BROAD AGENCY ANNOUNCEMENT
(BAA) FA8651-25-S-0001

FEDERAL AGENCY NAME:
Air Force Research Laboratory, Munitions Directorate
101 W. Eglin Blvd
Eglin AFB, FL 32542-6810

BROAD AGENCY ANNOUNCEMENT (BAA) TITLE: Air Dominance

BAA NUMBER: FA8651-25-S-0001, Update 2 provided 10 Apr 2025

Summary of Changes: *S&T Protection information updated and incorporated into Section VIII; Section XI was updated to incorporate provisions from the Section K document previously included with the BAA.*

BAA TYPE: Initial Announcement

CATALOG OF FEDERAL DOMESTIC ASSISTANCE (CFDA) NUMBER(S): 12.800 Air Force Defense Research Sciences Program

WHITE PAPER DUE DATE AND TIME: This BAA will remain open 5 years from the BAA posting date or until amended or superseded. It may be reissued and/or amended periodically, as needed. This BAA is set up in two parts: (1) Basic Open BAA, in which white papers may be submitted at any time during the open period, and (2) Call BAA, in which white paper/proposal Call announcements may be issued by the Government in sam.gov and grants.gov under FA8651-25-S-0001. This BAA is intended to cover predominantly Applied Research (6.2), Advanced Technology Development (6.3), and Advanced Component Development & Prototypes (6.4). The R&D efforts will translate basic research into solutions for broadly defined needs, design and develop state-of-the-art solutions (components and systems) pointed toward projected needs and evaluate potential for new operational capabilities. For these white papers, it is recommended prior to submission, each submitter consult with the technical Point of Contract (POC) to discuss the topic of interest. The two parts of this BAA are explained in greater detail in separate sections below. White papers may be submitted at any time during the open period to afrl.rwk.baaworkflow@us.af.mil in accordance with the instructions described further below. ***NOTE*:** Each white paper submittal shall include any anticipated data rights and restrictions as outlined in FAR Part 27 and applicable supplements. Each white paper shall include the data assertions per DFARS 252.227-7017 Identification and Assertion of Use, Release, or Disclosure Restrictions.

TWO-STEP OPEN BAA: OTHER THAN WHITE PAPERS, NO PROPOSALS SHALL BE SUBMITTED AGAINST THIS OPEN BAA. A request for proposal (RFP) will be issued by the Contracting Officer (CO) if white paper is favorably evaluated against the criteria. Due dates and times will be specified in each RFP issued by the CO in accordance with the instructions for proposals in response to white papers provided in this document. There will be no other announcement issued for this requirement. Offerors should monitor the Contract Opportunities websites https://sam.gov/content/home and https://www.grants.gov/ in the event this

announcement is amended. Oral proposals may be requested on a case-by-case basis. It is anticipated that the cumulative amount for awards issued under this BAA will not exceed $750,000,000.

TWO-STEP BAA WITH CALLS: Periodically over the period of this BAA, proposal Call announcements (Calls) may be issued in sam.gov under FA8651-25-S-0001 to request white paper/proposals for specific research areas. Proposals in response to the Calls will be accepted as specified in the individual Calls and evaluated in accordance with the instructions further below. Offerors should monitor the Contract Opportunities website at https://sam.gov/content/home and https://www.grants.gov/ in the event this announcement is amended or Calls are issued.

PROGRAM DESCRIPTION

1. STATEMENT OF OBJECTIVES

a. This is a BAA of the Air Force Research Laboratory, Munitions Directorate (AFRL/RW) under the provisions of Federal Acquisition Regulation (FAR) paragraph 6.102(d)(2), which provides for competitive selection of research proposals. Proposals submitted in response to the BAA that are selected for award are considered to be the results of full and open competition and in full compliance with the provisions of PL 98-369, the Competition in Contracting Act of 1984. This acquisition is unrestricted. Small businesses are encouraged to propose on all or any part of this solicitation. The NAICS Code for this acquisition is 541715, Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology), and the small business size standard is 1,000 employees. For purposes of this announcement, research is defined to be scientific study and experimentation directed at increasing knowledge and understanding in relation to long term national security needs. It is an enhancement to related exploratory and advanced development programs. A program should be designed to demonstrate well-defined and substantive research results, should not be overly ambitious or open-ended, and should not be a paper study that inherently requires a substantial testing effort. Any significant testing is unlikely; however, there is a possibility of experimental testing to support battle lab experiments proposed under this BAA. Programs to support Team Eglin Technology Demonstration Programs may also be considered under this BAA.

b. AFRL/RW awards to educational institutions, non-profit organizations, and private industry for research in Air Dominance. This BAA is intended to cover, in general nature, all research areas of interest under this Directorate. Offerors contemplating a submission to AFRL/RW are strongly encouraged to contact the AFRL/RW technical POC for the research area to ascertain the extent of interest AFRL/RW may have in a specific research project.

c. AFRL/RW is the primary Department of the Air Force (DAF) organization concerned with conventional munitions technology development. AFRL/RW plans and executes research, development, and test of conventional munitions, and supports conventional munitions Weapons Program Offices. There are three product

divisions within the Munitions Directorate that conduct research and development (R&D). They are the Technology Integration Division (RWI), Strategy Division (RWS), and Science and Technology Division (RWT).

2. DELIVERABLE ITEMS:

a. Data Items are to be determined for each individual award. However, at a minimum the following reports are anticipated to be required:

1) Final Report

2) Funds and Man-hour Reports (Cost contracts only)

3) Status Reports: Reports are anticipated to be required monthly for Contracts and quarterly for Assistance Instruments

4) Hardware: Deliverables to be determined based on each award

5) Other: Interim Reports and Presentation Materials

3. OTHER REQUIREMENTS:

a. The announcement incorporates FAR and supplemental provisions and clauses by references. For Contracts, the full text of provisional and clauses can be found at https://www.acquisition.gov/. For Grants and Agreements, the full text articles can be found at https://www.onr.navy.mil/work-with-us/manage-your-award/manage-grant-award/grants-terms-conditions.

b. This effort may require a SECRET facility clearance and SECRET safeguarding capability. Offerors must verify their Cognizant Security Office information is current with Defense Security Service (DSS) at https://www.dcsa.mil/.

c. Export Control: Information involved in this research effort may be subject to Export Control (International Traffic in Arms Regulation (ITAR) 22 CFR 120-131, or Export Administration Regulations (EAR) 15 CFR 710-774). If an effort is subject to export control, then certified DD Form 2345, Militarily Critical Technical Data Agreement, will be required to be submitted with the proposal.

d. Export Controlled Items: As prescribed by DFARS 225-7901-4, DFARS 252.225-7048, Export-Controlled Item (JUNE 2013) shall be contained in all resulting contracts.

4. OTHER INFORMATION:

a. Base Support/Network Access: If a contractor determines use of available base support to be in their best interest, it must be included as such in the proposal. Use of available base support will not be assumed during technical evaluation unless

proposed.

b. In accordance with AFRL/CC Policy on Employment of Non-US Citizen Contractors dated 4 October 2016, Contractor employees requiring access to USAF bases, AFRL facilities, and/or access to U.S. Government Information Technology networks in connection with the work on this BAA must be U.S. Citizens. Possession of a permanent resident card ("Green Card") does not equate to U.S. Citizenship. This requirement does not apply to foreign nationals approved by the U.S. Department of Defense or U.S. State Department under international personnel exchange agreements with foreign governments. Any waivers to this requirement will be granted in writing by the CO prior to providing access. The above requirements are in addition to any other contract requirements related to obtaining a Common Access Card (CAC).

c. Multiple awards subject to Fair Opportunity are not anticipated.

d. Human subjects may be used in the research studies under this effort. DFARS 252.235-7004, Protection of Human Subjects (Jul 2009), will be included in all contracts awarded under this BAA.

e. 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

f. The Air Force Research Laboratory is engaged in the discovery, development, and integration of warfighting technologies for our air, space, and cyberspace forces. As such, rights in technical data and NCS developed or delivered under this contract 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. In exchange for paying for development of the data, the Government expects technical data, NCS, and NCS documentation developed entirely at Government expense to be delivered with Unlimited Rights.

g. 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 were 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 contract will be incorporated, how the

incorporation will benefit the program, and whether those portions or processes are segregable.

h. Offers that propose delivery of technical data, NCS, or NCS documentation subject to Limited Rights, Restricted Rights, or Specifically Negotiated License Rights will be considered. Proposals 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 contract will be incorporated and how the incorporation will benefit the program and whether those portions or processes are segregable.

i. Offerors SHALL provide data rights/software assertions, as part of their proposal submittal, as required by DFARS 252.227-7017, Identification and Assertion of Use, Release, or Disclosure Restrictions (Jan 2023). Assertions must be completed with specificity. Each assertion must identify both the data/software, and each such item, component, or process listed. Nonconforming assertions will be rejected and will require resubmittal.

j. Terms used in this section are defined in the clauses at DFARS 252.227-7013, Rights in Technical Data–Noncommercial Items (Mar 2023) and 252.227-7014, Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation (Mar 2023).

