NASA resources, a NASA SBIR/STTR Support Agreement template is available on the Resources website (http://sbir.gsfc.nasa.gov/sbir/firm_library/index.html) and must be executed before a contractor can use NASA resources. Offerors shall only include a signed letter of commitment from an authorized NASA point of contact in the completed proposal packages. NASA expects selected offerors to finalize and execute their NASA STTR Support Agreement during the negotiation period with the NSSC. All STTR Support Agreements must be fully reimbursable, and the direction and guidance contained in NPR 9090.1B, Partnership Agreements-Financial Requirements and Administration applies unless otherwise expressly prohibited by federal law regarding limitation on advance payment for resources provided under the Support Agreements.

Contractor Responsibilities for Costs

In accordance with FAR Part 45, it is NASA's policy not to provide services, equipment, or facilities (resources) (capital equipment, tooling, test, computer facilities, etc.) for the performance of work under STTR contracts. Generally, any contractor will furnish its own resources to perform the proposed work on the contract.

In all cases, the contractor shall be responsible for any costs associated with services, equipment, or facilities provided by NASA or another Federal department or agency, and such costs shall result in no increase in the price of this contract.

5.15 Agency Recovery Authority and Ongoing Reporting

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

1) require a small business concern receiving an award under its STTR program to repay all amounts received from the Federal agency under the award if—

(A) the small business concern makes a material misstatement that the Federal agency determines poses a risk to national security; or

(B) there is a change in ownership, change to entity structure, or other substantial change in circumstances of the small business concern that the Federal agency determines poses a risk to national security; and

2) require a small business concern receiving an award under its STTR program to regularly report to the Federal agency and the SBA throughout the duration of the award on—

(A) any change to a disclosure required under subparagraphs (A) through (G) of section 2.3.1 above;

- (B) any material misstatement made under section 5.15 paragraph (A) above; and
- (C) any change described in section 5.15 paragraph (B) above.

6. Submission of Proposals

6.1 How to Apply for STTR Phase II

NASA uses electronically supported business processes for the STTR program. An offeror must have internet access and an email address. Paper submissions are not accepted.

To apply for a NASA STTR Phase II contract all SBCs are required to follow the steps found below.

6.1.1 Electronic Submission Requirements via the EHB

NASA uses an electronic submission system called the Electronic Handbook (EHB) and all offerors must use the EHB for submitting a completed proposal package. The EHB guides firms through the steps for submitting a complete proposal package. All submissions are through a secure connection and most communication between NASA and the firm is through either the EHB or email. To access the EHB go to https://sbir.gsfc.nasa.gov/submissions/login.

New SBCs must register in the EHB to begin the submission process. Returning firms can use the same account they have used for previous submissions unless the business name has changed. Firms are encouraged to start the EHB registration process early to allow sufficient time to complete the submission process.

It is recommended that the designated Small Business Official, or an authorized representative designated by the designated Small Business Official, be the first person to register for the SBC. The SBC's Employer Identification Number (EIN)/Taxpayer Identification Number is required during registration.

Note: The designated Small Business Official, typically the first person to register your firm, will become the firm administrator and will be the only individual authorized to update and change the firm-level forms in the EHB.

For successfully completed proposal package submission, SBCs shall complete all forms online, upload their required documents in an acceptable format, and have the designated Small Business Official and Principal Investigator (PI) electronically endorse the proposal package within the EHB system.

6.1.2 Deadline for Phase II Proposal Receipt

A complete Phase II proposal package shall be <u>received</u> no later than 5:00 p.m. ET on August 25, 2023, which is the last day of the Phase I contract <u>original</u> period of performance.

Note: If an offeror has received a no-cost extension on their Phase I contract, the <u>original</u> period of performance date of the contract applies as the deadline. Therefore the new period of performance date for the extension <u>does not</u> apply and cannot be used as the deadline to submit a Phase II Proposal.

All submissions are via the NASA SBIR/STTR website (<u>http://sbir.nasa.gov</u>) under the Handbooks section.

The EHB will be available for submissions approximately 6 weeks prior to the completion date of Phase I contracts.

