

**SUBJECT: TWO STEP BROAD AGENCY ANNOUNCEMENT
(FA8726-19-S-0001)**

Intelligence Surveillance and Reconnaissance (ISR) – Enabling Technologies (ET)

**Air Force Life Cycle Management Center (AFLCMC)
Command, Control, Communications, Intelligence and Networks (C3I&N)
Program Executive Office (PEO)
Kill Chain Integration Branch**

SECTION 1 - INTRODUCTION

The AFLCMC C3I&N Kill Chain Integration Branch (AFLCMC/HNJ), Contracting Branch (AFLCMC/HNJK) invites innovative technical approach concept papers addressing kill chain integration, to include ISR, to ensure full spectrum awareness of emergent threats. In his introduction to Air Force ISR 2023 – Delivering Decision Advantage, Lieutenant General Robert P. Otto described the *“challenge for AF ISR is to maintain the impressive tactical competencies developed and sustained over the past 12 years, while rebuilding the capability and capacity to provide the air component commander and subordinate forces with the all-source intelligence required to conduct full-spectrum cross-domain operations in volatile, uncertain, complex, and ambiguous environments around the globe.”* To enable the concepts espoused in AF ISR 2023, investments need to be made within the acquisition process to meet Component Commander demands, thus laying a foundation for the next generation of kill chain integration solutions. Recently (Jan 15) the Secretary of the Air Force, Ms. Deborah Lee James, announced a new initiative called “Bending the Cost Curve”. Additionally, the Air Force Chief of Staff, Gen. David Goldfien, challenged the Air Force perspective in 2017, to transition its acquisition mindset from an industrial age to an informational age acquisition mindset. This effort was designed to help the Air Force further partner with industry, encourage innovation and drive down costs of systems. This BAA champions these initiatives, develops a better understanding of objective and threshold requirements while rapidly addressing the need for kill chain integration solutions in uncertain times.

This Broad Agency Announcement (BAA) is issued under the provisions of paragraph 6.102(d)(2) of the Federal Acquisition Regulation (FAR). Contracts awarded based on responses to this BAA are considered to be the result of full and open competition and in full compliance with the provisions of Public law 98-369, “The Competition in Contracting Act of 1984.”

This is an open (available for twelve months), two-step (concept paper followed by proposal) BAA. Concept papers should be submitted as specified in “Section 3, Part A” of this BAA. The Government will evaluate concept papers against the criteria stated in this announcement. Those offerors whose concept papers are of interest may be invited to submit a formal proposal following the specifications provided in “Section 3, Part B” of this BAA. Offerors whose concept papers are determined to not be of interest are not precluded from submitting a proposal following the specifications in “Section 3, Part B” if they so desire. All offerors submitting concept papers will be contacted by the Government either notifying them that the effort

proposed is not of interest to the Government, or with a request for a formal cost and technical proposal by a specified date. An invitation to submit a complete technical proposal, which includes a statement of work and a cost proposal, does not assure that the submitting organization will be awarded a subsequent contract.

Non-Government advisors will be used in the evaluation of concept papers and proposals and have signed non-disclosure agreements (NDAs) with the Government. Additional NDAs will not be required; instead, a response to this BAA will be considered an implicit acknowledgement and acceptance of the fact that non-Government advisors will be assisting the Government in this process. The Government understands that information provided in response to this BAA is presented in confidence and may contain trade secret, commercial or financial information, and it agrees to protect such information from unauthorized disclosure to the maximum extent permitted or required by-

- a. 18 USC 1905 (Trade Secrets Act);
- b. 18 USC 1831 et seq. (Economic Espionage Act);
- c. 5 USC 552(b)(4) (Freedom of Information Act);
- d. Executive Order 12600 (Pre-disclosure Notification Procedures for Confidential Commercial Information); and
- e. Any other statute, regulation, or requirement applicable to Government employees.

Concept papers may be submitted electronically, via the appropriate communication channels (NIPR, SIPR, JWICS), to the contracting officers.

Primary:

Mr. Shawn Waller
shawn.waller@us.af.mil
Phone Number: 781-225-0515

Alternate:

Mr. Gregory Ketcham
gregory.ketcham@us.af.mil
Phone Number: 781-225-0601

Electronic submissions are highly preferred. In the event electronic submission is not possible, concept papers in response to this announcement shall be submitted to:

Contracting, AFLCMC/HNJK
ATTN: BAA FA8726-19-S-0001
11 Barksdale St Bldg 1614
Hanscom AFB, MA. 01731-1634

Concept papers shall reference the above BAA number in the subject/title of the response. Submissions shall be either PDF files or Microsoft Word Documents. This announcement is effective from 07 December 2018 through 30 November 2019. Concept papers may be submitted at any time during this period. The Kill Chain Integration Branch Program Office acknowledges that funding constraints severely limit contract activities, but anticipates the ability to execute a limited number of projects through this timeframe.

