Opportunity Details

Notice ID	Related Notice	Active/Inactive
W52P1J-21-B-AI2C		**Active**
Notice Status	Department/Ind. Agency	Sub-Tier
Published	**DEPT OF DEFENSE**	**DEPT OF THE ARMY**
Office		
W4MM USA JOINT MUNITIONS CMD		

General Information

Contract Opportunity Type	Updated Published Date
Special Notice (Updated)	**Sep 08, 2021 01:30 AM**
Date Offers Due	Inactive Policy
Jul 31, 2026 12:00 AM EDT	**15 days after response/Contract Award Date**
Inactive Date	Initiative
Aug 15, 2026	**None**
Allow Vendors to Add/remove from Interested Vendors List	Allow Vendors to View Interested Vendors List
Yes	**No**

Classification

Original Set Aside	Product Service Code
Place of Performance	

NAICS Code(s)

Description

Amendment 1 dated 7 SEP 2021
BAA Cover page update with (W52P1J-21-B-AI2C)
Changes highlighted in yellow.
See attached BAA for full details.
All Scientific and technical questions, and administrative inquiries regarding this BAA shall be submitted via email to: ai2c_baa_submissions@army.mil.
The Army Artificial Intelligence Integration Center (AI2C) is seeking artificial intelligence research and development whitepapers and proposals in support of new technologies and translational research-based approaches that support the identification, alignment, and exploitation of basic, applied, and advanced research and technology. This publication constitutes a Broad Agency Announcement (BAA) for awards by the AI2C, as contemplated in Federal Acquisition Regulation (FAR) 6.102(d)(2) and 35.016; the Department of Defense Grants and Agreements Regulations (DoDGARS) 32 CFR 22.315(a); and DoD's Other Transaction Guide for Prototype Projects, USD(AT&L), OT Guide, Jan 2017. A formal Request for Proposals (RFP), solicitation, and/or additional information regarding this announcement will not be issued. AI2C will not issue paper copies of this announcement. We reserve the right to fund all, some, or none of the proposals received under this BAA. AI2C provides no funding for direct reimbursement

of proposal development costs. Technical and cost proposals (or any other material) submitted in response to this BAA will not be returned. This BAA utilizes competitive procedures in accordance with 10 USC 2302(2)(B) for the selection and award of science and technology (S&T) proposals.

For purposes of this BAA, S&T includes activities involving basic research, applied research, advanced technology development, and, under certain conditions, may include activities involving advanced component development and prototypes as defined in DoD 7000.14-R Volume 2B, Chapter 5, Section 050105. This Announcement is not for the acquisition of technical, engineering, and other types of support services.

This BAA may be used to award FAR based instruments (e.g. procurement agreements) or instruments not subject to the FAR (e.g. grants, Cooperative Agreements, Technology Investment Agreements, and Other Transactions). Those instruments not subject to the FAR may be referred to as Assistance Agreements in this BAA. AI2C will consider a wide range of funding constructs which might include, but are not limited to, Government funding, cost sharing, in-kind labor or facility sharing by all parties, or any other allowable mechanism. Applicants may propose cost sharing approaches, but they are not required. AI2C envisions opportunities to engage in other types of collaboration agreements where no funds are exchanged, such as Cooperative Research and Development Agreements (CRADAs) which are negotiated separately from this BAA.

AI2C will utilize two approaches to engage with potential applicants under this BAA.

Ongoing Areas of Interest – AI2C does not necessarily have funding for any particular research area at any given time. Those contemplating submission of a whitepaper or proposal are strongly encouraged to review the AI2C website to understand our priorities. Whitepapers and proposals should be prepared in accordance with the instructions contained in this BAA. AI2C will assess whitepapers and proposals and return feedback to applicants on a not-to-exceed quarterly basis.

