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Category: Research and Development

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Contracting Office Address: Department of the Army, Army Contracting Command, ACC - APG (W911NF) Research Triangle Park Division, 800 Park Office Drive, Research Triangle Park, NC 27709.

Description: This special announcement references the Army Research Laboratory (ARL) Broad Agency Announcement (BAA) for Basic and Applied Scientific Research, which can be found at https://arl.army/wp-content/uploads/2020/05/W911NF-17-S-0003_Ammendment_9.pdf, hereafter referenced as the ARL BAA.

Synopsis: Combat Capabilities Development Command (CCDC) Data and Analysis Center (DAC) on behalf of the Army Futures Command Futures and Concepts Center, Maneuver Support Center of Excellence (MSCoE) solicits white papers related to Human Systems Integration (HSI) applied research proposals in support of MSCoE's Desired Enabling Capabilities for Fiscal Year 2021 as described in the attached Memorandum for Record. After the solicitation period closes, the Government will evaluate white papers as outlined below and invite selected submissions of full proposals. Only invited full proposals will be evaluated for funding. Processes established in the ARL BAA are in force except as modified in this notice.

The Government reserves the right to cancel this special notice without award for any reason. Issuance of this notice does not commit the Government to pay for any preparation costs incurred in compiling a response. As a general matter, all requirements referenced in BAA W911NF-17-S-0003 Amendment 9 apply to this effort.

The Government anticipates awarding multiple cooperative agreements in accordance with 31 USC §6305, under this Special Topic area, but will consider other potential award types listed in the ARL BAA, to include procurement contracts, grants, Other Transaction Agreements and Technology Investment Agreements as appropriate.

White papers and proposals will be handled for administrative purposes by support contractors. These support contractors are prohibited from submitting proposals under this special announcement and are bound by non-disclosure and/or conflict of interest requirements as deemed appropriate. The support contractor supporting this effort is the Leonard Wood Institute, acting as a Partnership Intermediary Agent in accordance with 15 USC §3715.

Desired Enabling Capabilities Research Areas:

Applied research proposals of particular interest to CCDC DAC include HSI related research in support of Maneuver Support and Protection functional areas. Overarching HSI research efforts of interest include, but are not limited to:

- Non-medical research on reduction in Soldier's physical and cognitive demands, improved situational awareness, and heightened individual readiness.
- Application of human factors engineering to warfighting functions and enabling capabilities.
- Research development of tools and methods to address emerging challenges to improve the capabilities of Soldiers by optimizing user performance involving tradeoffs, e.g., between physical space and system weight, crew size, and workload.
- Research to maximize lethality, survivability, effectiveness, and integrated performance of Soldiers, their equipment, and systems

Specifically, the research proposals should support the following Maneuver Support and Protection functional areas enabling capabilities being sought as described in Memorandum for Record of 4 August 2020 with annex "Maneuver Support Center of Excellence Desired Enabling Capabilities for Fiscal Year 2021" (See Attachment).

- **Preserve Essential and Critical Capabilities:** Broad areas of capabilities desired include the ability to integrate, synchronize, and implement layered all-domain protection of Critical Capabilities, Assets, and Activities (CCAAs—cognitive and virtual dimensions), preserve joint power projection globally, preserve converging methods, means and seams, and balance dispersion/ movement with handling. Specific research areas include:
 - Contamination Mitigation (CONMIT)
 - Protect Critical Assets and Infrastructure
 - Command and Control (C2)
- **Deny Enemy Freedom of Action:** Broad areas of capabilities desired include the ability to implement protection in targeting and all-domain C2 processes to coordinate proactive counter actions against Weapons of Mass Effect/ Weapons of Mass Destruction, Mobility, Obstacles, and Hazards, UAS and Swarms, and Observation/ Sensors. Specific research areas include:
 - Counter Observation and Sensing
 - Counter Mobility
 - Convergence
- **Enable Persistent Access:** Broad areas of capabilities desired include the ability to establish and retain bases and support areas, establish and retain mobility and movement corridors to access decisive spaces (maneuver corridors). Specific research areas include:
 - Security and Mobility
 - Protected Corridors
 - Counter Obstacles and Hazards
- **Understand the Operational Environment (OE):** Broad areas of capabilities desired include sensing of threats, geospatial data collection and mapping (surface, subsurface, and interior), terrain and infrastructure assessment, and mobility assessment. Specific research areas include:
 - Critical Capability Assessment