An offeror who waits to submit a proposal package near the deadline is at risk of not completing the required document uploads and EHB endorsements of their proposal. The Electronic Handbook (EHB) will terminate any active submissions at the published deadline of 5:00 p.m. ET on the last day of the Phase I original contract period of performance. This termination will result in the offeror receiving an error message, and any remaining parts of the proposal will not be uploaded. If a complete proposal package is not received by the 5:00 p.m. ET deadline, the proposal package will be determined to be incomplete and may not be evaluated.

As stated in section 4, NASA conducts a two-stage review process of all proposals to determine if the proposal can be evaluated and ranked on a competitive basis. Proposals that are found to be noncompliant with the requirements in section 3 of this solicitation will be declined, and no further evaluations will occur. The offeror will be notified of NASA's decision to decline the proposal and that the decision is final.

6.1.3 Complete Proposal Package Submission

Firms will upload all components of a complete proposal package using the Proposal Submissions module in the EHB. Directions are found within the EHB to assist users. All transactions via the EHB are encrypted for security purposes.

A complete proposal package consists of online forms and associated documentation that must be submitted in PDF format via the EHB. Below is what the completed proposal package includes. See section 3 for additional information on how to complete each of these sections.

Each complete proposal package submitted shall contain the following items:

- 1. Proposal Contact Information
- 2. Proposal Certifications
- 3. Proposal Summary
- 4. Proposal Budget
 - a. Including letters of commitment for Government resources and subcontractors/consultants (if applicable)
 - Foreign Vendor form (if applicable) Note: NASA and the Office of Management and Budget (OMB) have issued a policy that requires a review of any request to purchase materials or supplies from foreign vendors
- 5. Technical Proposal—10 Parts in the order specified in section 3.4.4, not to exceed 46 pages, including all graphics, and starting with a table of contents.
- 6. Briefing Chart
- 7. NASA Evaluation License Application, only if TAV is being proposed

- 8. Capital Commitments Addendum Supporting Phase II and Phase III (optional)
- 9. Technical and Business Assistance (TABA) Request (if applicable)
- 10. Firm-Level Forms (completed once for all proposals submitted to a single solicitation)
 - a. Firm Certifications
 - b. Audit Information
 - c. Prior Awards Addendum
 - d. Commercialization Metrics Survey (CMS)
 - e. Disclosures of Foreign Affiliations or Relationships to Foreign Countries
- 11. Electronic Endorsement in the EHB by the Small Business Official and Principal Investigator (PI)

Firms cannot submit security/password-protected PDF files, as reviewers will not be able to open and read these files. Proposal packages containing security/password-protected PDF files may be declined and not considered.

Offerors are responsible for virus-checking all files prior to submission. NASA may decline any completed proposal package that contains a file with a detected virus.

Before you can submit the final completed proposal package, the EHB will ask you to download the entire completed proposal package and certify that you have reviewed it to ensure that you have met the requirements in this solicitation and have uploaded the correct documentation.

A proposal package that is missing the final endorsement in the EHB will be considered an incomplete proposal package and may be declined.

You may upload a complete proposal package multiple times, with each new upload replacing the previous version, but only the final uploaded and electronically endorsed version will be considered for review. If you have already completed a prior upload and endorsed the proposal package, any new uploads will require a reendorsement of the new completed proposal package.

Note: Embedded animation or video, as well as reference technical papers for "further reading," will not be considered for evaluation.

6.1.4 Acknowledgment of a Completed Proposal Package Receipt

NASA will acknowledge receipt of the electronically submitted and completed proposal package upon endorsement in the EHB by the designated Small Business Official. NASA will send an email to the designated Small Business Official email address as provided on the completed proposal package cover sheet, as well as to the user who created the completed proposal package, if different. *If a completed proposal package acknowledgment is not received after submission, the offeror should immediately contact the NASA SBIR/STTR Program Support Office at agency-sbir@mail.nasa.gov.*

6.1.5 Withdrawal of Completed Proposal Packages

Prior to the close of submissions, completed proposal packages may be withdrawn via the Proposal Submissions module in the EHB. In order to withdraw a completed proposal package after the deadline, the designated Small Business Official must send written notification via email to <u>agency-sbir@mail.nasa.gov</u>.