Special Topics - As a part of this BAA, AI2C will post specific areas with strong potential for funding on its website https://www.armyfuturescommand.com/ai2c/ and as an amendment to this BAA via http://www.grants.gov. These topics will generally have clear deadlines for submission and may have other specific preparation guidelines.

Ongoing Areas of Interest

1. Autonomous Platforms – The Army is particularly interested in research in autonomous ground and air vehicles, which must operate in open, urban and cluttered environments. Robotics and autonomous systems regardless of their missions require similar concepts and technologies including:

    1. Ability to move in very cluttered, irregular, urban and underground terrains
    2. Ability to move effectively in contested environments and survive attacks
    3. Technologies to enable low electromagnetic and physical profiles
    4. Architectures to enable autonomous learning and adaptation under dynamic conditions
    5. Sensing methods to detect obscured targets and to characterize terrain obstacles
    6. Autonomous ground and air structures, propulsion, and mobility components
    7. Technologies to significantly reduce logistical burdens and/or make them autonomous

1. Artificial Intelligence and Machine Learning Algorithms (AI/ML) - The Army is interested in core algorithmic improvements such as:

    1. Scaling supervised learning methods to operate on larger data sets in shorter periods of time and/or with reduced computation, memory, and/or power requirements.
    2. Improving the data efficiency of learning algorithms (e.g. low-shot, zero-shot learning)
    3. Scaling reinforcement learning and game theoretic approaches to control and decision making to operate on larger, more complex, more Army-relevant problems.
    4. Improved methods for collecting, labeling, utilizing, managing, and tracking data and the models

learned from them.

1. AI-Based Decision Making – The Army is interested in research on AI algorithms and systems to improve decision making across all echelons including:

    1. Core reinforcement learning, game theoretic, optimal control algorithms
    2. Algorithms for improved online, operational decision making
    3. Algorithms for improved offline strategic planning including tactics and portfolio optimization of assets
    4. Algorithms for increased autonomy and speed in decision making.
    5. Algorithms for improved human-machine collaboration in decision making

1. Analysis and Human-Machine Interfaces - The Army is interested in AI/ML research in areas which can reduce the cognitive burden on humans and improve overall performance through human-machine teaming. AI/ML research is needed in areas such as:

    1. Ability to analyze large, diverse data sets to predict enemy intent and behaviors
    2. Technologies to ensure robust, resilient and intelligent networking, cyber, electronic warfare and analysis of adversary signals
    3. Data analysis capabilities to engage with and exploit classified and unclassified sources in order to produce enhanced intelligence products
    4. Techniques to fuse data from disparate sources to improve a particular mission
    5. Methods of fusing human insight and knowledge with machine analysis and knowledge.
    6. Methods of efficiently conveying analytical results to humans
    7. Speech and language algorithms that support more efficient human-machine teaming.
    8. Algorithms that raise the level of autonomy in systems (i.e. increase the number and size of tasks that can be accomplished without human input and/or reduce the level of details required in human commands to machines).

1. Data Visualization and Synthetic Environments – The Army is interested in research that enables improved situational awareness and the visualization and navigation of large data sets to enhance operational activities and training and readiness. Research is needed in the visualization of data in following areas:

    1. Sensor data and large data sets
    2. Complex multi-source multi-modal data sets
    3. Novel visualization and synthetic environment approaches to enable improved training
    4. Synthetic environments and networked instrumentation approaches for virtual-live validation of concepts and prototypes

2. Assured Position, Navigation, and Timing (PNT) – The Army is interested in research involving novel PNT technologies for many capabilities including autonomous vehicles, communications, and land navigation. Solutions that enable robust PNT for vehicles, soldiers, munitions include research in the following areas:

    1. PNT technologies which operate reliably in GPS-degraded or denied areas which cannot be exploited by adversaries
    2. Enhancements to commercial technologies to enable them to meet Army needs
    3. PNT-enabled guidance and control
    4. Algorithms and techniques to fuse data from multiple PNT sources to provide robust capabilities

