Broad Agency Announcement

Reengineering Enabling Sleep Transitions in Operationally Restrictive Environments (RESTORE)

DEFENSE SCIENCES OFFICE

HR001125S0012

April 03, 2025

This publication constitutes a Broad Agency Announcement (BAA) as contemplated in Federal Acquisition Regulation (FAR) 6.102(d)(2) and 35.016 and 2 CFR § 200.203. Any resultant award negotiations will follow all pertinent law and regulation, and any negotiations and/or awards for procurement contracts will use procedures under FAR 15.4, Contract Pricing, as specified in the BAA.

OVERVIEW INFORMATION:

- **Federal Agency Name** – Defense Advanced Research Projects Agency (DARPA), Defense Sciences Office
- **Funding Opportunity Title** – Reengineering Enabling Sleep Transitions in Operationally Restrictive Environments (RESTORE)
- **Announcement Type –** Initial Announcement
- **Funding Opportunity Number –** HR001125S0012
- **Assistance Listing Number:** 12.910 Research and Technology Development
- **Dates/Time - All Times are Eastern Time Zone (ET)**
    - Proposers Day: March 14, 2025 (Proposers Day Presentation)
    - Posting Date: April 03, 2025
    - Proposal Abstract Due Date: April 14, 2025, at 4:00 p.m.
    - Question Submittal Closed: June 4, 2025, at 4:00 p.m.
    - Proposal Due Date: June 18, 2025, at 4:00 PM
- **Anticipated individual awards** - Multiple awards are anticipated.
- **Types of instruments that may be awarded** – Procurement contracts, cooperative agreements, Other Transactions for Prototype, or Other Transactions for Research.
- **NAICS Code**: 541714
- **Agency contact**

    Points of Contact
    - The BAA Coordinator for this effort may be reached at: RESTORE@darpa.mil
    - DARPA/DSO
      ATTN: HR001125S0012
      675 North Randolph Street
      Arlington, VA 22203-2114

SECTION I: FUNDING OPPORTUNITY DESCRIPTION

The Defense Advanced Research Projects Agency (DARPA) is soliciting innovative proposals that leverage emerging neuromodulation technologies to enhance sleep efficiency and performance under sleep-restricted conditions. The Reengineering Enabling Sleep Transitions in Operationally Restrictive Environments (RESTORE) program aims to develop multimodal, multitarget, noninvasive neuromodulation methods to repair disrupted sleep architectures caused by sleep restriction, with the ultimate goal of improving cognitive performance. Proposed research should investigate innovative approaches that enable revolutionary advances in the mechanisms of sleep related to performance psychology. Specifically excluded is research that primarily results in evolutionary improvements to the existing state of practice.

Background: The RESTORE program seeks to demonstrate precision control of sleep macro- and micro-architectures to optimize cognitive performance during sleep restriction, a common occurrence in combat operations. Service member responsibilities frequently result in less than 3 hours of sleep during combat and less than 6 hours during regular duty, which can significantly impair their performance and effectiveness[1]. Warfighters are often prescribed hypnotics to help them sleep and stimulants to improve daytime performance, both of which have significant drawbacks and risks in operational environments, including impaired cognitive function, rebound insomnia, and a high potential for misuse.

Recent breakthroughs in noninvasive neuromodulation[2,3,4] have enabled the targeting of specific brain regions and patterns that drive distinct sleep stages, allowing for unprecedented control over the entire sleep cycle. By building on these developments, RESTORE aims to precisely regulate and optimize multiple stages of sleep, surpassing the limitations of single-stage stimulation and unlocking the full potential of sleep for cognitive restoration. Combining noninvasive neuromodulation with advances in sensory stimulation will allow for precision control of sleep macro- (e.g., rapid eye movement [REM], non-REM [NREM]) and micro-architectures (e.g., sleep spindles, K-complexes) to enable optimal sleep quality and cognitive function. This will provide a safer and more effective alternative to traditional medications for maintaining cognitive performance in operational environments where sleep is limited, thereby enhancing the readiness, resilience, and performance of military service members in these challenging conditions.