6.1.6 Service of Protests

Protests, as defined in section <u>FAR 33.101</u> of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the Government Accountability Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from:

Kenneth E. Albright NASA Shared Services Center Building 1111, Jerry Hlass Road Stennis Space Center, MS 39529 Agency-SBIR-STTRSolicitation@mail.nasa.gov

A copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

7. Proposal, Scientific and Technical Information Sources

7.1 NASA Organizational and Programmatic Information

General sources relating to organizational and programmatic information at NASA are available via the following websites:

NASA Budget Documents, Strategic Plans, and Performance Reports: <u>http://www.nasa.gov/about/budget/index.html</u> NASA Organizational Structure: <u>http://www.nasa.gov/centers/hq/organization/index.html</u> NASA SBIR/STTR Programs: <u>http://sbir.nasa.gov</u>

Information regarding the 2020 NASA Technology Taxonomy and the NASA Strategic Integration Framework can be obtained at the following websites:

| Office of the Chief Technologist | | |
|----------------------------------|--|--|
| 2020 NASA Technology Taxonomy | https://www.nasa.gov/offices/oct/taxonomy/index.html | |

| NASA Mission Directorates | | |
|---------------------------------|--|--|
| Aeronautics Research | http://www.aeronautics.nasa.gov/ | |
| Exploration Systems Development | lopment https://www.nasa.gov/directorates/exploration-systems- | |
| | <u>development</u> | |
| Space Operations | https://www.nasa.gov/directorates/space-operations-mission- | |
| | directorate | |
| Science | http://nasascience.nasa.gov | |
| Space Technology | http://www.nasa.gov/directorates/spacetech/home/index.html | |

| NASA Centers | |
|---|---|
| Ames Research Center (ARC) | http://www.nasa.gov/centers/ames/home/index.html |
| Armstrong Flight Research Center (AFRC) | http://www.nasa.gov/centers/armstrong/home/index.html |
| Glenn Research Center (GRC) | http://www.nasa.gov/centers/glenn/home/index.html |
| Goddard Space Flight Center (GSFC) | http://www.nasa.gov/centers/goddard/home/index.html |
| Jet Propulsion Laboratory (JPL) | http://www.nasa.gov/centers/jpl/home/index.html |
| Johnson Space Center (JSC) | http://www.nasa.gov/centers/johnson/home/index.html |
| Kennedy Space Center (KSC) | http://www.nasa.gov/centers/kennedy/home/index.html |
| Langley Research Center (LaRC) | http://www.nasa.gov/centers/langley/home/index.html |
| Marshall Space Flight Center (MSFC) | http://www.nasa.gov/centers/marshall/home/index.html |
| Stennis Space Center (SSC) | http://www.nasa.gov/centers/stennis/home/index.html |
| NASA Shared Services Center (NSSC) | https://www.nssc.nasa.gov/ |

7.2 United States Small Business Administration (SBA)

The SBA oversees the Federal SBIR and STTR programs. The SBA has resources that small businesses can take advantage of in learning about the program and obtaining help in developing a proposal or a completed proposal package for a Federal SBIR/STTR program. Offerors are encouraged to review the information that is provided at the following links: www.sbir.gov/ncal-assistance, and https://www.sbir.gov/ncal-assistance, and

The SBA issues an SBIR/STTR Policy Directive which provides guidance to all Federal Agencies that have an SBIR/STTR program. The Policy Directives for the SBIR/STTR programs may be obtained from the SBA at www.sbir.gov or at the following address:

U.S. Small Business Administration Office of Technology – Mail Code 6470 409 Third Street, S.W. Washington, DC 20416 Phone: 202-205-6450

7.3 National Technical Information Service

The National Technical Information Service (NTIS) is an agency of the Department of Commerce and is the Federal Government's largest central resource for Government-funded scientific, technical, engineering, and business-related information. For information regarding various NTIS services and fees, call or write:

National Technical Information Service 5285 Port Royal Road Springfield, VA 22161 Phone: 703-605-6000 URL: <u>http://www.ntis.gov</u>

8. Submission Forms

Note: Previews of all forms and certifications are available via the NASA SBIR/STTR Resources website, located at <u>http://sbir.gsfc.nasa.gov/sbir/firm_library/index.html</u>.

