ADVANCED RESEARCH ANNOUNCEMENT
FOR THE AIR FORCE RESEARCH LABORATORY

ROCKET SCIENCE AND
TECHNOLOGY DIVISION
AEROSPACE SYSTEMS DIRECTORATE
RESEARCH AND DEVELOPMENT

ADVANCED RESEARCH ANNOUNCEMENT (ARA)

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TABLE OF CONTENTS:

I. PROGRAM DESCRIPTION 5
I-1. Statement of Needs 5
I-2. Deliverable Items 5
I-3. Schedule 13
I-4. Other Information 13
II. AWARD INFORMATION 14
II-1. Anticipated Funding 14
II-2. Anticipated Number of Awards 15
II-3. Anticipated Award Date 15
III. ELIGIBILITY INFORMATION 15
III-1. Eligible Offeror/Applicants 15
III-2. Military Critical Technical Data Agreement 15
III-3. Federally Funded Research and Development Centers 15
III-4. Government Agencies 16
IV. WHITE PAPER AND PROPOSAL PREPARATION/SUBMISSION INFORMATION 16
IV-1. Application Package 16
IV-2. Call Instructions 20
IV-3. Other Instructions 21
IV-4. Amendments 21
IV-5. ARA Guide 21
V. PROPOSAL REVIEW INFORMATION 22
V-1. White Paper Review Information 22
V-2. Review and Selection Process 22
VI. AWARD ADMINISTRATION INFORMATION 22
VI-1. White Paper Process 22
VI-2. Closed Process 22
VI-3. Awarding of Contracts 22
VI-4. Award Notices 23
VI-5. Proposal Categories 23
VI-6. Negotiations 23
VII. AGENCY CONTACTS 23
VII-1. Technical Point of Contact (TPOC) 24

Distribution Statement A: Approved for Public Release; Distribution is Unlimited. PA# AFRL-2025-3769

VII-2. Contracting Points of Contact (CPOC) 24
VII-3 Ombudsmen 24
VIII. OTHER INFORMATION 24
VIII-1. Communication 25
VIII-2. Debriefings 26
VIII-3. Wide Area Workflow Notice 26
VIII-4. Item Identification and Valuation 26
VIII-5. Forward Pricing Rate Agreements 27
VIII-6. Pre-Award Clearance 27
VIII-7. Excessive Pass-Through Charges 27
VIII-8. Post-Award Small Business Program Re-representation 27
VIII-9. System for Award Management Registration 28
VIII-10. Non-Government Advisors 27
VIII-11. Safeguarding Covered Defense Information and Cyber Incident 28
VIII-12. Compliance with Safeguarding Covered Defense Information Controls 23

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ADVANCED RESEARCH ANNOUNCEMENT
FA9300-25-S-6001

NAICS CODE: 541715 – Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology) (Guided Missiles and Space Vehicles, Their Propulsion Units and Propulsion Parts) with a small business size standard of 1,000 employees.

FEDERAL AGENCY NAME: Air Force Research Laboratory, Aerospace Systems Directorate (AFRL/RQ-West).

ADVANCED RESEARCH ANNOUNCEMENT TITLE: ARA

ADVANCED RESEARCH ANNOUNCEMENT TYPE: This is an Advanced Research Announcement (ARA).

ADVANCED RESEARCH ANNOUNCEMENT NUMBER: FA9300-25-S-6001

Solicitation Request: Air Force Research Laboratory, Aerospace Systems Directorate (AFRL/RQ-West) is establishing this open two-step ARA to solicit technology demonstration white papers of interest to the Air Force Research Laboratory research as described below. Potential offerors issuing white papers may be requested to provide a full proposal after white paper reviews. In addition to the white paper process, AFRL may issue calls under this ARA for specific research objectives. Calls issued under this ARA will include instructions to potential offerors, evaluation criteria, and include a common due date for proposals received in response to the call. The ARA will allow for submission of white papers during the open period of the ARA and will provide for specific proposal preparation times and due dates on individual calls identified during the open period of the ARA. White papers should be addressed to the Contracting White Paper Focal Point identified below. This is an unrestricted solicitation. Small businesses are encouraged to respond on all or any part of this solicitation. The NAICS Code for this acquisition is 541715, and the small business size standard is 1,000 employees. White papers/proposals submitted shall be in accordance with this announcement or with any specific calls issued as a part of this announcement. Offerors should remain vigilant for any specific calls or updates related to this ARA.

Communication related to this ARA, including submission of white papers and feedback on this solicitation shall be submitted to the following email address:

White Paper Focal Point*: AFTC.PZRA.BAAs@us.af.mil

Please CC the CPOC listed in VII-2 in all submissions. The Government CPOC will provide a confirmation of receipt for each white paper submitted. Offerors are advised only contracting officers are legally authorized to contractually bind or otherwise commit the Government.

*DO NOT SUBMIT CLASSIFIED INFORMATION TO THE WHITE PAPER FOCAL POINT UNDER ANY CIRCUMSTANCE. IV-1.1.8. lists steps to be taken prior to the submission or handling of classified information.

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Open Period: The AFRL Rocket Lab ARA has an open period of 10 years**.** For ease of reference, this ARA may be republished at a minimum of yearly intervals within the open period but may be updated more frequently dependent on mission requirements.

Type of Contract/Instrument: The Air Force reserves the right to award the instrument best suited to the nature of research proposed. Awards for efforts as a result of this announcement will be in the form of contracts, purchase orders, grants, cooperative agreements or other transactions depending upon the nature of the work proposed. Accordingly, the Government may award any appropriate contract type.