RESTORE will leverage recent advancements in noninvasive neuromodulation, such as transcranial electrical stimulation (TES) and focused ultrasound (FUS), which have shown

---

[1] Good, C. H., Brager, A. J., Capaldi, V. F., & Mysliwiec, V. (2020). Sleep in the United States military. *Neuropsychopharmacology*, *45*(1), 176-191.

[2] Cellini, N., Shimizu, R. E., Connolly, P. M., Armstrong, D. M., Hernandez, L. T., Polakiewicz, A. G., ... & Simons, S. B. (2019). Short duration repetitive transcranial electrical stimulation during sleep enhances declarative memory of facts. *Frontiers in human neuroscience*, *13*, 123.

[3] Harrington, M. O., Ashton, J. E., Ngo, H. V. V., & Cairney, S. A. (2021). Phase-locked auditory stimulation of theta oscillations during rapid eye movement sleep. *Sleep*, *44*(4), zsaa227.

[4] Diep, C., Garcia-Molina, G., Jasko, J., Manousakis, J., Ostrowski, L., White, D., & Anderson, C. (2021). Acoustic enhancement of slow wave sleep on consecutive nights improves alertness and attention in chronically short sleepers. *Sleep medicine*, *81*, 69-79.

promise in modulating brain activity, enhancing sleep quality, and improving cognitive function[5]. For instance, TES has been shown to increase sleep slow wave activity and improve cognitive performance[6]. FUS is a relatively new modality that can noninvasively modulate neural activity in specifically targeted brain regions, offering a promising approach for precision control of sleep macro- and micro-architectures. RESTORE performers could also use advances in sensory stimulation, such as auditory[7] or visual[8] stimulation, to develop innovative solutions for enhancing sleep efficiency to maintain cognitive performance under sleep-restricted conditions.

Program Description and Scope

RESTORE is a 24-month, single-phase program focused on demonstrating precision control of sleep's macro- and micro-architectures to enhance whole-brain sleep. The program aims to develop innovative interventions to restore cognitive performance during and after sleep deprivation. To achieve this, performers will focus on two key technical objectives: (i) developing a system that enables precision control of sleep macro- and micro-architectures, and (ii) evaluating how changes in these architectures affect brain activity, sleep, and cognitive performance. By leveraging noninvasive neuromodulation, sensory stimulation techniques, and/or other methods, performers will design interventions that initiate and enhance all phases of sleep, including both REM and NREM sleep, and that will transition sleepers between these sleep phases through multiphase sleep cycles. Performers will design a system of sensors, analysis, and neuromodulation mechanisms to implement interventions during the research effort. The program is designed to be completed in 24 months, with the possibility of an expansion to investigate the intervention for military operational settings if the initial results demonstrate the feasibility and transition potential of RESTORE approaches.

Performers will be conducting Human Subjects Research (HSR) and must plan for primary Institutional Review Board (IRB) and secondary review by the U.S. Army Medical Research and Development Command (USAMRDC) Office of Human and Animal Research Oversight (OHARO), required for Government-sponsored HSR in the proposed cost and schedule. No HSR data collection can begin prior to OHARO approval.

Program Description: Interventions should optimize performance within a sleep restriction environment characterized by 3 hours of sleep over an acute period of 3-7 days. Performers will collect measures to demonstrate the effectiveness of their interventions in maintaining and restoring mental agility, cognitive capacity, and emotional capabilities during and after this period of sleep restriction. Proposers should submit their particular protocols in detail and demonstrate their ability to conduct a sleep study of this kind.

---

[5] Grimaldi, D., Papalambros, N. A., Zee, P. C., & Malkani, R. G. (2020). Neurostimulation techniques to enhance sleep and improve cognition in aging. *Neurobiology of disease*, *141*, 104865.

[6] Menardi, A., Rossi, S., Koch, G., Hampel, H., Vergallo, A., Nitsche, M. A., ... & Santarnecchi, E. (2022). Toward noninvasive brain stimulation 2.0 in Alzheimer's disease. *Ageing research reviews*, *75*, 101555.