- Chemical, Biological, Radiological, Nuclear (CBRN) Reconnaissance and Surveillance (R&S)
- Forensics and Biometrics
- Robotic/ Autonomous Systems and Artificial Intelligence (RAS/AI): Broad areas of capabilities include interest in leveraging RAS/AI to achieve the functions described in the five preceding bullet points. Specific research areas include:
 - RAS—applied to standoff for bridging, obstacle removal, EOD, 3D topography, disruption of enemy movement, autonomous decontamination, etc.
 - AI—remote obstacle detection and removal, Protection/ CONMIT related decision support tools, etc.

Application Process

Questions: Technical or administrative questions are to be submitted by 11:59 PM December 04, 2020 to dacwhitepapers@leonardwoodinstitute.org. Responses to non-proprietary questions received will be posted at www.leonardwoodinstitute.org by 11 December 2020. All clearly identified and marked proprietary questions submitted will be responded to via an individual email response, not posted to the website above.

Eligibility: Applications for funding under this Special Announcement will follow the eligibility requirements and application process of the ARL BAA.

Number of Awards: The Government anticipates making multiple awards.

Duration of Award: The Government anticipates 12 – 18 month periods of performance for each award, but may negotiate for a longer duration (up to 36 months), as appropriate.

Funding: Generally, there is no requirement for cost sharing, matching, or cost participation to be eligible for award under this Special Notice. Cost sharing and matching is not an evaluation factor used under this Special Notice. US Army CCDC 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. The actual amount of an award, if any, will be contingent on whether funds are available, the specific topic, and the scope of the proposed work. Nominally projects are anticipated to fall in the \$100,000 to \$500,000 range.

Closing Date: The deadline for white paper submission is December 21, 2020. White papers received after 11:59 PM EST on December 21, 2020 will not be evaluated or considered for award. It is the responsibility of the submitting party to confirm receipt of submissions.

How to Apply: White papers must be submitted to dacwhitepapers@leonardwoodinstitute.org. In the email subject line, include the phrase “Whitepaper Submission,” and the Special Announcement number. White paper cover sheets should reference this Special Announcement. White paper guidance is given in the ARL BAA, Section D paragraph 2c. Applicants should address the following in the technical content, research objectives, portion of the white paper.

- Description of the novelty of the proposed research

- Description of any preliminary related research performed by the offeror
- Federally funded prior related research performed by the offeror
- Relationship of proposed research to the present state of the art

Security: Classified submissions are not anticipated and may not be submitted through the submission process identified above. Any classified information must be coordinated with POCs listed below.

Evaluation Criteria:

White papers will be screened for eligibility in accordance with the criteria of the ARL BAA and to ensure they meet the technical requirements outlined above. White papers meeting requirements and otherwise eligible will be evaluated by U.S. Army subject matter experts assisted by the Leonard Wood Institute. White papers will be evaluated using the following three criteria: (1) the potential of the proposed work to address a desired enabling capability as outlined above and the potential application of the work to other civilian, public and commercial purposes, (2) the reasonableness of the technical objectives, timeline, novelty and qualifications of the research organization and team and (3) the best value for the Army.

A review team, consisting of a qualified group of scientists and managers, will evaluate the white papers and provide the results of that evaluation to the decision maker for the Government. The decision maker will make decisions concerning proposal invitations.

Full Proposals: After the white paper evaluation process, selected white paper applicants will be invited to submit a full proposal. Only invited full proposals will be evaluated for potential award. Instructions for submitting proposals will be included in the invitation notice.

Key Dates:

Milestone	Target Date
Special Notice Publicly Released	November 25, 2020
Question Submission Deadline	11:59 PM EST December 04, 2020
White Paper Submission Deadline	11:59 PM EST December 21, 2020

Contacts: Only additional information regarding eligibility and the application process for this call for white papers will be addressed by below contact.

Contracting Officer: Mr. Chris Justice christopher.d.justice4.civ@mail.mil

Technical Point of Contact: Mr. Robert Clark dacwhitepapers@leonardwoodinstitute.org

Attachments:



FY21 MSCOE Desired
Enabling Capabilities