

Defense Forensic Science Center (DFSC)

BROAD AGENCY ANNOUNCEMENT FOR
BASIC, APPLIED & ADVANCED SCIENTIFIC RESEARCH



**W911NF-17-R-0001
Amendment 1**

ISSUED BY:
U.S. Army Contracting Command-Aberdeen Proving Ground
Research Triangle Park Division
P. O. BOX 12211
Research Triangle Park, NC 27709-2211

TABLE OF CONTENTS

I.	OVERVIEW OF THE FUNDING OPPORTUNITY	4
A.	Required Overview Content.....	4
	1. Federal Agency Name.....	4
	2. Funding Opportunity Title	4
	3. Announcement Type	4
	4. Research Opportunity Number	4
	5. Catalog of Federal Domestic Assistance (CFDA) Number and Title	4
	6. Response Dates.....	4
B.	Additional Overview Information.....	4
II.	DETAILED INFORMATION ABOUT THE FUNDING OPPORTUNITY	5
A.	Program Description:	5
	1. RESEARCH AREAS OF INTEREST.....	6
	2. Previous Successful submissions of Research and Development Projects.....	6
B.	Federal Award Information	7
	1. Procurement Contract.....	7
	2. Grant	7
	3. Cooperative Agreement.....	7
	4. Technology Investment Agreement (TIA).....	8
	5. Other Transaction for Prototype (OTA).....	8
C.	Eligibility Information	9
	1. Eligible Applicants.....	9
	2. Cost Sharing or Matching.....	9
	3. Duns and Bradstreet Universal Numbering System (DUNS).....	9
	4. Other.....	9
D.	Application and Submission Information:.....	9
	1. Address to View Broad Agency Announcement.....	9
	2. Content and Form of Application Submission.....	9
	3. Dun and Bradstreet Universal Numbering System (DUNS) Number and System for Award Management.....	21
	4. Submission Dates and Times	22
	5. Intergovernmental Review	22
	6. Funding Restrictions	22
	7. Other Submission Requirements.....	22
E.	Application Review Information.....	22
	1. Criteria	22
	2. Review and Selection Process	23
	3. Recipient Qualification	23

F. Award Administration Information	25
1. Award Notices.....	25
2. Administrative and National Policy Requirement.....	25
A. Required Certifications	25
B. Policy Requirements	26
3. Reporting	28
G. Agency Contacts	29
H. Other Information:.....	29
1. Meeting Requirements.....	29
2. Travel Requirements.....	29
3. Government Property/Government Furnished Equipment and Facilities.....	29
4. Department of Defense High Performance Computing Program	29
5. Cost Proposal Samples for Reference	30
6. Acronyms.....	38
7. Definitions.....	40

I. OVERVIEW OF THE FUNDING OPPORTUNITY:

A. Required Overview Content

1. Agency Name:

Defense Forensic Science Center (DFSC)

Issuing Acquisition Office:

U.S. Army Contracting Command-Aberdeen Proving Ground, Research Triangle Park Division

2. Research Opportunity Title:

Defense Forensic Science Center Broad Agency Announcement for Basic, Applied, and Advanced Research (Fiscal Years 2017-2020)

3. Announcement Type:

Initial Announcement

4. Research Opportunity Number:

W911NF-17-R-0001

5. Catalog of Federal Domestic Assistance (CFDA) Number and Title:

12.630 – Basic, Applied, and Advanced Research in Science and Engineering

6. Response Dates:

This Broad Agency Announcement (BAA) is a continuously open five-year announcement valid throughout the period beginning 5 October 2016 and ending 20 December 2020. Amendments to this BAA will be posted to <https://www.fbo.gov> (FedBizOpps) and <http://www.grants.gov> when amendments occur. Interested parties are encouraged to periodically check these websites for updates and amendments.

B. Additional Overview Information

This Broad Agency Announcement (BAA), which sets forth research areas of interest to the Defense Forensic Science Center (DFSC), is issued under the provisions of paragraph 6.102(d)(2) of the Federal Acquisition Regulation (FAR), and 10 USC 2358 which provides for the competitive selection of proposals. Proposals submitted in response to this BAA and selected for award are considered to be the result of full and open competition and in full compliance with the provisions of Public Law 98-369, "The Competition in Contracting Act of 1984" and subsequent amendments.

The Department of Defense agencies involved in this program reserve the right to select for award all, some, or none of the proposals submitted in response to this announcement. The participating DoD agencies will provide no funding for direct reimbursement of proposal development costs. Technical and cost proposals (or any other material) submitted in response to this BAA will not be returned. It is the policy of participating DoD agencies to treat all proposals as sensitive, competitive information and to disclose their contents only for the purpose of evaluation.

II. DETAILED INFORMATION ABOUT THE FUNDING OPPORTUNITY

A. Program Description

The Defense Forensic Science Center (DFSC) (formerly the U.S. Army Criminal Investigation Laboratory (USACIL)) provides forensic laboratory services to DoD military criminal investigative organizations (Air Force Office of Special Investigations, Naval Criminal Investigative Service, and the Army Criminal Investigation Command) and other DoD customers. It is a full service forensic laboratory, providing state-of-the-art forensic examinations in the following disciplines:

- DNA/Serology
- Digital Evidence
- Drug Chemistry
- Firearms and Toolmarks
- Forensic Documents
- Latent Prints (including footwear and tire track evidence)
- Trace Evidence

The DFSC has three primary objectives:

- (1) Analyze forensic evidence and provide expert testimony to support worldwide criminal investigation across all military services
- (2) Provide expeditionary and reach-back forensic services to U.S. military forces in active theaters of operation
- (3) Coordinate and execute research, development, testing and evaluation (RDT&E) projects to advance forensic and biometric capabilities

The Department of Defense Forensic Research and Development Program (“Program”) is administered by the U.S. Army Research Office and the Defense Forensic Science Center. The Program aims to enhance the capability of forensic science applications for DoD customers both in traditional law enforcement/criminal justice purviews and in expeditionary environments. The Program accomplishes this mission by funding research projects that lead to the production of useful knowledge, materials, devices, systems, or methods that have forensic function.

To be eligible for an award under this announcement, a prospective awardee must meet certain minimum standards pertaining to financial resources and responsibility, ability to comply with the performance schedule, past performance, integrity, experience, technical capabilities, operational controls, and facilities. In accordance with Federal statutes, regulations, and Department of Defense and Army policies, no person on grounds of race, color, age, sex, national origin, or disability shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving financial assistance from the Army.

The Program is seeking proposals for funding to support forensic research and its application. The requested proposals should focus on DFSC activities and needs. Forensic research proposals should focus on the creation of new and improved field or laboratory functional capabilities that result in faster, more robust, more informative, less costly, or less labor-intensive recognition, preservation, collection, and/or analysis of forensic evidence. Proposals that will assist the DoD in achieving these goals are solicited, particularly proposals involving the development of equipment that is portable, sustainable, and useful in an expeditionary or field environment. The expeditionary and field environments require systems that are lightweight, portable, inexpensive, fast, and capable of operating in extreme environments of temperature, dust, humidity, etc. The systems must also be capable of secure data communications.

Funding of research and development (R&D) within Program areas of interest will be determined by funding constraints and priorities set during each budget cycle. Due to Government budget uncertainties, no specific dollars have been reserved for awards under this BAA. Those contemplating submission of a proposal are encouraged to submit a white paper and quad chart, summarizing their proposed work. If the proposed R&D warrants further inquiry and funding is available, submission of a full technical and cost proposal will be encouraged. This sequence allows earliest determination of the potential for funding and minimizes the labor and cost associated with submission of full

proposals that have minimal probability of being selected for funding. Costs associated with white paper, quad chart, or full proposal submissions in response to this BAA are not considered allowable direct charges to any resulting award. These costs may be allowable expenses to normal bid and proposal indirect costs specified in FAR 31.205-18 for contracts. Offerors submitting proposals are cautioned that only a Government Contracting or Grants Officer may obligate the Government to any agreement involving expenditure of Government funds.

1. RESEARCH AREAS OF INTEREST

Research and development focus areas include, but are not limited to:

- 1) Digital evidence and computer forensics
- 2) Signal processing/visual comparison of patterned and impression forensic materials
- 3) Analytical chemistry (detection of compounds/molecules/elements)
- 4) Molecular biology
- 5) Forensic genetics
- 6) Forensic equipment miniaturization/ruggedization
- 7) Site exploitation and forensic material recognition

Several topics identified as needing further research and development are specified below, however proposals are not limited to these areas:

- Novel analytical chemistry tools, techniques, and methodologies that enhance sensitivity and selectivity over currently existing forensic capabilities
- Innovative approaches for source attribution of forensic samples (e.g., drugs, explosives)
- Novel methods or protocols for extracting information from mixed DNA samples
- Novel approaches to maximizing the use of next generation sequencing technologies for forensic analyses
- Novel tools/approaches/techniques for modeling the statistical assessment of a DNA match with limited information and/or emerging marker sets to inform marker/panel selection
- The development of new analytical protocols for patterned forensic analyses (e.g., firearms, latent prints) that utilize a quantitative rather than qualitative approach
- Novel methods to pre-process, match, and analyze latent prints with or without human intervention
- Novel methods to pre-process, match, and analyze pattern evidence with or without human intervention
- Approaches/tools/techniques for facial recognition which are gender and ethnicity independent
- Novel approaches/tools/techniques for correlating 2D imagery to 3D imagery
- Novel approaches to correlate forensic and/or biometric data in order to develop investigative leads or behavior patterns
- Automated tools and techniques for the creation of 'best' composite electronic fingerprint transmission (EFT) from multiple EFTs
- The development of an 'all-in-one' crime scene/sensitive site exploitation processing and documenting device with the capability to map and photograph evidence, record audio and video, read and write evidence bar codes, generate and populate evidence forms, with GPS-enabled positioning and mapping
- The development of a portable, rugged, and automated DOCEX (Document Exploitation) capability with rapid translation of multiple languages and automated gist translation
- The development of a handheld or backpack device that can distinguish buried and surface skeletal remains and teeth from limestone, chalk, or other calcareous substrates

2. Previous Successful Submission of Research and Development Projects

For your reference and consideration in developing proposals, the following list details research and development projects that have been funded by the Defense Forensic Science Center:

- Development of a DNA sequence exploitation system for next generation sequencing and analysis of autosomal and Y chromosomal short tandem repeats

- Development of a real-time synthetic cannabinoid detection platform
- Development of a rapid DNA platform to fully process reference samples (e.g., buccal swabs) from sample acquisition through PCR amplification and electropherogram generation in less than 90 minutes
- Analysis and determination of unknown human body fluids
- Development of software tools to identify the source of images based on individualizing characteristics of image capture devices by make and model
- Development of model correlating various sensor technologies to increase detection of clandestine gravesites
- Development of an 'all-in-one' crime scene/sensitive site exploitation processing and documenting device
- Development of functionalized powders for fumeless latent fingerprint detection
- Development of methods that provide a more objective and statistical approach to firearms examinations
- Development of new methods for the detection of gunshot residue which can discriminate the shooter from other individuals
- Development of a latent fingerprint fusion algorithm to exploit latent fingerprint fragments that otherwise are not of value in identification

B. FEDERAL AWARD INFORMATION

Anticipated awards will be made in the form of procurement contracts, assistance instruments (grants, cooperative agreements, and technology investment agreements (TIAs)), and other transactions for prototypes (OTAs) and are subject to the availability of appropriations. Multi-year projects must have clear goals for each year. Funding for subsequent years will be contingent upon satisfactory performance and availability of funds.

The Army Contracting Command-Aberdeen Proving Ground, Research Triangle Park (ACC-APG-RTP) Division has the authority to award a variety of instruments. The ACC-APG-RTP Division reserves the right to use the type of instrument most appropriate for the effort proposed. Offerors should familiarize themselves with these instrument types and the applicable regulations before submitting a proposal. The following are brief descriptions of the possible award instruments:

1. **Procurement Contract:** A legal instrument, which consistent with 31 U.S.C. 6303, reflects a relationship between the Federal Government and a State, a local government, or other recipient when the principal purpose of the instrument is to acquire property or services for the direct benefit or use of the Federal Government.