[7] Lustenberger, C., Ferster, M. L., Huwiler, S., Brogli, L., Werth, E., Huber, R., & Karlen, W. (2022). Auditory deep sleep stimulation in older adults at home: a randomized crossover trial. *Communications medicine*, *2*(1), 30.

[8] Zhou, X., He, Y., Xu, T., Wu, Z., Guo, W., Xu, X., ... & Chen, J. F. (2024). 40 Hz light flickering promotes sleep through cortical adenosine signaling. *Cell Research*, *34*(3), 214-231.

Key Technical Objectives

Each performer will need to address two key technical objectives. These technical objectives, detailed below, will demonstrate the mechanistic construct validity of each performer's approach and evaluate the effects of RESTORE intervention on cognitive performance.

1. Develop a multimodal system that enables the precision control and optimization of sleep macro- and micro-architectures. Proposers must identify specific neural mechanisms for targeting and modulating macro-architectures, such as sleep phases, including both REM and NREM sleep, and micro-architectures (e.g., phasic EEG features, thalamocortical spindles, hippocampal ripples) to restore cognitive function and optimize sleep. Proposers must address how precision control of these architectures will be achieved using noninvasive neuromodulation, sensory stimulation (e.g., light, acoustic, or olfactory), or other methods to boost restorative effects within sleep. Interventions must be designed to enhance a minimum of two phasic EEG micro-architectures occurring at distinct times during sleep. Proposers must clearly articulate the theoretical basis underlying their proposed intervention and explain the potential mediating mechanism to enhance next-day cognitive performance. All technologies included in the intervention must have existing U.S. Food and Drug Administration (FDA) regulatory approval for clinical studies (e.g., non-significant risk determination, investigational device exemption), or the proposal must present a plan providing clear evidence of ability to secure regulatory approvals necessary for clinical testing within the allotted 24-month timeline of the RESTORE program.

2. Evaluate changes in sleep macro-and micro-architectures and their mediating effects on pre- and postintervention brain activity, sleep and cognitive performance. Proposers must describe how their approach will demonstrate changes in brain activity or connectivity resulting from changes in sleep macro- and microarchitectures, as well as subsequent changes in brain activity or connectivity responsible for cognitive performance. Proposers must also specify how their approach will demonstrate changes in sleep measures (e.g., sleep onset latency, wakefulness after sleep onset, sleep stage latency/duration, or other measures chosen by performers) resulting from changes in micro- and macro-architectures. Proposers must identify tasks that measure multidomain cognitive performance, including cognitive measures of attention, alertness, processing speed, response selection and inhibition, and working memory. Proposers must also assess return-to-baseline performance following sleep deprivation by producing cognitive performance curves to examine the impact of their intervention on cognitive outcomes compared to no intervention.

The intervention must optimize sleep performance within a severe sleep restriction environment (specifically, 3 hours of sleep over an acute period between 3 to 7 days, as specified by the proposer), and be employed in a laboratory environment that causes measurable performance deficits for targeting by RESTORE interventions. Proposers must describe their participant recruitment strategy, identify how sleep restriction will be induced, and detail how cognitive performance will be monitored throughout the duration of the study. The sample recruited must be from a healthy sleep population with no clinical sleep disturbance.

Toward the end of the 24-month period, RESTORE results and accomplishments will be reviewed. Depending on the program results, DARPA may consider expanding the program to

further optimize multimodal interventions to enhance cognitive performance within chronic sleep restriction populations, characterized by 5 hours of sleep over a prolonged period (at least 7 days).