Brief Program Summary: AFRL Rocket Lab ARA is a two-step open ARA with the ability of issuing future calls that enable study efforts on novel concepts, as well as research and development contracts to mature specific technologies to appropriate technology readiness levels (TRL) depending on end use. Specific award details are described below, but the Government anticipates awarding multiple contracts of varying duration and value. However, the maximum single award value issued against this ARA will not exceed $500M. This ARA allows consideration of white papers as well as calls issued by the Government when specific requirements are identified.

Proposals Due Date and Time: White papers must be submitted as described below. Multiple awards are anticipated. The number of resources made available under this ARA will depend on the quality of the white papers and any subsequent proposals received and the availability of funds. White papers may be submitted anytime during the open period. Calls issued by the Government against this ARA will specify a due date when proposals specific to each call are due.

I. RESEARCH TOPIC DESCRIPTION

I-1. Statement of Needs

- **Topic 1 - Ground and Flight Experiments:** Establish, enhance, upgrade, and sustain ground and flight experimental equipment to provide increased reliability, data quality, throughput, and/or to lower overall sustainment and personnel requirements to safely conduct ground and flight experiments. The government is interested in test processes, test equipment/systems, studies & analytical methods, and physical and digital tools used to plan, prepare, configure, verify & validate, rocket test facility and supporting functions. This includes, but is not limited to, a broad range of technologies, advanced tooling, measurement systems, sensors & inspection techniques, improved methods for generating vacuum & altitude environment, including steam generation, modeling & simulation, digital engineering / digital transformation. Proposals should seek to develop innovative technologies for rocket testing and rocket test systems to enhance national defense capabilities through accelerated fielding of tactical missile systems, strategic missile systems, space launch systems, and in-space systems.

- **Topic 2 - Missile System Technologies:** Create and demonstrate innovative technologies or solutions for increasing the effectiveness of missile systems of all sizes and types and at

all stages of the system lifecycle, from conception through sustainment and disposal. Particular technology areas of interest include but are not limited to: physics-based modeling and simulation capabilities to enhance predictive capabilities, quantify and bound uncertainties, and enable simulation of dynamic, off-design responses to aid in system design and qualification; novel materials for missile system components and sub-systems; emerging thermodynamic cycles and combustion concepts that enhance system effectiveness, to include detonation-based cycles; new propellants and propellant processing capabilities, to include liquid, solid, and storable systems; integration and co-design/optimization of payloads, guidance, and propulsion systems; novel manufacturing techniques and automation of manufacturing processes.

- **Topic 3 - Space System Technologies:** Create and demonstrate innovative technologies or solutions for increasing the effectiveness of space systems of all sizes and types and at all stages of the system lifecycle, from conception through sustainment and disposal. This includes, but is not limited to, a broad range of space technologies, different degrees of development efforts, ground and/or space experiments, studies, and modeling and simulation (M&S) capabilities supporting space access, space mobility and logistics; rapid and sustained maneuvering, dynamic space operations, and space-based missile defense. Topic areas of specific interest include: liquid rocket propulsion systems, mono-propellant and bi-propellant thrusters, electric thrusters, space-based solid rocket motors, space-based propulsion systems and supporting components for greater mobility; general space mobility enablers, on-orbit servicing and refueling operations; space launch vehicles, thruster system components, and their interactions with other spacecraft systems; multi-mode and modular propulsion systems; orbit transfer vehicles and supporting propulsion subsystems; payload processing technologies; spacecraft autonomy; plume phenomenology including experimental and/or M&S studies; emerging rocket propulsion technologies that enhance performance, to include technologies contributing to detonation-based engines; advanced fuel and cooling technologies; new propellants and propellant processing capabilities, to include liquid, solid, and storable systems; ignition and relight systems; integration, co-design and optimization of payloads, guidance, and propulsion systems.

- **Topic 4 - Novel Approaches to Mission and Digital Engineering:** Create cross-cutting and multi-functional digital capabilities to enable or enhance the national defense mission across the RDT&E spectrum in support of all mission areas.

  Specific areas of technology to support system design and analysis being sought include design and optimize rocket-based systems in a full system-of-systems, multi-domain, fully-informed framework, applying Digital Engineering capabilities that may include artificial intelligence/machine learning (AI/ML), multi-disciplinary design, analysis and optimization (MDAO), model-based systems engineering (MBSE), tool and workflow automation and parallelization via digital threads, big-data management, assimilation, and analysis, advanced analytic techniques, and cross-domain solutions (CDS). Conduct military utility analysis and assessment via the development and application of live, virtual, and constructive (LVC) simulations, engaging with the warfighter, stakeholders, and the operations research community, automating tools where practical and applying SecDevOps with advanced computational techniques to reduce runtime, enhance teaming, and enable cross-domain data transfer and analytics. Streamline experimental and test operations via

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process improvements, business process modeling notation (BPMN), application of product lifecycle management tools (PLM), and digital twinning. Support the development of virtual testing capabilities for uncertainty quantification, application to hardware and software in the loop (HWIL/SWIL) testing, reduced order modeling (ROM), and data management.