8.1 STTR Phase II Checklist

For assistance in completing your Phase II proposal, use the following checklist to ensure your submission is complete.

- 1. The proposal and innovation are submitted for one subtopic only (section 3.1).
- 2. The entire proposal package is submitted consistently with the requirements outlined in section 3.4.
 - a. Proposal Contact Information
 - b. Proposal Certifications
 - c. Proposal Summary
 - d. Proposal Budget
 - i. Including letters of commitment for Government resources and subcontractors/consultants (if applicable)
 - Foreign Vendor form (if applicable) Note: NASA and the Office of Management and Budget (OMB) have issued a policy that requires a review of any request to purchase materials or supplies from foreign vendors
 - e. Technical Proposal—10 Parts in the order specified in section 3.4.4, not to exceed 46 pages, including all graphics, and starting with a table of contents.
 - f. Briefing Chart
 - g. NASA Evaluation License Application, only if TAV is being proposed
 - h. Capital Commitments Addendum Supporting Phase II and Phase III (optional)
 - i. Technical and Business Assistance (TABA) Request, if applicable
 - j. Firm-Level Forms (completed once for all proposals submitted to a single solicitation)
 - i. Firm Certifications
 - ii. Audit Information
 - iii. Prior Awards Addendum
 - iv. Commercialization Metrics Survey (CMS)
 - v. Disclosures of Foreign Affiliations or Relationships to Foreign Countries
 - k. Electronic Endorsement by the Small Business Official and Principal Investigator (PI)

3. The technical proposal shall not exceed a total of 46 8.5- by 11-inch pages and shall follow the format requirements (section 3.4.2).

- 4. The technical proposal contains all 10 parts in order (section 3.4.4).
- 5. Any additional required letters/documentation.
 - a. A letter of commitment from the facility manager if the research or R/R&D effort requires the use of Federal facilities (section 3.4.4).
 - b. Letters of commitment from subcontractors/consultants.
 - c. Letters in support of Capital Commitments Addendum.
 - d. If the firm is an eligible joint venture or limited partnership, a copy or a comprehensive summary of the joint venture agreement or partnership agreement is included.
 - e. NASA Evaluation License Application if proposing the use of NASA technology (TAV).
 - f. Supporting documentation of budgeted costs.

- 6. Proposed funding does not exceed \$850,000 (section 1.4), and if requesting TABA, the cost for TABA does not exceed \$50,000 (section 3.4.15).
- 7. The proposed project duration does not exceed 24 months (section 1.3).
- 8. The proposal package is electronically endorsed by the Small Business Official and the Principal Investigator (PI) at the required deadline.
- 9. Complete Phase II proposal packages and all endorsements shall be <u>received</u> no later than 5 p.m. ET on the last day of the Phase I contract period of performance (section 6.1).

9. Research Subtopics for STTR

Phase II proposals are follow-on work to the original Phase I award, therefore offerors are required to submit proposals that are in alignment with the original subtopic that Phase I was awarded under. Offerors are encouraged to review the subtopic and ensure the proposed effort meets the subtopic scope, goals, and Phase II deliverables. To review the subtopic that was solicited in Phase I, go to https://sbir.nasa.gov/solicitations and Phase I deliverables. To review the subtopic that was solicited in Phase I, go to https://sbir.nasa.gov/solicitations and review section 9: Research Subtopics for STTR in the 2022 Phase I solicitation.

Appendices

Appendix A: Technology Readiness Level (TRL) Descriptions

The Technology Readiness Level (TRL) describes the stage of maturity in the development process from observation of basic principles through final product operation. The exit criteria for each level document that principles, concepts, applications, or performance have been satisfactorily demonstrated in the appropriate environment required for that level. A relevant environment is a subset of the operational environment that is expected to have a dominant impact on operational performance. Thus, reduced gravity may be only one of the operational environments in which the technology must be demonstrated or validated in order to advance to the next TRL.