Successful proposals will succinctly and explicitly explain:

- The fundamental hypothesis to be tested, including the underlying assumptions and expected outcomes
- How results will change neuroscience understanding; specifically, how they will advance our knowledge of sleep and its relationship to cognitive performance, if the hypothesis is supported
- Evidence, data, projections, calculations, or theoretical explanations of how the proposed methods are able to meet the program's metrics (proposals lacking such justifications are unlikely to be selected for award)
- The potential implications of the proposed research for future work relating to sleep and cognitive function
- The theoretical neurobiological basis for the proposed interventions, including the underlying mechanisms
- Research design, including specific power analysis, to evaluate the effectiveness of the interventions
- Biomarkers that demonstrate a link between changes in brain activity and improvement in cognitive performance, and how these biomarkers will be measured and analyzed
- Specific plans, including cost and time estimates, to address the three key technical challenges outlined in the program description

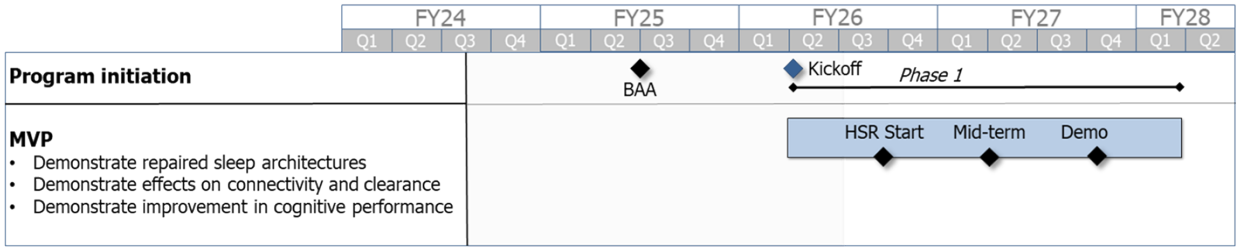
Successful proposals will not:

- Simply reiterate the justifications or background information provided in the BAA
- Require the development of new drugs or pharmacologic interventions
- Rely on existing pharmacologic interventions known to disrupt sleep, pose a risk of dependency or misuse, or increase performance risk if the individual is awakened prior to drug clearance

Program Schedule and Structure:

RESTORE is a 24-month research effort comprising a single phase and one technical area (TA). The schedule, structure, and metrics of the initial program are shown below (Table 1). Schedules will be synchronized across performers, if needed, and monitored/revised as necessary throughout the program. A target start date of January 2026 may be assumed for planning purposes.

Table 1: Program schedule and structure



RESTORE will focus on fundamental system design, intervention method development, and experimental validation. Experimental validation will consist of small, proof-of-concept clinical trials to test the developed interventions in a healthy population during sleep restriction.

Program Metrics

RESTORE metrics are focused on assessing cognitive outcomes and are organized into three categories relevant to military cognitive performance—attention and alertness, monitoring and response inhibition, and processing speed. To achieve the program's goals, performers must develop interventions and test these against the program goal of achieving 25% improvement in cognitive performance. Cognitive performance benchmarks will be evaluated in the specified military performance domains using the psychomotor vigilance task, task switching, and the digit symbol substitutions task. These metrics will assess the effectiveness of the interventions in improving cognitive performance. Performers' progress will be measured against the metrics shown in Table 2. Proposers must illustrate clearly in their proposals how they plan to meet and/or exceed the metrics and justify their claims with data, projections, references, and/or theoretical explanations.

Table 2: Program metrics

Military Cognitive Performance Domains	Test	Metric (3-hour sleep restriction)
Attention and Alertness	Psychomotor Vigilance Task	25% improvement in cognitive performance
Monitoring and Response Inhibition	Task Switching	25% improvement in cognitive performance
Processing Speed	Digital Symbol Substitution Test	25% improvement in cognitive performance

Proposers are encouraged to propose and justify potential impact assessments that measure the relationship between changes in brain activity and improvements in cognitive performance resulting from enhanced sleep. Specifically, these impact assessments should include biomarkers that demonstrate a link between sleep-related changes in brain activity and cognitive function and should describe how these biomarkers will be measured and analyzed to evaluate the effectiveness of interventions aimed at enhancing sleep for improved cognitive performance.

RESTORE Schedule of Deliverables

The following table contains a defined set of key milestones that outline the program's timeline and requirements. These milestones represent the minimum expected requirements and provide a framework for proposers to ensure the successful completion of their proposed research and development activities. The performer will be required to submit all deliverables listed below regardless of award type. If requesting an Other Transaction, please complete Attachment G Schedule of Milestones and Payments.