Specific areas of technology to support ground and flight test being sought include model-based systems engineering for developmental rocket test applications; virtual testing capabilities for risk reduction of physical rocket test; rocket test operations enterprise architecture modeling and analysis; automated testing and test management functions; artificial intelligence and machine learning (AI/ML) techniques for data-driven decision making; advanced software applications for extracting sensor and instrumentation data to drive automated test data pipelines; secure networked sensors and devices for Industrial Internet of Things (IIoT) system applications; advanced network communications protocols for integrated control systems at test facilities; multi-level security, cloud-based compute and storage solutions for test applications; secure configuration and data management systems; physics-based modeling, simulation, and analysis tools; 3-D visualization of test assets; high-fidelity digital twins of test equipment, facilities, and infrastructure; predictive maintenance technologies to identify, diagnose, and predict failures or degradation of test equipment and infrastructure; sensor-based algorithms for test equipment and related instrumentation for prognostic health monitoring. The Government is also interested in exploring cutting-edge concepts such as quantum computing applications for test data analysis, augmented reality for test stand training and maintenance, autonomous test stand operations, and AI-integrated test environment simulations.

I-2. Deliverable Items

I-2.1. Contract Data Requirements List (CDRLs): CDRLs may include but are not limited to Status Reports, Scientific and Technical Reports, Performance and Cost Reports and Presentation Material. At a minimum, a final report shall be delivered. Specific CDRL requirements will be identified within a letter request for proposal (RFP), specific calls, or contracts issued under this ARA. If less than unlimited data rights are included in any deliveries, it shall be provided in a separate section.

I-2.2. Scientific and Technical Reports, Final Report: Approval to be based on technical content, including a complete accounting of all activities performed under the technical effort with sufficient detail to allow a follow-on activity to pick up where the technical effort ended and for replication of the results, and format, including compliance with ANSI/NISO Z39.18. The Government will have 30 days to review, edit, and approve/disapprove for technical content and format. The updated final report shall be delivered 30 days after receiving the Government's review. All contracts will require a high-quality final report that includes all the work performed under the contract in its entirety in detail with drawings, models, diagrams, data tables, images of all work and processes, and appendices with detailed drawings and data. The final report will also document all lessons learned and recommendations. Further guidance on the Test/Inspection Report CDRL will be outlined in the associated DD Form 1423.

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I-2.3. Software: Specific software deliverable requirements will be identified within letter RFPs, specific calls, or awards issued under this ARA.

I-2.4. Hardware: Specific hardware deliverable requirements will be identified within letter RFPs, specific calls, or awards issued under this ARA.

1-2.5. Contractor-Acquired Property (CAP): Property acquired or fabricated under this contract and with contract funds shall be considered Government property IAW FAR 52.245-1 Government Property. Delivery of residual contractor-acquired property is required. Delivery is due thirty days after end of technical effort of each contract if residual hardware is developed. The proposal shall include related costs associated with packaging and shipping CAP to AFRL in accordance with specific details in individual contracts.

I-2.6. Other: All other deliverables will be identified within letter RFPs, specific calls, or awards issued under this ARA. Cost reimbursement type contracts awarded under the ARA will include a Not Separately Priced (NSP) CAP Contract Line Item Number (CLIN) in order to provide for disposition of CAP not anticipated at the time of contract award or otherwise not specified for delivery on an existing CLIN.

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I-2.7. Additional Data: Alternate or additional data items that would streamline or enhance the effectiveness of the effort are solicited. Proposals shall show a list of CDRL items included in the price of the proposal. Electronic submission of data items shall be required on all efforts.

I-3. Schedule

Each award is anticipated to be between 6 to 60 months; however, period of performance will be tailored to each award.

I-4. Other Information

I-4.1. Program Security Classification/DD form 254, Operations Security (OPSEC), International Traffic in Arms Regulations (ITAR) 22 CFR 120-130, Export Administration Regulations (EAR) 15 CFR 730-780, and specific Base Support (including network access) will be considered for each award on a case-by-case basis.

I-4.2. Conferences: Offerors should plan for participation in appropriate conferences and workshops in order to present current results. This participation will serve as a mechanism to report current progress to the community.

I-4.3. Government Furnished Property or Information (GFP or GFI): GFP and/or GFI may be available for any individual contract. All offerors are encouraged to engage with an appropriate Government POC to identify possible ways to leverage GFP or GFI. Specific calls may have specific requirements and/or GFP or GFI available. In accordance with FAR 45.201(b), the contractor is responsible for all costs related to making the property available for use, such as payment of all transportation, installation or rehabilitation costs.

I-4.4. Data Rights Desired:

(1) Technical Data: Unlimited Rights
(2) Non-Commercial Software (NCS): Unlimited Rights
(3) NCS Documentation: Unlimited Rights
(4) Commercial Computer Software Rights: Customary License

The Air Force Research Laboratory is engaged in the discovery, development, and integration of warfighting technologies for air, space, and cyberspace forces. As such, rights in technical data and NCS developed or delivered under this ARA are of significant concern to the Government. The Government will therefore carefully consider any restrictions on the use of technical data, NCS, and NCS documentation which could result in transition difficulty or less-than full and open competition for subsequent development of this technology.

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Offerors that propose delivery of technical data, software, NCS, and NCS documentation developed entirely at Government expense are to be delivered with Unlimited Rights.

Technical data, NCS, and NCS documentation developed with mixed funding are expected to be delivered with at least Government Purpose Rights. Offers that propose delivery of technical data, NCS, or NCS documentation subject to Government Purpose Rights should fully explain how the data was developed at private expense. Specifically, offers must explain what technical data, NCS, or NCS documentation developed with costs charged to indirect cost pools and/or costs not allocated to a Government award will be incorporated, how the incorporation will benefit the program, and address whether those portions or processes are segregable.