5. THIRD PARTY SOFTWARE (COMMERCIAL AND NONCOMMERICAL):

a. DFARS 252.227-7014(d) describes requirements for incorporation of third-party computer software. Any third-party software (commercial or noncommercial) to be incorporated into a deliverable must be clearly identified in the proposal. Prior to delivery of any third-party software, the contractor will obtain an appropriate license for the Government, and the written approval of the CO.

b. Any third-party software to be delivered to the Government that is not reasonably identifiable at proposal submission, must still be approved by the CO prior to incorporation into a system deliverable. This obligation to obtain pre-approval by the CO, as described above, continues throughout contract administration.

c. The Government will neither accept nor execute a DD Form 250 for the software deliverables until the Contractor obtains from all third-party software suppliers and/or vendors (Licensor) licenses that comply with the following terms and conditions for the Government (Licensee):

    1) The license shall not subject the Government to liability that is indefinite, such as an indemnification clause, as it would constitute an obligation in advance or in excess of an appropriation and violate the Anti-Deficiency Act.

    2) The license shall not create a contingent liability for the Government. This

includes, but is not limited to: unilateral price increases, automatic assessment of charges, and automatic renewal of the license.

3) The license shall be governed by Federal Statutes, Case Law, and Federal Regulations, and shall not be subject to the laws or jurisdiction of any municipality, state, or foreign country.

4) The license shall not include non-substitution language that would preclude or limit the Government from using another vendor/reseller and/or product to fulfill Government requirements.

5) The license shall not comment an entitlement to attorney fees.

6) The Licensor shall not have the authority to unilaterally terminate the license. All remedies available shall be consistent with the Disputes Clause in the contract.

7) The Licensor shall not have the right to enter the premise or monitor the networks of Licensee for the purpose of auditing the use of the license.

8) The Licensor shall not use any injunctive relief clauses as the Licensor cannot prevent the Licensee from performing mission operations.

9) The Licensor shall not have the authority to control any litigation between a third party and Licensee.

10) The Licensor shall not use the fact that the Licensee is using the Licensor's products in any notification to the public (e.g., no publicity rights permitted).

d. The Contractor may be required to obtain licenses that comply with the following terms and conditions, based on the Government's needs:

1) The license shall not disclaim all warranties through use of an "as is" provision.

2) The license shall neither restrict the Government from using the product at various sites nor limit use of the product by various Government agencies or third parties performing work on behalf of the Department of the Air Force under this Air Dominance BAA. In performance of contracts resulting from this Air Dominance BAA, Government personnel as well as Government contractors may use the software.

3) The license shall not limit the Government's use of the software at other Government and Government contractor sites.

4) The license shall not require automatic updates or give Licensor the authority to unilaterally replace the software.

5) The Licensee shall not be restricted from copying or embedding elements of accessible code into other applications (e.g., nesting code, derivative works).

6) The Contractor may obtain agreement from the Licensor to insert the clause below to its respective software licenses intended to be transferred to the Government:

"In the event that any of the provisions of the [Software License] are determined to be inconsistent with Federal law and/or do not otherwise satisfy the Government's needs, the parties to the [Software License] hereby agree that such provisions shall be null and void as they pertain to the Government. Specifically, the following sections are hereby deleted from the [Software License] [and/or amended as indicated below]:

If the Licensor will not agree to the terms and conditions cited herein and/or as contained in DFARS 227.72, the Contractor shall retain the current license on behalf of and for the benefit of the US Government if permissible under its license and such use will not subject the Government to the terms of the license."

7) The Contractor shall provide documentation to clearly correlate or map software license(s) to:

i. Contract Line Item Numbers (CLINs);

ii. Contract Deliverables per the Contract Data Requirements List (CDRL);

iii. Paragraphs in the Statement of Work (SOW) and Statement of Objectives (SOO)

iv. Portions of any functional block diagrams and/or system architecture diagrams, so that it can be readily determined where certain commercial software corresponding to certain software license agreement(s) are physically located on the system to be delivered under the contract.

II. MUNITIONS DIRECTORATE DIVISIONS

TECHNOLOGY INTEGRATION DIVISION (RWI)

The Technology Integration Division (RWI) leads the Munitions Directorate's (RW) advanced technology development (6.3) and digital transformation activities. RWI integrates advanced components from applied research initiatives and executes high-visibility ground and flight test demonstrations to rapidly transition next-generation technologies to programs of record and fielded warfighter capabilities. RWI has three branches. The Air Dominance Branch (RWIA) develops, integrates, demonstrates, and transitions air dominance weapons technologies across the counter-air, networked, collaborative, autonomous, and electromagnetic domains. The Digital Materiel Management Branch (RWID) develops, integrates, demonstrates, and transitions software tools and advanced architectures to drive model-based systems engineering, automate agile business processes and institutionalize open standards. The Global Strike Branch (RWIG) develops, integrates, demonstrates, and transitions global strike weapons technologies across the counter-land and counter-maritime domains.

STRATEGY DIVISION (RWS)

The Strategy Division (RWS) is responsible for obtaining information and developing strategic methodologies to guide RW in near, mid, and long-term activities to meet mission needs. This includes: 1) Strategic Planning which develops capability and investment plans to meet warfighter needs, 2) Partnerships to collaborate with customers and partners to develop sound business practices and opportunities, & 3) Modeling, Simulation, & Analysis of weapon concepts to build military utility for future investments

SCIENCE AND TECHNOLOGY DIVISION (RWT)

The Science and Technology Division (RWT) directs and conducts basic, exploratory and advanced research and development of fuzes, warheads, energetic materials, guidance/navigation/controls (GNC), autonomy, seeker sciences, weapon cyber defense, AI & decision making, and weapon algorithm development. In addition, RWT conducts Computational assessment for air-launched munitions for use with a full array of launch platforms including fighter, bomber, and remotely-piloted aircraft. RWT consist of the Computation Engineering Sciences Branch (RWTC), Autonomy, Navigation & Control Branch (RWTA), Seekers Branch (RWTS), Energetic Materials Branch (RWTE) and Ordnance Branch (RWTO). RWTC creates, develops and optimizes computational models and simulations, weapon algorithms, cyber defense approaches and nature inspired systems. RWTA Leads the development and integration of advanced aerodynamics modeling & simulation, artificial intelligence and decision-making, multi-agent teaming, and navigation technology across the Munitions Directorate. RWTS researches, develops, demonstrates, and transitions weapon seeker science and technology for precision guided munitions. RWTE discovers, develops, integrates, and transitions energetic materials technology that maximizes weapon lethality, survivability, and safety for air-delivered munitions. In addition, RWTE operates the High Explosives Research & Development (HERD) facility which is responsible for the development of energetic materials from concept formulation through pilot plant production for transition into existing or future inventory weapon systems. RWTO is responsible for research and development of technologies to enable revolutionary fuzing and warhead capabilities for current

and future weapon systems. RWTO discovers, develops, demonstrates, and transitions ordnance science and technology that maximizes air-delivered munitions effectiveness.