Contracts are governed by the following regulations:

- a. Federal Acquisition Regulation (FAR)
- b. Defense Federal Acquisition Regulation Supplement (DFARS)
- c. Army Federal Acquisition Regulation Supplement (AFARS)

2. **Grant:** A legal instrument, that consistent with 31 U.S.C. 6304, is used to enter into a relationship in which-
 - a. The principal purpose is to transfer a thing of value to the recipient to carry out a public purpose of support or stimulation authorized by a law or the United States, rather than to acquire property or services for the Department of Defense's direct benefit or use.
 - b. Substantial involvement is not expected between the Department of Defense and the recipient when carrying out the activity contemplated by the grant.
 - c. No fee or profit is allowed.
3. **Cooperative Agreement:** A legal instrument which, consistent with 31 U.S.C. 6305, is used to enter into the same kind of relationship as a grant (see definition "grant"), except that substantial involvement is expected between the Department of Defense and the recipient when carrying out the activity contemplated by the cooperative agreement. The term does not include "cooperative research and development agreements" as defined in 15 U.S.C. 3710a. No fee or profit is allowed.

Grants and cooperative agreements for Institution of Higher Education and nonprofit organizations are primarily governed by the following:

- a. Federal statutes
- b. Federal Regulations
- c. 2 CFR part 200, as modified and supplemented by DoD's interim Implementation found in 2 CFR part 1103

Grants and cooperative agreements for for-profit and nonprofit organizations exempted from Subpart E- cost principles of part 200, are primary governed by the following:

- A. Federal Statutes
- B. Federal Regulations
- C. 32 CFR Part 34 – Administrative Requirements for Grants and Agreements with For-Profit Organizations

Copies of Office of Management and Budget (OMB) regulations may be obtained from:

Executive Office of the President
Publications Service
New Executive Office Building
725 17th Street, N.W., Room 2200
Washington, DC 20503

Telephone: (202) 395-7332
FAX Requests: (202) 395-9068
<http://www.whitehouse.gov/OMB/grants>

An electronic copy of the DoDGARs may be found at <http://www.ecfr.gov> (title 32: National Defense, Part 22 – DoD Grant and Agreements – Award and Administration).

4. **Technology Investment Agreement (TIA) Assistance Transaction other than a Grant or Cooperative Agreement (see 32 CFR, Part 37):** A legal instrument, consistent with 10 U.S.C. 2371, which may be used when the use of a contract, grant, or cooperative agreement is not feasible or appropriate for basic, applied, and advanced research projects. The research covered under a TIA shall not be duplicative of research being conducted under an existing DoD program. To the maximum extent practicable, TIA's shall provide for a 50/50 cost share between the Government and the Offeror. An Offeror's cost share may take the form of cash, independent research and development (IR&D), foregone intellectual property rights, equipment, or access to unique facilities, as well as others. Due to the extent of cost share, and the fact that an 'other transaction' does not qualify as a "funding agreement" as defined at 37 CFR 401.2(a), the intellectual property provisions of a TIA can be negotiated to provide expanded protection to an Offeror's intellectual property. No fee or profit is allowed. Cost sharing and matching is not an evaluation factor used under this BAA. Exceptions to this may exist if the offeror is proposing the use of a TIA or an OTA as an award instrument.
5. **Other Transaction for Prototype (OTA):** A legal instrument, consistent with 10 U.S.C. 2371 (as authorized by Public Law 106-398, Section 803), which may be used when the use of a contract, grant, or cooperative agreement is not feasible or appropriate for prototype projects directly relevant to weapons or weapon systems proposed to be acquired or developed by the DoD. The effort covered under an 'other transaction for prototype' shall not be duplicative of effort being conducted under an existing DoD program (please refer to the "Other Transactions" OT Guide for Prototype Projects at www.acq.osd.mil/dpap/Docs/otguide.doc). For Cost-Sharing requirements for these types of awards please see "C2.16. COST SHARING" found on page 30 at the web-link directly above.

The following websites may be accessed to obtain an electronic copy of the governing regulations and guidance:

FAR, DFARS, and AFARS: <http://farsite.hill.af.mil/>

C. ELIGIBILITY INFORMATION

1. Eligible Applicants:

Proposals are sought from educational institutions, non-profit/not-for-profit organizations, and commercial organizations, domestic or foreign, for research and development (R&D) in those areas specified in Part II Section A of this BAA. Foreign owned, controlled, or influenced organizations are advised that security restrictions may apply that could preclude their participation in these efforts. Educational institutions, non-profit/not-for-profit organizations, and commercial organizations based in countries included on the U.S. State Department List of Countries that Support Terrorism are excluded from participation in these efforts.

Government laboratories, Federal Funded Research and Development Centers (FFRDCs), and U.S. Service Academies are not eligible to participate as prime contractors or recipients. However, they may be able to participate as subcontractors or sub recipients (eligibility will be determined on a case by case basis). If a proposal selected for award includes one or more subawards to a Government laboratory, FFRDC, or U.S. Service Academy, award funds allocated for Government laboratories, FFRDCs, and/or U.S. Service Academies will be provided via a Military Interdepartmental Purchase Request (MIPR) from DFSC. No award funds will be channeled directly from a prime awardee to a Government laboratory, FFRDC, or U.S. Service Academy subawardee.

2. Cost Sharing or Matching:

There is no required cost sharing, matching, or cost participation to be eligible under this BAA and cost sharing and matching is not an evaluation factor used under this BAA. Exceptions to this may exist if the offeror is proposing the use of a TIA or an OTA as an award instrument. Cost-sharing requirements may be found at 32 CFR 37.215 for TIAs. Cost-sharing requirements for OTAs may be found at Section C2.16 COST SHARING in the August 2002 document entitled "Other Transactions" OT Guide for Prototype Projects referenced in Section B.5 above.

3. Duns and Bradstreet Universal Numbering System (DUNS) Number and System for Award Management (SAM):

Each applicant (unless the applicant is an individual or Federal agency that is exempt from those requirements under 2 CFR 25.110(b) or (c), or has an exception approved by the agency under 2 CFR 25.110(d)) is required to: (i) Be registered in the SAM prior to submitting its application; (ii) provide a valid DUNS number in its application; and (iii) continue to maintain an active SAM registration with current information at all times during which it has an active Federal award or an application or plan under consideration by an agency. An award will not be made to an applicant until the applicant has complied with all applicable DUNS and SAM requirements.

4. OTHER

Foreign owned, controlled, or influenced firms are advised that security restrictions may apply that could preclude their participation in these efforts. Before preparing a proposal, such firms are requested to contact the ARL Security and Counterintelligence Branch (301) 394-2411 concerning their eligibility.

D. APPLICATION AND SUBMISSION INFORMATION

1. Address to View Broad Agency Announcement:

This BAA may be accessed from the following websites:

- 1) FedBizOpps - <https://www.fbo.gov>
- 2) Grants.gov - <http://www.grants.gov>

3) ARL website - <http://www.arl.army.mil/www/default.cfm?Action=6&page=8>

Amendments, if any, to this BAA will be posted to these websites when they occur. Interested parties are encouraged to periodically check these website for updates and amendments.

The following information is for those wishing to respond to the BAA:

2. Content and Form of Application Submission:

Section 1 – General Information:

Completeness of Information: Proposals must include all of the information specified in this BAA to prevent delays in evaluation. Be sure to specify the Commercial and Government Entity (CAGE Code), the DUNS Number, and the Taxpayer Identification Number (TIN) with your submission. Completion of the Representations and Certifications as well as registration in the System for Award Management (SAM) are prerequisites before receiving an award.

Classified Submissions: Classified proposals are not expected. However, in an unusual circumstance where an Offeror believes a proposal has the potential to be classified, contact the ARO Operations Security (OPSEC) Officer, Mr. Anthony J. Johnson, (919) 549-4391, anthony.j.johnson78.civ@mail.mil, prior to the proposal's submission.

Use of Color in Proposals: All proposals received shall be stored as electronic images. Electronic color images require a significantly larger amount of storage space than black- and-white images. As a result, Offerors' use of color in proposals should be minimal and used only when necessary for details. Do not use color if it is not necessary.

Government Property/Government Furnished Equipment and Facilities: Normally, title to equipment or other tangible property purchased with Government funds vests with non-profit institutions of higher education or with non-profit research organizations if vesting will facilitate scientific research performed for the Government. Commercial organizations are expected to possess the necessary plant facilities and equipment to conduct the proposed research. Deviations may be made on a case-by-case basis. Government equipment, research facilities, and operational military units may be available and may be considered as potential Government-furnished equipment/facilities. Offerors should explain as part of their proposals if any of these Government-furnished resources could be useful to the success of a proposed project.

Post-Employment Conflict of Interest: There are certain post-employment restrictions on former Federal officers and employees, including special Government employees (Section 207 of Title 18, U.S.C.). If a prospective Offeror believes a conflict of interest may exist, the situation should be discussed with the ARO legal counsel, Ms. Peggy Giesecking, (410) 278-6487, peggy.giesecking@us.army.mil, prior to expending time and effort in preparing a proposal.

Statement of Disclosure Preference: Please complete Form 52 or 52A stating your preference for release of Information contained in your proposal. Copies of these forms are available at <http://www.arl.army.mil/www/default.cfm?page=218>. Additionally, proposals containing data that is not to be disclosed to the public for any purpose or used by the Government except for evaluation purposes shall include the following statement on their cover page:

The proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate this proposal. If, however, an award is made to this Offeror as a result of or in connection with the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting award. This restriction does not limit the Government's right to use information contained in these data if they are obtained from another source without restriction. The data subject to this restriction are contained in sheets _____.

The Offeror shall also mark each sheet of data it wishes to restrict with the following legend:

“Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal.”

Section 2 – Application Process Overview:

The application process is in three stages as follows:

Stage 1- Verify the accuracy of your Dun & Bradstreet (D&B) registration at the D&B website <http://fedgov.dnb.com/webform> before registering with the System for Award Management (SAM) Registration at <https://www.sam.gov>. Prospective Offerors must be registered in SAM prior to award.

Stage 2 - Prospective Offerors are encouraged to submit a white paper and a quad chart prior to the submission of a complete, more detailed proposal. The purpose of this white paper and quad chart is to minimize the labor and cost associated with the production of detailed proposals that have very little chance of being selected for funding. Based on assessment of the white paper and quad chart, feedback will be provided to the proposer(s) to encourage or discourage submission of full proposals.

Stage 3 – Following the review of the white paper and quad chart, offerors may be contacted to submit a full proposal. For all awards, a full proposal must be submitted and reviewed.

Section 3 – White Paper and Quad Chart Preparation:

The white paper and quad chart should focus on describing details of the proposed research, including how it is innovative and how it could substantially increase the scientific state of the art. Army relevance and potential impact should also be described. The white paper and quad chart should present the effort in sufficient detail so as to allow evaluation of the concept's technical merit and potential contributions to the Army mission.

White paper format shall be as follows:

- The white paper and quad chart must be combined and submitted as a single PDF file. Only PDF files will be accepted. Original format (e.g., Word, PowerPoint) files should be made available upon request.
- Margins: 1 inch; Spacing: Single; Font: Times New Roman 12 Point
- Number of Pages: No more than three (3) single-sided pages (excluding the cover page and quad chart); white papers exceeding the page limit will not be evaluated.
- White paper content should follow the template available at <http://www.arl.army.mil/www/pages/8/fy13WhitePaperTemp.pdf>.

Quad chart format shall be as follows:

- The white paper and quad chart must be combined and submitted as a single PDF file. Only PDF files will be accepted. Original format (e.g., Word, PowerPoint) files should be made available upon request.
- The quad chart should be a succinct description of the project highlights appropriate for all audiences (both technical and non-technical).
- Quad chart content should follow the template available at <http://www.arl.army.mil/www/pages/8/fy13QuadChartTemp.ppt>.
- The preformatted fonts on the quad chart template may be modified so that the required information fits the chart. The chart format itself may not be modified.

