

Part I: Overview	
Project Title	ENHANCING ARMY MISSION READINESS & RESILIENCY THROUGH AUTOMATED AIRFIELD PAVEMENT INSPECTIONS (RRAAPI)
Project Number	ERDCWERX26_OT02
Announcement Type	Request for White Paper (RFPW)
Release Date	1 Sept 2026
Closing Date/Time	15 Oct 2026
Individual Awards	Multiple awards may be issued
Agreement Type	Firm Fixed Price Milestones
Anticipated Value	Total Estimated Project Value - \$2M Single or multiple awards could be awarded in the range of \$500k to \$1M.
Period of Performance	Total Period of Performance – 24 months
Questions and Submissions	Whitepaper submissions must be made to the ERDCWERX website All questions must be directed to the following POCs: Kelly Andrews, Kelly.Andrews@usace.army.mil https://share.hsforms.com/1O8-vyeiATO6alDcxk4tToq4120r

Introduction

It is important to note that this notice in a Request for White Paper (RFPW) is not a Request for Prototype Proposal (RFPP). This notice shall not be construed as a commitment by the Government to issue a RFPP or ultimately award a project, nor does it restrict the Government to a particular acquisition approach. No entitlement or payment of direct or indirect costs or charges by the Government shall arise because of offeror submission of responses or the Government's use of such information.

This RFPW is a two-step project announcement.

Step 1: This notice is being issued to solicit **white papers ONLY**. The purpose of white paper submissions is to identify potential partners that may have promising solutions relative to the project objectives herein. An offeror that describes a promising prototype solution will be asked to attend a demonstration at ERDC-Vicksburg to provide additional information to the Government project team. To be considered for receiving a RFPP, it is highly encouraged potential vendors demonstrate their technology at the field demonstration. However, the Government reserves the right to move straight to RFPP based on whitepaper submission only.

Step 2: The Government may issue an RFPP to the offeror(s) with the most promising solution(s) relative to the project objectives described herein. The Government may provide feedback to each vendor on their proposed solution. The Government reserves the right to make changes to the final project announcement before issuing RFPP(s). Upon receipt, the

Government will evaluate the proposal(s) through a scientific review process in accordance with the evaluation criteria to determine which proposal(s) represents the best value to the Government and should be awarded.

Part II: ANNOUNCEMENT

A. PROBLEM STATEMENT

Current airfield pavement inspections rely heavily on manual visual inspections performed in accordance with ASTM D5340. This approach is highly subjective, labor-intensive, and prone to human error, which can lead to inconsistent Pavement Condition Index (PCI) scoring that reduces confidence in network-level condition assessments and complicated maintenance and repair prioritization.

ERDC's research findings show traditional manual visual inspections (ASTM 5340) need modernization. Emerging technologies-including automated inspection processing equipment, deep learning models, 3D laser scanning, and other non-destructive testing (NDT) methods-offer the potential of improving inspection speed, accuracy, and data consistency, closing the capability gap for pavement evaluations and Pavement Condition Index (PCI) scoring. Limiting the Army's ability to implement potential automated technologies threatens operational and mission readiness for Army airfields.

B. BACKGROUND

ERDC has actively investigated commercial off-the-shelf (COTS) inspection technologies to determine their viability for inspecting military airfield pavements. Recent ERDC research has published literature about automated pavement condition survey systems. While advanced automated tools present a potential solution for efficient maintenance, prior ERDC research identified a significant capability gap, concluding that existing systems are inadequate for airfield inspections. Further research is necessary to validate whether emerging automated technologies can shift from subjective visual to automated surveys. For the Army, a successful outcome will directly enhance mission readiness through faster airfield availability and rapid deployment support. It will also shift the force to a predictive maintenance model, optimizing resources, reducing lifecycle costs, and increasing aviation safety, solidifying ERDC's role as the Army's leader in advanced transportation infrastructure assessment.

C. OBJECTIVES/TECHNICAL REQUIREMENTS

Evaluating the potential use of automated pavement inspection tools is critical for operational and mission readiness to ensure national resiliency, optimize airfield pavement engineering resources and meet rapidly evolving military requirements.

