

**SPECIAL OPERATIONS FORCES ACQUISITION, TECHNOLOGY, AND LOGISTICS
PROGRAM EXECUTIVE OFFICE FOR SPECIAL RECONNAISSANCE,
SURVEILLANCE AND EXPLOITATION (SOF AT&L-SRSE)**

**APPENDIX G-2 Spring 2018 (FY19)
TO
BROAD AGENCY ANNOUNCEMENT
USSOCOM-BAAST-2015**

1.0 Introduction: SRSE is requesting special attention be given to a subset of its technical areas within the various product lines for the period specified below. This condensed list is meant to focus industry and aid the core Rapid Capability Insertion (RCI) Program business process. SRSE and PM-RCI remain interested in proposed capabilities that can be integrated within current architecture(s) and platforms.

2.0. General Information:

2.1. Agency: USSOCOM

2.2. Program Office: SOF AT&L-SRSE

2.3. Appendix Title: Appendix G-2 Spring 2018, Rapid Capability Insertion (RCI) Special Items of Interest

2.4. BAA Number: USSOCOM-BAAST-2015

2.5. Closing Date: This BAA appendix will remain open through **May 20, 2018**, unless superseded, amended, or cancelled. White papers may be submitted any time during this period subject to the submission process described in this BAA appendix.

2.6. Points of Contact: (POC):

Contracting POC:

Primary: Capt Samuel Witt, Phone 813-826-6966, Email: Samuel.Witt@socom.mil

Technical POC:

Primary: Mr. Dan Granados, Phone 813-826-7421, Email: Daniel.Granados@socom.mil

2.7. Technology Areas of Interest:

The following sections provide a brief description of each area and a list of technologies of interest. RCI is interested in projects starting at a minimum of Technology Readiness Level (TRL) 3 (as defined by the Department of Defense (DOD) Acquisition Guidebook); at project completion deliverables should be TRL 7.

2.7.1 Biometrics/Forensics and Sensitive Site Exploitation: This product line covers technologies used to collect, analyze, and distribute various physical parameters that can be used to identify personnel and activities inside a sensitive site to exploit personnel, documents, electronic data, and material obtained at site. There is particular interest in technologies with a small form factor that rapidly identify personnel, reduce false alarm rates and/or offer novel approaches at short to long distances in all environmental conditions. This product line also covers the collection and analysis of both physical and

electronic information obtained from locations. The technologies should provide improvements in identification, processing speed, data correlation, and user interface. Technologies of interest:

- 2.7.1.1 Reduce size, weight, power (SWaP) of existing tools, and expand mobile wireless capabilities
- 2.7.1.2 Deployable and compliant Rapid DNA profiling capability (<2 hrs.)
- 2.7.1.3 Multi-modal biometric enrollment and matching device that includes a combination of iris scanner, facial recognition, DNA, and fingerprint capture and processing
- 2.7.1.4 Biometric/forensic tools (e.g. dustless fingerprint detection, voice print analysis, iris scan) at extended target distance
- 2.7.1.5 Document exploitation, to include rapid scan and translation of foreign language, for hard copy documents utilizing a small form factor device such as a laptop, or mobile devices
- 2.7.1.6 Electronic media exploitation
 - 2.7.1.6.1 Computers
 - 2.7.1.6.2 Cell phones/Sim cards
- 2.7.1.7 Trace evidence collection, identification and processing
 - 2.7.1.7.1 Explosive/Chemical
 - 2.7.1.7.2 Biological
- 2.7.1.8 Detection of hidden rooms/chambers

2.7.2 Data Exfil: Technologies that provide additional data transfer capabilities, reduce SWaP, increase flexibility in aerial, ground, underground, and maritime/riparian communication environments. Technology areas of interest are:

- 2.7.2.1 Capabilities that integrate with existing SOF systems/architectures
- 2.7.2.2 Multiband, micro-sized devices capable of transmitting and receiving RF over distances greater than currently achieved
- 2.7.2.3 New technologies that provide long distance data transfers in miniature packages and are LPI/LPD/LPE and multipath resilient
- 2.7.2.4 Data transport devices designed to perform in restricted propagation environments
- 2.7.2.5 Data transport technologies to maximize limited bandwidth (e.g. compression, transmission technologies)

2.7.3 Signal Detection and Exploitation: Technologies that concentrate on RF communications intercept and location identification. Technologies of interest should provide improved accuracy, flexibility, reduce SWaP, and lower cost. Platforms and operational environments can be on land, air, sea, manned or unmanned, manpack based active and/or passive systems. Technologies of interest are:

- 2.7.3.1 Modular, scalable components utilizing open architecture standards for both hardware and software. Components of a system that can be interchanged by operational planners for variance in target frequencies and power requirements. Components for a system that can be easily upgraded when technology becomes available
- 2.7.3.2 Digital HF, VHF, and UHF signal
- 2.7.3.3 Surveillance Harvesting
- 2.7.3.4 Wi-Fi, WiMAX, Bluetooth, RFID, Near Field Communications (NFC)
- 2.7.3.5 Capabilities that integrate with existing SOF platforms
- 2.7.3.6 RF location and Direction Finding signal processing algorithms and hardware

- 2.7.3.7 Low-power and low noise amplifiers with ultra-high linearity and higher dynamic range front ends for use in command, control, and communications systems without compromising system sensitivity (noise figure)
- 2.7.3.8 Enhancements in the ability to power sensors and communications either through better power sources or improved efficiencies
- 2.7.3.9 Technologies to use SIGINT systems to support TTL and other unattended sensor operations (platform agnostic)
- 2.7.3.10 Detection of electronic devices in room, vehicle, etc. with handheld device
- 2.7.3.11 Improved cellular exploitation middleware, cellular pin code bypass/cracking

2.7.4 Sensors: This product line covers various persistent surveillance systems also referred to as unattended ground sensor (UGS) systems, tactical video surveillance systems (TVS), and force protection systems. Technologies that provide additional capabilities, reduce SWaP, increase flexibility in aerial, ground, underground, and maritime/riparian environments of the following:

- 2.7.4.1 Capabilities that integrate with existing SOF systems/architectures
- 2.7.4.2 Intelligent sensors that alert, highlight, communicate, process at the tactical edge
- 2.7.4.3 Man-portable discrete intrusion detection systems
- 2.7.4.4 Systems that will accommodate multiple wavelengths in a small COTS application (TVS focus)
- 2.7.4.5 Swappable/modular capabilities (TVS focus)
- 2.7.4.6 Image, video, audio compression techniques
- 2.7.4.7 Sensor algorithms for fusing data from multiple sensors to reduce false alarms
- 2.7.4.8 Sensor algorithms for location, classification, characterization, and identification of items of interest
- 2.7.4.8.1 High Altitude Long Endurance (HALE) sensor
- 2.7.4.9 Detection via handheld (cell phone size) electronic scan of small devices, such as sim cards, SD cards, or similar items on a person
- 2.7.4.10 Sense/See-through-the-wall technologies

2.7.5 Tagging, Tracking, and Locating (TTL): This product line covers TTL technologies that can be used on persons and objects. Technologies of interest would provide reductions in SWaP, improved accuracy, or new capabilities to the following:

- 2.7.5.1 Capabilities that integrate with existing SOF platforms
- 2.7.5.2 Non-GPS Trackers
- 2.7.5.3 Maritime TTL capability at/below the waterline that allow over-the-horizon programming and data exfiltration
- 2.7.5.4 Optical Taggants
- 2.7.5.5 Chemical Taggants
- 2.7.5.6 Novel non-traditional TTL capabilities
- 2.7.5.7 Multi-waveform data exfiltration
- 2.7.5.8 TTL attachment methodology; self-release, non-metallic, timed release, etc.
- 2.7.5.9 Micro-sized, low visibility, emergency Personnel Locator Beacons (PLB)
- 2.7.5.10 Handheld TTL or PLB Geolocation

3.0 Submission Instructions for Appendix G-2 Spring 2018 to Broad Agency Announcement USSOCOM-BAAST-2015

3.1 Technology Development Cost and Schedule: Offerors are advised to consider a limit of not more than \$1.5 million total cost of development and not more than 18 months to complete all efforts for each submission under Appendix G-2 Spring 2018.

3.2 Quad Chart and White Paper Submission and Review Periods: The Appendix G-2 Spring 2018 will open on **February 27, 2018** and close on **May 20, 2018 at 11:59 p.m. EST**. USSOCOM SOF AT&L-SR intends to conduct scientific and peer reviews during the submission period and up to 30 days thereafter. USSOCOM will notify Offerors whether or not their quad chart/white paper was selected for submission of a proposal.

3.2.1 Instructions for the Preparation and Submission of Quad Chart and White Paper

3.2.1.1 A Quad Chart and White Paper (QC/WP) must be submitted by the end of the submission period. Each QC/WP will be used to perform a preliminary assessment of the Government's interest in an Offeror's technology prior to that Offeror incurring the additional expense associated with a full proposal submission. If and only if funds are available, those QC/WPs found to be consistent with the intent of this BAA will be invited to submit a full technical and cost proposal. An invitation to submit a full proposal does not, however, obligate the Government to award a contract. If funds are not available or an Offeror's prospective science or technology is not in alignment with current program interests, the Government will notify the Offeror that an invitation to submit a full proposal will not be issued. This process is intended to reduce unnecessary handling of proposals and proposal preparation costs. Note that only full proposals (not the QC/WP) will be subjected to a full and complete proposal technical evaluation.