Table 3: Program milestones

Program Month	Milestone	Deliverable
1	Project Kickoff meeting and collaborative program review of intervention strategies and technology; all supporting positions identified in the proposal are assigned to personnel and names are provided to DARPA; all personnel working on the Program must be identified	Progress Report
2	Report on proposed mechanisms, metrics, and relationship to psychological resilience and operational readiness outcomes; all proposed personnel must be working on the effort at the planned level of effort; preregistration of intervention studies	Progress Report; Preregistration number(s)
3	Submission (as necessary) of Independent Review Board (IRB)-approved protocol(s) for Human Subjects Research for secondary Office of Human and Animal Research Oversight (OHARO) review	IRB-approved protocol(s)
6	Sleep intervention system prototype (hardware and software) preliminary demonstration	In-person demonstration of working technology; Progress Report
9	Begin human subjects research activities for Intervention	Progress Report
12	Preliminary assessment of intervention effects on macro- and micro-architectures and on cognitive performance measures	Progress Report, including review of preliminary data and code
15	Submission of IRB-approved amendments of any necessary intervention changes for secondary OHARO review	IRB-approved protocol(s) with amendments

18	Report on refined intervention and resilience & operational readiness assessment strategy for notional 12-month expansion	Draft statement of work (SOW) and rough order of magnitude (ROM) cost for potential 12-month expansion.
21	Evaluation of program metrics	Evaluation report, including review of data and code
24	Feasibility report on ability to modulate the target mechanism(s), including final model for specifying the relationship between neural stimulation, REM and NREM sleep, target neural mechanisms, and program outcomes	Final Report

Meetings and Travel

To foster collaboration between teams and disseminate program developments, RESTORE will conduct regular Program/Peer Review meetings. In addition, regular teleconference meetings will be scheduled with the government team for progress reporting as well as problem identification and mitigation. For planning purposes, proposers should anticipate at least one site visit during the period of performance by the DARPA Program Manager, during which they will have the opportunity to demonstrate progress toward agreed-upon milestones. Proposers should also assume one Principal Investigator (PI) Meeting per year on alternating coasts, budgeted to allow a suitable number of team members attend.

Performers will be expected to provide, at a minimum, the following deliverables:

- Monthly progress reports, including both technical and financial updates.
- All deliverables listed in Table 3.
- Other negotiated deliverables specific to the objectives of the individual efforts, which may include registered reports; experimental protocols; publications; intermediate and final versions of software libraries, code, and application programming interfaces (APIs), including documentation and user manuals; and/or a comprehensive assemblage of design documents, models, modeling data and results, and model validation data.

Other program properties

Proposers must assume human subjects testing will be considered Human Subjects Research (HSR) and plan for the Institutional Review Board (IRB) and secondary review by the U.S. Army Medical Research and Development Command (USAMRDC) Office of Human and Animal Research Oversight (OHARO), needed for Government-sponsored HSR in the proposed cost and schedule. Any local IRB determination must be approved by OHARO. No HSR data collection can begin prior to OHARO approval. If a local IRB concludes the research is HSR exempt, then OHARO must still concur with an IRB determination that proposed research is HSR exempt before data collection can begin.

Performers can submit IRB-approved protocols to OHARO for secondary review any time after

contract award but will be required to submit them to OHARO no later than 3 months after award. To meet this deadline, proposers should submit protocols to their organization's IRB for initial approval with sufficient lead time for the necessary approvals to be in place and submitted to OHARO on the required schedule. Proposers shall include their draft protocol with their proposals as an appendix to Attachment D: PROPOSAL TEMPLATE VOLUME 1: TECHNICAL & MANAGEMENT; this paperwork will not count against the page limit. Animal testing is out of scope as it will not be necessary to achieve RESTORE's goals. Proposers selected for negotiation may be requested to submit their protocol (or a protocol amended by DARPA) to their local IRB in DARPA's notification letter.

SECTION II: EVALUATION CRITERIA

Proposals will be evaluated using the following criteria listed in **descending order of importance**. Overall Scientific and Technical Merit; Potential Contribution and Relevance to the DARPA Mission; and Cost and Schedule Realism.