Offerors that propose delivery of technical data, NCS, or NCS documentation subject to Limited Rights, Restricted Rights, or Specifically Negotiated License Rights will be considered. White papers or proposals submitted in response to individual calls should fully explain what technical data, NCS, or NCS documentation developed with costs charged to indirect cost pools and/or costs not allocated to a Government award will be incorporated and how the incorporation will benefit the program and whether those portions or processes are segregable.

Offerors responding to the letter RFP within the white paper process or to a specific call shall include the data rights assertions as required by DFARS RFO 252.227-7992*,* Identification and Assertion of Use, Release, or Disclosure Restrictions. Assertions must be completed with specificity. Each assertion must identify the data and each such item, component, or process listed. Data rights assertions do not count towards page limits provided within this ARA.

Terms used in this section are defined in the clauses at 252.227-7989, Rights in Technical Data, Computer Software, and Computer Software Documentation—Other Than Commercial Products and Commercial Services, alternate I specifically for commercial software or other than commercial computer software documentation.

Additional information/instruction regarding data rights may be identified in letter RFPs.

I-4.5. Model Contract: A model contract may be provided to prospective offerors with letter RFPs or provided as attachments to specific calls. Model agreements may be provided when a non-FAR based agreement is pursued.

II. AWARD INFORMATION

II-1. Anticipated Funding

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Individual awards are not anticipated to exceed $500M per contract; however, this can be changed at any time. Anticipated funding includes future year funding that has not been appropriated as of the release of this ARA. No award will be made under this solicitation until funds are available by appropriate budging agencies. The Government reserves the right to cancel this solicitation at any time. The Government has no obligation to reimburse an offeror for any costs related to responses to this solicitation (i.e. white papers or proposals).

II-2. Anticipated Number of Awards

The Air Force anticipates awarding multiple awards over the course of this ARA. Calls issued under this ARA may identify the number of anticipated awards specific to each call, subject to the availability of funds.

II-3. Anticipated Award Date

Awards made as a result of a white paper submission are subject to full proposal evaluation, successful negotiation, and funds availability.

III. ELIGIBILITY INFORMATION

III-1. Eligible Offeror/Applicants

This is an unrestricted solicitation. Small businesses are encouraged to propose on all or any part of this solicitation. Foreign persons or foreign-owned firms are precluded from proposing and participating on subsequent awards.

III-2. Military Critical Technical Data Agreement

All offerors shall register and certify with the Defense Logistics Agency (DLA) via the Joint Certification Program (JCP) by accessing online: https://www.dla.mil/Logistics-Operations/Services/JCP/. Contractors that are registered with the DLA must submit a copy of the approved DD Form 2345, Military Critical Technical Data Agreement, with white paper proposals to the CPOC for verification. The DD Form 2345 submission does not count towards page limits provided in this ARA. Offerors must have a Commercial and Government Entity (CAGE) and be registered and current in the System for Award Management (SAM) before applying for JCP certification.

III-3. Federally Funded Research and Development Centers

The following guidance is provided for Federally Funded Research and Development Centers (FFRDCs) contemplating submitting a proposal, as either a prime or subcontractor, against this BAA. RFO 35.403(b)(4) prohibits an FFRDC from competing with any non-FFRDC concern in response to a Federal agency RFP for other than the operation of an FFRDC (with exceptions stated in DFARS RFO 235.403(b)(4)). There is no regulation prohibiting an FFRDC from responding to a solicitation. However, the FFRDC's sponsoring agency must

first make a determination that the effort being proposed falls within the purpose, mission, general scope of effort, or special competency of FFRDC, and that determination must be included in the FFRDC's proposal. In addition, the non-sponsoring agency (in this case AFRL/RQR) must make a determination that the work proposed would not place the FFRDC in direct competition with domestic private industry. Only after these determinations are made would a determination be made concerning the FFRDC's eligibility to receive an award.

III-4. Government Agencies

If a Government agency is interested in performing work, contact the Program Office identified in the ARA. If those discussions result in a mutual interest to pursue agency's participation, the effort may be pursued independent of this announcement.

IV. WHITE PAPER AND PROPOSAL PREPARATION/SUBMISSION INFORMATION

IV-1. Application Package

This announcement is an open two-step ARA, which includes possible awards to white paper submissions. White papers shall be submitted in accordance with this announcement or associated call. The Government will review white papers received. The Government may select white papers for further consideration and award some, all, or none of the work described within the white paper received. Negotiations may/may not occur after a full proposal is received in response to a white paper submission.

IV-1.1. White Paper Instructions:

IV-1.1.1. General: A white paper shall include discussion of the nature and scope of the research, the offeror's proposed technical approach, and a rough order of magnitude (ROM) cost. The Government will review the white papers in accordance with the review criteria, set forth in Section V. Based on this review, the Government will determine which have the potential to best meet the Air Force's needs. Offerors may be notified of the disposition of their white paper. White papers will be kept for up to two years (para. V-2.1) Those offerors submitting white papers assessed as meeting Air Force needs will be asked to submit a technical and cost proposal. The cost of preparing white papers in response to this announcement is not considered an allowable direct charge to any resulting or any other award; however, it may be an allowable expense to the normal bid and proposal indirect cost as specified in RFO 31.205-18. White papers may be ineligible for further award consideration if all requirements of this solicitation are not met.

IV-1.1.2. Page Limitations:

IV-1.1.2.1. The white paper shall be limited to five (5) pages, prepared and submitted in .pdf format. The white paper shall be legible, use a

standard business font no smaller than 10-point, character spacing must be "normal" not condensed in any manner, and pages should be double-spaced (each side counts as one page), 8.5 by 11 inches, with at least one-inch margins on both sides, top and bottom. Contractors who submit white papers that are not legible will be asked to resubmit a legible white paper in order to be considered for the award.