ERDC is seeking offerors who manufacture automated pavement inspection technologies with capabilities to meet or demonstrate the following requirements:

1. Accuracy (Two-Tiere)
 - a. Tier One: Technology's ability to correctly identify and classify pavement distress types (e.g. longitudinal cracking, weathering, and spalling) and their severity (low, medium, and high) in accordance with ASTM 5340.
 - b. Tier Two: Technology's ability to correctly calculate the Pavement Condition Index (PCI) for airfield pavement inspections.

2. Reliability: The consistency and repeatability of the technology's results compared to traditional PCI ratings performed by human experts.
3. Efficiency: The speed at which technology can survey an airfield and process the data to produce actionable results, thereby reducing runway downtime.
4. Operational Suitability: The technology's effectiveness in both standard (well-maintained) and contingency (damaged or unfamiliar) airfield scenarios.
5. Limitations: Technology's ability to withstand extreme conditions, often characterized in Army's operating environment, such as high temperatures, extreme cold, humidity, terrain toughness, dust, water, etc.

Offerors must be capable of demonstrating their technology's ability to survey a pre-defined pavement section that has also been manually inspected by certified PCI experts. Offerors must also perform the following:

- Establish a baseline PCI rating for the test section using traditional, expert-led visual inspection methods.
- Capacity to deploy their system to collect data from the same test section.
- Capacity to process collected data and provide a detailed report, including identified distress types, severities, and calculated PCI value.
- Analyze and compare the automated system's output directly against the expert baseline PCI.

D. ESTIMATED PROTOTYPE PERIOD OF PERFORMANCE

The estimated period of performance for a prototype is 24 months post field demonstration and evaluation. The final duration within this range is contingent upon potential vendors' Automated Technology meet our specific technical objectives.

Given that this represents a rapidly needed capability for field operations, the development timeframe is critical.

E. DATA RIGHTS

To be determined.

F. ESTIMATED TRAVEL and PURPOSE

To be determined.

G. PROTOTYPE DELIVERABLES

Deliverables will be further defined after RFPP issuance dependent upon the offerors proposed solution.

Part III. AWARD INFORMATION:

1. FUNDING: The selected industry partners will be fully funded to execute the modernization in FY27/FY28.

2. FOLLOW ON ACTIVITIES/ PRODUCTION: The USACE, ERDC is using competitive procedures to select participants in a prototype transaction under 10 USC 4022. If the prototype

is determined successful, agencies may exercise authority under 10 USC 4022(f) to provide for, and award, a follow-on production transaction or FAR based contract without additional competitive procedures.

Part IV. ELIGIBILITY INFORMATION:

To qualify for award, an offeror must satisfy at least one of the following:

- 1) The prototype project includes significant participation by at least one nonprofit research institution or non-traditional defense contractor (NDC),
- 2) All significant participants in the transaction other than the Federal Government are small business concerns, or
- 3) At least one-third of the total cost of the prototype project is to be paid out of funds provided by parties other than the Federal Government

An NDC is defined as an entity that is not currently performing and has not performed, for at least the one-year period preceding the solicitation of sources by DoD for the procurement or transaction, any contract or subcontract for the DoD that is subject to full coverage under the cost accounting standards prescribed pursuant to section 1502 of title 41 and the regulations implementing such section (see 10 U.S.C. 2302(9)).

Additionally, prior to award, an offeror must be registered at www.sam.gov. Please note, project timelines may not allow for registration after whitepaper selection, therefore, offerors are highly encouraged to register as soon as possible.

Part V. WHITE PAPER REQUIREMENTS AND REVIEW

DO NOT INCLUDE PROPRIETARY INFORMATION

White papers shall be submitted through ERDCWERX no later than 15 Oct 2026, 1700 CST.

1. **GENERAL FORMATTING REQUIREMENTS:** White papers shall be submitted electronically. All submissions must be clear, legible, and conform to the following general formatting guidelines:
 - Paper: Pages shall be 8.5 x 11 inches, single sided, with each page numbered "X of Y pages."
 - Margins: Minimum of 1 inch on all sides.
 - Type Font: 12-point Times New Roman, single spaced.
 - Acronyms: Spell out all acronyms the first time they are used. One page of the proposal body is allocated to spell out acronyms, abbreviations and symbols. This does not count towards white paper page limits.
 - Language: English.
 - Electronic file format: PDF, compatible with current Adobe Acrobat Reader. File size less than 20 MB.
2. **CONTENT:** White papers consist of a detailed solution brief that is up to three pages and a

pitch deck up to five pages. The complete white paper shall be no longer than eight pages. The solution brief and pitch deck will be reviewed holistically. It is recommended (but not required) that more detailed information be included in the solution brief and higher-level information be included in the pitch deck.

a. Technical Requirements.

