

1-Step Broad Agency Announcement

Overview Information

NAICS Code: 541712

Federal Agency Name: Air Force Research Laboratory, Materials and Manufacturing Directorate, Manufacturing Technology Division, AFRL/RXM

Broad Agency Announcement Title: Defense-wide Manufacturing Science and Technology Program (DMS&T)

Broad Agency Announcement Type: This is the initial announcement.

Broad Agency Announcement Number: BAA-AFRL-RQKM-2016-0006

Catalog of Federal Domestic Assistance (CFDA) Number(s): N/A

Proposal Due Date and Time: 15 Jan 2016, 3:00 PM Local Time. **NOTE: Proposal receipt after the due date and time shall be governed by the provisions of FAR 52.215-1(c)(3).** *It should be noted that this installation observes strict security procedures to enter the facility. These security procedures are NOT considered an interruption of normal Government processes, and proposals received after the above stated date and time as a result of security delays will be considered "late." Furthermore, note that if offerors utilize commercial carriers in the delivery of proposals, they may not honor time-of-day delivery guarantees on military installations. Be advised, if the U.S. Postal Service is used, this building only receives U.S. Postal Mail twice a week and delivery by that means may not meet the proposal due date and time established herein. Early proposal submission is encouraged.*

Solicitation Request: Air Force Research Laboratory, Materials and Manufacturing Directorate, Manufacturing Technology Division, Propulsion Structures and Manufacturing Enterprise Branch (AFRL/RXMS), Wright Research Site is soliciting technical and cost proposals on the research effort described below. Proposals should be addressed to the Contracting Point of Contact (POC) stated in Section VII of the Full Text Announcement. This is an unrestricted solicitation. Small businesses are encouraged to propose on all or any part of this solicitation. The NAICS Code for this acquisition is **541712** and the small business size standard is **500 employees**. Proposals submitted shall be in accordance with this announcement. *There will be no other solicitation issued in regard to this requirement.* Offerors should be alert for any BAA amendments that may permit extensions to the proposal submission date.

System for Award Management (SAM) Registration: FAR 52.204-7, System for Award Management (SAM) (JUL 2013), and DFARS 252.204-7004, Alternate A, System for Award Management (SAM) (Feb 2014) 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. It replaces CCR/FedReg, On-line Representations and Certifications (ORCA) and the Excluded Parties Lists System (EPLS). 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 the SAM accessed through <https://www.acquisition.gov> or by calling 866-606-8220.

Type of Contract/Instrument: Awards under this BAA will be Cost Plus Fixed Fee contracts. Cost reimbursement contracts require successful offerors to have an accounting system considered adequate for tracking costs applicable to the contract.

Estimated Program Cost: \$48.6M

Anticipated Number of Awards: Typical awards are between \$3M - \$5M and 24-36 months in duration; however, the government reserves the right to award contracts above or below that range. The total number of awards will depend upon the costs of proposals selected for award within the funding limits described herein. *However, the Air Force reserves the right to award zero, one, or more contracts for all, some or none of the solicited effort based on the offeror's ability to perform desired work.*

Brief Program Summary: The DMS&T program is funded by OSD and executed by the Air Force Research Laboratory, Materials & Manufacturing Directorate, Manufacturing Technology Division (AFRL/RXM), Wright-Patterson AFB, OH. The DMS&T Program is defined in Title 10, Section 252. A key objective is to identify and transition advanced manufacturing processes and technologies to achieve significant productivity and efficiency gains in the defense manufacturing base. DMS&T investments focus on joint service applications, and cross-cutting military manufacturing needs. DMS&T programs support critical enabling technologies in the areas of advanced electronics and optical manufacturing; advanced materials manufacturing; and enterprise and emerging manufacturing technologies. Project goals focus on technology transition across multiple platforms, deployment in 3-10 years, and game-changing capabilities for faster and affordable production of Department of Defense (DoD) weapon systems. The DMS&T Program seeks to provide manufacturing improvements that offer significant positive impacts on cost, schedule, and availability of major DoD weapon systems. These manufacturing improvements will lead to advanced manufacturing processes and systems that will enable timely, reliable, high quality, affordable production and sustainment of DoD weapon systems. The DMS&T Program web site is located at <https://www.dodmantech.com/ManTechPrograms/DMST>.

Communication Between Prospective Offerors and Government

Representatives: 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 Contracting Officers are legally authorized to commit the Government. Technical and contracting communications are encouraged with the personnel listed. E-mail is preferred so that communications can be effectively documented and tracked.

Address technical questions to: Primary: Mr. Marvin Gale, AFRL/RXMS, 2977 Hobson Way, Area B, Bldg 653, Room 320, WPAFB, OH, 45433-7746, phone number (937) 656-6010, marvin.gale@us.af.mil . Secondary: Dr. Fred Arnold, AFRL/RXMS, 2977 Hobson Way, Area B, Bldg 653, Room 318, WPAFB, OH, 45433-7746, phone number (937) 904-4380, fred.arnold@us.af.mil. All technical correspondence via phone or e-mail shall also be submitted to the contracting office.

Address contracting questions to: Contract Negotiator, Mr. Mark Wade, AFRL/RQKMT, 2130 8th St., Wright-Patterson AFB, OH 45433, 937-713-9868, mark.wade.1@us.af.mil or Contracting Officer, Ms. Pam S. Strader, AFRL/RQMT, 2130 8th Street, Area B, Bldg 45, WPAFB, OH, 45344-7541, phone number (937) 713-9919, pamela.strader@us.af.mil

Full Text Announcement

I. Program Description: Air Force Research Laboratory, Materials and Manufacturing Directorate, Manufacturing Technology Division, Propulsion Structures and Manufacturing Enterprise Branch (AFRL/RXMS), is soliciting technical and cost proposals to support the DMS&T Program in the research areas discussed within the following Statement of Objectives/Needs.

1. Statement of Objective/Needs:

1.0 Background: the DMS&T Program was established in FY08 to complement each service's ManTech program. The program is focused on defense manufacturing needs beyond the ability of a single service to address and to stimulate the early development of manufacturing processes and enterprise business practices concurrent with S&T development in order to achieve the largest cost-effective impact. DMS&T project investments focus on joint service applications, and cross cutting military manufacturing needs. Current areas of core DMS&T investment are Advanced Electronics and Optics Manufacturing; Advanced Materials Manufacturing; and Enterprise and Emerging Manufacturing Technologies. A more complete description of the DMS&T program can be viewed at <https://www.dodmantech.com/ManTechPrograms/DMST>.

2.0 Scope: Transition and implementation plans of advanced manufacturing technologies and processes into DoD systems is required for all DMS&T programs with the goal to reduce the acquisition and supportability costs of defense weapon systems. These goals are described in Title 10, Section 2521. A specific DoD system shall be identified as the initial transition opportunity. Supporting documentation for the transition opportunity can include Capability Development Documents (CDDs), Capability Production Documents (CPDs), or other key requirements documents tied to the identified system and manufacturing capability gap. Additional joint

service impact and future implementation opportunities shall also be described. The following technology areas and sub-areas have been identified by the DMS&T program for this solicitation.

