

# VERSION 3

## UNITED STATES SPECIAL OPERATIONS COMMAND 21.C Small Business Innovation Technology Transfer (STTR) Phase I Proposal Submission Instructions

### Introduction:

The United States Special Operations Command (USSOCOM) seeks small businesses with strong research and development capabilities to pursue and commercialize technologies needed by Special Operations Forces through the Department of Defense (DoD) STTR 21.C Program Broad Agency Announcement (BAA). A thorough reading of the “Department of Defense Small Business Technology Transfer (STTR) Program, STTR 21.C Program Broad Agency Announcement (BAA)” prior to reading these USSOCOM instructions is highly recommended. These USSOCOM instructions explain certain unique aspects of the USSOCOM STTR Program that differ from the DoD Announcement and its instructions. The Offeror is responsible for ensuring that their proposal complies with the requirements in the most current version of these instructions. Prior to submitting your proposal, please review the latest version of these instructions as they are subject to change before the submission deadline.

**Table 1: Consolidated STTR Topic Information**

<b>Topic</b>	<b>Technical Volume (Vol 2)</b>	<b>Additional Info. (Vol 5)</b>	<b>Period of Performance</b>	<b>Award Amount</b>	<b>Contract Type</b>
<i>Phase I</i> SOCOM21C-001	Not to exceed 5 pages	15 page PowerPoint	Not to exceed 6 months	NTE \$150,000.00	Firm-Fixed-Price

### Contract Awards:

The Government will conduct all evaluations for this topic.

### Proposal Submission:

Firms must upload their proposals to the Defense SBIR/STTR Innovation Portal Proposal Submissions at <https://www.dodsbirsttr.mil/submissions/login>. Additional USSOCOM specific submission requirements for each volume are detailed below.

### Technical Inquiries:

During the Pre-release Period of the DoD STTR 21.C Program BAA, all questions must be submitted in writing either by e-mail to [sbir@socom.mil](mailto:sbir@socom.mil) or to the online Defense SBIR/STTR Innovation Portal (DSIP) Topic Q&A. All questions and answers submitted to DSIP Topic Q&A will be released to the general public. USSOCOM does not allow inquirers to talk directly or communicate in any other manner to the topic authors (differs from the DoD STTR 21.C Program BAA instructions). **All inquiries must include the topic number in the subject line of the e-mail.**

During the Open Period, follow the instructions in section the DoD STTR 21.C Program BAA Instructions. USSOCOM does not allow inquirers to talk directly or communicate in any other manner to the topic authors (differs from the DoD STTR 21.C Program BAA instructions).

**Site visits will not be permitted during the Pre-release and Open Periods of the DoD STTR 21.C Program BAA.**

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**Proposal Volumes:** Proposal Volumes are key in the qualification of the proposal. Offerors shall complete each of the following volumes. Those volume are (1) Cover Page, (2) Technical Volume, (3) Cost Volume, (4) Company Commercialization Report, (5) Supporting Documents, and (6) Fraud, Waste and Abuse Training.

**Volume 1:** Cover Page is created as part of the DoD Proposal Submissions process.

## **Volume 2: Technical Volume**

The Technical Volume page count will include all the required items under the DoD STTR 21.C instructions and shall not exceed 5 pages. There is no set format for this document.

The identification of foreign national involvement in a USSOCOM STTR topic is needed to determine if a firm is ineligible for award on a USSOCOM topic that falls within the parameters of the United States Munitions List, Part 121 of the International Traffic in Arms Regulation (ITAR). A firm employing a foreign national(s) (as defined in the paragraph entitled "Foreign Nationals" of the DoD STTR 21.C Announcement) to work on a USSOCOM ITAR topic must possess an export license to receive a STTR Phase I contract.

## **Volume 3: Cost Volume**

Companies submitting a Phase I proposal under this BAA must complete the USSOCOM Phase I Cost excel spreadsheet, with a base not to exceed \$150,000.00.

A minimum of 40% of the research and/or analytical work in Phase I must be conducted by the proposing firm. A minimum of 30% of the research and/or analytical work must be conducted by a not for profit (typically an education institution or laboratory). The percentage of work is measured by both direct and indirect costs as a percentage of the total contract cost.

## **Volume 4: Company Commercialization Report (CCR)**

CCR is required to be submitted with proposals in response to USSOCOM 21.C STTR topics. Please refer to the DoD 21.C STTR BAA for full details. Information contained in the CCR **will not** be considered during proposal evaluations.