III. RESEARCH AREAS

1. RESEARCH AREA 1 – MODELING, SIMULATION, & ANALYSIS (MS&A)

The objective of this work is to develop/modify and employ models used to analyze Air Superiority concepts and their related concepts of employment. The objective is to apply, modify and/or combine engineering, engagement (one-on-one), mission (few-on-few), systems-of-systems, campaign (many-on-many, military worth), level modeling techniques, tools, and analysis methods as well as virtual and constructive digital simulation which lend themselves to the quick and effective evaluation of air superiority concepts. Concepts include, but are not limited to, intercommunicative weapons, novel damage mechanisms, lethal and novel destruct mechanisms, multiple targeting, and time critical delivery. Detailed modeling includes, but is not limited to, sensors, aerodynamics, autopilots, navigation and guidance schemes, propulsion, warheads, fuzes, datalinks, fire control, launcher, suspension, carriage and release, error filters, environment (wind, fog, and dust), lethality, vulnerability, and threats.

Missile Performance MS&A may also include the following topics: dynamic and easy to render simulation output visualization with all entities playing, distributed interactive simulations, rapid pintle nozzle and aerospike modeling, rapid modeling of solid rocket motors quickly using scaling laws and rules of thumb for concept development and rapid trade studies, accurate hypersonic high-angle-of-attack aerodynamics coefficients, aerodynamic derivatives due to body motion, design and modeling of articulated nose, effects of plume on aerodynamic forces and moments, innovative and rapid approaches for wind tunnel aero data reduction and display, modelling of thermal stresses due to high temperature gradients between skin and inside structure, modelling of advanced control systems such as autopilot, modelling of unconventional control surfaces such as wraparound fins or grid fins, efficient lower-order emulations of complex control systems, modelling of products of inertia, modelling of continuous changes in mass and inertia properties.

Scenario development and visualization at each level of MS&A is also sought. Additionally, environmental factors that influence a weapons performance can be considered. This can include but not be limited to collaborative simulation environments and Anti-Access Area-Denial (A2AD) type environments, scenario generation and infrastructure simulation common to environments that weapons may operate in.

Technical POC: Mr. Terrance Dubreus
AFRL/RWIA
(850) 883-7995
terrance.dubreus@us.af.mil

Technical POC: Sheli Plenge
AFRL/RWIA
850-882-6577
sheli.plenge@us.af.mil

2. RESEARCH AREA 2 – INNOVATIVE AIRCRAFT INTEGRATION TECHNOLOGIES

The objective of this work is to design, develop, and demonstrate innovative aircraft integration technologies including but not limited to physical, electrical, and logical interfaces; and other aspects of aircraft integration that may be applicable.

Technical POC: Mr. Terrance Dubreus
AFRL/RWIA
(850) 883-7995
terrance.dubreus@us.af.mil

Technical POC: Sheli Plenge
AFRL/RWIA
850-882-6577
sheli.plenge@us.af.mil

3. RESEARCH AREA 3 – FIND-FIX-TARGET-TRACK (F2T2) & DATALINK TECHNOLOGIES

The objective of this work is to design, develop, and demonstrate innovative Find, Fix, Target, and Track (F2T2) technologies for the detection of threats to aircraft. These F2T2 technologies should provide threat warning, threat characteristics, You Are The One (YATO) or You Are Not The One (YANTO) discrimination, highly accurate threat cueing, range and range rate, and other pertinent information required to analyze and coordinate a response to a threat. Additional F2T2 technologies of interest include small data link terminals suitable for air-to-air missiles, conformal data link antennas, alternative waveforms, and applications of data links to support air-to-air missile swarming. Consider each topic from either the perspective of communication to/from a shooter platform, another missile, or other third-party information source.

Technical POC: Mr. Terrance Dubreus
AFRL/RWIA
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terrance.dubreus@us.af.mil

Technical POC: Sheli Plenge
AFRL/RWIA
850-882-6577
sheli.plenge@us.af.mil

4. RESEARCH AREA 4 – ENGAGEMENT MANAGEMENT SYSTEM TECHNOLOGIES

The objective of this work is to design, develop, and demonstrate an innovative Engagement Management system to maximize aircraft survivability in increasingly contested environments while mining false positives and engagement costs. These technologies should interface with aircraft and other Find-Fix-Target-Track (F2T2) systems, determine the optimum counter measure response(s), respect keep-out or no-fire zones, and make other decisions required for aircraft survivability. These technologies may require limited aircrew supervision or may be autonomously operated.

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AFRL/RWIA
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terrance.dubreus@us.af.mil

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AFRL/RWIA
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sheli.plenge@us.af.mil

5. RESEARCH AREA 5 – HIGH VELOCITY FUZING

The objective of this work is to design, develop, and demonstrate high velocity fuzing, including

Electronic Safe and Arm (ESAF) technologies that can safely initiate a warhead, Target Detection Devices (TDDs) and Guidance Integrated Fuzing (GIF) devices that can provide miniaturized, fast-responding, highly accurate range, and location information for high closure velocity intercepts for both slow- and fast- moving Targets of Interest (TOI).

Technical POC: Mr. Terrance Dubreus
AFRL/RWIA
(850) 883-7995
terrance.dubreus@us.af.mil

Technical POC: Sheli Plenge
AFRL/RWIA
850-882-6577
sheli.plenge@us.af.mil

6. RESEARCH AREA 6 – MISSILE ELECTRONICS

The objective of this work is to investigate all aspects of Missile Power & Electronics as it applies to air-to-air missiles. The following technologies and research areas are of particular interest: Power Conversion and Distribution, Power Generation and Storage Technologies (Advanced Missile Battery Technology and Ultracapacitors), Guidance Electronics, and Thermal Management.

The challenge with state-of-the-art power management approaches is the large amount of volume required for missile power conversion electronics. RWIA is interested in technologies to enable miniaturization of missile power electronics components, topologies, and associated packaging methods. These technologies can improve performance and internal packaging efficiency for a compact Counter Air (CA) missile.

RWIA is interested in development of technologies to improve the energy density and power density of batteries to meet the challenges posed by the modernization of weapons and the increasing complexity of mission requirements. Increasing power requirements for evolving weapons and missile systems is driving the need for efficient energy storage systems with both high energy and power densities.

RWIA is additionally interested in high energy and power density ultracapacitor technologies for use in weapons and missile systems; affordable high performance missile guidance electronics technology designed to support small form factor medium-range A-A weapons; and active and passive thermal management technologies focused on high density electronic power dissipation with reduced volume and weight allowing increased time-of flight.

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AFRL/RWIA
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Technical POC: Sheli Plenge
AFRL/RWIA
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sheli.plenge@us.af.mil

7. RESEARCH AREA 7 – MISSILE GUIDANCE AND CONTROL TECHNOLOGIES

The objective of this work is to investigate Missile Guidance and Control Technologies to include the following: Robust guidance algorithms against maneuvering targets, real time optimal lofting/energy management techniques, integrated guidance and control, reduced latency between seeker measurements and final control fin commands, highly accurate seeker technologies and algorithms, robust and novel target state estimators, third party queuing, optimal body orientation at endgame encounter, (reinforcement learning-adaptive control) approach, simultaneous learning and control, Hybrid (switched) guidance law selection based on the red-target strategy/maneuver, many- on-many engagement guidance laws, optimal pulse delay and propellant allocation, rapid flexible autopilot design process, robust control in aerodynamic cross coupling environments for various airframe designs from canard to tail control, robust control at high angles of attack, innovative autopilot architectures, efficient verification of safe separation over all flight regimes, Non- linear/adaptive control for agile maneuver, and advanced airframe control techniques.

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AFRL/RWIA
(850) 883-7995
terrance.dubreus@us.af.mil

Technical POC: Sheli Plenge
AFRL/RWIA
850-882-6577
sheli.plenge@us.af.mil

8. RESEARCH AREA 8 – ADVANCED WARHEAD TECHNOLOGIES

The objective of this work is to investigate all aspects conventional and conceptual munitions warhead technology as it relates to the destruction, damage, defeat, or denial of function of Targets of Interest (TOI). Technologies and concepts are sought for a robust and affordable capability of air-launched munitions with maximum performance characteristics while complying with insensitive munitions requirements. Advanced weapons systems require that warheads survive under severe mechanical loading conditions and reliable initiation during endgame engagements to achieve performance goals. Additionally, there is interest in specialized Additive Manufacturing (AM) processes, diagnostics equipment, live fire testing techniques, and other experimental methods for the development and validation of munition warhead capabilities. Technical interests related to warhead effectiveness are blast (internal and external) damage, combined damage (e.g. blast and fragment), human casualty, cumulative damage, debris damage, direct hit damage, fire (e.g. fuel, hydraulic fluid, component) damage, fragment (including hypervelocity jets/particles) damage, and High-Density Reactive Material (HDRM) damage. There is also interest in miniature and micro warheads, multifunctional energetic materials and damage mechanisms, directional control and focused effects, selectable effects, and collateral damage control. Approaches in all these areas are not to be limited to traditional nor classical blast-fragmentation effects. Novel concepts of target defeat are encouraged to augment or replace the more traditional kinetic energy methods. Research and development of energetic materials that could increase overall warhead performance. Including new or advanced explosive formulations and characterization, Additive Manufacturing of energetic materials, and high energy-rate fabrication advancement. Miniaturized fuzing technology, Electronic Safe and Arm Devices (ESAD) and Target Detection Devices (TDD) are also of interest (See Research Area 5).