TECHNICAL INFORMATION FOR WHITE PAPERS/QUAD CHARTS:

1. A detailed discussion of the effort's scientific research objectives, approach, relationship to similar research, and level of effort shall be submitted. Include the nature and extent of the anticipated results, and if known, the manner in which the work will contribute to the accomplishment of the Army's mission and how this would be demonstrated.

2. The cost portion of the white paper shall contain a brief cost estimate revealing all the component parts of the proposal, including research hours, burden, material costs, travel, etc. If applicable, a phased funding approach and its costs by phase should be noted on the quad chart.

RESTRICTIVE MARKINGS ON WHITE PAPERS/QUAD CHARTS:

1. Any proprietary data that the Offeror intends to be used only by the Government for evaluation purposes must be identified. The Offeror must also identify any scientific data contained in the white paper that is to be treated by the Government as limited rights data. In the absence of such identification, the Government will assume to have unlimited rights to all scientific data in the white paper. Records or data bearing a restrictive legend may be included in the white paper. It is the intent of the Army to treat all white papers as privileged information before the award and to disclose their contents only for the purpose of evaluation.

2. The Offerors are cautioned, however, that portions of the white papers may be subject to release under terms of the Freedom of Information Act, 5 U.S.C. 552, as amended.

EVALUATION AND DISPOSITION OF WHITE PAPERS/QUAD CHARTS:

1. Evaluation Process: White papers will be evaluated for scientific/technical merit and the potential to advance future DoD forensics and/or biometrics capabilities. Care must be exercised to ensure that classified, sensitive, and/or critical technologies are not included. If such information is required, appropriate restrictive markings and procedures should be applied.

2. Disposition Process: Offerors will be notified of the evaluation results in writing via e-mail.

Section 4 – White Paper/Quad Chart Submission:

White papers must be submitted electronically in PDF file format to USArmy.Gillem.DFSC.MBX.DFSCOE-RDTE@mail.mil. Hard copy (hand carried, mailed, faxed) submissions will not be accepted. **Only PDF files will be accepted (electronic files other than PDF files will not be accepted).** You must cite ‘W911NF-17-R-0001 White Paper-Quad Chart’ in the subject line of the e-mail.

Section 5 – Preparation of Complete Research Proposals:

PROPOSAL PREPARATION INSTRUCTIONS:

This competition seeks applied research deliverables beyond a technical report.

Examples of such deliverables are:

- (1) Techniques
- (2) Methods
- (3) Systems
- (4) Device Prototypes/Device Functional Models
- (5) Software
- (6) Algorithms
- (7) Databases
- (8) Protocols
- (9) Training Materials for Best Practices

If feasible, it is recommended that the Offeror divide the proposed work into discrete phases, with each phase resulting in the delivery of a measurable deliverable. Although it is not guaranteed that subsequent phases, stages, or tasks will be funded, this approach will enable the proposed work to be funded incrementally, depending on, among other things, the quality of the deliverable at the end of each phase, strategic priorities, and the availability of funds. However, applicants should not divide their work if it is not feasible to do so without

impairing the technical and programmatic soundness of their approach. Projected periods of performance for awards range from 9 months to 24 months.

Note: Measurable research deliverables will be required at the end of each phase to enable DFSC to assess the progress of the work and assist DFSC in making reasoned determinations as to the suitability of funding the next phase of the work.

Proposal Format and Content: The proposal is the only vehicle available to the Offeror for receiving consideration for award. The proposal must stand on its own merit; only information provided in the proposal can be used in the evaluation process leading to an award. The technical proposal must be accompanied by a fully supported cost proposal as cost and technical considerations are reviewed simultaneously. To ensure all technical proposals receive proper consideration, the Government-recommended proposal format that follows (Volume I Technical Proposal) should be followed as closely as possible. Proposal documents (excluding required forms) must use the following page format:

- Page Size – 8 ½ x 11 inches
- Margins – 1 inch; Spacing – Single; Font – Times New Roman, 12 Point
- Number of Pages – The full proposal may not exceed 30 single-sided pages

The cover letter, table of contents, tables, charts, figures, other illustrations, letters of support, curriculum vitae and appendices count toward the 30-page limit.

The 30-page limit excludes the ARO Form 51, ARO Form 52/52a, SF 424 (R&R) Form (Grants.gov), Research and Related Other Project Information Form (Grants.gov), Attachments Form (Grants.gov), the budget/cost proposal(s), and the supporting budget/cost proposal narrative(s). **NOTE: Proposal pages beyond the 30 page limit will not be evaluated or read.**

VOLUME I - TECHNICAL PROPOSAL

- i Cover Letter
- ii Table of Contents
- iii List of Illustrations/Tables
- iv Executive Summary/Project Abstract

1.0 Technical Approach

- 1.1 Technical Discussion
- 1.2 Technical Program Summary
- 1.3 Risk Analysis and Alternatives
- 1.4 References

2.0 Special Technical Factors

- 2.1 Capabilities and Relevant Experience
- 2.2 Previous or Current Relevant Independent Research and Development (IR&D) Work
- 2.3 Related Government Contracts
- 2.4 Facilities/Resources/Equipment

3.0 Schedule

- 3.1 Time Line Chart by Task
- 3.2 Project Phases, Milestones, and Deliverables

4.0 Program Organization

- 4.1 Organization Chart(s) with Key personnel
- 4.2 Management and Technical Team
 - 4.2.1 Prime Contractor Responsibilities
 - 4.2.2 Subcontractor(s) Responsibilities

- 4.2.3 Consultant(s) Responsibilities
- 4.3 Resumes of Key Personnel
- 4.4 Current and Pending Support

5.0 Appendices

i. Cover Page: A cover page is required. Proposals will not be processed without either:

- (1) A signed ARO FORM 51 cover page (required for procurement contract proposals submitted by e-mail) (see Section 6, page 23 – Submission of Complete Research Proposals)

OR

- (2) A SF 424 R&R Form (required for grant/cooperative agreement proposals submitted online via Grants.gov (see Section 6, page 23 – Submission of Complete Research Proposals)

Note: If an Offeror elects to submit a contract proposal via Grants.gov instead of via e-mail, both the ARO FORM 51 and SF 424 R&R Form are required. Proposals for grants or cooperative agreements only require the SF 424 R&R Form.

The cover page should include the BAA number, R&D topic, proposed project title, and any other information that identifies the proposal. The title of the proposed project should be scientifically representative, intelligible to a scientifically literate reader, and suitable for use in the public domain. The cover page should also contain the proprietary data disclosure statement, if applicable (ARO FORM 52 or 52A). Should the project be carried out at a branch campus or other component of the submitting organization, that branch campus or component should be identified in the space provided (Block 11 on the ARO FORM 51 and Block 12 on the SF 424 R&R). The proposed duration for which support is requested should be consistent with the nature and complexity of the proposed activity. The Federal awarding agency reserves the right to make awards with shorter or longer periods of performance. Specification of a desired starting date for the project is important and helpful. However, requested effective dates cannot be guaranteed.

Pursuant to 31 U.S.C. 7701, as amended by the Debt Collection Improvement Act of 1996[Section 31001(I)(1), Public Law 104-134], Federal agencies shall obtain each awardee's Taxpayer Identification Number (TIN). This number may be the Employer Identification Number (EIN) for a business or non-profit entity or the Social Security Number for an individual. The TIN is being obtained for purposes of collecting and reporting on any delinquent amounts that may arise out of an awardee's relationship with the Government. Offerors shall provide their organization's Data Universal Numbering System (DUNS) number. The DUNS number is a nine-digit number assigned by Dun and Bradstreet Information Services. Offerors shall provide their assigned Commercial and Government Entity (CAGE) code. The CAGE code is a 5-character code assigned and maintained by the Defense Logistics Service Center (DLSC) to identify a commercial plant or establishment.

ii. Table of Contents: It is highly recommended that the Offeror follow the Volume I Technical Proposal outline as a table of contents and use it for a final quality-control checklist.

iii. List of Illustrations/Tables: This list is a quick reference of charts, graphs, and other important information. A separate list of tables is recommended.

iv. Executive Summary/Project Abstract: The summary/abstract should present an organized progression of the work to be accomplished, without the technical details, such that the reader can grasp the core issues of the proposed program. The summary/abstract shall include a concise statement of work and basic approaches to be used in the proposed effort, to include a statement of scientific objectives, methods to be employed, and the significance of the proposed effort to the advancement of knowledge. The abstract should be no longer than one (1) pages and be in a form suitable for release under the Freedom of Information Act, 5 U.S.C. 552, as amended. The abstract should indicate the effort intended for each twelve (12) month period of research, where applicable.

1.0 Technical Approach: In this section, the Offeror should provide as much technical detail and analysis as is necessary or useful to support the technical approach being proposed. One must clearly identify the core of the intended approach.

1.1 Technical Discussion: The technical discussion should include the following:

- A complete discussion stating the current issue, the background and objectives of the proposed work to address this problem, the scientific approaches to be considered, the details of any proof-of-concept work performed previously to demonstrate the feasibility of the proposed approach, the relationship to competing or related research, the level of effort to be employed (including the number of samples to be tested as part of the project and the rationale for this number (e.g., statistical significance)), and how data will be analyzed and interpreted. Include the nature and extent of the anticipated results and how they will significantly advance the scientific state-of-the-art. Include how the results will conform to industry standards (e.g., forensic, biometric, and/or data sharing standards). Ensure the proposal identifies any scientific uncertainties and describes specific approaches for the resolution of the uncertainties. If known, include the manner in which the work will contribute to the accomplishment of the Army's mission; letters of support from field experts in academia, industry, or government may be helpful in determining technical merit.
- A brief description of your organization.
- The names of other Government agencies or other parties receiving the proposal and/or funding the proposed effort (if none, so state); concurrent or later submission of the proposal to other organizations will not prejudice its review by DFSC if we are kept informed of the situation.
- A statement regarding possible impact, if any, of the proposed effort on the environment considering as a minimum its effect upon water, atmosphere, natural resources, human resources, and any other values.
- The Offeror shall provide a statement regarding the use of Class I and Class II ozone-depleting substances. Ozone-depleting substances mean any substance designated as Class I by the Environmental Protection Agency (EPA), including but not limited to chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform and any substance designated as Class II by EPA, including but not limited to hydrochlorofluorocarbons. See 40 C.F.R. Part 82 for detailed information. If Class I or II substances are to be utilized, a list shall be provided as part of the Offeror's proposal. If none, so state.
- Requested support (if any) in the following areas: facilities, equipment, and materials.

1.2 Technical Program Summary: This section summarizes the above technical discussion in an orderly progression through the program, emphasizing the strong points of the proposed technical approach.

1.3 Risk Analysis and Alternatives: Every technology has its limitations and shortcomings. Offeror(s) should demonstrate an understanding of the risk factors associated with the proposed effort as well as potential mitigation plans, as proposal evaluator(s) will formulate a risk assessment during proposal review. Critical technologies should be identified along with their impact on the overall program as well as contingency plans that may still offer improvements to existing approaches, even if less desirable than the proposed solution.

1.4 References/Bibliography: Citations must be complete (including full name of author(s), title, and location in the literature).

2.0 Special Technical Factors: In this section, the Offeror should describe any capabilities it has that are uniquely supportive of the research and development to be pursued. This section should include the following:

- 2.1 Capabilities and Relevant Experience**
- 2.2 Previous or Current Relevant IR&D Work**

2.3 Related Government Contracts

2.4 Facilities/Resources/Equipment

3.0 Schedule: The schedule represents the Offeror's commitment to perform the program tasks in an orderly, timely manner.

3.1 Time Line Chart by Task: Each major task identified in the technical proposal must appear as a separate line on the program schedule.

3.2 Project Phases, Milestones, and Deliverables: Provide a schedule of events and milestones and a detailed description of the results and deliverables that are planned/scheduled for each phase of the work. Where appropriate, include measurable metrics by which milestones and deliverables can be assessed.