- **Overall Scientific and Technical Merit**: The proposed technical approach is innovative, feasible, achievable, and complete. Detailed technical rationale is provided delineating why the proposed approach can achieve the program goals and metrics. The proposed technical team has the expertise and experience to accomplish the proposed tasks. Task descriptions and associated technical elements provided are complete and logically sequenced with all proposed deliverables clearly defined so the final outcome of the award's work achieves the goal. The proposal identifies major technical risks and planned mitigation efforts are clearly defined and feasible.
- **Potential Contribution and Relevance to the DARPA Mission**: The potential contributions of the proposed effort bolster the national security technology base and support DARPA's mission to make pivotal early technology investments that create or prevent technological surprise. The proposed intellectual property restrictions (if any) will not significantly impact the Government's ability to transition the technology.
- **Cost and Schedule Realism**: The proposed costs and schedule are realistic for the technical and management approach and accurately reflect the technical goals and objectives of the solicitation. All proposed labor, material, and travel costs are necessary to achieve the program metrics, consistent with the proposer's statement of work, and reflect a sufficient understanding of the costs and level of effort needed to successfully accomplish the proposed technical approach. The costs for the prime proposer and proposed sub-awardees are substantiated by the details provided in the proposal (e.g., the type and number of labor hours proposed per task, the types and quantities of materials, equipment and fabrication costs, travel, and any other applicable costs and the basis for the estimates). The proposed schedule aggressively pursues performance metrics in an efficient time frame that accurately accounts for the anticipated workload. The proposed schedule identifies and mitigates any potential schedule risk. It is expected that the effort will leverage all available, relevant, prior research to obtain the maximum benefit from the available funding. For proposals containing cost share, the proposer has provided sufficient rationale regarding the appropriateness of the cost share arrangement, relative to the objectives of the proposed solution (e.g., high likelihood of commercial application, etc.).

Unless otherwise specified in this announcement, for additional information on how DARPA reviews and evaluates proposals through the Scientific Review Process, please visit: Proposer Instructions: General Terms and Conditions.

SECTION III: SUBMISSION INFORMATION

- This announcement allows for multiple award instrument types to be awarded to include Procurement Contracts, Cooperative Agreements, Other Transactions for Prototype, and Other Transactions for Research. Some award instrument types have specific cost-sharing requirements. The following websites are incorporated by reference and contain additional information regarding overall proposer instructions, general terms and conditions, and each specific award instrument type.

  Proposers must review the following links:

  - **Proposer Instructions: General Terms and Conditions**: https://www.darpa.mil/work-with-us/proposer-instructions
  - **Procurement Contracts**: https://www.darpa.mil/work-with-us/procurement-contracts
  - **Assistance (Cooperative Agreements)**: https://www.darpa.mil/work-with-us/grant-cooperative-agreements
  - **Other Transaction agreements**: https://www.darpa.mil/work-with-us/other-transaction-agreements

  - This announcement contains an abstract phase. Abstracts are strongly encouraged but not required. Abstracts are due April 14, 2025, at 4:00 p.m. as stated in the Overview section. Additional instructions for abstract submission are contained within Attachments A and B.

  - Full proposals are due: June 18, 2025 at 4:00 PM as stated in the Overview section.

  - **Attachments C, D, E, and F** contain specific instructions and templates and constitute a full proposal submission for proposers requesting a Procurement Contract.

  - **Attachments C, D, E, F, and G** contain specific instructions and templates and constitute a full proposal submission for proposers requesting an Other Transactio.

  - **Attachments C, D, and F** contain specific instructions and templates and constitute a full proposal submission for proposers requesting a Cooperative Agreement. Proposers requesting a Cooperative Agreement must also complete the SF424 (R&R) Budget form through Grants.gov.

- Proposers requesting Procurement Contracts or Other Transaction Agreements must submit proposals through the Broad Agency Announcement Tool (visit Proposer Instructions: General Terms and Conditions for instructions). For proposers requesting a Cooperative Agreement, proposals must be submitted through grants.gov (visit Proposer Instructions: Grants/Cooperative Agreements for instructions).