Please contact the Contracting Officer for submission of any potentially sensitive or classified material.

SECTION 2 - AREAS OF RESEARCH INTEREST

The objective of the AF C3I&N Kill Chain Integration Branch is to acquire, develop, and integrate advanced intelligence, cyber, and classified solutions for the AF, DoD and National Agencies. The Division champions the nation's most sensitive Command Control Communications Intelligence & Network (C3I&N) and Battle Management (BM) capabilities, and develops acquisition transition paths to support warfighting requirements. Proposals utilizing technology with a Technology Readiness Level (TRL) of 3 or higher are desired; justify TRL using DoD Technology Readiness Assessment (TRA) Guidance, April 2011. When applicable, prototyping and fielding on a condensed timeline is desired. Topics of interest for this BAA are listed below.

1. Provide operationally focused ISR capabilities meeting Combatant Commander requirements while optimizing end user experience. Capabilities may address one or more of the following:
 - a) ISR state-of-the-art advancement
 - b) Enhancing situational awareness
 - c) Mobile networking and communications equipment
 - d) Improvements to existing AF/DoD infrastructure
 - e) USAF cryptographic operations advancement
 - f) Geospatial analysis of social media
 - g) Exploitation of enemy threat systems
 - h) Increasing data utility, accessibility, analytics, processing, fusion and correlation
 - i) Exploitation of the battlespace
 - j) Anti-Access/Anti Denial environments: Communication and Position, Navigation and Timing
 - k) 5th to 4th Generation Communications
 - l) Machine learning and artificial intelligence
2. Information technology systems operated by the USAF need agile mechanisms to detect, monitor, assess, and isolate insider threats; as well as mechanisms to restore contaminated systems to pristine trusted states. The Government is interested to understand if/where and when a company will expand upon existing intellectual property and/or proprietary innovative solutions. These networks:
 - a) Need solutions that address IT system security that uses virtualization coupled with both manual and machine learning techniques to isolate application threads to protect systems.
 - b) Address and deliver software solutions to act autonomously to assess the probability of a function to be untrusted and if deemed untrusted disable the

function, while allowing trusted functions on the host to interact normally with threads.

- c) In cases where system contamination is beyond a point where function isolation can provide the appropriate protection, provide solutions for automated and/or manual mechanisms capable of restoring IT systems to a pristine state with minimal disruption to users.
- d) Provide solutions to counter the insider threat the use of morphing attack services, whether controlled manually, through deterministic algorithms, or via pseudo-random methods is desired; morphing attack surfaces are needed both in client hosts as well as server hosts.
- e) Provide solutions to unmanned, modular fixed-wing aircraft that can be rapidly adapted to multiple missions and serve as a fifth generation weapons augmentation platform.

SECTION 3 – GUIDELINES FOR PREPARATION AND SUBMISSION OF CONCEPT PAPERS AND PROPOSALS

This is an open (available for twelve months), two-step (concept paper followed by proposal) BAA. The purpose of the concept paper is to preclude effort on the part of the offeror whose proposed work is not of interest to the Government. Accordingly, offerors are encouraged to submit concept papers following the guidelines detailed below (Section 3 Part A). Offerors are encouraged to submit proposals following the guidelines detailed below (Section 3 Part B) after they have submitted a concept paper and have been notified of the Government's interest in receiving a full proposal. Offerors whose concept papers were not deemed to be of interest are not precluded from submitting other concept papers or proposals. An invitation to submit a complete proposal, which includes a statement of work and a cost proposal, does not assure that the submitting organization will be awarded a subsequent contract. Concept submissions should specifically identify the focused ISR capabilities listed in Section 2.1. above stating how they are enhancing operationally focused ISR capabilities.

Guidelines for All Submissions (Concept Papers and Proposals)

- 1) The cost of preparing responses to this BAA is not considered an allowable direct charge to any contract.
- 2) Unnecessarily elaborate brochures or proposals are not desired.
- 3) Concept papers and proposals should be created using 8.5 x 11 inch portrait format pages with single spaced Times New Roman 12 point font with 1" margins. Landscape is acceptable for charts and graphs only.
- 4) Use of a diagram(s) or figure(s) to depict the essence of the proposed solution is strongly encouraged.
- 5) Multiple concept papers addressing different topic areas may be submitted by the same organization, however each concept paper may only address one concept based on the stated

Government areas of research interest (Section 2.1). Organizations may not submit multiple concept papers addressing the same area of research interest. Submitters may update a current concept paper or proposal at any time during the 12 month announcement period.