IV-1.1.2.2. Lines between text lines should be the same font size as the text lines. All text, including text in tables and charts, should 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, although any text on these items must be legible.

IV-1.1.2.3. Pages should be numbered starting with the title page being Page 1. The page limitation covers all information including indices, photographs, foldouts (counted as one page for each 8.5 by 11 portion) tables, charts, appendices, attachments, resumes, etc. The Government will not consider pages in excess of these limitations. Offerors should submit one (1) electronic copy of the white paper to the CPOC, identified in Section VII-2.

IV-1.1.3. Format: The white paper shall be formatted as follows:

- Section A (Title Page): Title of Program, identification of the technology area the white paper is being submitted under (see para. I-1 above for a list of technology areas within this ARA), Name of Company, Company's Commercial and Government Entity (CAGE) number, System for Award Management Unique Entity ID (SAM UEI), Contractor's Contracting POC and Technical POC with appropriate telephone numbers, fax numbers, and email addresses for the POCs, confirmation of whether the company would like to participate in the interested contractor capability repository (see para. IV-6);
- Section B: Period of Performance and Task Objectives;
- Section C: Technical Summary and Proposed Deliverables; and
- Section D: Estimated cost of program.

IV-1.1.4. Title Page: Single page, self-explanatory. See attached Title Page form as a tool to be used in white paper submissions. The title page does not count towards the page count described in para. IV-1.1.2.1. above.

IV-1.1.5. Period of Performance and Task Objectives: Dates on proposed program shall be stated simply and obviously. Tasks shall be written

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as a summary, preferably with task titles and supporting bullets defining the task. Task names/numbering shall be consistent throughout the proposal for clarity.

IV-1.1.6. Technical Summary and Proposed Deliverables: The technical portion of the white paper shall include a discussion of the nature and scope of the research and the offeror's proposed technical approach/solution. It may also include any proposed deliverables. Resumes, descriptions of facilities and equipment, and a proposed Statement of Work (SOW) are not required within the white paper.

IV-1.1.7. Cost Portion: The cost portion of the white paper shall include a rough-order-of-magnitude cost estimate. No detailed price or cost support information should be forwarded; only a time-phased bottom line figure of the major tasks should be provided.

IV-1.1.8. Other Information: Multiple white papers within the purview of this announcement may be submitted by each offeror. If the offeror wishes to restrict its white papers, they must be marked with the restrictive language stated in RFO 52.215-1(e).

Offerors are asked to contact the CPOC, prior to submitting any white papers that are classified in nature, for handling instructions.

IV-1.2. Proposal Instructions:

IV-1.2.1. General: Notification from the government of interest in the submitted white paper will take the form of a letter Request for Proposal (RFP)/solicitation/application. This letter will identify the required proposal content (e.g., technical section, cost section, etc.). At a minimum the Government will evaluate responses to the letter for technical and cost/price criteria. Additional criteria may be required in order to adequately evaluate an offeror's proposed approach (e.g., management criteria, past performance, etc.) and will be described in the letter. In addition to content, the letter will identify other instructions such as the proposal due date, format, and submission method. Offerors are advised only contracting officers/agreements officers are legally authorized to contractually bind or otherwise commit the Government. The cost of preparing a response to the letter is not considered an allowable direct charge to any resulting or any other award; however, it may be an allowable expense to the normal bid and proposal indirect cost as specified in FAR 31.205-18.

IV-1.2.2. Statement of Work (SOW): Each response to a letter RFP/solicitation/application will include a non-proprietary version

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of the SOW. The SOW shall contain a summary description of the technical methodology as well as detailed task descriptions. Offerors are cautioned to include only the essential information for a clear, logical, and reasonable SOW. This document will be made part of any resulting award. **Do not include any proprietary information in the SOW.** The SOW section structure below is based on the SOW description in the ARA Guide for Industry referenced in para. Part I-V of the ARA; offerors should refer to that document for more information. All subsections of the SOW are to be numbered in outline form according to the number of the main section (i.e. 1.1, 1.2, 1.2.1.1, 1.2.1.2, etc.).

1.0 BACKGROUND

The background information should identify the requirement in very general terms; describe why the project is being pursued, and how it relates to other projects. Summarize any statutory authority or regulations affecting the overall requirement.

2.0 SCOPE

This section should provide a brief statement of what the offeror expects to accomplish under the award — the breadth and limitations of the effort. It should not include specific work tasks or a description of deliverable products since this will be included in the "Tasks" section.

3.0 OBJECTIVES

This section should provide a concise overview of the effort goals and objectives; and how the results or end products will be used.

4.0 TASKS/TECHNICAL REQUIREMENTS

This section defines the tasks that the contractor or recipient shall complete during performance of the effort and would have a task description for each step of the Work Breakdown Schedule (WBS). The description of task requirements will depend on the approach that is selected to describe the required effort. Tasks shall be detailed to a WBS-third-level equivalent to give reviewers sufficient detail to evaluation work and costs.

5.0 DELIVERABLES

This section should clearly state all deliverables including CDRLs and material.

6.0 PERIOD OF PERFORMANCE

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The period of performance shall be clearly stated using in units of months after contract award. Milestones shall be stated as a number of months after award. These milestones shall include the end of technical effort and end of the period of performance of the effort.