## **Volume 5: Supporting Documents (Pitch Day Presentation and Section K)**

In addition to the documentation outlined in the DoD STTR Program BAA, the following must also be included with Volume 5: (1) the Pitch Day presentation and (2) Section K.

(1) Pitch Day Presentation: Potential Offerors shall submit a slide deck **not to exceed 15 PowerPoint slides (inclusive of the cover sheet)**. There is no set format for this document. It is recommended (but not required) that more detailed information is included in the technical volume and higher-level information is included in the slide deck suitable for the 30 minutes presenting. Refer to the "Phase I Evaluations" Section of this instruction for more details.

(2) Section K: If Section K is not submitted with the proposal, the proposal will not be considered non-responsive, but, the completed Section K shall be required at the time of award.

## **Volume 6: Fraud, Waste and Abuse Training**

Fraud, Waste and Abuse (FWA) training is required for Phase I and Direct to Phase II proposals. Please refer to the DoD 21.C STTR BAA for full details.

**Phase I proposals shall NOT include:**

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- 1) Any travel for Government meetings. All meetings with the Government will be conducted via electronic media.
- 2) Government furnished property or equipment.
- 3) Priced or Unpriced Options.
- 4) A Technical Volume exceeding five pages. USSOCOM will only evaluate the first five pages of the Technical Volume. Additional pages will not be considered or evaluated.
- 5) "Basic Research" (or "Fundamental Research") defined as a "Systematic study directed toward greater knowledge or understanding of the fundamental aspects of phenomena and/or observable facts without specific applications toward processes or products in mind."
- 6) Human or animal studies.
- 7) Discretionary Technical and Business Assistance

### **Phase I Evaluations:**

USSOCOM evaluates Phase I proposals using the evaluation criteria specified in the DoD 21.C STTR Announcement with the following exceptions:

1. Proposals missing any of the six stated volumes or does not comply with the minimum 40% for prime and 30% rule will not be evaluated. Likewise, proposals that exceed the maximum price allowed as per Table 1 of these instructions will be considered to be non-responsive.
2. The technical evaluation will utilize the Evaluation Criteria provided in the DoD STTR 21.C BAA. The Technical Volume and slide deck will be reviewed holistically. The technical evaluation is performed in two parts:

Part I: The evaluation of the Technical Volume will utilize the Evaluation Criteria provided in the DoD STTR 21.C BAA. Once the evaluations are complete, all Offerors will be notified as to whether they were selected to present the slide deck portion of their proposal.

Part II: Selected Offerors will receive an invitation to present their slide deck (30 minute presentation time / 30 minute Government question and answer period) to the USSOCOM technical evaluation team, using virtual teleconference. This will be a technical presentation only of the proposed solution and the key personnel listed in the proposal should be conducting the presentation and responding to the questions of the evaluation team. This presentation is NOT intended for business development personnel, it is purely technical. Selected Offerors shall restrict their Pitch Day presentations to only the 15 page PowerPoint presentations that were submitted with their respective proposals. There will be no changes or updates to the presentations from what was proposed. All selected firms will be required to provide teleconference information for the presentation. This presentation will complete the evaluation of the proposal the panel did against the criteria listed under the DoD STTR 21.C BAA. Notifications of selection/non-selection for Phase I award will be completed within a timely manner.

3. The Cost Volume (Volume 3) evaluation:  
For this Phase I, the award amount is set at a not to exceed (NTE) amount and a technical evaluation of the proposal cost will be completed to assess price fair and reasonableness. Proposals above the established NTE for the Phase I effort will not be considered for award. The team will assess the technical approach presented for the effort based on the number of labor hours by labor categories, the key personnel level of involvement,

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materials, subcontractors and consultants (scope of work, expertise, participation and proposed effort), and other direct cost as proposed.

Additionally, input on technical aspects of the proposals may be solicited by USSOCOM from non-Government consultants and advisors who are bound by appropriate non-disclosure requirements. Non-Government personnel will not establish final assessments of risk, rate, or rank Offeror's proposals. These advisors are expressly prohibited from competing for USSOCOM STTR awards. All administrative support contractors, consultants, and advisors having access to any proprietary data will certify that they will not disclose any information pertaining to this announcement, including any submission, the identity of any submitters, or any other information relative to this announcement; and shall certify that they have no financial interest in any submission. Submissions and information received in response to this announcement constitutes the Offeror's permission to disclose that information to administrative support contractors and non-Government consultants and advisors.

### **Selection Notifications:**

The Government Contracting Officer will notify each Offeror by e-mail whether they have been selected for award. The e-mail notification will be sent to the Corporate Official (Business) identified by the Offeror.