- 6) On the title page of the submission, identify if you or a proposed sub-contractor are a small business such as 8(a), small disadvantaged business, woman-owned business, HUBZone small business, Veteran-owned business, service disabled veteran owned business, historically black college or university and minority institution.
- 7) The technical and cost information will be evaluated at the same time during the evaluation process. No further evaluation criteria will be issued in order to award a contract under this BAA. Period of performance for all contracts awarded under this BAA must be no greater than 24 months.
- 8) Foreign-Owned businesses may be a submitter alone or through some form of teaming arrangement with one or more United States-owned businesses. The ability to obtain a contract based upon a submittal may depend, however, upon whether Government information the foreign-owned business requires access to in order to perform under the contract (1) necessitates clearance of the business under a Special Security Agreement and (2) approval of a National Interest Determination (see 10 U.S.C. 2536(b)(1)(A), DoD 5220.22-M, and AFI 31-601) that release of proscribed information to the foreign-owned business shall not harm the national security interests of the United States. Failure to obtain the clearance or denial by the cognizant authority of release of the proscribed information to the foreign-owned business would preclude award of a contract.
- 9) **Security Requirements:** The submittal process under this BAA is intended to be as streamlined as possible to allow the Government to leverage the latest technology advances. Every precaution must be taken to protect potentially sensitive or classified material. Such material should not be transmitted across open-source media like public phone, fax, internet, or e-mail. If a submitter has any reason to believe their concept may reference ideas or operations that require special protection, the submitter should immediately contact the Contracting Officers at shawn.walles@us.af.mil and gregory.ketcham@us.af.mil for further instruction. Submitters who are supported by an accredited security office may be bound by specific law and regulations directing the proper methods for transmission of classified responses.
- 10) **Identification of Partner Agency:** Within the concept paper submission an offeror may identify a Government agency that may be interested in pursuing and funding the concept presented, as long as such concept is within the scope of a BAA (FAR 35.016(a)), within scope of this BAA, within scope of the kill chain and focus area listed in Section 2 and not a known requirement of the partnering agency.
- 11) In order to maximize cost efficiencies for the next generation of kill chain integration solutions, submissions shall include a “data management approach” including a description as to how the Offeror plans to satisfy the Government’s desire to obtain the necessary license rights and delivery of technical data and computer software (to include computer software

documentation) to allow third party sustainment/maintenance. The Government is particularly sensitive to assertions that may be made for technical data and/or software relating to critical system modules and components; as well as to any assertions for information associated with key components and hardware and/or software interfaces, which may affect the planned strategy.

- 12) Questions regarding the objectives or preparation of the concept paper or proposal should be addressed to the Contracting Officer at shawn.walles@us.af.mil or gregory.ketcham@us.af.mil.

Section 3 Part a: CONCEPT Paper Preparation (Step 1 of the 2-part BAA process)

Submitter's concept papers shall not exceed ten (10) pages.

Title Page (does not count against 10-page limit)

Company Name, CAGE Number (if applicable), Title, Offeror, Date, E-Mail Address, Phone, Fax, Organization/Office symbol, and Address. Identify if you or a proposed sub-contractor are a small business such as 8(a), small disadvantaged business, woman-owned business, HUBZone small business, Veteran-owned business, service disabled veteran owned business, historically black college or university and minority institution. Identification of potential sponsor(s) organizations.

ROM Cost and Schedule Page (does not count against the 10-page limit)

Provide a rough order of magnitude (ROM) of the cost of the effort proposed in the concept paper. Provide a top level schedule that shows project completion within 24 months.

Technical Approach Section A

Technology Concept – describe the technical approach and procedures of your proposed research. As part of the proposed research, identify the concept's current TRL as well as a suggested path to mature the TRL of the research. Identify aspects which may be considered proprietary or Scientific and Technical Information.

Technical Approach Section B

Operational Impact – describe how the USAF will be impacted by the deliverable(s) of your contract. If applicable, describe the impact to the joint operational community. Explain the beneficial impacts and quantify them as appropriate. Detail who the operational users of the technology are expected to be.

BASIS FOR CONCEPT PAPER EVALUATION

Concept papers will be evaluated as they are received through a peer review and scientific review process. Individual concept paper evaluations will be based on acceptability or non-acceptability without regard to other submissions received under this announcement. The Government Office will complete coordination and review of Concept Papers within 60 calendar days and notify the submitter of any status. Evaluations are completed unilaterally and are at the complete discretion of the Government evaluators. Concept papers will be evaluated under the following criteria:

- 1) The degree to which the proposed concept is relevant to kill chain integration, including the degree to which it enhances and / or accelerates development
- 2) Technical merit of the proposed concept with an emphasis on feasible, achievable, and innovative solutions, and the degree to which a defined transition path or strategy exists
- 3) Affordability of the ROM costs for the proposed concept
- 4) Degree to which the proposed concept schedule is achievable
- 5) Degree to which Intellectual Property/Propriety Data restricts implementation of system.