2.1 Advanced Propulsion: A long term goal within the propulsion community is to reduce acquisition cost, improve performance, reduce operational costs and develop technologies for service lifetime prediction and sustainability. The DOD has a crucial need to develop fuel efficient sustainable propulsion capabilities. Current technology gaps include adaptive engine design, high performance lightweight materials, advanced component designs for improved efficiency and advanced engine/airframe integration. Research areas of particular interest include, but are not necessarily limited to, the following:

2.1.1 Dimensional Variability Reduction for Large Engine Organic Matrix Composite (OMC) and Ceramic Matrix Composite (CMC) Structural Components Research.

Conduct research to improve variability of OMC and CMC components such as exhaust nozzles, front frames, and fan components. For key components with variability causing the most negative impacts, the use of modeling & simulation, advanced materials characterization, and other methods may be required to demonstrate successful results.

2.1.2 CMC Life and Durability Models for Components Research.

Conduct research to create life and durability models for propulsion components and particularly for rotating CMC parts. Specific, non-proprietary models to address CMC-unique attributes and not merely extensions of metal-based modeling approaches are of interest. Projects will identify, develop, validate, and integrate models for items such as crack growth based lifing; thermal gradients; interlaminar stress; microstructure degradation effects; features and attachments including cooling holes and ribs; and coatings. Integrated models will support development of propulsion structural integrity plans.

2.1.3 Trade-Off Prediction Tools for Cost, Performance, and Reliability Research.

Conduct research for technologies to enable smarter, earlier "architecture" decisions that achieve maximum performance given a fixed cost (or sufficient performance at minimum cost). It is anticipated that this research will allow improved materials, components, and processes to "buy their way" onto a system. Projects of interest will develop modeling and prediction tools, demonstrate the prediction confidence level, and integrate tools into system-level decision making processes.

2.1.4 As-Manufactured and As-Maintained State Awareness Research.

Conduct research to develop technologies that

determine the as-manufactured and as-maintained quality state of propulsion system hardware to enable more targeted maintenance, reduced sustainment cost, improved system availability and extended equipment life. Projects of interest will develop capabilities such as automated and advanced Non-Destructive Evaluation (NDE) techniques; in-situ inspection and monitoring; improved traceability; databases of as-made, as-assembled, as-used dimensional history; and automated conditional health operating parameter monitoring.

2.1.5 Risk-Based Life Cycle Management for System

Sustainment Research. Currently, maintenance schedules are based on periodic intervals rather than condition-based or risk-based determination. Conduct research to develop and implement risk-based maintenance methods with appropriate safety factors for uncertainty. Projects of interest will develop engineering / sustainment tools for risk-based decision making. The tools will leverage design, manufacturing, usage, condition, and maintenance using digital data storage throughout the system life cycle, with secure access across the enterprise. Methods should include system feedback processes and continuous verification & validation of design assumptions and inputs.

2.1.6 Other Areas of Advanced Propulsion Manufacturing Research:

- Manufacturing of medium-small turbine engines including expendables
- Processing Affordable Polyimide High Temperature Structures (625-650F+)
- Hollow titanium blade fabrication
- Linear friction welding
- High temperature ceramic matrix composites (fibers and high temperature matrices)
- Manufacturability of oxide/oxide composites
- Development of novel thermal barrier coatings for OMCs and CMCs

2.2 Radar Affordability and Electronic Warfare (EW): Conduct research to develop manufacturing processes and technologies that reduce cost and improve performance of radar systems and advanced EW systems. Focus on developing new technologies for improved performance and sustainability of legacy and future DOD weapon systems. Research areas of particular interest include but are not necessarily limited to the following:

2.2.1 Open Architecture for Radar Subsystems Research.

Conduct research to develop and demonstrate open-architecture for components such as power supplies, allowing for common standards and interfaces, lower life

cycle cost, and improved upgradeability. Projects of interest will identify a component type and then develop and demonstrate an open architecture solution that could be applied to multiple systems.

2.2.2 Enabling Common Modules Research. Conduct research to develop subsystem components (such as power supply, RF amplifier, power distribution) as common modules / building blocks for each subsystem. Projects of interest would define and align stakeholders; identify a specific module or subsystem to address as a common module; define specifications, inputs and outputs; model/simulate, prototype, and test the subcomponent; and develop transition paths for production of fielded systems.

2.2.3 High Permeability Materials Maturation Research. Conduct research and develop technologies to lower cost processes for lithography, sheet lamination, and sputtering that allow production of much thinner antennas that reduce wind drag on aircraft and reduce visible signatures on land and sea platforms while maintaining comparable antenna performance.

2.2.4 Wafer Scale Manufacturing for Active Electronically Scanned Array (AESA) Radar Research. Conduct research and develop technologies to lower cost processes for semiconductor wafer manufacturing applicable to DoD AESA systems. These improvements include advanced technologies for deposition, removal, lithography, and other related manufacturing processes.

2.2.5 Other Technical areas of Interest for Radar Affordability and EW Research:

- Technologies to Develop and Maintain Common High Voltage Power Supplies.
- Technologies to Develop and Maintain Tools and Methods that Enable Efficient Vacuum Tube Sustainment.
- Technologies to Develop and Maintain Common Transmit and Receive (T/R) Module Packaging Architectures.
- Technologies to Enable Efficient Development and Maintainability of Common Software Modules.
- Technologies to Optimize Modules for Rapid Customization Across Multiple Applications.

2.3 Transparent Ceramics: Transparent Ceramics is a versatile material class that is currently utilized by the DOD for Electro-Optical (EO) applications including fibers, films and bulk solid state components such as windows. Typical materials considered for research include sapphire, Aluminum Oxynitride (ALON), and spinel. In addition, transparent ceramics offer the

potential for improved ballistic strength for battlefield armor and personnel protection. Several topics addressing desired manufacturing capabilities include but aren't limited to.

2.3.1 High Strength Spinel Manufacturing Scale-Up Research. Conduct research to improve process yield and increase bulk size currently limited by Hot Isostatic Press (HIP) dimensions. Develop new and innovative processing techniques to decrease cost and improve component fabrication times.

2.3.2 Nanocomposite Optical Ceramic (NCOC) Powder Manufacturing Scale-Up Research. Conduct research for fabrication of NCOC materials with improved high temperature properties. Develop scale-up fabrication processes for powder conditioning, sintering capacity, HIP, annealing, etc.

2.3.3 Transparent Ballistic Armor Manufacturing Technologies Research. Conduct research to improve powder processing routes, green forming and densification processes. Develop novel fabrication processes that impact multiple capability gaps beyond ballistic armor applications.

2.3.4 Infrared Windows (IR) Manufacturing Technologies Research. Conduct research to improve fabrication processes for IR windows. Focus research and development efforts on improving yield, increasing IR window performance, decreasing fabrication costs, and improving delivery times.

2.3.5 Curved Transparent Ceramics Manufacturing Technologies Research. Conduct research to develop low cost fabrication processes. Research and development efforts will infuse advanced polishing technology with sufficient optical transparency for application on a wide variety of platforms for air, sea and ground.

2.4 Pervasive Technologies:

2.4.1 Advanced Electronics and Optics Research: Desired efforts addressing advanced manufacturing technologies for a wide range of applications such as sensors; power generation; switches and optics; and sensors to see/sense through walls/obstructions/foilage. Technical goals are producibility and efficiency gains in the defense manufacturing industrial base to accelerate the delivery of electronics and optics systems capabilities impacting current and future warfighting needs.