4.0 Program Organization: In this section, the Offeror should present its organization's ability to conduct difficult technical programs. Any pertinent or useful information may be included in this paragraph, but a minimum recommended response should address the following information:

4.1 Organizational Chart(s) with Key Personnel: Include prime contractor and subcontractor organization charts.

4.2 Management and Technical Team: This should specifically identify what tasks will be performed by which party and why each subcontractor/subawardee, if any, was selected to perform its task(s).

4.2.1 Prime Contractor Responsibilities

4.2.2 Subcontractor(s)/Subawardee(s) Responsibilities

4.2.3 Consultant(s) Responsibilities

4.3 Resumes/Curriculum Vitae of Key Personnel: Include the resumes/curriculum vitae of the prime contractor, subcontractor/subawardee, and consultant key personnel to include the names, brief biography, and list of recent publications of the Offeror's key personnel.

Documentation of previous work or experience in the field of the proposer is especially important. Key personnel information shall include the following:

- **Primary Principal Investigator (PI):** The "Primary" PI provides a single or initial point of communication between the sponsoring agency(ies) and the awardee organization(s) about scientific matters. If not otherwise designated, the first PI listed will serve as the "Primary" PI. This individual can be changed with the concurrence of the agency(ies). The sponsoring agency(ies) do not infer any additional scientific stature to this role among collaborating investigators.
- **Co-Principal Investigator (s) (Co-PI):** When an organization designates more than one PI, it identifies Co-PIs as individuals who share the authority and responsibility for leading and directing the research, intellectually and logistically. The sponsoring agency(ies) do not infer any distinction in scientific stature among multiple PIs.
- **Relevant experience and employment history** including a description of any prior Federal employment within one year preceding the date of proposal submission.
- **For the personnel categories of postdoctoral associates, other professionals, and students (research assistants),** the proposal may include information on exceptional qualifications of these individuals that merit consideration in the evaluation of the proposal.

4.4 Current/Pending Support: All project support from whatever source must be listed. The list must include all projects requiring a portion of the Principal Investigator's and other senior personnel's time, even if they receive no salary support from the project(s). The information should include, at a

minimum: (i) the project/proposal title and brief description, (ii) the name and location of the organization or agency presently funding the work or requested to fund such work, (iii) the award amount or annual dollar volume of the effort, (iv) the period of performance, and (v) a breakdown of the time required of the Principal Investigator and/or other senior personnel.

5.0 Appendices: Appendices may include technical reports, published papers, and referenced material. A listing of these reports/papers with short descriptions of the subject matter is usually adequate. Do not provide commercial product advertising brochures.

VOLUME II – COST PROPOSAL

COST PROPOSAL PREPARATION:

1. **Cost Reimbursement or Fixed Price Award:** Selection of the type of award (cost reimbursement or fixed price) is based upon various factors, such as the type of award instrument selected, the type of research to be performed, the contractor's experience in maintaining cost records, and the ability to detail and allocate proposed costs and performance of the work. Cost type awards are most commonly used because of their suitability in supporting research and development efforts. They permit some flexibility in the redirection of efforts due to recent research experiment results or changes in Army guidance. Fixed-price type awards are used when the research project costs can be estimated accurately, the services to be rendered are reasonably definite, and the amount of property, if any, is fixed. The negotiated price is not subject to any adjustment on the basis of the Offeror's cost experience in performing the contract. Offerors may propose either cost reimbursable or fixed price arrangements, but the award type may vary in accordance with relevant factors as determined by the ACC (APG) RTP Division.

2. **Cost Proposal Content:** Cost proposals should represent an Offeror's best response to the solicitation. Any inconsistency, whether real or apparent, between promised performance and cost or price data must be fully explained in the proposal. Failure to explain any significant inconsistencies may demonstrate an Offeror's lack of understanding of the nature and scope of the work required. Accordingly, cost proposals must be sufficient to establish the reasonableness, realism, and completeness of the proposed cost/price. Further, any modifications made to the initial proposal must likewise be thoroughly supported in writing regardless of whether such changes are made during negotiations or at the time of a proposal revision. The estimate should be detailed for each task of the proposed work. The cost proposal should be limited to the minimum number of pages necessary to satisfy the specific requirements set forth herein.

Submission of volumes of computer-generated data to support the cost proposal is not necessary or desired. If computer-generated data is essential to support the cost proposal, it may be submitted as an addendum and must be clearly cross-referenced to the material it supports in the cost proposal.

Each proposal must contain a budget for each year of support requested and a cumulative budget for the full term of requested support. The ARO budget form (ARO FORM 99) may be reproduced as needed. Locally produced versions may be used, but you may not make substitutions in prescribed budget categories nor alter or rearrange the cost categories as they appear on the form. The proposal may request funds under any of the categories listed so long as the item is considered necessary to perform the proposed work and is not precluded by applicable cost principles. In addition to the forms, the budget proposal should include no more than five (5) pages of budget justification narrative for each year.

A signed summary budget page must be included. The documentation pages should be titled "Budget Explanation Page" and numbered chronologically starting with the budget form. The need for each item should be explained clearly.

All cost data must be current and complete. Costs proposed must conform to the following principles and procedures:

Educational Institutions:

2 CFR Part 200 Subpart E (formerly OMB Circular A-21)

Non-Profit Organizations: 2 CFR Part 200 Subpart E (formerly OMB Circular A-122*)
Commercial Organizations: FAR Part 31, DFARS Part 231, FAR Subsection 15.403-5,
and DFARS Subsection 215.403-5

* For those non-profit organizations specifically exempt from the provisions of 2 CFR Part 230, FAR Part 31 and DFARS Part 231 shall apply.

Sample itemized budgets and the information they must include for a contract and for grants and cooperative agreements can be found at page 33, Section II. H. (Other Information). Before award it must be established that an approved accounting system and financial management system exist.

The following specific information is required:

- a. **Direct Labor/Fringe:** For all employee/labor categories, indicate the amount of time being charged to the proposed (hours per employee and/or labor category) and show resulting costs based on current or projected hourly rates/salary, escalation, and fringe benefits. Estimate tuition, stipends, fees, and health insurance for students, if applicable. If proposing consultants, list each consultant by name, hourly rate, and number of hours (furnish copy of consulting agreement and identify prior agreement(s) under which the consultant commanded proposed rate).
- b. **Materials/Supplies:** Estimate costs of materials and supplies. Provide a basis for the estimate (i.e. list items by type, quantity, unit price, total amount, and source of estimate- provide vendor written quotes and/or other pricing such as catalogue pricing, historical invoices, references to historical experience, etc.)
- c. **Equipment:** Describe any equipment to be acquired and the basis of cost estimates. Costs should be based on recent quotations from manufacturers or distributors. Provide copies of vendor quotes. Describe the purpose of the proposed equipment.
- d. **Travel:** Identify any travel requirements associated with the proposed research and define its relationship and significance to the project. List proposed destinations and purpose for each trip, as well as the number of travelers per trip. Provide a basis for the estimate.
- e. **Other Direct Costs:** Describe any other additional direct costs such as publications, communication, facilities and equipment rental/user fees, etc. Provide a basis for the estimate.
- f. **Subaward Costs:** Provide a description of the work to be performed by each subrecipient/subcontractor, if applicable, and provide a detailed budget for each. Each subrecipient/subcontractor must provide a basis for each cost element proposed.
- g. **Indirect Costs (Overhead, General and Administrative, Facilities Capital Cost of Money (FCCM), and Other):** Provide the most recent rates, rate agreements, dates of negotiations, the period to which the rates apply, and a statement identifying whether the proposed rates are provisional or fixed. If the rates have been negotiated by a Government agency, state when and by which agency. Include a copy of the current rate agreement(s) with the budget. If proposing FCCM, include a DD Form 1861.
- h. **Total Direct and Indirect Costs:** Provide the total costs per year and a cost summary for the entire proposal period.
- i. **Fee or Profit:** Fee or profit is not allowable for the prime recipient or any subrecipient of a grant or cooperative agreement. Fee or profit is allowable on proposals submitted by organizations proposing a contract.

Subcontractor/Subawardee Cost Proposals: Subcontractor's/Sub-awardee's cost proposals must be similarly structured. All subcontracted work must be properly identified as such. If a subcontractor/subawardee elects to submit an abbreviated proposal to an Offeror, it is Offeror's responsibility to see that the subcontractor/subawardee simultaneously submits a complete detailed proposal properly identified directly to the Government Contracting or Grants Officer. An Offeror's proposal must:

1. Identify principal items/services to be subcontracted/subawarded
2. Identify prospective subcontractors and the basis on which they were selected (if non- competitive, provide selected source justification)
3. Identify the type of contractual arrangement contemplated for each subcontract/subaward and the rationale for the same
4. Identify the cost or pricing data or information other than cost or pricing data submitted by each subcontractor
5. Provide an analysis concerning the reasonableness, realism, and completeness of each subcontractor's/suawardee's proposal; if the analysis is based on a comparison with prior research efforts, identify the basis on which the prior costs or prices were determined to be reasonable

Section 6 – Submission of Complete Research Proposals:

Proposals must be submitted through the Offeror's organizational office having responsibility for Government business relations. The proposal must contain the signature of an authorized official. All signatures must be that of an official(s) authorized to commit the organization in business and financial affairs. The cover of the proposal should be marked with the BAA Solicitation Number W911NF-17-R-0001 (ATTN: RDT&E Program). Offerors are requested to provide their e-mail addresses upon submission of a proposal and also the name, address, and telephone number of their cognizant Defense Contract Audit Agency (DCAA) office, if known.

CONTRACT PROPOSAL SUBMISSION:

Proposals for contracts may be e-mailed directly to usarmy.rtp.aro.mbx.baa@mail.mil or submitted online via Grants.gov, <http://grants.gov>.

Requests for waiver of electronic submission may be submitted as follows:

- 1) via e-mail to usarmy.rtp.aro.mbx.baa@mail.mil or
- 2) via regular mail at the following address:

Army Research Office
ATTN: RDRL-RO (Proposal Processing)
P.O. Box 12211
RTP, NC 27709-2211

E-MAIL SUBMISSION (for contract proposals only)

- a. Proposals for contracts may be e-mailed directly to usarmy.rtp.aro.mbx.baa@mail.mil. Do not e-mail full proposals to the DFSC technical point of contact or the ACC (APG) RTP Division contractual point of contact.

All e-mailed proposals must contain the information outlined in Section II, D, 2 (Section 5- Preparation of Complete Research Proposals) including the electronic forms as follows: (1) ARO Form 51, Proposal Cover Page; (2) ARO Form 52 or ARO Form 52a Disclosure Statement Form; (3) If Used- ARO Form 99 Summary Proposal Budget Form(s); (4) If Used- ARO Current and Pending Support (unnumbered form).

These forms may be accessed at <http://www.arl.army.mil/www/default.cfm?page=218#forms> under BAA Forms. The fillable PDF forms may be saved to a working directory on a computer and opened and filled in using the latest compatible Adobe Reader software application found at this Grants.Gov hot-link: <http://www.grants.gov/web/grants/support/technical-support/software/adobe-reader-compatibility.html>.

NOTE: A completed 52.209-11 – Representation by Corporations Regarding Delinquent Tax Liability or a Felony Conviction under any Federal Law (Feb 2016), is not required if the offeror's SAM Certifications and Representations have been updated since March 2016. If the SAM registration has not been updated since March 2016, the completed representation must be submitted and include POC information and signature of the authorized representative.

b. All forms requiring signature must be completed, printed, signed, and scanned into a PDF document. All documents must be combined into a single PDF formatted file to be attached to the e-mail. Original format (e.g. Word, PowerPoint) files should be made available upon request.

GRANTS.GOV SUBMISSION (For All Assistance Instruments)

a. Grants.gov registration (see Section 7 below) must be accomplished prior to application through this process.