- Background and benefits of proposed solution
- Description of experience with automated pavement
- General technical approach to stated objectives
- Potential Delivery schedule
- Anticipated Data Rights Assertions, if applicable.

b. Rough Order of Magnitude: Estimated price for prototype project.

3. ENTITY QUALIFICATIONS: Each offeror must complete Attachment 1 – Entity Qualifications. This does not count towards white paper page limits.

4. REVIEWS: White papers will be reviewed based on an integrated assessment of the following:

- The degree to which the solution meets the requirements of the desired objectives.
- The degree to which the potential delivery schedule meets the government's stated period of performance.
- The review of potential impacts of data rights assertions.
- The review of whether the white paper sufficiently demonstrates 1) significant participation by NDCs or significant participation by non-profit research institutions, 2) all significant participants in the transaction other than the Federal Government are small businesses, or 3) at least one-third of the total cost of the prototype project is to be paid out of funds provided by parties other than the Federal Government.

5. REQUEST FOR PROTOTYPE PROPOSAL: The government reserves the right to request a prototype proposal based upon white paper submission only or, if further information is necessary, request a solution pitch. Offerors will not be scored or ranked. The solution pitch is an extension of the white paper submission, therefore will be evaluated within the same criteria listed above. Offerors determined to be the most advantageous to the government may receive an RFPP.

Part VI. PROTOTYPE PROPOSAL REQUIREMENTS AND EVALUATION

Once a solution is selected by the government, an RFPP will be issued to the offeror(s), including submission requirements. Once the RFPP is issued, the offeror and the Government will collaborate to develop the scope of work to be submitted as part of the offeror's proposal.

1. CONTENT

a. Cover Page

- Prototype Project Title
 - Name of Primary Business submitting proposal. Including Commercial and Government Entity code (CAGE) and Unique Entity Identifier (UEI).
 - Date proposal was submitted
- b. Statement of Work Requirements:** The Offeror shall submit a statement of work that formally captures and defines the work activities, deliverables, and timeline, for the prime contractor and any subcontractors, necessary to execute development of the prototype. Include the following:
- Detailed Technical Requirements
 - Define successful completion
 - Reporting and Delivery Requirements
 - Period and Place of Performance
 - Government Furnished Property/Equipment/Materials/Data
 - Access to any Government Sites or Systems, if necessary
- c. Milestone Payment Schedule:** The Milestone Payment Schedule shall include the firm fixed price payable events for the design effort. Each event shall include a description, target timeframe for completion, and proposed price.
- d. Pricing:** The Offeror shall provide sufficient detail to substantiate that the overall proposed price is realistic, reasonable, and complete for the work proposed. The Offeror shall also include a narrative explanation of the proposed prices. The Agreement Officer may request additional information to determine pricing is fair and reasonable.
- Price proposals shall be submitted on a firm fixed price basis.
 - The depth and breadth of the price proposal shall be determined based on
 - the complexity of the requirement. At a minimum, include:
 - Labor Rates. Provide bases for which the estimated total labor hours were calculated.
 - Material/Equipment. Provide a list of the materials/equipment required to meet the technical solution proposed.
 - Indirect Costs. Provide estimate of the total indirect costs and supporting data on how this estimated was calculated (i.e. overhead, G&A, etc.)
- a. Security Requirements.** Although not to be evaluated, the Offeror shall identify existing or describe capability of obtaining personnel/facilities security clearances if necessary. DoD security management and handling requirements outlined in regulations such as DoD 5200.1-R and DoD 5400.07 apply to prototype other transactions.
- b. Data Rights -** All agreements that require data to be produced, furnished, acquired, or used in meeting performance requirements, must contain terms that delineate the respective rights and obligations of the Government and the contractor regarding the use, reproduction and disclosure of that data. The offeror shall identify any data rights assertions.
- c. Key personnel qualifications.** The proposal shall include resumes of the Program Manager and other Key Personnel who will be assigned to and work on the proposed project. If the Offeror does not presently employ personnel in the

positions identified as Key, the Offeror must present a description of the terms of the commitment(s). The Offeror shall describe the proposed labor hours and labor categories relating to the performance of the SOW of Key Personnel.