2.4.2 Advanced Materials Manufacturing: Desired efforts addressing advanced manufacturing technologies for a wide range of materials such as composites (OMCs, CMCs, and MMCs), metals, monolithic ceramics, and nano-materials. Conduct research for efficiency gains of these manufacturing technologies that will accelerate delivery of

technical capabilities impacting current and future warfighter needs while reducing cost, acquisition time and risk of major DOD weapon systems.

2.4.3 Enterprise and Emerging Manufacturing Capabilities:

Conduct research that will improve the DOD's agility and flexibility to acquire and/or produce materiel. The focus is to find solutions to overcome a burdensome acquisition cycle requiring a great amount of cost, time, security and storage space. Desired efforts will address advanced manufacturing technologies and enterprise business practices for defense applications including machining, robotics, assembly and joining.

3.0 DMS&T Program Objectives: DMS&T program objectives should be considered when developing an effective approach in response to the requirements listed in Section 2.0.

3.1 Objective 1 - Identification of Defense Manufacturing Capability Gaps: Identify manufacturing capability gaps for a proposed DoD system. Capability gaps may include performance deficiencies, production rate issues, affordability, sustainability, or others. Current state of the art limitations should be identified as part of the capability gap analysis.

3.2 Objective 2 - Development of Advanced Manufacturing Technologies: Develop advanced manufacturing processes and techniques to eliminate or improve the identified DoD manufacturing capability gaps. Advancement of the current state of the art and establishment of new manufacturing capabilities are desired attributes.

3.3 Objective 3 - Identification/Verification of DMS&T Program Benefits: Identify estimated benefits resulting from the proposed approach and describe the DoD systems impacted by the advanced manufacturing technology. These benefits include the initial DoD targeted system as well as the time frame the developed technology will benefit the identified system. Identification of the benefits to the acquisition and sustainment communities should be included if applicable. Benefits can include financial Return on Investment (ROI); benefits in money or time (not percentages); and cost avoidance / savings. Additional industrial base benefits may include establishment of a new manufacturing capability; reduction of system cost, reduction of process cycle time; increased throughput/yield; or others.

3.4 Objective 4 - Manufacturing Readiness Level (MRL) Tracking: Track the manufacturing technology development and its effect on the Manufacturing Readiness Level (MRL). The proposed manufacturing technology and the technical approach will be tracked throughout the program in order to provide accurate maturity levels for DoD systems. Manufacturing

Readiness Assessments (MRAs) and Technology Readiness Levels (TRLs) are an integral part of this process.

- 3.5 Objective 6 – DMS&T Risk Alignment:** Ensure that the proposed effort is beyond the risk of the weapons system program office and/or industry.

OPSEC REQUIREMENTS: All contractors shall participate in all activities associated with the disciplines of the organization's Industrial Security, Information Security, Personnel Security, Operations Security (OPSEC), Antiterrorism, and Program Protection programs, following appropriate measures in each program as required for this particular contract. These are required in an effort to reduce program vulnerability from successful adversary collection, exploitation of critical information, and violations of export control requirements. The prime contractor will ensure that all subcontractors, if required, conform to these requirements as required by the prime contractor. Guidance can be provided by AFRL/RX Security as needed.

2. **Deliverable Items:** Contract Data Requirements List (CDRLs) are applicable. Software, Hardware or other deliverables may be applicable and will be determined for each award. A representative set of common CDRLs for planning purposes are attached to the BAA. The CDRLs may include but are not limited to Status Reports, Scientific and Technical Reports, Performance and Cost Reports, Funds and Man-hour expenditure reports, Contractor Funds and Status Reports, and Presentation Material.
3. **Schedule:** Each award will vary in duration; however, it is anticipated that most efforts will be between 24-36 months.
4. **Other Requirements:** The following requirements will be determined for each proposal:
 - a. Program security classification: Unclassified. It is not anticipated that this BAA will handle or generate any classified (secret/top secret) data.
 - b. TEMPEST requirements: Not applicable.
 - c. OPSEC: See above Statement of Objective/Needs for OPSEC guidance.
 - d. 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 effort is subject to export control then a Certified DD Form 2345, Militarily Critical Technical Data Agreement, will be required to be submitted with proposal.
 - e. Export-Controlled Items: As prescribed by DFARS 225-7901-4, DFARS 252.225-7048, "Export-Controlled Item (JUN 2013)" is contained in this solicitation (as shown below). This clause shall be contained in ALL solicitations and resulting contracts.

EXPORT CONTROLLED ITEMS (JUNE 2013)

(a) *Definition.* "Export-controlled items," as used in this clause, means items subject to the Export Administration Regulations (EAR) (15 CFR Parts 730-774) or the International Traffic in Arms Regulations (ITAR) (22 CFR Parts 120-130). The term includes:

(1) "Defense items," defined in the Arms Export Control Act, 22 U.S.C. 2778(j)(4)(A), as defense articles, defense services, and related technical data, and further defined in the ITAR, 22 CFR Part 120.

(2) "Items," defined in the EAR as "commodities", "software", and "technology," terms that are also defined in the EAR, 15 CFR 772.1.

(b) The Contractor shall comply with all applicable laws and regulations regarding export-controlled items, including, but not limited to, the requirement for contractors to register with the Department of State in accordance with the ITAR. The Contractor shall consult with the Department of State regarding any questions relating to compliance with the ITAR and shall consult with the Department of Commerce regarding any questions relating to compliance with the EAR.

(c) The Contractor's responsibility to comply with all applicable laws and regulations regarding export-controlled items exists independent of, and is not established or limited by, the information provided by this clause.

(d) Nothing in the terms of this contract adds, changes, supersedes, or waives any of the requirements of applicable Federal laws, Executive orders, and regulations, including but not limited to—

(1) The Export Administration Act of 1979, as amended (50 U.S.C. App. 2401, et seq.);

(2) The Arms Export Control Act (22 U.S.C. 2751, et seq.);

(3) The International Emergency Economic Powers Act (50 U.S.C. 1701, et seq.);

(4) The Export Administration Regulations (15 CFR Parts 730-774);

(5) The International Traffic in Arms Regulations (22 CFR

Parts 120-130); and

(6) Executive Order 13222, as extended.

(e) The Contractor shall include the substance of this clause, including this paragraph (e), in all subcontracts.

(End of clause)

5. Other Information:

- a. Government Furnished Property (GFP) availability: It is not anticipated that GFP will be required for contractual efforts. If applicable, 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. If GFP is included in the solicitation or requested in the proposal the following clauses/provisions apply:
 - i. FAR 52.245-1 Government Property or FAR 52.245-1, Alt II if the resulting contract is with a nonprofit organization or applied research at nonprofit organizations (APR 2012),
 - ii. FAR 52.245-9 Use and Charges (APR 2012),
 - iii. DFARS 252.211-7007, Reporting of Government-Furnished Property (AUG 2012),
 - iv. DFARS 252.245-7001, Tagging, Labeling, and Marking of Government-Furnished Property (APR 2012),
 - v. DFARS 252.245-7002, Reporting Loss of Government Property (APR 2012).
 - vi. DFARS 252.245-7003, Contractor Property Management System Administration (APR 2012)
 - vii. DFARS 252.245-7004, Reporting, Reutilization, and Disposal (MAY 2013)

- b. Human Use: Not applicable.