| TRL | Definition | Hardware Description | Software Description | Exit Criteria |
|-----|--|--|--|---|
| 1 | Basic principles observed and reported. | Scientific knowledge generated underpinning hardware technology concepts/applications. | Scientific knowledge generated underpinning basic properties of software architecture and mathematical formulation. | Peer-reviewed publication of research underlying the proposed concept/application. |
| 2 | Technology concept and/or application formulated. | Invention begins, practical application is identified but is speculative, and no experimental proof or detailed analysis is available to support the conjecture. | Practical application is identified but is speculative, no experimental proof or detailed analysis is available to support the conjecture. Basic properties of algorithms, representations, and concepts defined. Basic principles coded. Experiments performed with synthetic data. | Documented description of the application/concept that addresses feasibility and benefit. |
| 3 | Analytical and experimental critical function and/or characteristic proof of concept. | Analytical studies place the technology in an appropriate context and laboratory demonstrations, modeling and simulation validate analytical prediction. | Development of limited functionality to validate critical properties and predictions using non-integrated software components. | Documented analytical/experimental results validating predictions of key parameters. |
| 4 | Component and/or breadboard validation in a laboratory environment. | A low-fidelity system/component breadboard is built and operated to demonstrate basic functionality and critical test environments, and associated performance predictions are defined relative to the final operating environment. | Key, functionally critical, software components are integrated, and functionally validated, to establish interoperability and begin architecture development. Relevant Environments are defined and performance in these environments is predicted. | Documented test performance demonstrating agreement with analytical predictions. Documented definition of relevant environment. |
| 5 | Component and/or breadboard | A medium fidelity system/component brass board is built and operated to | End-to-end software elements implemented and interfaced with existing | Documented test performance demonstrating |

| | validation in a relevant environment. | demonstrate overall performance in a simulated operational environment with realistic support elements that demonstrates overall performance in critical areas. Performance predictions are made for subsequent development phases. | systems/simulations conforming to the target environment. The end-to-end software system, tested in a relevant environment, meeting predicted performance. Operational environment performance predicted. Prototype implementations developed. | agreement with analytical predictions. Documented definition of scaling requirements. |
|---|---|--|---|--|
| 6 | System/sub- system model or prototype demonstration in a relevant environment. | A high-fidelity system/component prototype that adequately addresses all critical scaling issues is built and operated in a relevant environment to demonstrate operations under critical environmental conditions. | Prototype implementations of the software demonstrated on full-scale realistic problems. Partially integrated with existing hardware/software systems. Limited documentation is available. Engineering feasibility fully demonstrated. | Documented test performance demonstrating agreement with analytical predictions. |
| 7 | System prototype demonstration in an operational environment. | A high-fidelity engineering unit that adequately addresses all critical scaling issues is built and operated in a relevant environment to demonstrate performance in the actual operational environment and platform (ground, airborne, or space). | Prototype software exists having all key functionality available for demonstration and testing. Well integrated with operational hardware/software systems demonstrating operational feasibility. Most software bugs were removed. Limited documentation is available. | Documented test performance demonstrating agreement with analytical predictions. |
| 8 | The actual system was completed and "flight qualified" through test and demonstration. | The final product in its final configuration is successfully demonstrated through testing and analysis for its intended operational environment and platform (ground, airborne, or space). | All software has been thoroughly debugged and fully integrated with all operational hardware and software systems. All user documentation, training documentation, and maintenance documentation are completed. All functionality was successfully demonstrated in simulated operational scenarios. Verification and Validation (V&V) completed. | Documented test performance verifying analytical predictions. |
| 9 | Actual system flight proven through successful mission operations. finitions | The final product is successfully operated in an actual mission. | All software has been thoroughly debugged and fully integrated with all operational hardware/software systems. All documentation has been completed. Sustaining software engineering support is in place. The system has been successfully operated in the operational environment. | Documented mission operational results. |

Definitions

Brassboard: A medium-fidelity functional unit that typically tries to make use of as much operational hardware/software as possible and begins to address scaling issues associated with the operational system. It does not have the engineering pedigree in all aspects but is structured to be able to operate in simulated operational environments in order to assess the performance of critical functions.

Breadboard: A low-fidelity unit that demonstrates function only, without respect to form or fit in the case of hardware, or platform in the case of software. It often uses commercial and/or ad hoc components and is not intended to provide definitive information regarding operational performance.