IV-1.2.3. Guidelines for Submission of Other than Cost or Pricing Data: The contracting officer has anticipated that adequate price competition (APC) does not exist when considering award of a research effort based on receipt of a white paper. Offerors will be requested to submit in its proposal information described in RFO 15.403-3, Instructions for Submission of Certified Cost or Pricing Data and Data Other Than Certified Cost or Pricing Data, if applicable. This information will be used to support price reasonableness and cost realism. The agreements officer may ask for enough detail to determine the non- FAR based award to be fair and reasonable.

IV-1.2.4. Proposal Validity Period: Offerors must state, on the cover page of each volume of their proposal, that their proposal is valid for at least 180 days from submission. Any proposal received that does not include this information in the specified location will be assumed valid for 360 days from the submission date. Proposals submitted shall be in accordance with this announcement and any subsequent call.

IV-2. Call Instructions

Calls issued under this ARA will identify specific proposal instructions. Information may include but is not limited to anticipated funding, number of awards, award date, and data rights instruction. Contractors that are registered with the DLA must submit a copy of the approved DD Form 2345, Military Critical Technical Data Agreement in response to a call to the (CPOC) for verification.

IV-2.1. Call Review Information

The Government will define the evaluation criteria within each call. Each call shall, at a minimum, contain technical and price/cost evaluation criteria.

IV-2.2. Call Review and Selection

Proposals will be evaluated in accordance with evaluation criteria identified in each call. After evaluation, proposals will be categorized as identified in ARA section VI-5 and funding selection will occur. This marks the end of the proposal evaluation period. The Government reserves the right to enter into negotiations with those companies selected for award in order to arrive at a final fair and reasonable price.

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IV-3. Other Instructions

All offerors must comply with all provisions of RFO 52.215-1 "Instructions to Offerors – Competitive Acquisitions." Proposals should be marked in accordance with RFO 52.215-1(e). A copy of this provision is available from acquisition.gov. Properly marked proprietary information will be treated in accordance with DFARS RFO 252.227-7991, Rights in Bid or Proposal Information. Proposals must reference the ARA announcement number. **Offerors are advised that only contracting officers are legally authorized to contractually bind or otherwise commit the Government.**

IV-4. Amendments

Offerors should be alert for any ARA amendments to this announcement or any subsequent calls. Any additional information will be posted on the Government Wide Point of Entry (i.e. the Federal Business Opportunities website, SAM.gov) and awareness of any change is the offeror's responsibility.

IV-5. Capability Repository

A capability statement repository will be kept as an attachment to the ARA. This is meant to encourage teaming and provide a tool for subcontracting opportunities. Offerors may upload a maximum 1 page, 12 font, Times New Roman, capabilities statement document that includes their company name, Cage Code/SAM UEI number, size considering the NAICS 541715 (1,000 employees), socioeconomic status (e.g., Historically Underutilized Business Zone, Service Disabled Veteran-Owned, Economically Disadvantaged Women Owned, etc.), and a POC along with a brief description of their company capabilities. No classified or proprietary information shall be included in the information provided to the government as this statement will be posted with the ARA and will be accessible to the public. Offerors are solely responsible for information provided for this subcontractor capability repository and providing any documents implies voluntary acceptance of any liability associated therein. This can be submitted along with white papers or separately from white papers. This submission does not count against page limitations established in para. IV-1.1.2. The list will be updated on SAM.gov at least quarterly. Participation is completely voluntary. This list will not be used as consideration for award decisions made under this ARA.

IV-6. Highest Security Classification

Some areas, or specific calls, associated with the ARA may require access to classified information up to and including Top Secret, Sensitive Compartmented Information (TS/SCI). A DD254 will be considered before awarding any contract under this ARA.

Distribution Statement A: Approved for Public Release; Distribution is Unlimited. PA# AFRL-2025-3769

V. PROPOSAL REVIEW INFORMATION

V-1. White Paper Review Information

The Government will review white papers to determine which of them have the potential to best meet the Air Force's needs based on the following relative criteria:

V-1.1. Is the technical approach consistent with the technologies listed in para. I-1. of this ARA, specifically with the technology topic cited on the title page of the white paper?

V-1.2. Is the research of interest to the Government?

V-1.3. Is appropriate funding available?

V-2. Review and Selection Process

V-2.1. White Paper Review and Selection

The Government may award all, some, or none of the submitted white papers. White papers that are reviewed will be reviewed IAW para. V-1 above, and when appropriate funding is available, may be selected for award. Prospective offerors selected for award will receive a letter RFP/solicitation/application IAW para. IV-1.2. above at which time the Government reserves the right to enter into negotiations IAW para. VI-6 below. All other white papers will be kept for up to two years after receipt. Awards will not be made under this ARA beyond the open period defined above.

VI. AWARD ADMINISTRATION INFORMATION

VI-1. White Paper Process

This process is used to request full technical and cost proposals following receipt of a white paper IAW para IV above. The proposals are evaluated in accordance with the solicitation criteria identified above.

VI-2. Closed Process

This approach allows for proposal submittals at a specified date and time as set forth in this ARA. Late proposal provisions (IAW FAR RFO 52.215-1(c)) will be included in the individual calls.

VI-3. Awards

The Government intends to review white papers, evaluate proposals, and award contracts, purchase orders, grants, cooperative agreements or other transactions. Awards may be issued on all, part, or none of the scope of proposals received without

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negotiations/discussions; however, the Government reserves the right to negotiate with offeror(s) whose proposal(s) is(are) selected for funding.