2. **PROPOSAL EVALUATION:** ERDC will conduct an evaluation of the submitted proposal in response to the RFPP to determine if the SOW reflects the requirements developed during the collaboration period between the Government and offeror and the price is fair and reasonable. If both factors are met and the Government's price is available, an award of the proposal may be made. The Government reserves the right to select all, part, or none of the proposal(s) received. The Government reserves the right to hold on to proposals that are not selected for award for potential future award.
3. **AWARD:** The Government intends to award one or more other transaction(s) from this project announcement.

Attachment 1

Entity Qualifications Under Title 10 USC 4022 Other Transaction Agreement

For the purposes of assessing an organization's nontraditional status under the Other Transaction Authority, the definition of a nontraditional defense contractor below only applies if the organization is acting as the prime contractor.

1. Nontraditional Defense Contractor (NDC) Defined:

An entity that is not currently performing and has not performed, for at least the one-year period preceding the solicitation of sources by DoD for the procurement or transaction, any contract or subcontract for the DoD that is subject to full coverage under the cost accounting standards prescribed pursuant to section 1502 of title 41 and the regulations implementing such section (see 10 U.S.C. 2302(9)).

Note: Per the statutory definition, NDCs are all entities that have not performed under a narrowly defined set of circumstances within one year of solicitation of the current OT opportunity. In order for an entity to not qualify for NDC status, it would need to meet all elements of the prescribed definition within that time period. This includes performance of a DoD contract or subcontract subject to full cost accounting standards (CAS) coverage within one year prior to solicitation of the Prototype OT opportunity. The effect of this narrow definition, is that a large number of entities will fall into the NDC category, including nearly all small business concerns, and even those firms that work exclusively with DoD. This is in part due to the exemptions to CAS coverage under 41 U.S.C. § 1502 and FAR Part 30, which exempt commercial contracts, Firm Fixed Price contracts based on adequate price competition, and any contract or subcontract with a small business concern, amongst other exemptions. Further, even where an entity is not outright exempt from CAS coverage, the entity may not have been subject to "full" CAS coverage. This is because full CAS coverage only applies to firms that receive a single CAS-covered contract award of \$50 million or more; or received \$50 million or more in net CAS-covered awards during its preceding cost accounting period.

2. Offerors Certification:

Company Name:

CAGE:

Based on the foregoing definition of a nontraditional defense contractor, I hereby certify that the submitting entity is a (Check one)

- ☐ nontraditional defense contractor or
- ☐ traditional defense contractor**

Signature/Printed Name/Position

Date

**** If the prime offeror is a traditional defense contractor, see page 2**3. Significant Participation**

If the prime offeror is a traditional defense contractor, to qualify for a prototype Other Transaction Agreement award in accordance with 10 U.S.C. 4022, there must be at least one NDC or non-profit research institution participating to a significant extent in the prototype project.

Note: Non-traditional Defense Contractors can be at the prime level, team members, subcontractors, lower- tier vendors, or "intra-company" business units; provided the business is participating to a significant extent (i.e., is a key participant). Examples of what might be considered significant may include, but are not limited to, supplying a new key technology or product(s), accomplishing a significant amount of the effort, or in some other way causing a material reduction in the cost or schedule or increase in performance. Significance is determined by the AO with input from technical advisors for each prototype project.

The following NDC(s) and/or nonprofit research institution(s) will be participating in this prototype project to a significant extent:

a. Company Name:

CAGE:

Specifically address the 'significant participation' this partner will provide:

b. Company Name:

CAGE:

Specifically address the 'significant participation' this partner will provide:

c. Company Name:

CAGE:

Specifically address the 'significant participation' this partner will provide:

Based on the foregoing definition of a nontraditional defense contractor, I hereby certify that the above mentioned companies are NDCs participating to a significant extent.

Signature/Printed Name/Position

Date