Note: All web links referenced in this section are subject to change by Grants.gov and may not be updated here.

b. Specific forms are required for submission of a proposal via Grants.gov. The forms are contained in the Application Package available through the Grants.gov application process. To access these materials, go to <http://www.grants.gov>, select "Apply for Grants," and then select "Download Application Package." A Grant Application Package and Application Instructions are available for download through the Grants.Gov Apply portal under CFDA Number 12.630 /Funding Opportunity Number W911NF-17-R-0001. The following documents are mandatory: (1) Application for Federal Assistance (Research and Related) (SF 424 (R&R)), and (2) Attachments Form.

(1) The SF 424 (R&R) Form is to be used as the cover page for all proposals. Authorized Organization Representative (AOR) usernames and passwords serve as "electronic signatures" when your organization submits applications through Grants.gov. By using the SF 424 (R&R), Offerors are providing the certification required by 32 CFR Part 28 regarding lobbying. The SF 424 (R&R) must be fully completed. Block 11, "Descriptive Title of Applicant's Project," must reference the research topic area being addressed.

(2) The Attachments Form must contain the information outlined in Section II, D, 2 (Section 5- Preparation of Complete Research Proposals) including the electronic forms as follows: (1) ARO Form 51, Proposal Cover Page; (2) ARO Form 52 or ARO Form 52a, Disclosure Statement Form; (3) If Used- ARO Form 99, Summary Proposal Budget Form(s); (4) If Used- ARO Current and Pending Support (unnumbered form).

These forms may be accessed at: <http://www.arl.army.mil/www/default.cfm?page=218#forms>. The "Representation relating to Tax Liability and Felony Convictions" may be submitted on a word document and attached to an available field within the attachments form. The fillable PDF forms may be saved to a working directory on a computer and opened and filled in using the latest compatible Adobe Reader software application found at this Grants.Gov hot-link: <http://www.grants.gov/web/grants/support/technical-support/software/adobe-reader-compatibility.html>.

NOTE: Representation by Corporations Regarding Conviction of a Felony Criminal Violation and Unpaid Delinquent Tax Liability require POC information and signature of the authorized representative.

(3) All documents must be combined into a single PDF formatted file titled "W911NF-17-R-0001 Proposal" and uploaded into the mandatory Attachments Form. Original format (e.g., Word, PowerPoint) files should be made available upon request.

(4) The training demonstration at <http://www.grants.gov/documents/19/23905/GrantsGovApplicantGeneralOverview.pdf/a57fc764-d310-410d-a8c1-057986464745> will assist AORs in the application process. Remember that you

must open and complete the Application for Federal Assistance (Research and Related) (SF 424 (R&R)) first, as this form will automatically populate data fields in other forms. If you encounter any problems, contact customer support at 1-800-518-4726 or at support@grants.gov. If you forget your user name or password, follow the instructions provided in the Credential Provider tutorial. Tutorials may be printed by right-clicking on the tutorial and selecting "Print."

(5) As it is possible for Grants.gov to reject the proposal during this process, it is strongly recommended that proposals be uploaded at least two days before any deadlines established in the BAA so that they will not be received late and be ineligible for award consideration. It is also recommended to start uploading proposals at least two days before the deadline to plan ahead for any potential technical and/or input problems involving the applicant's own equipment.

Section 7 – Grants.Gov Registration:

Each organization that desires to submit applications via Grants.Gov must complete a one- time registration. There are several one-time actions your organization must complete in order to submit applications through Grants.gov (e.g., obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number, register with the System for Award Management (SAM), register with the credential provider, register with Grants.gov, and obtain approval for an Authorized Organization Representative (AOR) to submit applications on behalf of the organization).

To register, please see <http://www.grants.gov/web/grants/applicants/organization-registration.html>

Please note the registration process for an organization or an individual can take between three to five business days or as long as four weeks if all steps are not completed in a timely manner.

Questions relating to the registration process, system requirements, how an application form works, or the submittal process should be directed to Grants.gov at 1-800-518-4726 or support@grants.gov.

3. Dun and Bradstreet Universal Numbering System (DUNS) Number and System for Award Management (SAM):

Each applicant (unless the applicant is an individual or Federal awarding agency that is excepted from those requirements under 2 CFR §25.110(b) or (c), or had an exception approved by the Federal awarding agency under 2 CFR §25.110(d) is required to:

- (i) Be registered in SAM before submitting its application;
- (ii) Provide a valid unique entity identifier in its application; and
- (iii) Continue to maintain an active SAM registration with current information at all times during which it has an active Federal award or an application nor plan under consideration by a federal awarding agency.

The Federal awarding agency may not make a Federal award to an applicant until the applicant has complied with all applicable unique entity identifier and SAM requirements. If an applicant has not fully complied with the requirements by the time the Federal awarding agency is ready to make a Federal award, the Federal awarding agency may determine that the applicant is not qualified to receive a Federal award and use that determination as a basis for making a Federal award to another applicant.

4. Submission Dates and Times:

White papers must be submitted electronically in PDF file format to the RDT&E Program mailbox, USArmy.Gillem.DFSC.MBX.DFSCOE-RDTE@mail.mil by 4:00 PM Eastern Daylight Savings Time on 20 December 2020. Hard copy (hand carried, mailed, faxed) submissions will not be accepted. **Only PDF files will be accepted (electronic files other than PDF files will not be accepted).** You must cite 'W911NF-17-R-0001 White Paper-Quad Chart' in the subject line of the e-mail. White Papers received after the deadline will not be reviewed. Feedback on White Papers will be e-mailed directly to the proposed principal investigators.

Proposals for contracts may be e-mailed directly to usarmy.rtp.aro.mbx.baa@mail.mil, submitted online via Grants.gov, <http://grants.gov>.

Proposals must be received by 4:00 PM Eastern Daylight Savings Time on 20 December 2020. Proposals received after the deadline will not be considered for award.

Proposals for Assistance Instruments (Grants, Cooperative Agreements, Technology Investment Agreements, Other Transactions) shall be submitted online via grants.gov and must be received by Grants.gov no later than 4:00 PM Eastern Daylight Savings time on 20 December 2020.

Applicants are responsible for submitting electronic proposals in sufficient time to insure grants.gov receives it by the time specified in this BAA. If the electronic proposal is received by Grants.gov after the exact time and date specified for receipt of offers, it will be considered "late" and will not be considered for award. Acceptable evidence to establish the time of receipt by grants.gov includes documentary evidence of receipt maintained by Grants.gov.

Because of potential problems involving the applicants' own equipment, to avoid the possibility of late receipt and resulting in ineligibility for award consideration, it is strongly recommended that proposals be uploaded at least two days before the deadline established in the BAA.

If an emergency or unanticipated event interrupts normal Government processes so that proposal cannot be received at grants.gov by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation closing date, the time specified for receipt of proposals will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume.

5. Intergovernmental Review:

Not Applicable

6. Funding Restrictions:

There are no funding restrictions associated with this BAA.

7. Other Submission Requirements:

Information to be requested from Successful Offerors: Offerors whose proposals are accepted for funding will be contacted before award to provide additional information required for award. The required information is normally limited to clarifying budget explanations, representations, certifications, and some technical aspects.

For Contracts Only- Performance Work Statements (PWS): Prior to award, the Contracting Officer may request that the contractor submit a PWS for the effort to be performed, which will be incorporated into the contract at the time of award.

An applicant may withdraw a proposal at any time before award by written notice or by e-mail. Notice of withdrawal shall be sent to the Contracting/Grants Office identified in Section G, of this BAA. Withdrawals are effective upon receipt of notice by the Contracting/Grants Officer.

E. APPLICATION REVIEW INFORMATION

All proposals will be subject to a technical peer review as described in FAR Part 6.102(d)(2), FAR Part 35.016, and DoDGARS 22.315. All proposals are treated as privileged information prior to award and the contents are disclosed only for the purpose of evaluation in accordance with applicable laws and DoD regulations. Offerors are expected to appropriately mark proprietary information. Technical and cost proposals (or any other material) submitted in response to this announcement will not be returned.

IMPORTANT: As specified on page 13 of this BAA, full proposals must not exceed the 30-page limit. **Proposal pages beyond the 30-page limit will not be evaluated or read.**

1. Criteria:

Proposals submitted in response to this announcement will be evaluated using the following criteria:

Primary evaluation criteria (of equal importance to each other) are:

- a. The overall scientific and/or technical merits of the proposal
- b. The potential to advance current and future DoD forensics and/or biometrics capabilities.
- c. Perceived potential for technology transition and/or implementation of a new technology for use by DoD biometric or forensic science practitioners.

Secondary evaluation criteria (of less importance than primary criteria but of equal importance to each other) are:

- a. The offeror's awareness of the pitfalls and feasibility of the proposal as well as a proposed plan to minimize and/or mitigate these risk(s)
- b. The offeror's capabilities, related experience, facilities, techniques, or unique combinations of these which are integral factors for achieving the proposed objectives
- c. The qualifications, capabilities, and experience of the proposed Principal Investigator, team leader, or other key personnel who are critical to achievement of the proposed objectives
- d. The offeror's record of past performance
- e. The reasonableness and realism of proposed costs

Note: All evaluation factors other than cost, when combined, are significantly more important than cost.

2. Review and Selection Process:

Upon receipt of a proposal, the DFSC staff will (1) perform an initial review of its scientific/technical merit and potential to advance future DoD forensic and/or biometric capabilities and (2) determine if funds are expected to be available for the effort. Proposals not considered to have sufficient scientific/technical merit or relevance to the forensic or biometric needs of the DoD or those in areas for which funds are not expected to be available may be declined at this point without further review. Proposals not declined as a result of an initial review will be subject to a technical peer review by subject matter experts who have signed a conflict of interest statement and a non-disclosure statement prior to review. Each proposal will be evaluated against the evaluation criteria rather than against other proposals for research in the same general area.

3. Recipient Qualification:

For CONTRACT Proposals:

The Federal Awardee Performance and Integrity Information System (FAPIS), <https://www.fapiis.gov/fapiis/index.jsp>, will be checked prior to making a contract award. The applicant representing the entity may comment in this system on any information about itself that a Federal Government Official entered. The information in FAPIS will be used in making a judgment about the entity's integrity, business ethics, and record of performance under Federal awards that may affect the official's determination that the applicant is qualified to receive an award.

The following representation, show below, must be submitted prior to award if the offeror's SAM Representations and Certifications have not been updated since March 2016. If the offeror's SAM representations and Certifications have been updated since March 2016, this representation is not required to be submitted separately.

52.209-11 Representation by Corporations Regarding Delinquent Tax Liability or a Felony Conviction under any Federal Law

REPRESENTATION BY CORPORATIONS REGARDING DELINQUENT TAX LIABILITY OR A FELONY CONVICTION UNDER ANY FEDERAL LAW (FEB 2016)

(a) As required by sections 744 and 745 of Division E of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 113-235), and similar provisions, if contained in subsequent appropriations acts, the Government will not enter into a contract with any corporation that—

(1) Has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability, where the awarding agency is aware of the unpaid tax liability, unless an agency has considered suspension or debarment of the corporation and made a determination that suspension or debarment is not necessary to protect the interests of the Government; or

(2) Was convicted of a felony criminal violation under any Federal law within the preceding 24 months, where the awarding agency is aware of the conviction, unless an agency has considered suspension or debarment of the corporation and made a determination that this action is not necessary to protect the interests of the Government.

(b) The Offeror represents that—

(1) It is ☐ is not ☐ a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability; and

(2) It is ☐ is not ☐ a corporation that was convicted of a felony criminal violation under a Federal law within the preceding 24 months.

For Assistance awards:

In accordance with OMB guidance in parts 180 and 200 of Title 2, CFR, it is DoD policy that DoD Components must report and use integrity and performance information in the Federal Awardee Performance and Integrity Information System (FAPIIS), or any successor system designated by OMB, concerning grants, cooperative agreements, and TIAs as follows:

(i) If the total Federal share will be greater than the simplified acquisition threshold on any Federal award under a notice of funding opportunity (see §200.88 Simplified Acquisition Threshold):

(a) The Federal awarding agency, prior to making a Federal award with a total amount of Federal share greater than the simplified acquisition threshold, will review and consider any information about the applicant that is in the designated integrity and performance system accessible through SAM (currently FAPIIS) (see 41 U.S.C. 2313);

(b) An applicant, at its option, may review information in the designated integrity and performance systems accessible through SAM and comment on any information about itself that a Federal awarding agency previously entered and is

currently in the designated integrity and performance system accessible through SAM;

(c) The Federal awarding agency will consider any comments by the applicant, in addition to the other information in the designated integrity and performance system, in making a judgment about the applicant's integrity, business ethics, and record of performance under Federal awards when completing the review of risk posed by applicants as described in §200.205 Federal awarding agency review of risk posed by applicants.