VI-4. Award Notices

Offerors will be notified whether their proposal (i.e., a proposal in response to letter RFP or provided in response to a call) is recommended for award by e-mail. The notification is not to be construed to mean the award of a contract is assured, as availability of funds and if necessary, successful negotiations are prerequisites to any award.

VI-5. Proposal Categories

The following proposal categories will be used during evaluations conducted after receipt of proposals in response to a call.

VI-5.1. Highly Recommended: Proposals are recommended for acceptance if sufficient funding is available, and normally are displaced only by other Highly Recommended proposals.

VI-5.2. Selectable: Proposals are recommended for acceptance if sufficient funding is available but at a lower priority than Highly Recommended proposals. These proposals may require additional development. To ensure a diversity of approaches, a Selectable proposal may be prioritized over a Highly Recommended proposal if the Selectable proposal presents a unique approach unlike any of the Highly Recommended proposals.

VI-5.3. Not Selectable: Proposals determined Not Selectable are not recommended for award.

VI-5.4. The Government reserves the right to award some, all, or none of proposals received in response to this ARA. When the Government elects to award only part of a proposal, the selected party may be categorized as Highly Recommended or Selectable, though the proposal as a whole may not merit such a categorization.

VI-6. Negotiations

After the evaluation process is complete, the Government may enter into negotiations with companies selected for funding. Award will be contingent upon successful negotiations. The Government reserves the right to discontinue negotiations with any contractor should the parties fail to reach agreement on contract terms, conditions or cost/price within a reasonable time.

VII. ARA AGENCY CONTACTS

Any correspondence must reference the ARA title and number. E-mail correspondence is preferred over all other methods.

Distribution Statement A: Approved for Public Release; Distribution is Unlimited. PA# AFRL-2025-3769

VII-1. Technical Points of Contact (TPOC)

Questions of a technical nature shall be directed to the TPOC, as specified below:

Name:	Mr. James Singleton
Address:	AFRL/RQRI 5 Pollux Drive Edwards AFB, CA 93524
Telephone:	661-275-5907
Email:	james.singleton.7@us.af.mil

VII-2. Contracting Points of Contact (CPOC)

Questions of a contractual/business nature shall be directed to the contracting office, as specified below:

Contracting Officer:

Name:	Ms. Alessandra Barzaghi-Martin
Address:	AFTC/PZRA 5 South Wolfe Avenue, Bldg. 2800 Edwards AFB, CA 93524
Telephone:	661-277-0987
Email:	alessandra.barzaghi-martin@us.af.mil

VII-3 Ombudsmen

An Ombudsman has been appointed to hear and facilitate the resolution of concerns from offerors, potential offerors, and others for this acquisition announcement. Before consulting with an ombudsman, interested parties must first address their concerns, issues, disagreements, and/or recommendations to the contracting officer listed above for resolution. The Ombudsman for Edwards AFB will be incorporated into all contracts awarded under this ARA. The Ombudsman is as follows:

AFTC Vice Commander
1 South Rosamond Blvd
Edwards AFB, CA 93524-3784
Phone: 661-277-2810 / Fax: 661-277-7593
E-mail: aftc.workflow@us.af.mil

VIII. OTHER INFORMATION

Distribution Statement A: Approved for Public Release; Distribution is Unlimited. PA# AFRL-2025-3769

VIII-1. Communication

VIII-1.1. General

All communication related to this solicitation shall include the CPOC identified in VII-2. Dialogue between prospective offerors and Government representatives is encouraged until submission of full proposals either in response to a letter RFP/solicitation/application via the white paper process or in response to a call. E-mail communication is highly encouraged. Discussions with any of the points of contact shall not constitute a commitment by the Government to subsequently fund or award any proposed effort. Only contracting officers/agreements officers are legally authorized to commit the Government.

VIII-1.2. Communication Guidelines

In any communication with government acquisition team member points of contact, the following guidelines apply.

VIII-1.2.1. The Government cannot attempt to replace the contractor's original ideas with their own ideas or the program office's preferred approach.

VIII-1.2.2. The Government will not share ideas or technical solutions provided in conversations, white papers, or proposals to a competing offeror or anyone outside of the government acquisition team.

VIII-1.2.3. If an offeror is provided with information that expands, contradicts, retracts, or otherwise changes a topic contained in the published announcement, this same information must be made publicly available to all potential offerors in a Questions and Answers document and/or an amendment to the ARA.

VIII-1.2.5. In addition to the above, the following guidelines apply for one-on-one communications with program management (PM) points of contact.

VIII-1.2.5.1. The PM may discuss whether a contractor or recipient is "on-track" and/or consistent with the needs of the Air Force. However, while the contractor may be viewed as "on-track" it is in no way intended to imply the contractor or recipient will be awarded a contract.

VIII-1.2.5.2. Any one-on-one communications are not viewed as pre-screening processes. Any discussion related to an offeror's proposed approach is not to be considered a pre-approval.

VIII-1.2.5.3. The PM cannot address individual proposal elements, e.g., subcontractors, materials, labor hours, etc.

VIII-1.2.5.4. Notwithstanding anything discussed during a one-on-one communication all terms and conditions of the ARA remain unchanged unless and until an amendment is issued by the Contracting Officer.

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VIII-2. Debriefings

When requested, a debriefing will be provided for full submitted proposals (i.e., in response to a letter RFP or a call). The debriefing process will follow the guidelines IAW FAR RFO 35.201(b). Feedback may be requested on white paper submissions.