3.2.1.2 QC and WP must not be combined into a single document file, but both electronic files must be submitted at the same time (same upload submission).; The Government will not review documents that are not submitted together. Electronic submission shall be via web page at <https://www.socom.mil/SOF-ATL/Pages/baa.aspx>. NOTE: Do not password protect the files.

3.2.1.3 Submission Content and Formats. Note that requests for alternative proposal formats may be appropriate and should be coordinated with the SOF AT&L-KI Contracting Officer.

Quad Chart (PDF Format)

- Number of pages – 1, Font – Times New Roman, 12 Point
- Page orientation – landscape
- Paper size – 8.5 x 11 inch
- Upper left quad – Pictorial data or representation
- Upper right quad – Description of effort and perceived benefits
- Lower left quad – Summary cost data; labor, materials, subcontracting, travel, profit
- Lower right quad – Project schedule, milestones and deliverables

White Papers (PDF Format)

- Number of pages – 5 pages excluding cover page. Pages shall be numbered.
- Cover Page – Labeled “WHITE PAPER” and shall include 1) BAA number and Appendix, 2) proposal title, 3) company information to include address, phone, fax, CAGE Code, DUNS Number, and technical & contracts contact information with email address.
- Technical Concept/Narrative – a description of the effort and applicability to the identified program area mission and the objectives/benefits to be derived as a result of the effort. This shall include;
 1. Brief (4 – 5 sentence) executive overview of delivered capability,
 2. Technical approach (why this approach is superior to alternatives and/or current practice),
 3. Effort’s perceived benefit (How will this effort improve or replace the state- of-the-art?),
 4. Technical risk areas (to include mitigation plan),
 5. Performance period,
 6. Pricing ROM,
 7. Expected deliverables and
 8. Any other technical data/information to be conveyed for consideration to include the final deliverable(s) or end item(s).
 - Paper Size- 8.5 x 11-inch paper
 - Margins – 1”
 - Spacing – Single or double
 - Font – Times New Roman, 12 Point

3.2.2 Proposals. The Government will not wait until the end of the submission period to perform initial assessments of QC/WPs, request and receive full proposals, and evaluate those proposals. Award decisions, however, will be made at the same time in the 1st Qtr FY19. Additional information regarding proposal submission requirements will be provided if and when the Government decides to pursue the technology set forth in a QC/WP submission. The following general guidance is provided for reference: Proposals submitted under this BAA Appendix G-2 Spring 2018 are expected to be unclassified; all proposal submissions will be protected from unauthorized disclosure in accordance with applicable federal law and DOD/USSOCOM regulations; Offerors shall appropriately mark each page of their submission that contains proprietary information or other restrictions. However, the Government prefers that information received be non-proprietary. If Offerors need to submit any classified information they should contact the Contracting Officer listed in Section 2.7.

3.3 Criteria, Relative Importance, and Method for Selecting Proposals for Award:

The Government will review all proposals and select the technical solutions that have the greatest potential to meet the needs of USSOCOM requirements as described in the technology areas of interest set forth above. The Government will determine the best technical solutions set forth in the proposals using the criteria below. Final notifications of award and non-award will be provided 1st Qtr FY19 to all Offerors who were invited to submit proposals.

- Criteria (Factors) for Selecting Proposals for Award:
 - Importance of the technology to meet agency mission and existing program requirements;
 - Technical merit based on the overall enhancement to mission capabilities provided by the technology; and
 - Cost realism and reasonableness, when appropriate.

- Relative Importance: These factors are of equal importance.
- Availability of Funds: A lack of available funds to finance a proposal, as determined in the sole discretion of the Government, will preclude award regardless of the importance, technical merit, and cost of the proposal.

Method of Evaluation: Peer or scientific review.

4.0 Industry Day: PM-RCI will host an Industry Day to answer questions regarding this BAA Appendix G-2 Spring 2018. Discussions will be conducted at the SECRET//NOFORN classification level. The Industry Day will be conducted on March 13, 2018 in McLean, VA. Industry Day is an optional vendor event; attendance is not a requisite for submitting against this BAA appendix. Interested attendees must register at <https://eventmanagement.event.com/PMRCIIndustryDay2018> by March 7, 2018.