### **Informal Feedback:**

A non-selected Offeror can make a written request to their respective Contracting Officer, within 30 calendar days of receipt of notification of non-selection, for informal feedback. The respective Contracting Officer will provide informal feedback in response to an Offeror's written request rather than a debriefing as specified in the paragraph, entitled "Debriefing," of the DoD STTR 21.C Announcement.

### **Protest Procedures**

Refer to the DoD **STTR** Program Announcement for procedures to protest the Announcement.

As further prescribed in FAR 33.106(b), FAR 52.233-3, Protests after Award should be submitted to the Contracting Officer (KO) from which the notice was generated and sent from.

### **USSOCOM STTR Program Point of Contact:**

Inquiries concerning the USSOCOM STTR Program and these proposal preparation instructions should be addressed to [sbir@socom.mil](mailto:sbir@socom.mil).

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SOCOM STTR 21.C Phase I Topic Index

SOCOM21C-001

sUAS/Munition AI Teaming for Advanced Precision Strike

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SOCOM21C-001

TITLE: sUAS/Munition AI Teaming for Advanced Precision Strike

TECHNOLOGY FOCUS AREAS: Network Command Control and Communications; Autonomy; Artificial Intelligence/ Machine Learning;

TECHNOLOGY AREAS: Sensors; Electronics; Weapons; Battlespace

The technology within this topic is restricted under the International Traffic in Arms Regulation (ITAR), which controls the export and import of defense-related material and services. Offerors must disclose any proposed use of foreign nationals, their country of origin, and what tasks each would accomplish in the statement of work in accordance with section 5.4.c.(8) of the solicitation. Additionally, Offerors will describe compliance mechanisms offerors have in place or will put in place to address any ITAR issues that arise during the course of agreement administration.

OBJECTIVE: The objective of this topic is to develop applied research toward an innovative capability to leverage artificial intelligence to communicate appropriate targeting solutions for Stand Off Precision Guided Munitions leveraging a common autonomy architecture.

DESCRIPTION: Proposers will develop innovative recommendations and concepts for a machine learning modular architecture for non-line of sight targeting and communication from small Unmanned Aerial System (sUAS) / Munitions to a Common Launch Tube (CLT) compliant Stand Off Precision Guided Munition. The focus of this topic is to develop and coordinate an accurate and autonomous method of dynamic targeting for a target where traditional methods of Global Positioning System (GPS) or laser designation may not be available. The concepts should include how a "swarm" of sUASs (under the cover of buildings or foliage) could develop and communicate (via a Mission Data Link) precise targeting to a munition for GPS permissive, degraded, and denied environments. If this effort progresses beyond this feasibility study, the Government may provide an open architecture to be use for a potential **STTR** Phase II.

PHASE I: Conduct a feasibility study to assess what is in the art of the possible that satisfies the requirements specified in the above paragraphs entitled "Objective" and "Description."

The objective of this USSOCOM Phase I **STTR** effort is to conduct and document the results of a thorough feasibility study ("Technology Readiness Level 3") to investigate what is in the art of the possible within the given trade space that will satisfy a needed technology. The feasibility study should investigate all options that meet or exceed the minimum performance parameters specified in this write up. It should also address the risks and potential payoffs of the innovative technology options that are investigated and recommend the option that best achieves the objective of this technology pursuit. The funds obligated on the resulting Phase I **STTR** contracts are to be used for the sole purpose of conducting a thorough feasibility study using scientific experiments and laboratory studies as necessary. Operational prototypes will not be developed with USSOCOM **STTR** funds during Phase I feasibility studies. Operational prototypes developed with other than **STTR** funds that are provided at the end of Phase I feasibility studies will not be considered in deciding what firm(s) will be selected for Phase II.

PHASE II: Develop, install, and demonstrate a prototype system determined to be the most feasible solution during the Phase I feasibility study on sUAS/Munition Teaming for Advanced Precision Strike.

PHASE III DUAL USE APPLICATIONS: This system could be used in a broad range of military applications where a requirement exists for edge communication between AI systems in a

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common architecture. This may be for rapid employment of emerging technologies or interoperability across the battle space.

### REFERENCES:

1. Vimeo, SOCOM S&T Futures Homepage, Artificial Intelligence for Small Unit Maneuver (AISUM), <https://vimeo.com/showcase/7006292>

KEYWORDS: Weapons; Missile; Munition; Special Operations; Standoff; Precision; Guidance; Artificial Intelligence; Machine Learning; Denied; Autonomy; Contested; Common Launch Tube.