Engineering Unit: A high-fidelity unit that demonstrates critical aspects of the engineering processes involved in the development of the operational unit. Engineering test units are intended to closely resemble the final product (hardware/software) to the maximum extent possible and are built and tested so as to establish confidence that the design will function in the expected environments. In some cases, the engineering unit will become the final product, assuming proper traceability has been exercised over the components and hardware handling.

Laboratory Environment: An environment that does not address in any manner the environment to be encountered by the system, subsystem, or component (hardware or software) during its intended operation. Tests in a laboratory environment are solely for the purpose of demonstrating the underlying principles of technical performance (functions), without respect to the impact of the environment.

Mission Configuration: The final architecture/system design of the product that will be used in the operational environment. If the product is a subsystem/component, then it is embedded in the actual system in the actual configuration used in operation.

Operational Environment: The environment in which the final product will be operated. In the case of spaceflight hardware/software, it is space. In the case of ground-based or airborne systems that are not directed toward spaceflight, it will be the environments defined by the scope of operations. For software, the environment will be defined by the operational platform.

Proof of Concept: Analytical and experimental demonstration of hardware/software concepts that may or may not be incorporated into subsequent development and/or operational units.

Prototype Unit: The prototype unit demonstrates form, fit, and function at a scale deemed to be representative of the final product operating in its operational environment. A subscale test article provides fidelity sufficient to permit the validation of analytical models capable of predicting the behavior of full-scale systems in an operational environment

Relevant Environment: Not all systems, subsystems, and/or components need to be operated in the operational environment in order to satisfactorily address performance margin requirements. Consequently, the relevant environment is the specific subset of the operational environment that is required to demonstrate critical "at risk" aspects of the final product performance in an operational environment. It is an environment that focuses specifically on "stressing" the technology advance in question.

Appendix B: STTR and the Technology Taxonomy

NASA's technology development activities expand the frontiers of knowledge and capabilities in aeronautics, science, and space, creating opportunities, markets, and products for U.S. industry and academia. Technologies that support NASA's missions may also support science and exploration missions conducted by the commercial space industry and other Government agencies. In addition, NASA technology development results in applications for the general population, including devices that improve health, medicine, transportation, public safety, and consumer goods.

The NASA Technology Taxonomy provides a structure for articulating the technology development disciplines needed to enable future space missions and support commercial air travel. It is composed of 17 distinct technicaldiscipline-based taxonomies (TX) that provide a breakdown structure for each technology area. The taxonomy uses a three-level hierarchy for grouping and organizing technology types. Level 1 represents the technology area that is the title of that area. Level 2 is a list of the subareas in the taxonomy is a foundational element of NASA's technology management process. NASA's mission directorates reference the taxonomy to solicit proposals and to inform decisions on NASA's technology policy, prioritization, and strategic investments.

The NASA Technology Taxonomy can be found at: (https://www.nasa.gov/sites/default/files/atoms/files/2020 nasa technology taxonomy lowres.pdf).

For the STTR program, NASA research and technology areas to be solicited are identified annually by the agency's Center Chief Technologists (CCTs). The CCTs identify high-priority research problems and technology needs for their respective programs and projects. The range of problems and technologies is broad, and the list of research subtopics varies in content from year to year to maintain alignment with current interests. The table on the following pages relates the current STTR subtopics to the Technology Taxonomy.

Appendix C: List of NASA STTR Phase II Clauses, Regulations, and Certifications

Introduction

Offerors who plan to submit a completed proposal package to this solicitation will be required to meet specific rules and regulations as part of the submission and if awarded a contract. Offerors should ensure that they understand these rules and requirements before submitting a completed proposal package to NASA.

Below are all the clauses, regulations, and certifications that apply to Phase II submissions and contracts. Each clause, regulation, and certification contain a hyperlink to the webpages from the NASA FAR Supplement, SBIR/STTR Policy Directive, and <u>www.acquisition.gov</u> where you can read about the requirements.

Federal Acquisition Regulations (FAR) Provisions and Clauses

FAC 2023-04; FAR Case 2023-010 Prohibition on a Byte Dance Covered Application (including TikTok) (Interim Rule)

52.203-19 PROHIBITION ON REQUIRING CERTAIN INTERNAL CONFIDENTIALITY AGREEMENTS OR STATEMENTS.