- c. 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 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.

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 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 address whether those portions or processes are segregable. The Government expects that delivery of technical data, NCS, and NCS documentation subject to Government Purpose Rights will fully meet program needs.

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.

Offerors are reminded that the Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data or Computer Software (the assertions list), required under DFARS 252.227-7013 and DFARS 252.227-7014, is included in Section K and due at time of proposals. Assertions must be completed with specificity with regard to each item, component, or process listed. Nonconforming assertions lists will be rejected.

Note that DFARS 252.227-7014(d) describes requirements for incorporation of third party computer software (commercial and

noncommercial). Any commercial software to be incorporated into a deliverable must be clearly identified in the proposal. Because many commercial software licenses are not transferrable or may not be acceptable to the Government, commercial software licenses proposed for delivery to the Government must be approved by the contracting officer prior to award.

As used in this subparagraph, the terms Unlimited Rights, Government Purpose Rights, Specifically Negotiated License Rights, and Limited Rights in technical data are as defined in DFARS 252.227-7013. The terms Unlimited Rights, Government Purpose Rights, Specifically Negotiated License Rights, and Restricted Rights in noncommercial computer software and noncommercial software documentation are as defined in DFARS 252.227-7014. The term Commercial Computer Software is as defined in DFARS 252.227-7014.

II. Award Information

1. **Anticipated Award Date:** May 2016
2. **Anticipated funding:** \$48.6M – Multiple technical solutions will be sought for multiple technical areas, the number of awards to be determined upon number of solutions the Government pursues.
3. **Number of awards anticipated:** Typical awards are between \$3M - \$5M and 24-36 months in duration; however, the government reserves the right to award contracts above or below that range. The total number of awards will depend upon the costs of proposals selected for award within the funding limits described herein. *However, the Air Force reserves the right to award zero, one, or more contracts for all, some or none of the solicited effort based on the offeror's ability to perform desired work.*

III. Eligibility Information

1. **Eligible Offeror:** This is an unrestricted solicitation. Small businesses are encouraged to propose on all or any part of this solicitation.
2. **Cost Sharing or Matching:** Cost sharing or matching is not required.
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 (in this case AFRL) 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, contact the Program Office identified in the BAA. If those discussions result in a mutual interest to pursue your agency's participation, the effort will be pursued independent of this announcement.
5. **Other:**
 - a. Foreign participation: No.
 - b. Contracts resulting from this acquisition may involve data that is subject to export control laws and regulations. Only contractors who are registered and certified with the Defense Logistics Services Center (DLSC) and have a legitimate business purpose may submit export controlled proposals for this solicitation. Contact the Defense Logistics Services Center, 74 Washington Avenue N., Battle Creek, Michigan 40917-3084 (1-800-352-3572) for further information on the certification process. If applicable, you must submit a copy of your approved DD Form 2345, Militarily Critical Technical Data Agreement, with your proposal.
 - c. There are no limits to the number of proposals an offeror may submit. Each proposal will be separate and stand alone. Each proposal should address one of the identified technical sub-areas, such as "2.4.2 - Advanced Materials Manufacturing", and not include additional sub-areas within the proposal. Proposals will be disqualified and not reviewed if they contain more than one sub-area per proposal.
 - d. You may be ineligible for award if all requirements of this solicitation are not met on the proposal due date as identified above.

IV. Proposal and Submission Information

1. **Overview:** Proposals submitted shall be in accordance with this announcement. *There will be no other solicitation issued in regard to this requirement.* The Government intends to evaluate proposals and award some, all, or none of the proposals received without negotiation/discussion; however, the Government reserves the right to negotiate with those offeror(s) whose proposal is selected for funding.

Offerors should be alert for any BAA amendments that may permit extensions to the proposal submission date.

For additional information, a copy of the Broad Agency Announcement (BAA) Guide for Industry is located at

<http://www.wpafb.af.mil/shared/media/document/AFD-150518-026.pdf>

2. **Content and Form of Proposal Submission:** The paragraphs below identify proposal format and content. Proposals should be addressed via mail to the Contracting Point of Contact (POC) identified in Section VII.

a. **General Instructions:**

- i. Offerors shall apply the restrictive notice prescribed in the provision of FAR 52.215-1(e) Instructions to Offerors—Competitive Acquisition. Offerors should consider proposal instructions contained in the Broad Agency Announcement (BAA) Guide for Industry, which can be accessed on line at <http://www.wpafb.af.mil/shared/media/document/AFD-150518-026.pdf>. This guide is specifically designed to assist the offeror in understanding the BAA proposal process.
- ii. Technical/management and cost volumes shall be submitted in separate volumes, and must be valid for 180 days.
- iii. Proposals must reference the announcement number AFRL-RQKM-2015-0033.
- iv. Offerors must submit one-original and 5 hard copies of their proposals via mail to the Contracting POC, identified in Section VII.
- v. Offerors must include 3 CDs in Microsoft WORD Format containing all electronic versions of required submittals (Technical/Management Proposal/SOW/Cost/Business Proposal). All electronic versions must match the hard copies.
 - a) Technical/Management proposals, Statements of Work and Subcontracting Plan (if Applicable in accordance with FAR 19.7) must be provided in Microsoft WORD.
 - b) The cost file(s) spreadsheets must include the formulas for calculating cost element bases (i.e., G&A, O/H, etc.)
 - c) The CDs should be labeled with the company name and proposal title.
- vi. Offerors are advised that only contracting officers are legally authorized to contractually bind or otherwise commit the government.
- vii. The cost of preparing proposals in response to this BAA is not considered an allowable direct charge to any resulting or any other contract; however, it may be an allowable expense to the normal bid and proposal indirect cost as specified in FAR 31.205-18.
- viii. No classified technical proposals or cost volumes should be submitted. Offerors are encouraged to keep all elements of the proposal package unclassified. In the rare case where an offeror has a need to submit a classified appendix, please contact the technical POC listed in Section VII for delivery instructions.

b. Technical/Management Proposal:

- i. Page Limitations: The following describes the page limitations on the proposal submittal:
 - a) The Technical/Management Proposal shall be limited to 30 pages, prepared and submitted in Microsoft Word format.
 - b) Font shall be standard 12-point business font Arial.
 - c) Character spacing must be "normal," not condensed in any manner.
 - d) Pages shall be double-spaced (must use standard double-space function in Microsoft Word), double sided (each side counts as one page), 8.5 by 11 inches, with at least one-inch margins on both sides, top and bottom.
 - e) All text, including text in tables 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.
 - f) Pages shall be numbered starting with the cover page being Page 1, and the last page being no greater than Page 31. The page limitation covers all information including indices, photographs, foldouts (counted as 1 page for each 8.5 by 11 portion) tables, charts, appendices, attachments, resumes, etc.
 - g) The proposal page limit does not include the offeror's proposed Statement of Work (SOW); however, the same formatting rules apply to the SOW, which is limited to 10 pages.
 - h) **Please note:—the Government will check the proposal and SOW for conformance to the stated requirements. Any pages in excess of the stated page limitation after the format check will not be considered.**
- ii. The Technical/Management proposal(s) shall include a discussion of the nature and scope of the research and the technical approach. Additional information on prior work in this area, descriptions of available equipment, use of base support (if desired), data and facilities and resumes of personnel who will be participating in this effort should also be included as attachments to the technical proposal. (This/These) volume(s) shall/ include a SOW(s) detailing the technical tasks proposed to be accomplished under the proposed effort and suitable for contract incorporation. ***Do not include any proprietary information in the SOW.*** Refer to the BAA Guide for Industry referenced above to assist in SOW preparation. If Government Furnished Property is requested you are required to submit the following information with your offer—
 - a) A list or description of all Government property that the offeror or its subcontractors propose to use on a rent-free basis. The list

shall identify the accountable contract under which the property is held and the authorization for its use (from the contracting officer having cognizance of the property);