(ii) If the total Federal share exceeds \$500,000 on any Federal award under a notice of funding opportunity, the post-award reporting requirements reflected in Appendix XII to Part 200 of Title 2 CFR will be included in the award document. This requirement also applies to modifications of awards that: 1) increase the scope of the award, 2) are issued on or after January 1, 2016, and 3) increase the federal share of the award's total value to an amount that exceeds \$500,000.

Representations under DoD Assistance Agreements: Appropriations Provisions on Tax Delinquency and Felony Convictions

The applicant is () is not () a "Corporation" meaning any entity, including any institution of higher education, other nonprofit organization, or for-profit entity that has filed articles of incorporation.

If the applicant is a "Corporation" please complete the following representations:

(1) The applicant represents that it is () is not () a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

(2) The applicant represents that it is () is not () is not a corporation that was convicted of a criminal violation under any Federal law within the preceding 24 months.

NOTE: If an applicant responds in the affirmative to either of the above representations, the applicant is ineligible to receive an award unless the agency suspension and debarment official (SDO) has considered suspension or debarment and determined that further action is not required to protect the Government's interests. The applicant therefore should provide information about its tax liability or conviction to the agency's SDO as soon as it can do so, to facilitate completion of the required considerations before award decisions are made.

F. AWARD ADMINISTRATION INFORMATION

1. Award Notices:

Written notification of award selection or non-selection will be provided via e-mail to all Principal Investigators who submitted a proposal. Award selections will not be announced by press release or posted to the Defense Forensic Science Center or Army Research Office websites. The notification of award selection must not be regarded as an authorization to commit or expend funds. The Government is not obligated to provide any funding until a Government Contracting/Grants Officer signs the respective award document. Offerors whose proposals are recommended for award will be contacted by a Government Contract/Grant Specialist to discuss any additional information required for award. This may include representations and certifications, revised budgets or budget explanations, certificate of current cost or pricing data, subcontracting plan for small businesses, and other information as applicable to the proposed award. The anticipated award start date will be determined at this time. The appropriate award document, when signed by the Government Contracting/Grants Officer, is the authorizing award document.

2. Administrative and National Policy Requirements:

a. Required Certifications

For CONTRACT Proposals:

Certifications Required for Contract Awards: Certifications and representations shall be completed by successful Offerors prior to award. These certifications and representations shall be completed online via the System for Award Management (SAM) website, <https://www.sam.gov>. Defense FAR Supplement and contract specific certification packages will be provided to the contractor for completion prior to award.

For All Proposals:

Grant, Cooperative Agreement, and Contract awards require a certification of compliance with a national policy mandate concerning lobbying. Statutes and Government-wide regulations require the certification to be submitted prior to award. The certification is set forth at Appendix A to 32 CFR 28 regarding lobbying. When submitting a grant or cooperative agreement proposal through Grants.gov, by completing blocks 18 and 19 of the Standard Form 424 Research and Related (R&R) Form, the applicant is providing the certification on lobbying required by 32 CFR Part 28. Otherwise, a copy of the certification signed by the authorized representative must be provided. Below is the required certification:

CERTIFICATION AT APPENDIX A TO 32 CFR PART 28 REGARDING LOBBYING:

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000.00 and not more than \$100,000.00 for each such failure.

(4) PROHIBITION ON CONTRACTING WITH ENTITIES THAT REQUIRED CERTAIN INTERNAL CONFIDENTIALITY AGREEMENTS – REPRESENTATION

Agreement with the representation below will be affirmed by checking the "I agree" box in block 17 of the SF424 (R&R) as part of the electronic proposal submitted via Grants.gov. The representation reads as follows:

By submission of its proposal or application, the applicant represents that it does not require any of its employees, contractors, or subrecipients seeking to report fraud, waste, or abuse to sign or comply with internal confidentiality agreements or statements prohibiting or otherwise restricting those employees, contractors, subrecipients from lawfully reporting that waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information.

Note that: (1) the basis for this representation is a prohibition in section 743 of the Financial Services and General Government Appropriations Act, 2015, Pub. L. 113- 235) on provision of funds through grants and cooperative agreements to entities with certain internal confidentiality agreements or statements; and 2) section 743 states that it does not contravene requirements applicable to Standard Form 312, Form 4414, or any other form issued by a Federal department or agency governing the nondisclosure of classified information.

b. Policy Requirements

1) HUMAN SUBJECTS:

Assistance Instruments Only: All research involving human subjects must be conducted in accordance with 32 CFR 219, 10 U.S.C. 980, and DoD Instruction 3216.02, as well as other applicable Federal and state regulations. Awardees must be cognizant of and abide by the additional restrictions and limitations imposed on the DoD regarding research involving human subjects, specifically as regards vulnerable populations (32 CFR 219 modifications to subparts B-D of 45 CFR 46), recruitment of military research subjects (32 CFR 219), and surrogate consent (10 U.S.C. 980). The regulations mandate that all DoD activities, components, and agencies protect the rights and welfare of human subjects of study in DoD-supported research, development, test and evaluation, and related activities hereafter referred to as “research”. The requirement to comply with the regulations applies to new starts and to continuing research.

Notwithstanding any other provision contained in an assistance award or incorporated by reference therein, the Recipient is expressly forbidden to use or subcontract for the use of human subjects in any manner whatsoever without the prior express written approval of the applicable protocol proposed for an award as required by AR 70-25 in addition to the institution's approval. Non-compliance with any part of this provision may result in withholding of funds and/or the termination of an award.

The Principal Investigators will notify the Army technical representatives within 24 hours if any of the following occur: (1) the protocol is suspended; (2) a death occurs as a consequence of the research protocol; or (3) a life-threatening, adverse event occurs as a consequence of the research protocol.

For Contracts, the appropriate clauses shall be added.

2) ANIMAL SUBJECTS:

Assistance Instruments Only: DoD Instruction 3216.01 provides policy and requirements for the use of animals in DoD funded research. The DoD definition of animal is ‘any live non-human vertebrate.’ All proposals that involve animal subjects must address compliance with DoD Instruction 3216.01. Proposals must also be in compliance with AR 40-30.

Provisions include rules on animal acquisition, transport, care, handling, and use in 9 CFR parts 1-4, Department of Agriculture rules implementing the Laboratory Animal Welfare Act of 1966 (7 U.S.C. 2131-2156), and guidelines in the National Academy of Sciences (NAS) “Guide for the Care and Use of Laboratory Animals” (1996), including the Public Health Service Policy and Government Principles Regarding the Care and Use of Animals in Appendix D to the Guide.

Notwithstanding any other provision contained in this award or incorporated by reference therein, the Recipient is expressly forbidden to use or subcontract for the use of laboratory animals in any manner whatsoever without the prior express written approval of the applicable protocol proposed for this award as required by AR 40-33 in addition to the institution's approval. Non-compliance with this provision may result in withholding of funds and/or termination of the award.

The Principal Investigator will notify the Army technical representatives within 24 hours if any of the following occur: (1) the protocol is suspended; or (2) a life threatening, adverse event occurs as a consequence of the research protocol.

For Contracts, the appropriate clauses shall be added.

3) BIOLOGICAL DEFENSE SAFETY PROGRAM REQUIREMENTS:

For all awards: Successful Offerors whose Principal Investigators are conducting research with Bio-safety Levels 3 and 4 material must prepare a Facility Safety Plan in accordance with 32 Code of Federal Regulations (CFR) 626.18. See URL: www.access.gpo.gov/nara/cfr/waisidx_99/32cfr626_99.html for a copy of 32 CFR 626.18, Biological Defense Safety Program.

4) MILITARY RECRUITING:

Assistance Instruments Only: This is to notify potential Offerors that each grant or cooperative agreement awarded under this announcement to an institution of higher education must include the following term and condition:

"As a condition for receipt of funds available to the Department of Defense (DoD) under this award, the recipient agrees that it is not an institution of higher education (as defined in 32 CFR part 216) that has a policy of denying, and that it is not an institution of higher education that effectively prevents, the Secretary of Defense from obtaining for military recruiting purposes: (A) entry to campuses or access to students on campuses or (B) access to directory information pertaining to students. If the recipient is determined, using the procedures in 32 CFR part 216, to be such an institution of higher education during the period of performance of this agreement, and therefore to be in breach of this clause, the Government will cease all payments of DoD funds under this agreement and all other DoD grants and cooperative agreements to the recipient, and it may suspend or terminate such grants and agreements unilaterally for material failure to comply with the terms and conditions of award."

If your institution has been identified under the procedures established by the Secretary of Defense to implement Section 558, then: (1) no funds available to DoD may be provided to your institution through any grant, including any existing grant, (2) as a matter of policy, this restriction also applies to any cooperative agreement, and (3) your institution is not eligible to receive a grant or cooperative agreement in response to this solicitation.

For Contracts Only: This is to notify potential Offerors that each contract awarded under this announcement to an institution of higher education shall include the following clause: Defense Federal Acquisition Regulation Supplement (DFARS) clause 252.209-7005, Military Recruiting on Campus.

5) SUBCONTRACTING:

For Contracts Only: This section is applicable to contracts where the dollar threshold is expected to exceed to \$700,000.00. Pursuant to Section 8(d) of the Small Business Act [15 U.S.C. 637(d)], it is the policy of the Government to enable small business concerns to be considered fairly as subcontractors under all research agreements awarded to prime contractors. The required elements of the Subcontracting Plan are set forth by FAR 52.219-9 Small Business Subcontracting Plan (DEVIATION 2016-O0009) and DFARS 252.219-7003 (DEVIATION 2016-O0009). The Offeror's plan shall depict the percentage values of the option requirements separately. The information in the Small Business Subcontracting Plan must properly correlate with that of the Offeror's Small Business Participation Plan. The Government's subcontracting goals for Fiscal Year 2016 (FY16) are listed below. Future year goals can be found at: <http://www.acq.osd.mil/osbp/gov/sbProgramGoals.shtml>.

Subcontracting Plan Goals: The Offeror is requested to consider, when appropriate, the Government's subcontracting goals. The goals for FY16 are as follows:

Small Business: 34.5%
Small Disadvantaged Business: 5%
Women-Owned Small Business: 5%
HUB Zone Small Business: 3%
Service-Disabled Veteran-Owned Small Business: 3%

3. **Reporting:**

Monthly, quarterly, and/or annual technical and financial reports will be required under this program in accordance with the award document. All reporting requirements and instructions for report preparation will be included in the contract award document signed by the Government Contracting or Grants Officer. The reports shall be prepared and submitted in accordance with the procedures contained in the award document and mutually agreed upon before award. Reports and briefing material will also be required as appropriate to document progress in accomplishing program metrics. A final report that summarizes the project and tasks will be required at the conclusion of the performance period for the award. This technical report will be subjected to peer review by experts in the DOD and greater forensic and biometric community prior to being made available via the Defense Technical Information Center (DTIC) and the National Criminal Justice Reference Service (NCJRS).