Technical POC: Mr. Terrance Dubreus

Technical POC: Sheli Plenge

AFRL/RWIA
(850) 883-7995
terrance.dubreus@us.af.mil

AFRL/RWIA
850-882-6577
sheli.plenge@us.af.mil

9. RESEARCH AREA 9 – ADVANCED MISSILE PROPULSION TECHNOLOGIES

The objective of this work is to investigate Advanced Missile Propulsion Technologies such as the following topics: Propellant Formulations, Grain Structures, Case Technologies, Ignition Safety Devices (ISD) Concepts, Nozzle Technologies (Non-eroding, Pintle and Aerospike) and Multi-Pulse Motor Barriers. As missile systems get smaller, fitting the same or more complex functionality into these airframes becomes a significant challenge. Existing ignition safety device (ISD) solutions are purpose-built to meet the unique functional and interface requirements for larger air-to-air missile systems. RWIA is interested in an open architecture ISD system designed (IAW MIL-STD-1901A) to support future compact air-to-air missile systems. RWIA is interested in scalable technology in both physical size and ignition power requirements.

Advancements in propellant formulations and grain structures are key to the amount of energy available and the efficient use of that energy. RWIA is interested in high performance propellant formulation that range from no-smoke to fully smoky propellants. To be included are not just the formulation, but also the processing of any advance formulations and grain structure designs. As an example, RWIA is interested in understanding the impacts to both formulation and grain design if traditional USAF standards were relaxed.

RWIA is interested in technologies that are able to maintain the operating pressures of a rocket motor while reducing mass to increase the performance, as well as non-eroding throat technology utilizing advanced material (metallic inserts, ceramics, etc.) able to perform in severe environments such as high stagnation temperatures and pressures, abrasive propellants (high aluminum content) and high stress/strain.

RWIA is additionally interested in pintle technology that would decrease the associated parasitic mass and improve motor performance; aerospike technology that can maximize CAS volume, increase performance and increase TRL; and scalable technology to reduce parasitic weight caused by multi-pulse thermal barriers and associated ignition systems.

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AFRL/RWIA
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Technical POC: Sheli Plenge
AFRL/RWIA
850-882-6577
sheli.plenge@us.af.mil

10. RESEARCH AREA 10 – CONTROL ACTUATION SYSTEMS

The objective of this work is to investigate advanced missile flight control systems. Efficient control of the missile flyout reduces the burden on other systems. Topics include miniaturized actuators, high speed actuation systems, low-cost control actuation technologies, articulating

missile radomes, folding fin concepts suitable for high-speed missiles, and advanced airframe control technologies.

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AFRL/RWIA
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terrance.dubreus@us.af.mil

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AFRL/RWIA
850-882-6577
sheli.plenge@us.af.mil

11. RESEARCH AREA 11 – MISSILE CARRIAGE AND RELEASE TECHNOLOGIES

The objective of this work is to investigate high density carriage concepts for weapon bay applications to include the carriage and release of future lug-less munitions. Topics of interest include weapon racks that use innovative carriage and ejection technologies capable of carrying and releasing multiple small missiles, and mixed loads of air-to-air missiles. Technologies of interest also include high data rate aircraft to weapon communications, pod architecture, and aircraft to weapon power conversion and distribution systems. Other topics of interest include blind mate or recessed aircraft to weapon or rack to weapon connectors.

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AFRL/RWIA
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Technical POC: Sheli Plenge
AFRL/RWIA
850-882-6577
sheli.plenge@us.af.mil

12. RESEARCH AREA 12 – MISSILE TEST AND EVALUATION TECHNOLOGIES

The objective of this work is to investigate all technology aspects relevant to Air-to-Air missile test and evaluation (T&E). Interest in this research area ranges from miniaturizing existing technologies that could be used in testing of future generations of small missiles to exploring advanced, breakthrough technologies that could ease missile testing complexities or allow for better data collection. Examples of missile T&E technologies of interest include the following: approaches to encrypted telemetry that reduce the logistic burden of current encrypted telemetry systems; autonomous flight termination systems that eliminate the need for onboard flight termination receivers/antennas (while allowing range safety personnel flexibility regarding day-of-test limitations); miniaturized and/or higher power missile tracking beacons; miniaturized explosive initiation modules; dual missile tracking technologies capable of providing independent tracking sources to range safety personnel for air-to-air missiles; and warhead compatible, range safety compliant, telemetry/flight termination systems.

Technical POC: Mr. Terrance Dubreus
AFRL/RWIA
(850) 883-7995
terrance.dubreus@us.af.mil

Technical POC: Sheli Plenge
AFRL/RWIA
850-882-6577
sheli.plenge@us.af.mil

13. RESEARCH AREA 13 – Artificial Intelligence/Autonomy

The objective of this work is to design, develop, and demonstrate a machine learning capability that

will facilitate a swarm of Networked Collaborative and Autonomous weapon systems. Technology must demonstrate the ability to reconcile prescribed targets within a dynamic battlespace.

Technical POC: Mr. Terrance Dubreus
AFRL/RWIA
(850) 883-7995
terrance.dubreus@us.af.mil

Technical POC: Sheli Plenge
AFRL/RWIA
850-882-6577
sheli.plenge@us.af.mil

IV. AWARD INFORMATION

1. Anticipated Funding: Note that there is no inherent funding associated with this Open BAA. All funding is subject to change due to Government discretion and availability. Each Call will have funding profiles specific to that effort. However, similarly, all offerors should be aware that due to unanticipated budget fluctuations, funding in any or all areas may change with little or no notice.

2. Anticipated Type of Awards: The Air Force reserves the right to award the instrument best suited to the nature of research proposed. Accordingly, the Government may award any appropriate contract type under the FAR or Other Transaction (OT) for Prototype, Grant, Cooperative Agreement, or OT for Research. The Air Force may also consider award of an appropriate technology transfer mechanism, if applicable. It is anticipated that awards under this BAA will generally be Cost Plus Fixed Fee (CPFF), but other contract types (e.g., Firm Fixed Price, Cost Share, Cost (no fee), etc.) may be negotiated. Cost reimbursement contracts require successful offerors to have an accounting system considered adequate for tracking costs applicable to the contract.

3. Evaluation and Award (Applicable to Both Open BAA and BAA Calls): Proposals are intended to be evaluated, and awards made, without discussions unless discussions are determined to be necessary. However, the Government may obtain clarifications to determine proposal acceptability. Discussions may be held with prospective awardees prior to award if needed. Offerors are cautioned that only COs are legally authorized to obligate funds and commit the Government.

V.ELIGIBILITY INFORMATION

1. Eligible Offeror/Applicants: This is an unrestricted solicitation. Small businesses are encouraged to propose on all or any part of this solicitation. Multiple White Paper submittals to the varying 20 Research Areas are allowed.

2. Foreign-owned Firms: Foreign or foreign-owned offerors are advised that their participation is subject to foreign disclosure review procedures. Foreign or foreign-owned offerors should immediately contact the contracting office focal point identified further below. The subject line of all correspondence must reference the BAA number, BAA title, and associated research area.

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. FAR 35.017-1(c)(4) prohibits an FFRDC from competing with any non-FFRDC concern in response to a Federal agency request for proposal for other than the operation of an FFRDC (with exceptions stated in DFARS 235.017-1(c)(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 the FFRDC, and that determination must be included in the FFRDC's proposal. In addition, the non-sponsoring agency 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.