52.204-6 UNIQUE ENTITY IDENTIFIER.

52.204-7 SYSTEM FOR AWARD MANAGEMENT.

52.204-8 ANNUAL REPRESENTATIONS AND CERTIFICATIONS (DEVIATION 20-02A)

52.204-10 REPORTING EXECUTIVE COMPENSATION AND FIRST-TIER SUBCONTRACT AWARDS.

52.204-13 SYSTEM FOR AWARD MANAGEMENT MAINTENANCE.

52.204-16 COMMERCIAL AND GOVERNMENT ENTITY CODE REPORTING.

52.204-18 COMMERCIAL AND GOVERNMENT ENTITY CODE MAINTENANCE.

52.204-19 INCORPORATION BY REFERENCE OF REPRESENTATIONS AND CERTIFICATIONS.

52.204-22 ALTERNATIVE LINE ITEM PROPOSAL.

52.204-23 PROHIBITION ON CONTRACTING FOR HARDWARE, SOFTWARE, AND SERVICES DEVELOPED OR PROVIDED BY KASPERSKY LAB AND OTHER COVERED ENTITIES.

52.204-24 REPRESENTATION REGARDING CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT

52.204-25 PROHIBITION ON CONTRACTING FOR CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT.

52.204-26 COVERED TELECOMMUNICATIONS EQUIPMENT OR SERVICES - REPRESENTATION.

52.209-6 PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT.

52.215-1 INSTRUCTIONS TO OFFERORS—COMPETITIVE ACQUISITION.

52.215-8 ORDER OF PRECEDENCE—UNIFORM CONTRACT FORMAT.

52.216-1 TYPE OF CONTRACT.

52.219-6 NOTICE OF TOTAL SMALL BUSINESS SET-ASIDE

52.219-28 POST-AWARD SMALL BUSINESS PROGRAM REPRESENTATION.

52.222-3 CONVICT LABOR.

52.222-21 PROHIBITION OF SEGREGATED FACILITIES.

52.222-26 EQUAL OPPORTUNITY.

52.222-36 EQUAL OPPORTUNITY FOR WORKERS WITH DISABILITIES.

52.222-50 COMBATING TRAFFICKING IN PERSONS.

52.223-6 DRUG-FREE WORKPLACE.

52.223-18 ENCOURAGING CONTRACTOR POLICIES TO BAN TEXT MESSAGING WHILE DRIVING.

52.223-99 ENSURING ADEQUATE COVID-19 SAFETY PROTOCOLS FOR FEDERAL CONTRACTORS (DEVIATION 21-03)

52.225-1 Buy American-Supplies (NOV 2021)

52.225-13 RESTRICTIONS ON CERTAIN FOREIGN PURCHASES.

52.227-1 AUTHORIZATION AND CONSENT.

52.227-11 PATENT RIGHTS—OWNERSHIP BY THE CONTRACTOR.

52.227-20 RIGHTS IN DATA—SBIR PROGRAM.

52.232-2 PAYMENTS UNDER FIXED-PRICE RESEARCH AND DEVELOPMENT CONTRACTS.

52.232-9 LIMITATION ON WITHHOLDING OF PAYMENTS.

52.232-12 ADVANCE PAYMENTS.

52.232-23 ASSIGNMENT OF CLAIMS.

52.232-25 PROMPT PAYMENT.

52.232-33 PAYMENT BY ELECTRONIC FUNDS TRANSFER—SYSTEM FOR AWARD MANAGEMENT.

52.232-39 UNENFORCEABILITY OF UNAUTHORIZED OBLIGATIONS.

52.232-40 PROVIDING ACCELERATED PAYMENTS TO SMALL BUSINESS SUBCONTRACTORS. (DEVIATION 20-03A)

52.233-1 DISPUTES.

52.233-3 PROTEST AFTER AWARD.

52.233-4 APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM.

52.242-15 STOP-WORK ORDER.

52.243-1 CHANGES—FIXED PRICE.

