

**The Air Force Lifecycle Management Center,  
Architecture and Integration Directorate (AFLCMC/XA) releases the  
Broad Agency Announcement Call 002  
for  
Joint All-Domain Command and Control (JADC2)  
Announcement Number: BAA-AFLCMC\_CAIO-2020-0001-002-01**

***Issue Date: 3 March 2020***

***Amendment 01 dated 8 June 2020:*** Updated contact information for “Alternate” in Section 1 and “Section 4: Planned Demonstrations/Exercises/On-Ramp Events” added

***Amendment 02 dated 30 September 2020:*** Proposal Due Dates and Award Notices updated in Section 3; Planned Demonstrations/Exercises/On-Ramp Events updated in Section 4

***Amendment 03 dated 10 November 2020:*** Broad Agency Announcement (BAA) Guide for Industry is included in the Attachments/Links section; Section 4 updated to include On-Ramp Exercise #4 paragraph

***Amendment 04 dated 3 June 2021:*** Minor administrative changes (owning organization updated from Chief Architect’s Integration Office or CAIO to the Air Force Life Cycle Management Center Architecture and Integration Directorate or AFLCMC/XA), ABMS changed to JADC2, Alternate Contact updated, reference to BAA Guide for Industry deleted, Basic NIST SP 800-171 DoD Assessment requirements included, due dates updated, On-Ramp Exercise paragraph deleted

***Amendment 05 dated 10 Feb 2022:*** As of this date, the Government is no longer accepting new concept papers in response to this Call. The Government will issue a further Amendment to this Call or a separate Call if it desires additional concept papers in the future.

## **SECTION 1 - INTRODUCTION**

**The intent of this Call is to solicit ideas, technologies and solutions to support JADC2. This announcement is NOT for on-ramping to the ID/IQ (see Call 001 for instructions on participating on the JADC2 ID/IQ).** The AFLCMC Architecture and Integration Directorate (AFLCMC/XA) invites innovative technical approach proposals addressing solutions for integration into JADC2 to address problems associated with getting the right information to the right platform/decision maker in the most efficient manner thereby reducing kill chain and Observe, Orient, Decide and Act (OODA) timelines and cycles. This BAA will focus on existing and emerging technologies and platforms across the Defense Department, the Intelligence Community, and the commercial world, to perform an integrated analysis of the capability of various options to contribute to the fight and prioritize investments over time.

This Broad Agency Announcement (BAA) Call 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.” FAR-based contracts and non FAR-based agreements may be awarded under this BAA Call.

This is Call 002 and utilizes the Two-Step process (concept paper followed by proposal). The intent of this Call is to solicit ideas, technologies and solutions to further the objective of support to future operations by providing the critical surveillance, tactical edge communications, processing, networking, battle management command and control capabilities to the joint warfighting force. 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 subsequent concept papers addressing other ideas, technologies and/or solutions for consideration following the specifications in “Section 3, Part A” 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 contractor will be awarded a subsequent contract.

Non-Government advisors will be used in the evaluation of 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.

Proposals should be submitted electronically, via the appropriate communication channels (Email, SIPR), to the contracting officers.

Primary:

Ms. Katie Rasmussen  
kathleen.rasmussen.2@us.af.mil  
Phone Number: (937) 255-8421

Alternate:

Mr. Joseph Craven  
joseph.craven.1@us.af.mil  
Phone Number: (937) 255-2762

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

**AFLCMC/XA**  
ATTN: Ms. Katie Rasmussen  
2240 B St., Bldg 11, Rm 047  
Wright-Patterson AFB 45433-7104

Proposals shall reference the above BAA number in the subject/title of the response. Submissions shall be either PDF files or Microsoft Word Documents. A contract that is initially awarded from the competitive selection of a proposal resulting from a BAA may contain a contract line item or contract option for the provision of advanced component development, prototype, or initial production of technology developed under the contract IAW with DFARS 234.005-1.

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

## **SECTION 2 - AREAS OF INTEREST**

In order to effectively engage peer and near-peer adversaries, the U.S. Air Force needs to develop, acquire and operate systems as a unified force across all domains (air, land, sea, space, cyber, and electromagnetic spectrum (EMS)). The objective of the Architecture and Integration Directorate is to adopt the best practices of open architectures and government owned waveforms to enable rapid proliferation of new and existing software and hardware. To manage the broad scope of JADC2, technical categories have been defined to organize concepts, technologies, etc. based upon their roles within the JADC2 construct. This organization is not intended encourage a solution that spans all categories or to limit solutions to one category. Proposals are desired with small feature sets focused in one area but may span multiple categories when reasonable.