4. Government Agencies: If a Government agency is interested in performing work, offerors should immediately contact the contracting office focal point if they contemplate responding. If those discussions result in a mutual interest to pursue your agency's participation, the effort will be pursued independent of this announcement.

5. Cost Sharing or Matching: Cost sharing is not a requirement but is allowed.

VI. TWO-STEP OPEN BAA

1. WHITE PAPER SUBMISSION INFORMATION

a. Application Package: THIS ANNOUNCEMENT CONSTITUTES THE ONLY SOLICITATION and THE GOVERNMENT IS SOLICITING WHITE PAPERS ONLY. DO NOT SUBMIT A FORMAL PROPOSAL AT THIS TIME. Those offerors whose white papers are found to be consistent with the intent of this BAA may later be invited to submit a technical and cost proposal. See Section VI 2 c of this announcement for further details. Offerors with white papers not selected for proposal invitation will be contacted by the Government and may request a feedback session. Debriefings will not be offered for white papers. An unfavorable white paper evaluation will bar the offeror from further consideration unless the white paper is subsequently revised and resubmitted. Revised white paper submissions will be reevaluated in accordance with the white paper evaluation criteria listed herein.

b. Content and Form of Submission of White Papers: Offerors are required to submit one (1) electronic copy, via e-mail, that is 5 pages or less summarizing their proposed approach/solution. Any pages over the stated 5 page maximum will not be evaluated. The purpose of the white paper is to preclude unwarranted effort on the part of an offeror whose proposed work is not of interest to the Government. The format for the white paper is as follows:

1) Page Format:

i. Paper Size - 8.5-inch x 11 inch

ii. Margins on every page shall be one inch on top, bottom, left and right sides

iii. Font size shall be standard 12 point Times New Roman. Character spacing must be "normal," not condensed in any manner. All text, including text in tables, references, and charts, must 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. These exceptions shall not be used to circumvent formatting requirements and page count limitations by including lengthy narratives in such items.

iv. Pages shall be double-spaced (must use standard double-space function in Microsoft Word)

2) Document Format:

i. Section A: White Paper Title, White paper in response to Research Area Number (identify #), BAA Number and Title, Period of Performance, Estimated Cost, Name/Address of Company/Commercial and Government Entity (CAGE) number, Dunn & Bradstreet Data Universal Numbering System (DUNS) Number, Technical and Contracting Points of Contact (phone, fax and email). NOTE: This section is NOT included in the page count.

ii. Section B: Task Objective

iii. Section C: Technical Summary and Proposed Deliverables

iv. Section D: Estimated Cost of Task (Rough Order of Magnitude (ROM))

3) Multiple white papers within the purview of this announcement may be submitted by an offeror. If an offeror wishes to restrict access to his/her white paper, it must be marked with the restrictive language stated in FAR 52.215-1(e).

c. Funding Restrictions: The cost of preparing white papers/subsequent proposals in response to this announcement is not considered an allowable direct charge to any resulting contract or any other contract, but may be an allowable expense to the normal bid and proposal indirect cost specified in FAR 31.205-18. Incurring pre-award costs for ASSISTANCE INSTRUMENTS ONLY are regulated by 2 CFR 200.458.

d. Classified Proposals: Offerors are encouraged to keep all elements of the proposal package and White Paper Submission UNCLASSIFIED. In the case where an offeror has a need to submit a classified appendix, please contact the technical POC for delivery instructions.

2. WHITE PAPER AND PROPOSAL EVALUATION

a. White Paper Evaluation Criteria: The following two criteria will be used to determine

whether full proposals will be invited based on the white paper submitted. The following criteria are listed in descending order of importance:

1) White Paper Evaluation Criteria:

i. An integrated, comprehensive, and unbiased assessment of the proposed technical approach to include scientific and/or technical merits/feasibility and the potential contributions of the effort to extending the scientific understanding associated with the technologies being pursued by AFRL/RW and described in the 13 research areas of the BAA.

ii. ROM and schedule commensurate with technical approach.

b. White Papers will be evaluated and categorized as follows:

- Meets the criteria
- Does not meet the criteria

c. Proposal Evaluation Criteria: Proposals invited as a result of favorable White Paper evaluations will be evaluated in accordance with the following evaluation criteria:

1) Technical Evaluation Criteria

i. A unique and innovative approach proposed to accomplish technical objectives. New and creative solutions and/or advances in knowledge, understanding, technology, and the state of the art being pursued by AFRL/RW and described in the 13 research areas of the BAA.

ii. The offeror's understanding of the scope of the technical effort.

iii. Soundness of the offeror’s technical approach, including whether the proposal identifies major technical risks, clearly defines feasible mitigation efforts, and demonstrates related experience/qualifications of technical personnel.

iv. Potential to transition the R&D deliverables to future Government needs. (Any proposed restrictions on technical data/computer software will be considered).

2) Cost Proposal Preparation Information (Substantial but lower priority than technical):

i. The reasonableness and realism of proposed cost and fees, if any, the proposed cost share (for Cooperative Agreements and Technology Investment Agreements), and/or the offeror’s projected progress to the

desired solution within the parameters of available funding. Cost proposals have no page limitations.

3) Proposal Risk Assessment: Proposal risk for technical, cost, and schedule will be assessed for formal proposals, as part of the evaluation of the above evaluation criteria. Proposal risk relates to the identification and assessment of the risks associated with an offeror's proposed approach as it relates to accomplishing the proposed effort. Tradeoffs of the assessed risk will be weighed against the potential scientific benefit. Proposal risk for schedule relates to an assessment of the risks associated with the offeror's proposed number of hours, labor categories, material, or other cost elements as it relates to meeting the proposed period of performance.

   Proposal Risk Assessment

   Low: Little potential to cause disruption of schedule, increase in cost, or degrade desired performance. Normal effects will probably be able to overcome issue.

   Moderate: Can potentially cause some disruption of schedule, increase cost, or degrade desired performance. Special monitoring required to overcome issues.

   High: Likely to cause significant disruption of schedule, increased cost, or fail to meet performance goals. Risk may be unacceptable even with special efforts.

4) Review and Selection Process: The evaluation described above will generally result in proposals being placed in one of the three categories below:

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

   ii. Selectable: Proposals are recommended for acceptance if sufficient funding is available, but at a lower priority than Highly Recommended 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.

   iii. Not Selectable: Even if sufficient funding existed, the proposal should not be funded.

3. AWARD ADMINISTRATION INFORMATION:

a. Award Notices (White Papers): Offerors of those white papers found to be consistent with the intent of the Open BAA may be invited to submit a technical and cost proposal. Notification by email or letter will be forwarded by the Government. Such invitation

does not assure the submitting offeror will be awarded a contract. Offerors of those white papers not selected for further consideration will be notified. Prospective offerors are advised that only CO are legally authorized to commit the Government. Offerors may request status of their white paper no earlier than 60 calendar days after submission.

b. Award Notices (Full proposals): Offerors will be notified whether their proposal is recommended for award after evaluation of the proposal. The notification is not to be construed to mean the award of a contract is assured, as availability of funds and successful negotiations are prerequisites to any award.

VII. TWO-STEP BAA WITH CALLS

Periodically, Calls may be issued in sam.gov or grants.gov under FA8651-25-S-0001 to request white paper and/or proposals for Air Dominance topic areas. The requests for white papers and/or proposals are transmitted via Calls that are published separately from the basic BAA at various times during the open period of the basic BAA. The Calls may request white papers or full proposals for the specific topic areas. The Calls may also include specific terms that apply to that Call such as further technical details and any other applicable information. Typically, proposals or white papers are submitted only when Calls to the basic BAA request them.

Subsequent Calls may contain specific objectives of the topic area to be addressed, anticipated period of performance, information peculiar to the topic area, and the expected dollar range for proposals received under the Call. Proposals in response to the Call will be accepted as specified in the actual Call. Offerors are advised that Adequate Price Competition may be applicable to Calls issued against the BAA. The same technical and cost/price evaluation criteria may apply to proposals submitted in response to calls as referenced in VI 2.