- **BAA Attachments**:

  - **(required if submitting an Abstract) Attachment A**: Abstract Summary Slide Template
  - **(required if submitting an Abstract) Attachment B**: Abstract Instructions and Template
  - **(required) Attachment C**: Proposal Summary Slides Template

- **(required) Attachment D**: Proposal Instructions and Volume I Template (Technical and Management)
- **(required for proposers requesting Procurement Contracts or Other Transaction Agreements) Attachment E**: Proposal Instructions and Volume II Template (Cost)
- **(required) Attachment F**: MS Excel™ DARPA Standard Cost Proposal Spreadsheet
- **(required for proposers requesting Other Transaction Agreements) Attachment G**: Schedule of Milestones and Payments

SECTION IV: SPECIAL CONSIDERATIONS

- This announcement, stated attachments, and websites incorporated by reference constitute the entire solicitation. In the event of a discrepancy between the announcement, attachments, or websites, the announcement takes precedence.
- All responsible sources capable of satisfying the Government's needs, including both U.S. and non-U.S. sources, may submit a proposal that shall be considered by DARPA. Historically Black Colleges and Universities, Small Businesses, Small Disadvantaged Businesses and Minority Institutions are encouraged to submit proposals and join others in submitting proposals; however, no portion of this announcement will be set aside for these organizations' participation due to the impracticality of reserving discrete or severable areas of this research for exclusive competition among these entities. Non-U.S. organizations and/or individuals may participate to the extent that such participants comply with any necessary nondisclosure agreements, security regulations, export control laws, and other governing statutes applicable under the circumstances.
- As of the time of publication of this solicitation, all proposal submissions are anticipated to be unclassified.
- DARPA has utilized an alternate structured approach for the determination of a reasonable fee basis for Cost-Plus-Fixed-Fee (CPFF) procurement contracts under RESTORE, in accordance with DFARS 215.404-4(b)(1)(C). **The fee calculation percentage range determined reasonable for procurement contract awards under RESTORE is 8.6% - 9.6%.** This was determined based on consideration of factors such as: performance risk; contract type risk; facilities capital employed; anticipated award size; available transition path; markets (commercial, Government, international); IP rights; chances of award; time to production; and solicitation complexity.

  Proposers should propose a fee that falls within the above range. Because that fee range already has been determined to be reasonable relative to RESTORE, proposals need not include any further fee justification. Elimination of fee as a negotiation item is expected to result in reduced contracting timelines for any proposal selected for award negotiation. It should be noted that this structured approach may not apply to other transactions requested by nontraditional defense contractors.
- DARPA encourages technical solutions from all responsible sources capable of satisfying the government's needs. To ensure fair competition across the ecosystem, DARPA prohibits contractors/performers from concurrently providing Systems Engineering Technical Assistance (SETA), Advisory and Assistance Services (A&AS), or similar support services and being a technical performer, unless the DARPA Deputy Director grants a written waiver. DARPA extends this prohibition to University-Affiliated Research Centers (UARCs) and Federally Funded Research and Development Centers (FFRDCs) including National Labs, who as a result of their specialized expertise and areas of competencies, are able to accomplish integral tasks that cannot be met by government or contractor resources. Therefore, these entities are highly discouraged from proposing against this solicitation as award to a UARC or FFRDC will only be made by exception. UARCs and FFRDCs interested in this solicitation, either as a prime or a subcontractor, should contact the Agency Point of Contact (POC) listed in the Overview section prior to the proposal (or abstract) due

date to discuss potential participation as part of the government team or eligibility as a technical performer.

- As of the date of publication of this solicitation, the Government expects that program goals as described herein may be met by proposers intending to perform fundamental research and does not anticipate applying publication restrictions of any kind to individual awards for fundamental research that may result from this solicitation. Notwithstanding this statement of expectation, the Government is not prohibited from considering and selecting research proposals that, while perhaps not qualifying as fundamental research under the foregoing definition, still meet the solicitation criteria for submissions. If proposals are selected for award that offer other than a fundamental research solution, the Government will either work with the proposer to modify the proposed statement of work to bring the research back into line with fundamental research or else the proposer will agree to restrictions in order to receive an award. For additional information on fundamental research, please visit Proposer Instructions: General Terms and Conditions.