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. Proposed efforts are desired to be fully modeled in the environment prior to demonstration and test data collected will be fed back into the system for model improvement. When applicable, prototyping and fielding on a condensed timeline is desired.

We are looking for solutions in the following categories (**NOTE:** These categories are not intended to be comprehensive, but rather a context. Categories may be created or removed as time progresses):

- **Category 0: Digital Architecture, Standards and Concepts**

This category consists of various activities to analyze, mature, and document the foundational aspects of the development of the overall enterprise architecture. This includes digital modeling, simulation and analysis, trade studies, government owned standard development and maintenance, and potential concept development and refinement.

Development of digital engineering architecture to include appropriate toolsets, licenses,

data, etc at multiple levels of security and including services such as data management, configuration control, and security/access management. Other activities may include architecting the toolchains to support the linkage of digital engineering artifacts to modeling and simulation tools and operational analysis.

- **Category 1: Sensor Integration**

The development, maturation, integration, demonstration, and proliferation of sensor hardware and software. A key interest of JADC2 is the compatibility and interoperability capabilities through the use of open interfaces to enable improved control of systems and the processing of their data.

- **Category 2: Data**

Data incorporates the cloud based data repositories across domains that are discoverable, enabling publish subscribe approaches servicing various consumers across the DoD. These repositories contain data that consists of structured and unstructured data and where possible, this data will be meta tagged for further analytics and as well as fusion purposes. One of the key element of this approach is this ability to analyze the data to develop machine learning and further enhance the artificial intelligence (AI) algorithms to provide previously unrealized military utility in decision aides.

- **Category 3: Secure Processing**

Secure Processing will leverage the Enterprise Information Technology as a Service (EITaaS) work at the unclassified and secret level to, expand this capability to all levels of security. A key feature of secure processing will be to develop a multi-level security (MLS) technology set that enables moving up and down in security level where feasible no matter the hardware device, transportation method, or environment. Lastly secure processing encompasses providing deployment, training, and support services for all of these capabilities worldwide.

- **Category 4: Connectivity**

Development and fielding of networks to enable the timely processing and dissemination of data from any sensor to users at the tactical edge and/or strategic levels. Assets in any domain may be platforms-of-opportunity to serve as communications nodes enabled by omnidirectional and directional line-of-sight (LOS), and beyond-line-of-sight (BLOS) capabilities. Attributes of interest include: increased data rates, reduced latency, improved anti-jam, LPI/LPD characteristics, scalability of nodes/connections, improved integration of dissimilar users, etc.

- **Category 5: Apps**

Applications encompasses the design, development and demonstration of open interface applications and/or open interface software development kits for distributed command and control decision-makers (e.g., machine-to-human, machine-to-machine) across multi-domain operations. Additionally, this category seeks solutions which demonstrate the ability to ingest and process cross domain, multi-sourced data feeds (intelligence, information, etc.) via fusion environments and/or fusion services.

- **Category 6: Effects Integration**

Design, development, demonstration and integration of networked weapons engaged across complex (e.g. wide area mesh) environments. This includes, but is not limited to, smart munitions and low-cost autonomous platforms capable of supporting C2 de-confliction and synchronization of multi-domain assets. Incorporation of techniques and/or technologies are also sought to enable near-real time mission feedback loops and reduce processing time between system/mission data updates.

## **SECTION 3 – GUIDELINES FOR PREPARATION AND SUBMISSION OF PROPOSALS**

This is a two-step staggered-closed BAA (concept paper followed by the potential for an invitation to submit a proposal). 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. 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.

### **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) 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. All text, including text in tables and charts, must adhere to all font size and line spacing requirements listed herein. Font and line spacing requirements do not have to be followed for illustrations, flowcharts, drawings, and diagrams. These exceptions shall not be used to circumvent formatting requirements and page count limitations by including lengthy narratives in such items.
- 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 categories may be submitted by the same organization.
- 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.
- 8) Foreign-Owned businesses may be submitted 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 upon whether the foreign-owned business requires access to Government information in order to perform under the contract (1) necessitates clearance of the business under a Special Security Agreement and (2) necessitates 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. No classified technical proposals or cost volumes are expected. Offerors are encouraged to keep all elements of the proposal package unclassified. In the rare case where an offeror has a need to submit a classified appendix, such material shall 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 Officer 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) In order to maximize cost efficiencies for JADC2, 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.
- 11) **Please Note: The Government will check the proposal for conformance to the stated requirements. Any pages in excess of the stated page limitation after the format check will not be considered for review purposes.**
- 12) **Associate Contractor Agreements:** Associate Contractor Agreements (ACAs) are agreements between contractors working on Government contracts that require them to share information, data, technical knowledge, expertise, or resources. The contracting officer may require ACAs when contractors working on separate Government contracts must cooperate, share resources or otherwise jointly participate in working on contracts or projects. Prime contractor to subcontractor relationships do not constitute ACAs. For each award, the contracting officer will identify associate contractors with whom agreements are required.
- 13) Identify any technical data or computer software that will be delivered with less than unlimited rights.