- b) The dates during which the property will be available for use (including the first, last, and all intervening months) and, for any property that will be used concurrently in performing two or more contracts, the amounts of the respective uses in sufficient detail to support prorating the rent;
 - c) The amount of rent that would otherwise be charged in accordance with FAR 52.245-9, Use and Charges; and
 - d) The voluntary consensus standard or industry leading practices and standards to be used in the management of Government property, or existing property management plans, methods, practices, or procedures for accounting for property.
- iii. Any questions concerning the technical proposal or SOW preparation shall be referred to the Technical POC cited in the Overview Information.

c. Cost/Business Proposal:

- i. Separate the proposal into a business section and cost section. Adequate price competition is anticipated.
 - a) The business section should contain all business aspects to the proposed contract, such as type of contractual instrument, any exceptions to terms and conditions of the announcement, any information not technically related, etc. Provide rationale for exceptions.
 - b) Identify any technical data that will be delivered with less than unlimited rights.
 - c) Cost/Business proposals have no page limitations; however, offerors are requested to keep cost proposals to 100 pages as a goal.
 - d) The Cost proposal shall be furnished with supporting schedules and shall contain a person hour breakdown per task. **Refer to the BAA Guide for Industry for detailed proposal instructions.**
- ii. Subcontracting plans, for efforts anticipated to exceed \$700,000, shall be submitted along with the technical and cost proposals. Reference FAR 19.704, DFARS 219.704, and AFFARS 5319.704(a)(1) for subcontracting plan requirements. Small business concerns are exempt from this requirement.

d. Proposal Content Summary: You may be ineligible for award if all requirements of this solicitation are not met on the proposal due date. Reference Section VIII for a Checklist of the requirements.

3. **Proposal Due Date and Time: 15 Jan 2016, 3:00 PM Local Time.**
NOTE: Proposal receipt after the due date and time shall be governed by the provisions of FAR 52.215-1(c)(3).

NOTE: Intent to Propose: Offerors that anticipate submitting a proposal are requested to submit an e-mail to Mark Wade, at mark.wade.1@us.af.mil containing the name of the contractor, the POC, and the contractor's intent to submit a proposal. This "Intent to Propose" is requested by **15 Dec 2015, 3:00 p.m. local time.**

4. **Intergovernmental Review:** Not applicable.

5. **Funding Restrictions:** None anticipated.

6. **Other Submission Requirements:** Proposals must be submitted to: AFRL/RQKMT, Mail Room 90, Bldg 45, 2130 8th St., Wright-Patterson AFB, OH 45433-7541: ATTN: Pamela S. Strader or Mark A. Wade.

V. Proposal Review Information

1. **Evaluation Criteria:** The selection of one or more sources for award will be based on an evaluation of each offeror's proposal (both technical and cost/price aspects) to determine the overall merit of the proposal in response to the announcement, as well as on Agency need and funding availability. The technical aspect, which is ranked as the first order of priority, shall be evaluated based on the following criteria that are of descending order of importance:

- a. **Technical:**

- i. Unique and innovative approach proposed to accomplish the technical objectives. New and creative solutions and/or advances in knowledge, understanding, technology, and the state of the art.
- ii. The offeror's understanding of the scope of the technical effort.
- iii. Soundness of the offeror's technical approach.
- iv. The potential for AFRL to transition the research and development deliverables to future Government needs. Any proposed restriction on technical data or computer software will be considered.
- v. Availability of qualified technical personnel and their experience with the applicable technologies.

- vi. Availability, from any source, of necessary research, test, laboratory, or shop facilities.
- b. **Cost/Price:** Cost/Price includes the reasonableness and realism of the proposed cost and fee and consideration of proposed budgets and funding profiles. Cost/Price is a substantial factor, but ranked as the second order of priority. (If an offeror proposes the use of GFP other than any GFP identified in this BAA, and that proposed GFP provides the offeror an unfair competitive advantage, then FAR 45.202 requires rental equivalent be applied to the Cost Factor for evaluation purposes only).
- c. **Proposal Risk Assessment:** Proposal risk for technical, cost, and schedule will be assessed 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 payoff.

2. Review and Selection Process

- a. **Categories:** The technical and cost proposals will be evaluated at the same time and categorized as follows:
 - i. **Category I:** Demonstrates technical merit. Is important to agency programs. The offeror presents relevant experience and access to adequate resources. Risk is acceptable. The cost/price is reasonable and realistic. Proposals in Category I are recommended for acceptance (subject to availability of funds) and normally are displaced only by other Category I proposals.
 - ii. **Category II:** Demonstrates technical merit; is important to agency programs; and presents relevant experience and access to adequate resources; but requires further development. Risk is acceptable. The cost/price is reasonable and realistic. Category II proposals are recommended for acceptance, but at a lower priority than Category I.
 - iii. **Category III:** Does not demonstrate technical merit; does not meet agency needs; does not present adequate experience or resources; the risk level is unacceptable; or the cost/price is not reasonable or realistic .
- b. No other evaluation criteria will be used. The Air Force reserves the right to select for award any, all, part or none of each proposal received.

VI. Award Administration Information

1. **Award Notices:** Offerors will be notified whether their proposal is recommended for award, by letter or e-mail, approximately 60-90 working days after the proposals are received. 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.
2. **Administrative and National Policy Requirements:** See Section I.
3. **Reporting:** Reporting will be required in accordance with the Contract Data Requirements Lists for each contract.

VII. Agency Contacts

1. **Address technical questions to:** Mr. Marvin Gale, AFRL/RXMS, 2977 Hobson Way, Area B, Bldg 653, Room 320, WPAFB, OH, 45433-7746, phone number (937) 656-6010, marvin.gale@us.af.mil. All technical correspondence via phone or e-mail shall also be submitted to the contracting office.
2. **Address contracting questions to:** Contract Negotiator, Mr. Mark Wade, AFRL/RQKMT, 2130 8th St., Wright-Patterson AFB, OH 45433, 937-713-9868, mark.wade.1@us.af.mil or Contracting Officer, Ms. Pam S. Strader, AFRL/RQMT, 2130 8th Street, Area B, Bldg 45, WPAFB, OH, 45344-7541, phone number (937) 713-9895, pamela.strader@us.af.mil

VIII. Other Information

1. **Acquisition of Commercial Items:** Based upon market research, the Government is not using the policies contained in Part 12, Acquisition of Commercial Items, in its solicitation for the described supplies or services. However, interested persons may identify to the contracting officer their interest and capability to satisfy the Government's requirement with a commercial item within 15 days of this notice.
2. **Support contractors:** Only Government employees will evaluate proposals for selection. Offerors are advised that employees of commercial firms under contract to the Government may be used to administratively process proposals, monitor contract performance, or perform other administrative duties requiring access to other contractors' proprietary information. These support contracts include nondisclosure agreements prohibiting their contractor employees from disclosing any information submitted by other contractors or using such information for any purpose other than that for which it was furnished.