52.246-7 INSPECTION OF RESEARCH AND DEVELOPMENT—FIXED PRICE.

52.246-16 RESPONSIBILITY FOR SUPPLIES.

52.244-6 SUBCONTRACTS FOR COMMERCIAL ITEMS. (DEVIATION 20-03A)

52.249-1 TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE) (SHORT FORM).

52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE.

52.252-5 AUTHORIZED DEVIATIONS IN PROVISIONS.

52.253-1 COMPUTER-GENERATED FORMS.

52.252-2 CLAUSES INCORPORATED BY REFERENCE.

52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES.

NASA Provisions and Clauses

1852.216-78 FIRM FIXED PRICE.

1852.203-71 REQUIREMENT TO INFORM EMPLOYEES OF WHISTLEBLOWER RIGHTS

<u>1852.204-76 SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION TECHNOLOGY RESOURCES.</u> (DEVIATION 21-01)

1852.215-84 OMBUDSMAN.

1852.219-80 LIMITATION ON SUBCONTRACTING - SBIR PHASE I PROGRAM. (OCT 2006)

1852.219-83 LIMITATION OF THE PRINCIPAL INVESTIGATOR - SBIR PROGRAM. (OCT 2006)

1852.225-70 EXPORT LICENSES

1852.225-71 RESTRICTION ON FUNDING ACTIVITY WITH CHINA

1852.225-72 RESTRICTION ON FUNDING ACTIVITY WITH CHINA - REPRESENTATION. (DEVIATION 12-01A)

1852.215-81 PROPOSAL PAGE LIMITATIONS.

1852.227-72 DESIGNATION OF NEW TECHNOLOGY REPRESENTATIVE AND PATENT REPRESENTATIVE.

1852.232-80 SUBMISSION OF VOUCHERS FOR PAYMENT.

1852.233-70 PROTESTS TO NASA.

1852.235-70 CENTER FOR AEROSPACE INFORMATION.

1852.239-74 INFORMATION TECHNOLOGY SYSTEM SUPPLY CHAIN RISK ASSESSMENT. (DEVIATION 15-03D)

1852.235-73 FINAL SCIENTIFIC AND TECHNICAL REPORTS.

1852.235-74 ADDITIONAL REPORTS OF WORK - RESEARCH AND DEVELOPMENT.

1852.237-73 RELEASE OF SENSITIVE INFORMATION.

PCD 21-02 FEDERAL ACQUISITION REGULATION (FAR) CLASS DEVIATION – PROTECTION OF DATA UNDER THE SMALL BUSINESS INNOVATIVE RESEARCH/SMALL TECHNOLOGY TRANSFER RESEARCH (SBIR/STTR) PROGRAM

PCD 21-04A CLASS DEVIATION FROM THE FEDERAL ACQUISITION REGULATION (FAR) AND NASA FAR SUPPLEMENT (NFS) REGARDING REQUIREMENTS FOR NONAVAILABILITY DETERMINATIONS UNDER THE BUY AMERICAN STATUTE

Additional Regulations

SOFTWARE DEVELOPMENT STANDARDS

HUMAN AND/OR ANIMAL SUBJECT

HOMELAND SECURITY PRESIDENTIAL DIRECTIVE 12 (HSPD-12)

RIGHTS IN DATA DEVELOPED UNDER SBIR FUNDING AGREEMENT

INVENTION REPORTING, ELECTION OF TITLE, PATENT APPLICATION FILING, AND PATENTS

SBA Certifications required for Phase II

(1) CERTIFICATIONS.

(2) PERFORMANCE OF WORK REQUIREMENTS.

(3) EMPLOYMENT OF THE PRINCIPAL INVESTIGATOR/PROJECT MANAGER.

(4) LOCATION OF THE WORK.

(5) NOVATED/SUCCESSOR IN INTERESTED/REVISED FUNDING AGREEMENTS.

(6) MAJORITY-OWNED BY MULTIPLE VCOCS, HEDGE FUNDS, OR PRIVATE EQUITY FIRMS [SBIR ONLY].

(7) AGENCY BENCHMARKS FOR PROGRESS TOWARDS COMMERCIALIZATION.

(8) LIFE CYCLE CERTIFICATIONS