1. PROPOSAL SUBMISSION INFORMATION

a. Content and Form of Submission of Proposals: Proposal format, due dates and times will be specified in each Call. Proposals received after the due date and time specified in the Call shall be governed by the provisions of FAR 52.215-1(c)(3). Offerors must monitor sam.gov and grants.gov in the event this announcement is amended, or Calls are issued. Offerors must monitor these systems to ensure they receive the maximum proposal preparation time for subsequent amendments as this is the official notification vehicle to request proposals.

b. Communications: The type of communication with industry is dependent upon the specificity or lack of specificity of the requirements as identified in the technical objectives stated in the BAA. For less definitive requirements, more consideration should be given to one-on-one meetings between the acquisition team and potential offerors. Conversely, the more definitive the requirement the more formal the communication. Prospective offerors may contact the technical points of contact to verify interest in the effort to be proposed prior to committing any resources to the preparation of any proposals in response to a Call under this announcement. Discussions shall not include content or rating information of other offeror's proposals or White Papers. Discussions with the points of contact shall not constitute

a commitment by the Government to subsequently fund or award any proposed effort. Questions outside the scope of the technical focal point, such as contract terms or conditions, or projected award schedule, should be referred to the CO. Only COs are legally authorized to commit the Government.

c. Funding Restrictions: The cost of preparing proposals in response to this announcement is not considered an allowable direct charge to any resulting contract or any other contract but may be an allowable expense to the normal bid and proposal indirect cost specified in FAR 31.205-18. Incurring pre-award costs for ASSISTANCE INSTRUMENTS ONLY are regulated by 2 CFR 200.458.

2. PROPOSAL REVIEW INFORMATION:

a. The technical and cost/price evaluation criteria found in Section VI 2 c, 2-Step Open BAA Section/Proposal Evaluation Criteria/Technical and Cost/Price Criteria, may also apply to proposals submitted in response to specific Calls.

b. Proposal Risk Assessment: Technical, cost, and schedule risk will be assessed in the application of the referenced evaluation criteria. Proposal risk relates to risk identification and assessment as it relates to accomplishing the proposed effort. Tradeoffs of assessed risk will be weighed against potential scientific benefit. Schedule risk is determined by examining offerors' proposed labor hours, labor categories, materials, and/or other cost elements as they relate to completing the efforts within the proposed periods of performance.

c. Proprietary Proposal Information Protection: It is the policy of AFRL/RW to treat all proposals as privileged information, and to disclose the contents only for the purposes of evaluation. Those selected as a result of initial review will be subject to an extensive evaluation by highly qualified Government scientists. Offerors must indicate limitations, if any, to be placed on disclosure of proposal information. Offerors should note, proposal information incorporated into a resulting contract, if any, may be subject to release under the Freedom of Information Act.

VIII. SECURITY RISK REVIEW IAW AFRLI 61-113

1. NOTICE OF INTENT

a. Security Risk Review. **Each proposal submission will be subject to a Security Risk Review prior to selection for award.** The Security Risk Review is applied to federally funded research designed to help protect Department of the Air Force Science and Technology (S&T) by identifying possible vectors of undue foreign influence. AFRL will follow all policy and procedures outlined in Air Force Research Laboratory (AFRL) Instruction AFRLI 61-113, Science and Technology Protection for the Air Force Research Laboratory and Department of the Air Force Instruction DAFI 63-101/20-101, Integrated Lifecycle Management.

b. Security risk review for these subject proposals will be developed for all proposed Senior/Key

personnel and “Covered Individuals”. These risk reviews will be based on information disclosed in a Research and Related Senior and Key Person Profile and Security Questionnaire. In addition, any accompanying or referenced documents, publicly available information, and information contained in internal U.S. Government databases will be utilized in risk reviews. Nationality or citizenship is not a factor in the security risk reviews.

c. When considering all external engagements, AFRL incorporates a holistic decision-making process that encompasses technical and security factors. The security review method implemented by AFRL measures risk factors to identify the appropriate Risk Acceptance Level (RAL) within the organization. The objective analysis of the security risk factors is conducted to empower AFRL’s S&T leaders to make risk-informed decisions. The review process generally looks at five factors, or risk areas, but with authority for expanded review as noted in OSD R&E Memorandum dated 6 Jun 2023. The potential security risk factors are set forth below:

Potential security risk factors:

(1) Foreign Talent Program	(2) Funding	(3) Foreign Institutions	(4) Denied Entities	(5) U.S. Government Systems
Indicators of active and past participation or sponsorship in a strategic competitor Foreign Talent Program with history of targeting U.S. research or technology.	Indicators of active, historical, or pattern of conflict of interest, conflict of commitment, or pattern of direct funding from a strategic competitor or country with history of targeting U.S. research or technology.	Indicators of active, historical, or pattern of association with direct affiliation, collaboration with a foreign institution, person, or entity associated with a strategic competitor or country with history of targeting U.S. research or technology.	Indicators of an active affiliation or past affiliation or present association with an entity on the U.S. Gov’t denied entity or person list or EO 13959 or subsequent similar issuances	Indicators that may reside in safeguarded U.S. government environments, according to its ascribed classification and not releasable for public consumption.

2. ACTIONS REQUIRED BY APPLICANTS/RECIPIENTS AT PROPOSAL SUBMISSION

a. In accordance with AFRLI 61-113, S&T Protection, **Applicants/Recipients are required to submit the following documentation with their proposal to the AFRL/RW Security office and Program Manager; email addresses will be annotated on the request for proposal (RFP) letter(s):**

1) Grant or Cooperative Agreement (CA) proposals:

i. Standard Form 424, “Research and Related Senior and Key Person Profile (Expanded) (See Attachment 1) AND;

ii. Security Program Questionnaire (See Attachment 2) AND;

iii. “Privacy Act Statement” consent form for each Covered Individual that is also signed by the Applicants/Recipients as that Individual’s Sponsor. (See “Covered Individual” section below, and Attachment 4)

2) Contract or Other Transaction Agreement (OTA) proposals:

i. Research and Related Senior and Key Person Profile Worksheet (See Attachment 3) AND;

ii. Security Program Questionnaire (See Attachment 2) AND;

iii. “Privacy Act Statement” consent form for each Covered Individual that is also signed by the Applicant/Recipient as that Individual’s Sponsor. (See “Covered Individual” section below, and Attachment 4)

3) In the event a security risk is identified, and the Government has determined the security risk exceeds the acceptable threshold, the Applicant/Recipient will be notified and informed of the decline of award. **The Government will only provide a general statement of the reasoning due to Government OPSEC measures.**

4) By submission of the Research and Related Senior Key Person Profile and Security Program Questionnaire, the Applicant/Recipient agrees to comply with the following:

i. To certify that each covered individual who is listed on the application has been made aware: 1) of all relevant disclosure requirements, including the requirements of 42 U.S.C. § 6605; and 2) that false representations may be subject to prosecution and liability pursuant to, but not limited to, 18 U.S.C. §§287, 1001, 1031 and 31 U.S.C. §§ 3729-3733 and 3802. See National Science and Technology Council Guidance for Implementing National Security Presidential Memorandum 33 (NSPM-33) on National Security Strategy for United States Government-Supported Research and Development (January 2022).

ii. To establish and maintain an internal process or procedure to address foreign talent programs, conflicts of commitment, conflicts of interest, and research integrity.

iii. To exercise due diligence to identify Foreign Components or participation by Senior/Key Personnel in Foreign Government Talent Recruitment Programs and agree to share such information with the Government upon request.

3. ACTIONS REQUIRED BY COVERED INDIVIDUALS

a. Covered Individual. An individual who contributes to a substantive, meaningful way to the scientific development or execution of a research and development project proposed to be carried out with a research and development award from a federal research agency; and is designated as a covered individual by the federal research agency concerned. See 42 U.S.C. § 6605, Definitions. (Note: For purposes of a Broad Agency Announcement (BAA) solicitation, “covered individuals” are all Senior/Key Personnel.)

b. Federal law requires that all current and pending research support, as defined by 42 U.S.C. §6605, must be disclosed at the time of proposal submission, for all covered individuals. The Government may require an updated disclosure during the performance of any research project selected for funding. The Government will require an updated disclosure whenever covered individuals are added or identified as performing under the funded project.

c. Covered Individuals are also required to sign the “Privacy Act Statement” and provide such signed statement to the Applicant/Recipient for submission with the proposal. (See Attachment 4).

d. Any decision to accept a proposal for funding under this announcement will include full reliance on the individual’s statements. Failure to report fully and completely all sources of project support

and outside positions and affiliations may be considered a material statement within the meaning of the False Claims Act, 31 U.S.C. 3729, and constitute a violation of Federal law.