1. Sensing – The Army is interested in developing a detailed understanding of the environments and activities in the areas where it operates. Research is needed in the areas of sensors and associated processing in order to:

    1. Detect people, equipment, weapons, and any other object or action of interest
    2. Detect all targets even when obscured
    3. Detect based upon, physical, behavioral, cyber or other signatures
    4. Sensing methods to detect chemical, biological, radiological, nuclear, and explosive threats

1. Communications & Networks – It is critical the Army maintain secure, reliable communications for Soldiers, vehicles, and at fixed locations even in austere environments. Research is needed in the areas related to following:

    1. Concepts and methodologies to enable robust, secure networks
    2. Network interoperability
    3. High efficiency components
    4. Autonomous response to attacks on networks
    5. AI based approaches to offensive capabilities
    6. Cyber protection technologies, methodologies, and concepts to protect Army systems

1. Internet of Things (IoT) – The Army needs to better integrate a wide range of capabilities and equipment and capitalize on commercial developments in industrial and human IoT. Research is needed to improve Army IoT in the following areas:

1. New machine learning techniques that accelerate decision making to address the scale/volume of IoT information and advance the science
2. New approaches to enable secure, resilient, and automatically managed IoT networks in highly complex, mixed cooperative/adversarial, information-centric environments

1. Human Performance – The Soldier is the foundation of all Army capabilities. Technologies that reduce Soldiers' mental or physical burden and allow them to react faster than their adversaries are needed in the following areas:

    1. Human-machine interaction to insure autonomous platforms are efficiently managed and exploited
    2. Methodologies and approaches for effective augmentation of Soldiers in areas of cognition, perception, and physical performance
    3. Human performance optimization to endure harsh and extenuating conditions

1. Underpinning Methodologies - Methodologies, frameworks, tools, facilities, techniques, and experimentation concepts, which underpin and enable advanced research and development are of interest, including those which enhance the following:

    1. Collect, standardize, transform, and maintain data to focus research and validate concepts
    2. Rapid modeling, development, and assessment of technologies across widely distributed research teams
    3. Integrate innovative technology applications into current or future warfighting systems, applications, and analysis systems to assess the potential operational effectiveness of novel new technology elements

4. Automate data analytics to enhance discovery, development and transition management of technologies that address Army capability gaps

Whitepapers should be prepared in accordance with the instructions contained in this BAA. Upon receipt, a whitepaper will be evaluated and the applicant will be advised of the results. Applicants whose whitepapers receive a favorable evaluation may be encouraged to prepare a proposal in accordance with instructions contained in this BAA. The costs of whitepapers and/or proposals in response to this BAA are not considered an allowable direct charge to any award resulting from this BAA or any other award. It may be an allowable expense to the normal bid and proposal indirect costs specified in FAR 31.205-18. Proposals may be submitted at any time during the announcement period.
Applicants submitting proposals are cautioned that only a Contracting, Agreements Officer, or Grants Officer can obligate the Government to any legal instrument involving expenditure of Government funds.
All Scientific and technical questions, and administrative inquiries regarding this BAA shall be submitted via email to: ai2c_baa_submissions@army.mil.

Attachment/Links

Attachments

Document	File Size	Access	Updated Date
AI2C BAA W52P1J-21-B-AI2C_7 SEP 21.pdf	0.015625KB	public	2021-09-08T01:30:54.101+00:00
B08 -AI2C BAA FY21_3 AUG 21.pdf	0.015625KB	public	2021-08-03T19:36:18.256+00:00

Links

Display Name	Updated Date

Contact Information

Primary Point of Contact

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History

Contract Opportunity Type	Updated Date
Special Notice (Updated)	Sep 08, 2021 01:30 AM
Special Notice (Updated)	2021-08-17T21:34:34.51+00
Special Notice (Original)	Aug 03, 2021 07:36 PM

Interested Vendors List