ARMY MANPOWER CONTRACTOR REPORTING:

For Contracts Only: The Department of Defense operates and maintains a secure data collection site where the contractor will report ALL contractor manpower (including subcontractor manpower) required for performance of a contract. The contractor is required to completely fill in all required data fields at <http://www.ecmra.mil>. The required information includes: (1) Contracting Office, Contracting Officer, Contracting Officer's Technical Representative; (2) Contract number, including task and delivery order number; (3) Beginning and ending dates covered by reporting period; (4) Contractor name, address, phone number, e-mail address, identity of contractor employee entering data; (5) Estimated direct labor hours (including subcontractors); (6) Estimated direct labor dollars paid this reporting period (including subcontractors); (7) Total payments (including subcontractors); (8) Predominate Federal Service Code (FSC) reflecting services provided by contractor (and separate predominant FSC for each subcontractor if different); (9) Estimated data collection cost; (10) Organizational title associated with the Unit Identification Code (UIC) for the Army Requiring Activity (the Army Requiring Activity is responsible for providing the contractor with its UIC for the purposes of reporting this information); (11) Locations where contractor and subcontractors perform the work (specified by zip code in the United States and nearest city, country, when in an overseas location, using standardized nomenclature provided on website); (12) Presence of deployment or contingency contract language; and (13) Number of contractor and subcontractor employees deployed in theater this reporting period (by country). As part of its submission, the contractor will also provide the estimated total cost (if any) incurred to comply with this reporting requirement. The reporting period will be the period of performance not to exceed 12 months ending 30 September of each Government fiscal year and must be reported by 31 October of each calendar year. Contractors may use a direct XML data transfer to the database server or fill in the fields on the website. The XML direct transfer is a format for transferring files from a contractor's systems to the secure web site without the need for separate data entries for each required data element at the web site. The specific formats for the XML direct transfer may be downloaded from the web site.

G. AGENCY CONTACTS

RDT&E Program
Defense Forensic Science Center
USArmy.Gillem.DFSC.MBX.DFSCOE-RDTE@mail.mil

William A. Creech, Contracting/Grants Officer
U.S. Army Contracting Command (APG) Research Triangle Park Division
(919) 549-4387; william.a.creech3.civ@mail.mil

Note: All correspondence related to the technical component of this solicitation must be submitted via e-mail.

Questions of a technical nature are to be directed to:

RDT&E Program, USArmy.Gillem.DFSC.MBX.DFSCOE-RDTE@mail.mil

Questions of a business or administrative nature are to be directed to:

William A Creech, (919) 549-4387; william.a.creech3.civ@mail.mil

Comments or questions submitted should be concise and to the point, eliminating any unnecessary verbiage. The e-mail subject line should cite "DFSC BAA W911NF-17-R-0001." Additionally, the relevant part and paragraph of the Broad Agency Announcement (BAA) should be referenced.

H. OTHER INFORMATION

1. **Meeting Requirements:** Meeting requirements will vary by project. At a minimum, the following meetings (and deliverables) should be incorporated into the project timeline and budget:

- Kick-off Meeting (including production of a project flyer via a provided template and meeting minutes)
- Interim Progress Review Meeting (including production of meeting minutes)
- Critical Design Review Meeting (including production of meeting minutes)
- Final Project Review Meeting

2. Travel Requirements: All Principal Investigators will be required to travel to project review meetings twice during the course of the project and should budget for this travel accordingly. Project review meetings could be held onsite at the DFSC (Forest Park, GA) facilities or other CONUS location(s).

3. Government Property/Government Furnished Equipment and Facilities: Government equipment, research facilities, and operational military units may be available and may be considered as potential Government-furnished equipment/facilities. The use of these facilities and resources may be negotiated as the program unfolds. Offerors should explain as part of their proposals if any of these resources could be useful to the success of a proposed project.

4. Department of Defense High Performance Computing Program: The DoD High Performance Computing Program (HPCMP) furnishes the DoD RDT&E communities with user access to very powerful high performance computing systems. Awardees of DoD contracts and assistance instruments may be eligible to use HPCMP assets in support of their funded activities if Program Officer approval is obtained and security/screening requirements are favorably completed. Additional information and an application may be found at <http://www.hpcmo.hpc.mil>.

5. Cost Proposal Samples for Reference:

Below are two (2) samples of the cost proposal informational requirements for a procurement contract or assistance instruments (grants, cooperative agreements, TIAs, and OTAs).

a. CONTRACT PROPOSALS:

Cover sheet to include:

- (1) BAA number;
- (2) Technical area;
- (3) Lead Organization submitting proposal;
- (4) Type of business, selected among the following categories: "LARGE BUSINESS", "SMALL DISADVANTAGED BUSINESS", "OTHER SMALL BUSINESS", "HBCU", "MI", "OTHER EDUCATIONAL", OR "OTHER NON-PROFIT";
- (5) Contractor's reference number (if any);
- (6) Other team members (if applicable) and type of business for each;
- (7) Proposal title;
- (8) Technical point of contact to include: salutation, last name, first name, street address, city, state, zip code, telephone, fax (if available), electronic mail (if available);
- (9) Administrative point of contact to include: salutation, last name, first name, street address, city, state, zip code, telephone, fax (if available), and electronic mail (if available);
- (10) Award instrument requested: cost-plus-fixed-fee (CPFF), cost-contract—no fee, cost sharing contract – no fee, or other type of procurement contract (specify).
- (11) Place(s) and period(s) of performance;
- (12) Total proposed cost separated by basic award and option(s) (if any);
- (13) Name, address, and telephone number of the proposer's cognizant Defense Contract Management Agency (DCMA) administration office (if known);
- (14) Name, address, and telephone number of the proposer's cognizant Defense Contract Audit Agency (DCAA) audit office (if known);
- (15) Date proposal was prepared;
- (16) DUNS number;
- (17) TIN number; and
- (18) CAGE Code;

- (19) Subcontractor information; and
- (20) Proposal validity period
- (21) Any Forward Pricing Rate Agreement, other such approved rate information, or such other documentation that may assist in expediting negotiations (if available)

I. Reasoning for Submitting a Strong Cost Proposal:

The ultimate responsibility of the Contracting Officer is to ensure that all prices/costs offered in a proposal are fair and reasonable before contract award [FAR 15.4]. To establish the reasonableness of the offered prices/costs, the Contracting Officer may ask an Offeror to provide various supporting documentation that assists in this determination. The Offeror's ability to be responsive to the Contracting Officer's requests can expedite the award process. As specified in Section 808 of Public Law 105-261, an Offeror who does not comply with a requirement to submit information for a contract or subcontract in accordance with paragraph (a)(1) of FAR 15.403-3 may be ineligible for award.

II. DCAA-Accepted Accounting System:

A) Before a contract can be awarded, the Contracting Officer must confirm that the Offeror has a Defense Contract Audit Agency (DCAA)-accepted accounting system in place for accumulating and billing costs under Government contracts [FAR 53.209-1(f)]. If the Offeror has DCAA correspondence which documents the acceptance of their accounting system, this should be provided to the Contracting Officer (i.e. attached or referenced in the proposal). Otherwise, the Contracting Officer will submit an inquiry directly to the appropriate DCAA office and request a review of the Offeror's accounting system.

B) If an Offeror does not have a DCAA-accepted accounting system in place, the DCAA review process can take several months depending upon the availability of the DCAA auditors and the Offeror's internal processes. This will cause a delay in contract award.

C) For more information about cost proposals and accounting standards, view the link titled "Information for Contractors" on the main menu on their website.

III. Field Pricing Assistance:

During the pre-award cost audit process, the Contracting Officer will solicit support from DCAA to determine commerciality and price reasonableness of the proposal [FAR 15.404-2]. Any proprietary information or reports obtained from DCAA field audits will be appropriately identified and protected within the Government.

IV. Sample Cost Proposal – "Piece by Piece":

A) To help guide Offerors through the pre-award cost audit process, a sample cost proposal is detailed below. This sample also allows the Offeror to see exactly what the Government is looking for; therefore, all cost and pricing back-up data can be provided to the Government in the first cost proposal submission. Review each cost element within the proposal, and take note of the types of documentation that the Contracting Officer will require from the Offeror.

B) Direct Labor: The first cost element included in the cost proposal is Direct Labor. The Department of Defense (DoD) requires each proposed employee to be listed by name and labor category.

Below is the Direct Labor as proposed by our sample Offeror:

DIRECT LABOR:	YEAR 1	YEAR 2
---------------	--------	--------

Employee Name	Labor Category	Direct Hourly Rate	Hours	Total Direct Labor	Direct Hourly Rate	Hours	Total Direct Labor
Andy Smith	Program Manager	\$55.00	720.00	\$39,600.00	\$56.65	720.00	\$40,788.00
Bryan Andrew	Senior Engineer	\$40.00	672.00	\$26,880.00	\$41.20	672.00	\$27,686.40
Cindy Thomas	Principal Engineer	\$50.00	512.00	\$25,600.00	\$51.50	512.00	\$26,368.00
David Porter	Entry Level Engineer	\$10.00	400.00	\$4,000.00	\$10.30	400.00	\$4,120.00
Edward Bean	Project Administrator	\$25.00	48.00	\$1,200.00	\$25.75	48.00	\$1,236.00
Subtotal Direct Labor				\$97,280.00	\$100,198.40		

1) For this cost element, the Contracting Officer requires the Offeror to provide adequate documentation in order to determine that each labor rate for each employee/labor category is fair and reasonable. The documentation will need to explain how these labor rates were derived. For example, if the rates are DCAA-approved labor rates, provide the Contracting Officer with copies of the DCAA documents stating the approval. This is the most acceptable means of documentation to determine the rates fair and reasonable. Other types of supporting documentation may include General Service Administration (GSA) contract price lists, actual payroll journals, or Salary.com research. If an employee listed in a cost proposal is not a current employee (maybe a new employee, or one contingent upon the award of this contract), a copy of the offer letter stating the hourly rate - signed and accepted by the employee - may be provided as adequate documentation. Sometimes the hourly rates listed in a proposal are derived through subjective processes, i.e., blending of multiple employees in one labor category, or averaged over the course of the year to include scheduled payroll increases, etc. These situations should be clearly documented for the Contracting Officer.

2) Another cost element in Direct Labor is labor escalation, or the increase in labor rates from Year 1 to Year 2. In the example above, the proposed labor escalation is 3% (ex., Andy Smith increased from \$55.00/hr in Year 1, by 3% to \$56.65/hr in Year 2). Whatever the proposed escalation rate is, please be prepared to explain why it is fair and reasonable [ex., A sufficient explanation for our sample escalation rate would be the Government's General Schedule Increase and Locality Pay for the same time period (name FY) in the same location (name location) was published as 3.5%, therefore a 3% increase is fair and reasonable].

C) Other Direct Costs (ODCs): This section of the cost proposal includes all other directly related costs required in support of the effort i.e., materials, subcontractors, consultants, travel, etc. Any cost element that includes various items will need to be detailed in a cost breakdown to the Contracting Officer.

1) Direct Material Costs: This subsection of the cost proposal will include any special tooling, test equipment, and material costs necessary to perform the project. Items included in this section will be carefully reviewed relative to need and appropriateness for the work proposed, and must, in the opinion of the Contracting Officer, be advantageous to the Government and directly related to the specific topic.

a) The Contracting Officer will require adequate documentation from the Offeror to determine the cost reasonableness for each material cost proposed. The following methods are ways in which the Contracting Officer can determine this [FAR 15.403-1].

i) Adequate Price Competition: A price is based on adequate price competition when the Offeror solicits and receives quotes from two or more responsible vendors for the same or similar items or services. Based on these quotes, the Offeror selects the vendor who represents the best value to the

Government. The Offeror will be required to provide copies of all vendor quotes received to the Contracting Officer.