- 14) In order to receive a DoD contract every contractor will be required to perform a Basic NIST SP 800-171 DoD Assessment. That process is described here <https://www.acq.osd.mil/dpap/pdi/cyber/docs/NIST%20SP%20800-171%20Assessment%20Methodology%20Version%201.2.1%20%2006.24.2020.pdf>
- 15) Once the Basic NIST SP 800-171 DoD Assessment is complete each contractor will need to follow the instructions here <https://www.sprs.csd.disa.mil/> to enter the results into SPRS on the PIEE website.
- 16) Questions regarding the objectives or preparation of the proposal should be addressed to the Contracting Officer.

### **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, Offeror's Contracting POC E-Mail Address, Phone, Fax, Organization/Office symbol, and Address. Identify the categories included in the concept paper. 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 by month.

#### *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 proposed hardware, technical data, and computer software deliverables. Identify aspects which may be considered proprietary.

#### *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 intends to complete coordination and review of Concept Papers within 90 calendar days and notify the submitter of any status. Concept papers will be evaluated under the following criteria:

- 1) The degree to which the proposed concept is relevant to JADC2, 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.
- 3) Affordability of the ROM costs for the proposed concept
- 4) Degree to which the proposed concept top-level schedule is achievable
- 5) Impact of any proposed restrictions on the Government's use, release, or disclosure of any technical data or computer software on the Government's ability to incorporate the proposed solution into the AMBS open architecture family of systems

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

- 1) Each proposal submitted shall consist of two volumes: Volume 1 shall provide the technical proposal and Volume 2 shall 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 (20 pages excluding the title page)**

### *Title Page*

Company Name, CAGE Number, Title, Offeror, Date, Offeror’s Contracting POC E-Mail Address, Phone, Fax, Organization/Office symbol, and Address. Identify the categories included in the proposal.

### *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 a proposed Statement of Work (SOW). Provide a detailed project schedule that outlines the various phases of work to be accomplished by month. Submit a signed Identification and Assertion of Use, Release, or Disclosure Restrictions list identifying any technical data or computer software the offeror proposes to deliver with less than unlimited rights, in accordance with DFARS 252.227-7017 (excluded from the page limit). A model contract will be provided with the Request for Proposal (or shortly thereafter). Any exceptions or recommended changes shall be included in Volume 1 (excluded from the page limit). Please include your representations and certifications if not included in the System for Award Management (excluded from the page limit).

### *Government Support Required*

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

## **Volume 2, Cost Proposal (No page limit)**

### *Cover Sheet*

Proposal pricing cover sheet for total proposal to include the type of contract proposed with justification (if different from what is included in the Request for Proposal). 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.

### *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*

The Basis of Estimate (BOEs) shall provide the basis, rationale, estimating methodology, labor category breakout tables, and any historical actuals used to derive the proposed labor estimates. 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 the JADC2 categories, 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) Impact of any proposed restrictions on the Government's use, release, or disclosure of any technical data or computer software on the Government's ability to incorporate the proposed solution into the AMBS open architecture family of systems

**PROPOSAL DUE DATES:** Staggered due dates for the Step 1 concept papers are detailed below.

- 30 April 2020
- 31 August 2020
- 1 November 2020
- 1 February 2021
- 1 May 2021

***NOTE: As of 10 Feb 2022, the Government is no longer accepting new concept papers in response to this Call.***

**PROPOSAL VALIDITY:** Proposals should be valid for up to 180 days.

**AWARD NOTICES:** Offerors will be notified whether their proposal is recommended for award on or about 90 days after submission. The notification is not to be construed to mean that any contract is assured, as availability of funds and successful negotiations are prerequisites to any award. A Contracting Officer is the only authorized person with the authority to enter into, administer, modify, or terminate a Government contract in accordance with FAR 1.602-1.

#### **SECTION 4: OTHER INFORMATION**

If a debriefing is requested in accordance with the time guidelines set out in FAR 15.505 and 15.506, a debriefing will be provided, but the debriefing content may vary to be consistent with the procedures that govern BAAs (FAR 35.016).