VIII-3. Wide Area Workflow Notice

Any contract award resulting from this announcement will contain the clause at DFARS RFO 252.232-7003, Electronic Submission of Payment Requests and Receiving Reports, which requires electronic submission of all payment requests. Any contract resulting from this announcement will establish a requirement to use Wide Area Workflow (WAWF) via https://wawf.eb.mil/. Contractors are encouraged to take advantage of available training (both web-based and through your cognizant DCMA office) and to register in the WAWF system.

Note: The WAWF requirement does not apply to Universities that are audited by an agency other than DCAA.

Non-FAR based awards will include similar language leveraging WAWF resources for payment.

VIII-4. Item Identification and Valuation

Any contract award resulting from this announcement may contain the clause at DFARS RFO 252.211-7003, Item Identification and Valuation, which requires unique item identification and valuation of any deliverable item for which the Government's unit acquisition cost is $5,000 or more; subassemblies, components, and parts embedded within an item valued at $5,000 or more; or items for which the Government's unit acquisition cost is less than $5,000 when determined necessary by the requiring activity for serially managed, mission essential, or controlled inventory. Also included are any DoD serially managed subassembly, component, or part embedded within a delivered item and the parent item that contains the embedded subassembly, component, or part. Per DFARS RFO 211.274 policy for valuation, it is DoD policy that contractors shall be required to identify the Government's unit acquisition cost for all items delivered, even if none of the criteria for placing a unique item identification mark applies. Therefore, the proposal must clearly break out the unit acquisition cost for any deliverable items. Per DFARS RFO 211.274-3 policy for valuation, "the Government's unit acquisition cost is the contractor's estimated fully burdened unit cost at time of delivery to the Government for cost type or undefinitized line, subline, or exhibit line items" (per DoD, "fully burdened unit costs" to the Government would include all Direct, Indirect, G&A costs, and an appropriate portion of fee). Any

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questions regarding the unique item identification requirements can be directed to the CPOC listed above. For more information, visit https://www.acq.osd.mil/asda/dpc/ce/ds/unique-id.html.

VIII-5. Forward Pricing Rate Agreements

Offerors who have Forward Pricing Rate Agreements (FPRA's) and Forward Pricing Rate Recommendations (FPRR's) shall submit them with their proposal.

VIII-6. Pre-Award Clearance

Reserved

VIII-7. Excessive Pass-Through Charges

Any contract award resulting from this announcement may contain the clause at RFO 52.215-23, Limitations on Pass – Through Charges which requires the contractor to identify in its proposal the percentage of effort to be performed by the prime contractor and the percentage expected to be performed by each subcontractor. If the contractor intends to subcontract more than 70% of the total cost of work under the contract, then it shall identify the amount of the contractor's indirect costs and profit applicable to the subcontract work and a description of the value added by the contractor. If any subcontractor intends to subcontract to a lower tier subcontractor more than 70% of the total cost of its work, then it shall identify the amount of the subcontractor's indirect costs and profit applicable to the lower tier subcontract work and a description of the value added by the subcontractor.

VIII-8. Post-Award Small Business Program Re-representation

As prescribed in RFO 19.308, RFO Clause 52.219-28, Post-Award Small Business Program Re-representation, will be incorporated by reference in this solicitation. This clause will be contained in any contracts resulting from this solicitation. This clause requires a contractor to re-represent its size status when certain conditions apply. The clause provides detail on when the re-representation must be complete and what the contractor must do when a re-representation is required.

Distribution Statement A: Approved for Public Release; Distribution is Unlimited. PA# AFRL-2025-3769

VIII-9. System for Award Management Registration

RFO 52.204-7, System for Award Management (SAM) and DFARS RFO 252.204-7998, Alternate A, Annual Representations and Certifications are included by reference. SAM is the primary Government repository for prospective federal awardee information and the centralized Government system for certain contracting, grants, and other assistance related processes. By submission of an offer, the offeror acknowledges the requirement that a prospective awardee shall be registered in the SAM database prior to award, during performance, and through final payment of any contract, basic agreement, basic ordering agreement, or blanket purchasing agreement resulting from this solicitation. Contractors may obtain information on registration and annual confirmation requirements via SAM accessed through https://sam.gov/about/contact or by calling 866-606-8220.

VIII-10. Non-Government Advisors

Offerors are advised that data submitted to the Government in response to this solicitation may be released to individuals who work for the following:

Sierra Lobo, Inc.
ASRC Federal Systems Solutions LLC
Jacobs Technology, Inc./Amentum
Exquadrum, Inc.

The companies listed above may have access to the submissions for both administrative purposes and to act as non-Government advisors. Offerors not wishing to have their submission released to companies listed above must notify the CPOC listed in VII-2 above before submission.

VIII-11. Safeguarding Covered Defense Information and Cyber Incident

DFARS RFO clause 252.204-7009 is likely to be included in each award issued as a result of this ARA. Therefore, DFARS RFO clause 252.204-7012 will also be incorporated into this ARA. Non- FAR based awards may include similar language to the clause referenced in this para. The DoD Assessment Requirements required by contract clause 252.240-7997 must be incorporated into the award.

VIII-12. Compliance with Safeguarding Covered Defense Information Controls

As prescribed in DFARS 204.7304(a), DFARS RFO Provision 252.204-7008 Compliance with Safeguarding Covered Defense Information Controls (Oct 2016) is incorporatedby reference. The security requirements required by contract clause 252.204-7012 shall be implemented for all covered defense information on all covered contractor information systems that support the performance of any contracts resulting from this solicitation.

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