3. **Debriefings:** If a debriefing is requested in accordance with the time guidelines set out in FAR 15.505 and 15.506, a debriefing will be provided, but the debriefing content may vary to be consistent with the procedures that govern BAAs (FAR 35.016).
4. **Wide Area Work Flow:** NOTICE: Any contract award resulting from this solicitation will contain the clause at DFARS 252.232-7003, Electronic Submission of Payment Requests and Receiving Reports (JUN 2012) which requires electronic submission of all payment requests. Any contract resulting from this solicitation will establish a requirement to use WAWF-RA for invoicing and receipt/acceptance, and provide coding instructions applicable to this contract via the clause at DFARS 252.232-7006, Wide Area Workflow Payment Instructions (MAY 2013). Contractors are encouraged to take advantage of available training (both web-based and through your local DCMA office), and to register in the WAWF-RA system. Information regarding WAWF-RA, including the web-based training and registration, can be found at <https://wawf.eb.mil>. Note: This WAWF-RA requirement does not apply to Universities that are audited by an agency other than DCAA.
5. **Item Unique Identification and Valuation.** Any contract award resulting from this solicitation may contain the clause at DFARS 252.211-7003, Item Unique Identification and Valuation, (DEC 2013) 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 211.274-3 Policy for Valuation, it is DoD policy that contractors shall be required to identify the Government's unit acquisition cost for all deliverable end items for which Item Unique Identification applies. Therefore, your proposal must clearly break out the unit acquisition cost for any deliverable items. See DFARS 211.274-3, Policy for Valuation, for policy. (Per DoD, "fully burdened unit costs" to the Government would include all direct, indirect, G&A costs, and an appropriate portion of fee). If you have questions regarding the Unique Item Identification requirements, please contact the Contracting Point of Contact listed above. For more information, see the following website: <http://www.acq.osd.mil/dpap/pdi/uid/index.html>. The contract will also include DFARS 252.211-7007, Reporting of Government-Furnished Property (AUG 2012).

6. **Forward Pricing Rate Agreements:** Offerors who have forward pricing rate agreements (FPRA's) and forward pricing rate recommendations (FPRR's) should submit them with their proposal.
7. **Pre-Award Clearance:** Pursuant to FAR 22.805, a preaward 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 <http://www.dol-esa.gov/preaward>. This registry indicates that the contractor has been found to be "in compliance" within the past two years with The Equal Employment Opportunity (EEO) regulations that the OFCCP is mandated to enforce. The registry is updated nightly and facilities reviewed more than 2 years ago are removed and new ones are added. Award may be delayed if you are not currently listed in the registry and the contracting officer must request a preaward clearance from the OFCCP.
8. **Limitations on Pass-Through Charges.** As prescribed in FAR 15.408(n)(1) & 15.408(n)(2), provisions 52.215-22, "Limitations on Pass Through Charges – Identification of Subcontract Effort (OCT 2009)," and 52.215-23, "Limitations on Pass-Through Charges (OCT 2009)," are contained in this solicitation by reference. Any contract valued greater than the threshold for cost or pricing data threshold, except fixed price contracts awarded on the basis of adequate price competition, resulting from this solicitation, shall contain the Clause at FAR 52.215-23 (or Alt I).
9. **Associate Contractor Agreements:** Not anticipated.
10. **Post-Award Small Business Program Representation:** As prescribed in FAR 19.309(d), FAR Clause 52.219-28, "Post-Award Small Business Program Representation (JUL 2013)," is incorporated by reference in this solicitation. This clause will be contained in any contracts resulting from this solicitation. This clause requires a contractor to represent its size status when certain conditions apply. The clause provides detail on when the representation must be complete and what the contractor must do when a representation is required.
11. **Employment Eligibility Verification:** As prescribed by FAR 22.1803, FAR Clause 52.222-54, "Employment Eligibility Verification (AUG 2013)," is hereby incorporated by reference in this solicitation. Any contract awarded as a result of this BAA that is above the Simplified Acquisition Threshold, and contains a period of performance greater than 120 days, shall include this clause in its contract. This clause provides the requirement of contractors to enroll as a Federal Contractor in the E-Verify program within 30 days after contract award.

12. **Reporting Executive Compensation and First-Tier Sub-contract/Sub-recipient Awards:** As prescribed by FAR 4.1403(a), FAR 52.204-10, "Reporting Executive Compensation and First-Tier Subcontract Awards (OCT 2015)," is hereby incorporated by reference in this solicitation. Any contract valued at \$30,000 or more, excluding classified contracts or contractors with individuals, must contain this clause. Any grant or agreement award resulting from this announcement may contain the award term set forth in 2 *CFR, Appendix A to Part 25* <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=c55a4687d6faa13b137a26d0eb436edb&rgn=div5&view=text&node=2:1.1.1.4.1&idno=2#2:1.1.1.4.1.2.1.1>.
13. **Updates of Publicly Available Information Regarding Responsibility Matters:** Any contract or assistance award that exceeds \$550,000.00; and 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 (JUL 2013)."
14. **Contractor Business Systems:** DFARS 252.242-7005, Contractor Business Systems (FEB 2012), is hereby incorporated by reference.
15. **Class Deviation—Safeguarding Covered Defense Information and Cyber Incident Reporting,** Per OUSD (AT&L) DPAP Memo dated 08 Oct 2015, the following provision and clause are hereby incorporated:

COMPLIANCE WITH SAFEGUARDING COVERED DEFENSE INFORMATION CONTROLS (DEVIATION 2016-00001)(OCT 2015)

(a) *Definitions.* As used in this provision—

"Controlled technical information," "covered contractor information system," and "covered defense information" are defined in clause 252.204-7012, Safeguarding Covered Defense Information and Cyber Incident Reporting (DEVIATION 2016-00001)(OCT 2015).

(b) The security requirements required by contract clause 252.204-7012, Safeguarding Covered Defense Information and Cyber Incident Reporting (DEVIATION 2016-00001)(OCT 2015) shall be implemented for all covered defense information on all covered contractor information systems that support the performance of this contract.

(c) If the Offeror anticipates that additional time will be necessary to implement derived security requirement 3.5.3 "Use of multifactor authentication for local and network access to privileged accounts and for network access to non-privileged accounts" within National Institute of Standards and Technology (NIST) Special Publication (SP) 800-171, "Protecting Controlled Unclassified Information in Nonfederal Information Systems and Organizations (see <http://dx.doi.org/10.6028/NIST.SP.800-171>), the Offeror shall notify the

Contracting Officer that they will implement the requirement within 9 months of contract award.