4. ACTIONS REQUIRED BY APPLICANTS/RECIPIENTS DURING PERIOD OF PERFORMANCE:

a. Applicant/Recipient will be required to re-submit the Research and Related Senior and Key Person Profile as an annual requirement. In addition, whenever a new covered individual(s) is to be added or identified as performing under the funded project, a new Research and Related Senior and Key Person Profile will be required prior to continued performance.

b. If, at any time, during performance of this award, the Applicant/Recipient learns that its Senior/Key Research Personnel (including any sub awardee personnel who receive this designation) are or are believed to be participants in a Foreign Government Talent Program or have Foreign Components with a strategic competitor or country with a history of targeting U.S. technology for unauthorized transfer, the Applicant/Recipient will notify the Contracting/Grants/Agreements Officer within 5 business days of awareness.

c. This disclosure must include specific information as to the personnel involved and the nature of the situation and relationship. The Government will review this information and conduct any necessary fact-finding or discussion with the Applicant/Recipient. The Government's determination on disclosure may include acceptance, mitigation, or termination of the award.

d. Failure of the Applicant/Recipient to reasonably exercise due diligence to discover or ensure that neither it nor any of its Senior/Key Research Personnel involved in the subject award are participating in a Foreign Government Talent Program or have a Foreign Component with a strategic competitor or country with a history of targeting U.S. technology for unauthorized transfer may result in the Government exercising remedies in accordance with federal law and regulation.

e. The Applicant/Recipient will be required to flow down this provision to all sub awardees who have personnel designated as Senior/Key Research Personnel as a result of their involvement in the performance of the research.

5. OMBUDSMAN

a. For FAR-based contracts and Other Transactions, an ombudsman has been appointed to hear and facilitate the resolution of concerns from offerors, potential offerors, and others for this acquisition. When requested, the ombudsman will maintain strict confidentiality as to the source of the concern. The existence of the ombudsman does not affect the authority of the program manager, contracting officer, or source selection official. Further, the ombudsman does not participate in the evaluation of proposals, the source selection process, or the adjudication of protests or formal contract disputes. The ombudsman may refer the interested party to another official who can resolve the concern.

b. Before consulting with an ombudsman, interested parties must first address their concerns, issues, disagreements, and/or recommendations to the contracting officer for resolution. Consulting an ombudsman does not alter or postpone the timelines for any other processes (e.g., agency level bid protests, GAO bid protests, requests for debriefings, employee-employer actions, contests of OMB Circular A-76 competition performance decisions).

c. If resolution cannot be made by the contracting officer, the interested party may contact the ombudsman, AFRL/PK 1864 Fourth Street, Wright-Patterson AFB OH, 45433-7130, COM (937) 904-9700, FAX (937) 656-7321, email: afrl.pk.workflow@us.af.mil. Concerns, issues, disagreements, and recommendations that cannot be resolved at the Center/MAJCOM/DRU/SMC ombudsman level, may be brought by the interested party for further consideration to the Air Force ombudsman, Associate Deputy Assistant Secretary (ADAS) (Contracting), SAF/AQC, 1060 Air Force Pentagon, Washington DC 20330-1060, phone number (571) 256-2395, facsimile number (571) 256-2431.

d. The ombudsman has no authority to render a decision that binds the agency.

e. **Do not contact the ombudsman to request copies of the solicitation, verify offer due date, or clarify technical requirements. Such inquiries shall be directed to the contracting officer.**

IX. TERMS APPLICABLE TO ALL BAA AWARDS:

1. Administrative and National Policy Requirements: Depending on the work to be performed, the offeror may require a classified facility clearance and safeguarding capability; therefore, personnel identified for assignment to a classified effort must be cleared for access to information at the equivalent level of security at the time of award. In addition, the offeror may be required to have, or have access to, a certified and Government-approved facility to support work under this BAA. Data subject to export control constraints may be involved and only firms holding certification under the US/Canada Joint Certification Program (JCP) https://www.dla.mil/Logistics-Operations/Enhanced-Validation/

2. Reporting: Contractors should expect any contract or assistance instrument resulting from this BAA would contain the requirement to provide various types of periodic and final technical reports, and possibly cost and other reports.

3. Data Rights/Software Assertions: It is anticipated that all data/software delivered under any resulting award will be delivered with unlimited rights; however different rights may be negotiated, as appropriate. The contractor shall identify datarights/software assertions in accordance with DFARS 227.7103-3 and/or 227.7203-3, licenses, patents, etc. that apply to any proprietary materials, technical data, products, software, or processes to be used by the prime or subcontractor(s) in the performance of this effort; and shall address acquisition of data rights or licenses, or expected recoupment of development costs for those proprietary items that will be integral to any contracts awarded under this BAA.

4. Occupational Safety and Health (OSHA): If required as a part of a resulting contract

from this BAA, DAFFARS 5352.223-9001 (Jul 2023) mandates that adequate health and safety requirements be identified in the contract. Contractors can gain more information regarding OSHA at https://www.osha.gov/.

X. AGENCY CONTACTS

1. Questions of a technical nature shall be directed to the technical point of contact listed in each applicable Research Area.
2. Questions of a contractual/business nature shall be directed to the RWK BAA monitors:

   Ms. Amy Fortenberry
   203 West Eglin Blvd
   Bldg 300, Rm 112
   Eglin AFB, FL 32542-6810
   Phone: (850) 882-3657
   Email: amy.fortenberry.1@us.af.mil

   Ms. Pam
   King-Hasberry 203
   West Eglin Blvd Bldg
   300, Rm 112 Eglin
   AFB, FL
   32542-6810
   Phone: (850) 585-3209
   Email: pamela.king-hasberry.1@us.af.mil

3. Any correspondence shall reference the BAA number and title and research area in the Subject Line.

4. In accordance with DAFFARS 5301.9103, 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. DAFFARS 5352.201-9101 (Jul 2023), Ombudsman will be incorporated into all contracts awarded under this BAA. The Ombudsman is as follows:

   Ms. Tessy Smith
   Director of Contracting, AFRL/PK
   Air Force Research Laboratory Phone: (937) 904-4407 Email: tessy.smith@us.af.mil

5. The BAA Guide for Industry is located at:
   https://www.afrl.af.mil/Portals/90/Documents/HQ/BAA%20Ind%20Guide%202020.pdf?ver=7AivkWvoUoptKgypgCuIvw%3D%3D

XI. OTHER INFORMATION PERTINENT TO AWARD OF CONTRACTS AND/OR ASSISTANCE INSTRUMENTS & SELECT PROVISIONS BY REFERENCE/CLAUSES THAT MAY APPLY TO CONTRACTS

1. Support Contractors: The AFRL/RW has entered contracts with support contractors. Support contractors may support, advise, and assist Government employees with reviewing and evaluating white paper/formal proposals. These contractors have signed general non-disclosure agreements and organizational conflict of interest statements. Any objection to support contractor access must be in writing to the CO and shall include a detailed statement of the basis for the objection. Any award resulting from this announcement will contain a requirement for notifying the awardee that the Government and select support contractors may be required to evaluate certain elements of the proposal.

2. Communication: Dialogue between prospective offerors and Government representatives is encouraged until submission of proposals. 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 COs are legally authorized to commit the Government.

3. Debriefings: When requested, a debriefing will be provided. The debriefing process will follow the time guidelines set out in 10 USC 2305(b)(5), but the debriefing content may vary to be consistent with the procedures that govern BAAs (FAR 35.016).

4. Associate Contractor Agreements: Associate Contractor Agreements (ACAs) are agreements between contractors working on Government contract projects that specify requirements for them to share information, data, technical knowledge, expertise, or resources. The CO may require ACAs when contractors working on separate Government contracts must cooperate, share resources or otherwise jointly participate in working on contracts or projects. Prime contractor to subcontractor relationships do not constitute ACAs. For each award, the CO will identify associate contractors with whom agreements are required.