- Proposers should indicate in their proposal whether they believe the scope of the research included in their proposal is fundamental or not. While proposers should clearly explain the intended results of their research, the Government shall have sole discretion to determine whether the proposed research shall be considered fundamental and to select the award instrument type. Appropriate language will be included in resultant awards for non-fundamental research to prescribe publication requirements and other restrictions, as appropriate. This language can be found at http://www.darpa.mil/work-with-us/additional-baa.

- For certain research projects, it may be possible that although the research to be performed by a potential awardee is non-fundamental research, its proposed sub-awardee's effort may be fundamental research. It is also possible that the research performed by a potential awardee is fundamental research while its proposed sub-awardee's effort may be non-fundamental research. In all cases, it is the potential awardee's responsibility to explain in its proposal which proposed efforts are fundamental research and why the proposed efforts should be considered fundamental research.

- DARPA's Fundamental Research Risk-Based Security Review Process (formerly CFIP) is an adaptive risk management security program designed to help protect the critical technology and performer intellectual property associated with DARPA's research projects by identifying the possible vectors of undue foreign influence. DARPA will create risk assessments of all proposed senior/key personnel selected for negotiation of a fundamental research grant or cooperative agreement award. The DARPA risk assessment process will be conducted separately from the DARPA scientific review process and adjudicated prior to final award. For additional information on this process, please visit Proposer Instructions: Grants/Cooperative Agreements.

- Proposals could potentially include Human Subjects Research (HSR) and/or Animal Use. Proposers that anticipate involving human subjects or animals in the proposed research must comply with the approval procedures detailed at https://www.darpa.mil/work-with-us/humanresearch to include providing the information specified therein as required for proposal submission.

- The APEX Accelerators program, formerly known as the Procurement Technical Assistance Program (PTAP), focuses on building strong, sustainable, and resilient U.S. supply chains by assisting a wide range of businesses that pursue and perform under contracts with the DoD, other federal agencies, state and local governments, and government prime contractors. See www.apexaccelerators.us/ for more information.

  APEX Accelerators helps businesses:
  o Complete registration with a wide range of databases necessary for them to participate in the government marketplace (e.g., SAM).
  o Identify which agencies and offices may need their products or services and how to connect with buying agencies and offices.
  o Determine whether they are ready for government opportunities and how to position themselves to succeed.
  o Navigate solicitations and potential funding opportunities.
  o Receive notifications of government contract opportunities on a regular basis.
  o Network with buying officers, prime contractors, and other businesses.
  o Resolve performance issues and prepare for audit, only if the service is needed, after receiving an award.

- Project Spectrum is a nonprofit effort funded by the DoD Office of Small Business Programs to help educate the Defense Industrial Base (DIB) on compliance. Project Spectrum is vendor-neutral and available to assist businesses with their cybersecurity and compliance needs. Their mission is to improve cybersecurity readiness, resilience, and compliance for small/medium-sized businesses and the federal manufacturing supply chain. Project Spectrum events and programs will enhance awareness of cybersecurity threats within the manufacturing, research and development, and knowledge-based services sectors of the industrial base. Project Spectrum will leverage strategic partnerships within and outside of the DoD to accelerate the overall cybersecurity compliance of the DIB.

  www.projectspectrum.io is a web portal that will provide resources such as individualized dashboards, a marketplace, and Pilot Program to help accelerate cybersecurity compliance.

- DARPAConnect offers free resources to potential performers to help them navigate DARPA, including “Understanding DARPA Award Vehicles and Solicitations”, “Making the Most of Proposers Days”, and “Tips for DARPA Proposal Success”. Join DARPAConnect at www.DARPAConnect.us to leverage on-demand learning and networking resources.

- DARPA has streamlined our Broad Agency Announcements and is interested in your feedback on this new format. Please send any comments to DARPAsolicitations@darpa.mil.