(d) If the Offeror proposes to deviate from any of the security requirements in NIST SP 800-171 that is in effect at the time the solicitation is issued or as authorized by the Contracting Officer, the Offeror shall submit to the Contracting Officer, for consideration by the DoD Chief Information Officer (CIO), a written explanation of—

(1) Why a particular security requirement is not applicable; or

(2) How an alternative, but equally effective, security measure is used to compensate for the inability to satisfy a particular requirement and achieve equivalent protection.

(e) An authorized representative of the DoD CIO will approve or disapprove offeror requests to deviate from NIST SP 800-171 requirements in writing prior to contract award. Any approved deviation from NIST SP 800-171 shall be incorporated into the resulting contract.

(End of provision)

SAFEGUARDING COVERED DEFENSE INFORMATION AND CYBER INCIDENT REPORTING (DEVIATION 2016-O0001)(OCT 2015)

(a) *Definitions.* As used in this clause—

“Adequate security” means protective measures that are commensurate with the consequences and probability of loss, misuse, or unauthorized access to, or modification of information.

“Compromise” means disclosure of information to unauthorized persons, or a violation of the security policy of a system, in which unauthorized intentional or unintentional disclosure, modification, destruction, or loss of an object, or the copying of information to unauthorized media may have occurred.

“Contractor attributional/proprietary information” means information that identifies the contractor(s), whether directly or indirectly, by the grouping of information that can be traced back to the contractor(s) (e.g., program description, facility locations), personally identifiable information, as well as trade secrets, commercial or financial information, or other commercially sensitive information that is not customarily shared outside of the company.

“Contractor information system” means an information system belonging to, or operated by or for, the Contractor.

“Controlled technical information” means technical information with military or space application that is subject to controls on the access, use, reproduction, modification, performance, display, release, disclosure, or dissemination. Controlled technical information would meet the criteria, if disseminated, for distribution statements B through F using the criteria set forth in DoD Instruction 5230.24, Distribution Statements on Technical Documents. The term does not include information that is lawfully publicly available without restrictions.

“Covered contractor information system” means an information system that is owned, or operated by or for, a contractor and that processes, stores, or transmits covered defense information.

“Covered defense information” means unclassified information that—

(i) Is—

(A) Provided to the contractor by or on behalf of DoD in connection with the performance of the contract; or

(B) Collected, developed, received, transmitted, used, or stored by or on behalf of the contractor in support of the performance of the contract; and

(ii) Falls in any of the following categories:

(A) *Controlled technical information.*

(B) *Critical information (operations security).* Specific facts identified through the Operations Security process about friendly intentions, capabilities, and activities vitally needed by adversaries for them to plan and act effectively so as to guarantee failure or unacceptable consequences for friendly mission accomplishment (part of Operations Security process).

(C) *Export control.* Unclassified information concerning certain items, commodities, technology, software, or other information whose export could reasonably be expected to adversely affect the United States national security and nonproliferation objectives. To include dual use items; items identified in export administration regulations, international traffic in arms regulations and munitions list; license applications; and sensitive nuclear technology information.

(D) Any other information, marked or otherwise identified in the contract, that requires safeguarding or dissemination controls pursuant to and consistent with law, regulations, and Governmentwide policies (e.g., privacy, proprietary business information).

“Cyber incident” means actions taken through the use of computer networks that result in an actual or potentially adverse effect on an information system and/or the information residing therein.

“Forensic analysis” means the practice of gathering, retaining, and analyzing computer related data for investigative purposes in a manner that maintains the integrity of the data.

“Malicious software” means computer software or firmware intended to perform an unauthorized process that will have adverse impact on the confidentiality, integrity, or availability of an information system. This definition includes a virus, worm, Trojan horse, or other code-based entity that infects a host, as well as spyware and some forms of adware.

“Media” means physical devices or writing surfaces including, but is not limited to, magnetic tapes, optical disks, magnetic disks, large-scale integration memory chips, and printouts onto which information is recorded, stored, or printed within an information system.

“Operationally critical support” means supplies or services designated by the Government as critical for airlift, sealift, intermodal transportation services, or logistical support that is essential to the mobilization, deployment, or sustainment of the Armed Forces in a contingency operation.

“Rapid(ly) report(ing)” means within 72 hours of discovery of any cyber incident.

“Technical information” means technical data or computer software, as those terms are defined in the clause at DFARS [252.227-7013](#), Rights in Technical Data-Non Commercial Items, regardless of whether or not the clause is incorporated in this solicitation or contract. Examples of technical information include research and engineering data, engineering drawings, and associated lists, specifications, standards, process sheets, manuals, technical reports, technical orders, catalog-item identifications, data sets, studies and analyses and related information, and computer software executable code and source code.

(b) *Adequate security.* The Contractor shall provide adequate security for all covered defense information on all covered contractor information systems that support the performance of work under this contract. To provide adequate security, the Contractor shall—

(1) Implement information systems security protections on all covered contractor information systems including, at a minimum—

(i) For covered contractor information systems that are part of an Information Technology (IT) service or system operated on behalf of the Government—

(A) Cloud computing services shall be subject to the security requirements specified in the clause [252.239-7010](#), Cloud Computing Services, of this contract; and

(B) Any other such IT service or system (i.e., other than cloud computing) shall be subject to the security requirements specified elsewhere in this contract; or

(ii) For covered contractor information systems that are not part of an IT service or system operated on behalf of the Government and therefore are not subject to the security requirement specified at paragraph (b)(1)(i) of this clause—

(A) The security requirements in National Institute of Standards and Technology (NIST) Special Publication (SP) 800-171, "Protecting Controlled Unclassified Information in Nonfederal Information Systems and Organizations," (see <http://dx.doi.org/10.6028/NIST.SP.800-171>) that is in effect at the time the solicitation is issued or as authorized by the Contracting Officer with the exception of the derived security requirement 3.5.3 "Use of multifactor authentication for local and network access to privileged accounts and for network access to non-privileged accounts", which will be required not later than 9 months after award of the contract, if the Contractor notified the contracting officer in accordance with paragraph (c) of the provision 252.204-7008, Compliance with Safeguarding Covered Defense Information Controls (DEVIATION 2016-O0001)(OCT 2015); or

(B) Alternative but equally effective security measures used to compensate for the inability to satisfy a particular requirement and achieve equivalent protection approved in writing by an authorized representative of the DoD Chief Information Officer (CIO) prior to contract award; and

(2) Apply other information systems security measures when the Contractor reasonably determines that information systems security measures, in addition to those identified in paragraph (b)(1) of this clause, may be required to provide adequate security in a dynamic environment based on an assessed risk or vulnerability.

(c) Cyber incident reporting requirement.

(1) When the Contractor discovers a cyber incident that affects a covered contractor information system or the covered defense information residing therein, or that affects the contractor's ability to perform the requirements of the contract that are designated as operationally critical support, the Contractor shall—

(i) Conduct a review for evidence of compromise of covered defense information, including, but not limited to, identifying compromised computers, servers, specific data, and user accounts. This review shall also include analyzing covered contractor information system(s) that were part of the cyber incident, as well as other information systems on the Contractor's network(s), that may have been accessed as a result of the incident in order to identify compromised covered defense information, or that affect the Contractor's ability to provide operationally critical support; and

(ii) Rapidly report cyber incidents to DoD at <http://dibnet.dod.mil>.