5. Provisions of the Federal Acquisition Regulation may be accessed electronically at this address: https://www.acquisition.gov/

6. System for Award Management (SAM) Registration: IAW FAR 52.204-8 (Jan 2025), Offerors must be registered in the SAM database to receive a contract award and remain registered during performance and through final payment of any contract or agreement. Offerors who are not already registered should consider applying for registration before submitting a proposal. Processing time for registration in SAM, which normally takes 48 hours, should be taken into consideration when registering. The provision at FAR 52.204-7, System for Award Management (SAM) (Nov 2024), applies. **The Government shall obtain the contractor's annual FAR/DFARS Representations and Certifications (i.e., Reps & Certs) directly from the SAM repository upon submission of the contractor's proposal.** It is incumbent upon the contractor to keep their SAM Reps & Certs up to date on an annual basis. Subsequent award will not occur unless the contractor's Reps & Certs are current**.**

7. Wide Area WorkFlow Notice: Any contract award resulting from this announcement will contain the clause DFARS 252.232-7003, Electronic Submission of Payment Requests and Receiving Reports (Dec 2018), which requires electronic submission of all payment requests. Contractors will be required to set up an account with Wide Area Workflow through the Procurement Integrated Enterprise Environment (PIEE).

8. Item Identification and Valuation: Any contract award resulting from this announcement may contain the clause at DFARS 252.211-7003, Item Unique Identification and Valuation (Jan 2023), 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.

9. Forward Pricing Rate Agreements/Recommendations (FPRA/FPRR): If formal proposals are requested, offerors with FPRAs and FPRRs should submit them with their proposals.

10. Pre-Award Clearance: Pursuant to FAR 22.805, a pre-award clearance must be obtained from the U.S. Department Of Labor, Employment Standards Administration, Office Of Federal Contract Compliance Program's (OFCCP) prior to award of a contract (or subcontract) of $10,000,000 or more unless the contractor is listed in OFCCP's National Preaward Registry https://www.dol.gov/agencies/ofccp/pre-award. Award may be delayed if an offeror is not currently listed in the registry and the CO must request a pre- award clearance from the OFCCP.

11. Limitations on Pass-Through Charges: Any contract award resulting from this announcement may contain the clause at FAR 52.215-23, Limitations on Pass-Through Charges (Jun 2020), 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.

12. Post-Award Small Business Program Re-representation: Any contract above the micro-purchase threshold resulting from this announcement may contain the clause at FAR 52.219-28, Post-Award Small Business Program Representation (Jan 2025), which requires a contractor to re-represent its size status when certain conditions apply.

13. Employment Eligibility Verification: Any contract above the Simplified Acquisition Threshold and containing a period of performance of more than 120 days resulting from this announcement may contain the clause at FAR 52.222-54, Employment Eligibility Verification (Jan 2025). This clause provides the requirement of contractors to enroll as a Federal Contractor in the E-Verify program within 30 days after contract award.

14. Reporting Executive Compensation and First-Tier Sub-contract/Sub-recipient Awards: Any contract award resulting from this announcement may contain the clause at FAR 52.204-10, Reporting Executive Compensation and First-Tier Subcontract Awards (Jun 2020). Any grant or agreement award resulting from this announcement may contain the award term set forth in 2 CFR, Appendix A to Part 25 https://www.ecfr.gov/current/title-2/subtitle-A/chapter-I/part-25

15. Updates of Publicly Available Information Regarding Responsibility Matters: Any contract or assistance award that exceeds $600,000.00; when an offeror checked "has" in paragraph (b) of the provision FAR 52.209-7, shall contain the clause/article, FAR 52.209-9, Updates of Publicly Available Information Regarding Responsibility Matters (Oct 2018).

16. Federal Awardee Performance and Integrity Information System (FAPIIS): Before awarding a contract more than the simplified acquisition threshold, the CO shall review the performance and integrity information available in the FAPIIS (available at https://cpars.gov), including FAPIIS information from the SAM exclusions and the Contractor Performance Assessment Reporting System (CPARS).

17. Government Approved Accounting System: An offeror must have a government- approved accounting system prior to award of a cost-reimbursement contract per limitations set forth in FAR 16.301-3(a) to ensure the system is adequate for determining costs applicable to the contract. The acceptability of an accounting system is determined based upon an audit performed by the Defense Contract Audit Agency (DCAA).

18. IAW FAR 52.204-24, Representation Regarding Certain Telecommunications and Video Surveillance Services or Equipment, offerors shall complete paragraph (d)(1) of the provision unless offeror has represented that it "does not provide covered telecommunications equipment or services…" in paragraph (c)(1) in the provision at FAR 52.204-26, Covered Telecommunications Equipment or Services-Representation.

19. FAR 52.204-27, Prohibition on a ByteDance Covered Application (Jun 2023) applies unless an exception is granted IAW OMB Memorandum M-23-23.

20. DFARS 252.204-7008, Compliance with Safeguarding Covered Defense Information Controls (Oct 2016). Provision will apply if contract involves handling Controlled Unclassified Information (CUI).

21. DFARS 252.204-7016, Covered Defense Telecommunications Equipment or Services-Representation (Dec 2019). Offeror shall represent that it does or does not provide covered defense telecommunications equipment or services as a part of its offered products or services to the Government.

22. DFARS 252.204-7017, Prohibition on the Acquisition of Covered Defense Telecommunications Equipment or Services-Representation (May 2021). Offeror is not required to complete representation if the offeror has represented in the provision 252.204-7016.

23. DFARS 252.204-7019, Notice of NIST SP 800-171 DoD Assessment Requirements (Nov 2023) provision applies. As prescribed in 204.7304(d), offerors are required to implement the NIST SP 800-171r2 to have a current (not older than three years) NIST SP 800-171 DoD Assessment on record and assessment score no less than 110. If the score is less than 110, the Contracting Officer will request and review the contractor's plan to be considered for award. Offerors are required to post any applicable current assessment in Supplier Performance Risk System (SPRS) https://www.sprs.csd.disa.mil. Provision will apply if contract involves handling Controlled Unclassified Information (CUI).

24. DFARS 252.204-7024, Notice on the Use of the Supplier Performance Risk System (Mar 2023) provision applies. The Supplier Performance Risk System (SPRS) is available at

https://piee.eb.mil/ and will be used in the evaluation of the Offeror's performance. This includes item, price, quality, delivery and contractor information.

25. DFARS 252.227-7017, Identification and Assertion of Use, Release, or Disclosure Restrictions, identify in the proposal submission any technical data for which restrictions on use, release or disclosure are asserted. Any assertions must be completed and submitted with your proposal.

26. Collection of Data Concerning Women in STEM under DoD Grants and Cooperative Agreements: To evaluate compliance with Title IX of the Education Amendments of 1972 (20 U.S.C. A§1681 Et. Seq.), the Department of Defense is collecting certain demographic and career information, **for grants and cooperative agreements**, to be able to assess the success rates of women who are proposed for key roles in applications in STEM disciplines. To enable this assessment, each application must include the following forms completed as indicated:

    a. Research and Related Senior/Key Person Profile (Expanded): The Degree Type and Degree Year fields on the Research and Related Senior/Key Person Profile (Expanded) form will be used by DoD as the source of career information. In addition to the required fields on the form, applicants must complete these two fields for individuals that are identified as having the project role of PD/PI or Co-PD/PI on the form. Additional senior/key persons can be added by selecting the "Next Person" button.

    b. Research and Related Personal Data Project Director/Principal Investigator and Co-Project Director(s)/Co-Principal Investigator(s): This form will be used by DoD as the source of demographic information, such as gender, race, ethnicity, and disability information for the Project Director/Principal Investigator and all other persons identified as Co-Project Director(s)/Co-Principal Investigator(s). Each application must include this form with the name fields of the Project Director/Principal Investigator and any Co-Project Director(s)/Co-Principal Investigator(s) completed; however, provision of the demographic information in the form is voluntary. If completing the form for multiple individuals, each Co-Project Director/Co-Principal Investigator can be added by selecting the "Next Person" button. The demographic information, if provided, will be used for statistical purposes only and will not be made available to merit reviewers. Applicants who do not wish to provide some or all the information should check or select the "Do not wish to provide" option.

    c. DISTRIBUTION A. Approved for public release; distribution unlimited. (AFRL-2022-0309).

    d. Place of Performance: TBD United States

Attachment 1: Standard Form 424
Attachment 2: Security Program Questionnaire
Attachment 3: Research and Related Senior and Key Person Profile Worksheet
Attachment 4: Privacy Act Statement