SECTION 3, PART B: PROPOSAL PREPARATION **(STEP 2 OF THE 2-PART BAA PROCESS)**

- 1) Each proposal submitted should consist of two volumes: Volume 1 should provide the technical proposal and Volume 2 should address the price/cost/schedule portions of the proposal.
- 2) Proposals containing data that is not to be disclosed to the public for any purpose or used by the Government except for evaluation purposes shall include the following sentences in accordance with FAR 52.215-1(e)(1) and (2) on the cover page:

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

Each restricted data sheet should be marked as follows:

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

Volume 1, Technical Proposal

Title Page

Company Name, CAGE Number, Title, Offeror, Date, E-Mail Address, Phone, Fax, Organization/Office symbol, and Address. Include an abstract which provides a concise Statement of Work (SOW) and basic approach to be utilized.

Propose a Technical Approach

A reasonably complete discussion stating the background and objectives of the proposed work, the approaches to be considered, and the resources to be employed. Include the nature and extent of the anticipated results. Include ancillary and operational issues such as certifications, algorithms, and any engineering/software development methodologies to be used. This proposal must include Basis of Estimate (BOE) hours and a Statement of Work (SOW). The BOEs shall provide the basis, rationale, estimating methodology, labor category breakout tables, and any historical actuals used to derive the proposed labor estimates. Provide a detailed project schedule that outlines the various phases of work to be accomplished within 24 months. You may refer to the concept paper that prompted this proposal request, but do not duplicate it.

Government Support Required

Identify the type of support, if any, the offeror requests of HNJK or the Government in general such as facilities, equipment, data, and information or materials.

Volume 2, Cost Proposal

Cover Sheet (1 Page)

Proposal pricing cover sheet for total proposal to include the type of contract proposed. Identify if you or a proposed sub-contractor are a small business such as 8(a), small disadvantaged business, woman-owned business, HUBZone small business, Veteran-owned business, service disabled veteran owned business, historically black college or university and minority institution. Please include your representation and certification of cost and pricing data.

Cost Element Summary

Summary by cost element for each contract line and sub-line item and for the total proposal. Forecast the annual dollar commitments for the proposed contract period.

Labor Summary

Labor summary for the total proposal by categories, rates, and hours. Include an explanation of how labor rates are computed, including base rates and escalation. Show the level of effort, if applicable. For proposals from universities, the times and amounts to be charged should be

identified by academic year and summer effort. Identification of indirect rates by calendar year, an explanation of how they were established, and the base to which they apply.

Bill of Materials

Provide a bill of materials detailing items by type, quantity, unit price, total amount, and source of estimate. Provide vendor quotes if applicable.

Summary of Travel

Provide a proposed summary of travel by destination, purpose, number of people and days, to include all applicable travel costs.

Subcontracts

If subcontractors will be used, provide price/cost analysis, and a justification to use the subcontractors if their participation was not competed.

Special Tooling or Test Equipment

When special tooling, and/or test equipment is proposed, attach a brief description of said items and indicate if they are solely for the performance of this particular contract or project and if they are or are not already available in the offeror's existing facilities. Indicate quantities, unit prices, whether items are to be purchased or fabricated, whether items are of a severable nature and the basis of the price. These items may be included under Direct Material in the summary format.

BASIS FOR PROPOSAL EVALUATION

Proposals will be evaluated as they are received through a peer review process as well as through a scientific review process. Individual proposal evaluations will be based on acceptability or non-acceptability without regard to other submissions received under this announcement. Proposals will be evaluated under the following criteria listed:

- 1) The degree to which the proposal is relevant to AF ISR capabilities, including the degree to which it enhances and / or accelerates innovative development of AF intelligence capabilities
- 2) Technical merit of the proposal with an emphasis on technically mature, feasible, achievable and innovative solutions, and the degree to which a defined transition path or strategy exists
- 3) Realism of the proposal performance schedule
- 4) Realism and reasonableness of the costs
- 5) Government funds availability*
- 6) Degree to which Intellectual Property/Propriety Data restricts implementation of system.

* A Contracting Officer is the only authorized person with the authority to enter into, administer, modify, or terminate a Government contract in accordance with 1.602-1 of the Federal Acquisition Regulation (FAR).