(2) *Cyber incident report.* The cyber incident report shall be treated as information created by or for DoD and shall include, at a minimum, the required elements at <http://dibnet.dod.mil>.

(3) *Medium assurance certificate requirement.* In order to report cyber incidents in accordance with this clause, the Contractor or subcontractor shall have or acquire a DoD-approved medium assurance certificate to report cyber incidents. For information on obtaining a DoD-approved medium assurance certificate, see <http://iase.disa.mil/pki/eca/Pages/index.aspx>.

(d) *Malicious software.* The Contractor or subcontractors that discover and isolate malicious software in connection with a reported cyber incident shall submit the malicious software in accordance with instructions provided by the Contracting Officer.

(e) *Media preservation and protection.* When a Contractor discovers a cyber incident has occurred, the Contractor shall preserve and protect images of all known affected information systems identified in paragraph (c)(1)(i) of this clause and all relevant monitoring/packet capture data for at least 90 days from the submission of the cyber incident report to allow DoD to request the media or decline interest.

(f) *Access to additional information or equipment necessary for forensic analysis.* Upon request by DoD, the Contractor shall provide DoD with access to additional information or equipment that is necessary to conduct a forensic analysis.

(g) *Cyber incident damage assessment activities.* If DoD elects to conduct a damage assessment, the Contracting Officer will request that the Contractor provide all of the damage assessment information gathered in accordance with paragraph (e) of this clause.

(h) *DoD safeguarding and use of contractor attributional/proprietary information.* The Government shall protect against the unauthorized use or release of information obtained from the contractor (or derived from information obtained from the contractor) under this clause that includes contractor attributional/proprietary information, including such information submitted in accordance with paragraph (c). To the maximum extent practicable, the Contractor shall identify and mark attributional/proprietary information. In making an authorized release of such information, the Government will implement appropriate procedures to minimize the contractor attributional/proprietary information that is included in such authorized release, seeking to include only that information that is necessary for the authorized purpose(s) for which the information is being released.

(i) *Use and release of contractor attributional/proprietary information not created by or for DoD.* Information that is obtained from the contractor (or derived from

information obtained from the contractor) under this clause that is not created by or for DoD is authorized to be released outside of DoD—

(1) To entities with missions that may be affected by such information;

(2) To entities that may be called upon to assist in the diagnosis, detection, or mitigation of cyber incidents;

(3) To Government entities that conduct counterintelligence or law enforcement investigations;

(4) For national security purposes, including cyber situational awareness and defense purposes (including with Defense Industrial Base (DIB) participants in the program at 32 CFR part 236); or

(5) To a support services contractor (“recipient”) that is directly supporting Government activities under a contract that includes the clause at [252.204-7009](#), Limitations on the Use or Disclosure of Third-Party Contractor Reported Cyber Incident Information.

(j) *Use and release of contractor attributional/proprietary information created by or for DoD.* Information that is obtained from the contractor (or derived from information obtained from the contractor) under this clause that is created by or for DoD (including the information submitted pursuant to paragraph (c) of this clause) is authorized to be used and released outside of DoD for purposes and activities authorized by paragraph

(i) of this clause, and for any other lawful Government purpose or activity, subject to all applicable statutory, regulatory, and policy based restrictions on the Government’s use and release of such information.

(k) The Contractor shall conduct activities under this clause in accordance with applicable laws and regulations on the interception, monitoring, access, use, and disclosure of electronic communications and data.

(l) *Other safeguarding or reporting requirements.* The safeguarding and cyber incident reporting required by this clause in no way abrogates the Contractor’s responsibility for other safeguarding or cyber incident reporting pertaining to its unclassified information systems as required by other applicable clauses of this contract, or as a result of other applicable U.S. Government statutory or regulatory requirements.

(m) *Subcontracts.* The Contractor shall—

(1) Include the substance of this clause, including this paragraph (m), in all subcontracts, including subcontracts for commercial items; and

(2) Require subcontractors to rapidly report cyber incidents directly to DoD at <http://dibnet.dod.mil> and the prime Contractor. This includes providing the incident

report number, automatically assigned by DoD, to the prime Contractor (or next higher-tier subcontractor) as soon as practicable.

(End of clause)

16. **Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements – Representation:** DFARS 252.203-7998, “Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements – Representation,” is hereby incorporated by reference.
17. **Disclosure of Ownership or Control by a Foreign Government:** As prescribed in DFARS 209.104-70, DFARS 252.209-7002. “Disclosure of Ownership or Control by a Foreign Government,” is hereby incorporated by reference.
18. **Subcontracting with Firms that are Owned or Controlled by the Government of a Country that is a State Sponsor of Terrorism:** As prescribed by DFARS 209.409, DFARS 252.209-7004, “Subcontracting with Firms that are Owned or Controlled by the Government of a Country that is a State Sponsor of Terrorism,” is hereby incorporated by reference.
19. **Disclosure of Ownership or Control by the Government of a Country that is a State Sponsor of Terrorism:** As prescribed by DFARS 225.771-5, DFARS 252.225-7050, “Disclosure of Ownership or Control by the Government of a Country that is a State Sponsor of Terrorism.” is hereby incorporated by reference.
20. **Animal Welfare:** As prescribed by DFARS 235.072(a), DFARS 252.235-7002, “Animal Welfare,” is hereby incorporated by reference.
21. **Ombudsman:** The Ombudsman clause, AFFARS 5352.201-9101 Ombudsman (NOV 2012) will be contained in any contracts or agreements resulting from this Solicitation. The AFRL Ombudsman is Barbara G. Gehrs, Director of Contracting, AFRL/PK, (937) 904-4407, email: Barbara.Gehrs@us.af.mil.
22. **Proposal Content Checklist:** You may be ineligible for award if all requirements of this solicitation are not met on the proposal due date.
 - a. Proposals are due to the Contracting POC.
 - b. Proposals are due no later than the due date and time specified in this announcement.
 - c. Proposal page limits are strictly enforced. See Section IV.3.b.of the solicitation for page limits.

- d. Completed Certifications and Representations (Section K) are due with the proposal. Certifications and Representations (Section K) can be found at Attachment 1.
- e. The Cost/Business Proposal must contain all information described in the Content and Form of Proposal Section.
- f. For any subcontracts proposed, the Cost/Business Proposal must contain a subcontractor analysis IAW FAR 15.404-3(b).
- g. Offerors other than small businesses are to include a subcontracting plan in Microsoft Word Readable Format on a CD ROM as well as a hard copy.
- h. Proposals must be submitted in the format specified in Section IV.
- i. Offerors who have Forward Pricing Rate Agreements (FPRA's) and Forward Pricing Rate Recommendations (FPRR's) should submit them with their proposal.
- j. If a DD254 is applicable, offerors must verify their Cognizant Security Office information is current with Defense Security Service (DSS) at www.dss.mil.
- k. If effort is subject to export control, offerors must submit a Certified DD Form 2345, Militarily Critical Technical Data Agreement, with proposal.

ATTACHMENTS:

- 1. Sample Section K –Representations and Certifications
- 2. DD 1423-1, Contract Data Requirements List (CDRLS)