Note: Price competition is not required for items at or below the micro- purchase threshold (\$3,000.00). If an item's unit cost is less than or equal to \$3,000.00, price competition is not necessary. However, if an item's total cost over the period of performance (unit cost * quantity is higher than \$3,000.00, two or more quotes must be obtained by the Offeror.

ii) Commercial Prices: Commercial prices are those published on current price lists, catalogs, or market prices. This includes vendors who have prices published on a General Services Administration (GSA) schedule contract. The Offeror will be required to provide copies of such price lists to the Contracting Officer.

iii) Prices set by law or regulation: If a price is mandated by the Government (i.e. pronouncements in the form of periodic rulings, reviews, or similar actions of a governmental body, or embodied in the laws) that is sufficient to set a price.

b) Below is the list of Direct Material costs included in our sample proposal:

DIRECT MATERIAL COSTS:	YEAR 1	YEAR 2
Raw Materials	\$35,000.00	\$12,000.00
Computer for experiments	\$4,215.00	\$0.00
Cable (item #12-3657, 300 ft)	\$1,275.00	\$0.00
Software	\$1,825.00	\$1,825.00
Subtotal Direct Materials Costs (DM):	\$42,315.00	\$13,825.00

ii) "Raw Materials": This is a generic label used to group many material items into one cost item within the proposal. The Contracting Officer will require a detailed breakout of all the items that make up this cost. For each separate item over \$3,000.00 (total for Year 1 + Year 2), the Offeror must be able to provide either competitive quotes received, or show that published pricing was used.

iii) "Computer for experiments": Again, this item is most likely a grouping of several components that make up one system. The Contracting Officer will require a detailed breakout of all the items that make up this cost. For each separate item over \$3,000.00 (total for Year 1 + Year 2), the Offeror must be able to provide either competitive quotes received, or show that published pricing was used.

iv) "Cable": Since this item is under the micro-purchase threshold of \$3,000.00, competitive quotes or published pricing are not required. Simply provide documentation to show the Contracting Officer where this price came from.

v) "Software": This cost item could include either one software product, or multiple products. If this includes a price for multiple items, please provide the detailed cost breakdown.

Note: The price for Year 1 (\$1,825.00) is below the micro-purchase threshold; however, in total (Year 1 + Year 2) the price is over \$3,000.00, so competitive quotes or published pricing documentation must be provided.

c) Due to the specialized types of products and services necessary to perform these projects, it may not always be possible to obtain competitive quotes from more than one reliable source. Each cost element over the micro-purchase threshold (\$3,000.00) must be substantiated. There is always an explanation for HOW

the cost of an item was derived. Provide the Contracting Officer with an explanation of how a cost or price was derived.

d) When it is not possible for an Offeror to obtain a vendor price through competitive quotes or published price lists, a Contracting Officer may accept other methods to determine cost reasonableness. Below are some examples of other documentation, which the Contracting Officer may accept to substantiate costs:

i) Evidence that a vendor/supplier charged another Offeror a similar price for similar services. Has the vendor charged someone else for the same product? (Two (2) to three (3) invoices from that vendor to different customers may be used as evidence.)

ii) Previous contract prices: Has the Offeror charged the Government a similar price under another Government contract for similar services? If the Government has already paid a certain price for services, then that price may already be considered fair and reasonable. (Provide the contract number, and billing rates for reference.)

iii) DCAA approved: Has DCAA already accepted or verified specific cost items included in your proposal? (Provide a copy of DCAA correspondence that addressed these costs.)

2) Below is the remaining ODC portion of our proposal including equipment, subcontractors, consultants, and travel. Assume in this scenario that competitive quotes or catalog prices were not available for these items:

OTHER DIRECT COSTS:	YEAR 1	YEAR 2
Equipment Rental for Analysis	\$5,500.00	\$5,600.00
Subcontractor - Lockheed	\$25,000.00	\$0.00
Consultant: John Bowers	\$0.00	\$12,000.00
Travel	\$1,250.00	\$1,250.00
Subtotal Other Direct Costs (ODC):	\$31,750.00	\$18,850.00

a) Equipment Rental for Analysis”: The Offeror explains that the Year 1 cost of \$5,500.00 is based upon 250 hours of equipment rental at an hourly rate of \$22.00/hr. One (1) invoice from the vendor charging another vendor the same price for the same service is provided to the Contracting Officer as evidence. Since this cost is over the micro-purchase threshold, further documentation to determine cost reasonableness is required. The Offeror is able to furnish another invoice charging a second vendor the same price for the same service.

b) “Subcontractor – Lockheed”: The Offeror provides a copy of the subcontractor quote to the Contracting Officer in support of the \$25,000.00 cost. This subcontractor quote must include sufficient detailed information (equivalent to the data included in the prime’s proposal to the Government), so that the Contracting Officer can make a determination of cost reasonableness.

i) As stated in Section 3.5(c)(6) of the DoD Cost Proposal guidance, “All subcontractor costs and consultant costs must be detailed at the same level as prime contractor costs in regards to labor, travel, equipment, etc. Provide detailed substantiation of subcontractor costs in your cost proposal.”

ii) In accordance with FAR 15.404-3, “the Contracting Officer is responsible for the determination of price reasonableness for the prime contract, including subcontracting costs”. This means that the subcontractor’s quote/proposal may be subject to the same scrutiny by the Contracting Officer as the cost proposal submitted by the prime. The Contracting Officer will need to determine whether the subcontractor has an accepted purchasing system in place and/or conduct appropriate cost or price analyses to establish the reasonableness of proposed subcontract prices. Due to the proprietary nature of cost data, the subcontractor may choose to submit their pricing information directly to the Contracting Officer and not through the prime. This is understood and encouraged.

iii) When a subcontractor is selected to provide support under the prime contract due to their specialized experience, the Contracting Officer may request sole source justification from the Offeror.

c) “Consultant – John Bowers”: Again, the Offeror shall provide a copy of the consultant’s quote to the Contracting Officer as evidence. In this example, the consultant will be charging an hourly rate of \$125.00/hour for 96 hours of support. The Offeror indicates to the Contracting Officer that this particular consultant was used on a previous contract with the Government (provide contract number), and will be charging the same rate. A copy of the consultant’s invoice to the Offeror under the prior contract is available as supporting evidence. Since the Government has paid this price for the same services in the past, determination has already been made that the price is fair and reasonable.

d) “Travel”: The Contracting Officer will require a detailed cost breakdown for travel expenses to determine whether the total cost is reasonable based on Government per diem and mileage rates. This breakdown shall include the number of trips, the destinations, and the number of travelers. It will also need to include the estimated airfare per round trip, estimated car rental, lodging rate per trip, tax on lodging, and per diem rate per trip. The lodging and per diem rates must coincide with the Joint Travel Regulations. Please see the following website to determine the appropriate lodging and per diem rates: <http://www.defensetravel.dod.mil>. Additionally, the Offeror must provide why the airfare is fair and reasonable as well. Sufficient supporting documentation for both airfare and car rental would include print-outs of online research at the various travel search engines (Expedia, Travelocity, etc.) documenting the prices for airfare and car rentals thus proving why your chosen rate is fair and reasonable.

i) Below is a sample of the travel portion:

TRAVEL		Trips	Travelers	Nights	Days	Unit Cost	Total Travel
Airfare	per roundtrip	1	1			\$996.00	\$996.00
Lodging	per day	1	1	1		\$75.00	\$75.00
Tax on Lodging (12%)	per day	1	1	1		\$9.00	\$9.00
Per Diem	per day	1	1		2	\$44.00	\$88.00
Automobile Rental	per day	1	1		2	\$41.00	\$82.00
Subtotal Travel							\$1,250.00

D) Indirect Rates: Indirect rates include elements such as Fringe Benefits, General & Administrative (G&A), Overhead, and Material Handling costs. The Offeror shall indicate in the cost proposal both the indirect rates (as a percentage) as well as how those rates are allocated to the costs in the proposal.

Below is the Indirect Rates portion of our sample proposal:

INDIRECTS	YEAR 1	YEAR 2
Subtotal Direct Labor (DL):	\$97,280.00	\$100,198.40
Fringe Benefits, if not included in Overhead,		
rate (15.0000 %) X DL =	\$14,592.00	\$15,029.76
Labor Overhead (rate 45.0000 %) X (DL + Fringe) =	\$50,342.40	\$51,852.67
Total Direct Labor (TDL):	\$162,214.40	\$167,080.83

- 1) In this example, the Offeror includes a Fringe Benefit rate of 15.00% that it allocated to the Direct Labor costs. They also propose a Labor Overhead rate of 45.00% that is allocated to the Direct Labor costs plus the Fringe Benefits.
- 2) All indirect rates and the allocation methods of those rates must be verified by the Contracting Officer. In most cases, DCAA documentation supporting the indirect rates and allocation methods can be obtained through a DCAA field audit or proposal review. Many Offerors have already completed such reviews and have this documentation readily available. If an Offeror is unable to participate in a DCAA review to substantiate indirect rates, the Contracting Officer may request other accounting data from the Offeror to make a determination.

E) Cost of Money (COM): If Cost of Money (an imputed cost that is not a form of interest on borrowings- see FAR 31.205-20); an “incurred cost” for cost-reimbursement purposes under applicable cost-reimbursement contracts and for progress payment purposes under fixed-price contracts; and refers to— (1) Facilities capital cost of money (48 CFR 9904.414); and (2) Cost of money as an element of the cost of capital assets under construction (48 CFR 9904.417)) is proposed in accordance with FAR 31.205-10, a DD Form 1861 is required to be completed and submitted with the contractor’s proposal.

F) Fee/Profit: The proposed fee percentage will be analyzed in accordance with DFARS 215.404, the Weighted Guidelines Method.

G) Small Business Subcontracting Plan: If the total amount of the proposal exceeds \$7000,000.00 and the Offeror is a large business or an institute of higher education (other than HBCU/MI) and the resultant award is a contract, the Offeror shall be prepared to submit a subcontracting plan for small business and small disadvantaged business concerns. A mutually agreeable plan will be included in and made a part of the contract (see the goals listed at Section II, F, 2, b).

b. GRANT & COOPERATIVE AGREEMENT PROPOSALS (ASSISTANCE INSTRUMENTS)

Before award, it must be established that an approved accounting system and financial management system exist.

A) Direct Labor: Show the current and projected salary amounts in terms of man-hours, man-months, or annual salary to be charged by the Principal Investigator(s), faculty, research associates, postdoctoral associates, graduate and undergraduate students, secretarial, clerical, and other technical personnel either by personnel or position. State the number of man-hours used to calculate a man-month or man-year. For proposals from universities, research during the academic term is deemed part of regular academic duties, not an extra function for which additional compensation or compensation at a higher rate is warranted. Consequently, academic term salaries shall not be augmented either in rate or in total amount for research performed during the academic term. Rates of compensation for research conducted during non-academic (summer) terms shall not exceed the rate for the academic terms. When part or all of a person's services are to be charged as project costs, it is expected that the person will be relieved of an equal part or all of his or her regular teaching or other obligations. For each person or position, provide the following information:

- (1) The basis for the direct labor hours or percentage of effort (e.g., historical hours or estimates)
- (2) The basis for the direct labor rates or salaries: Labor costs should be predicted upon current labor rates or salaries. These rates may be adjusted upward for forecast salary or wage cost-of-living increases that will occur during the agreement period. The cost proposal should separately identify the rationale applied to base salary/wage for cost-of-living adjustments and merit increases. Each must be fully explained.
- (3) The portion of time to be devoted to the proposed research, divided between academic and non-academic (summer) terms, when applicable
- (4) The total annual salary charged to the research project

(5) Any details that may affect the salary during the project, such as plans for leave and/or remuneration while on leave

B) Fringe Benefits and Indirect Costs (Overhead, General and Administrative, and Other): The most recent rates, dates of negotiation, and the base(s) and periods to which the rates apply must be disclosed and a statement included identifying whether the proposed rates are provisional or fixed. If the rates have been negotiated by a Government agency, state when and by which agency. A copy of the negotiation memorandum should be provided. If negotiated forecast rates do not exist, Offerors must provide sufficient detail to enable a determination to be made that the costs included in the forecast rate are allocable according to applicable OMB Circulars or FAR/DFARS provisions. Offerors' disclosure should be sufficient to permit a full understanding of the content of the rate(s) and how it was established. As a minimum, the submission should identify:

- (1) All individual cost elements included in the forecast rate(s);
- (2) Bases used to prorate indirect expenses to cost pools, if any;
- (3) How the rate(s) were calculated;
- (4) Distribution basis of the developed rate(s);
- (5) Bases on which the overhead rate is calculated, such as "salaries and wages" or "total costs," and
- (6) The period of the Offeror's fiscal year

C) Permanent Equipment: If facilities or equipment are required, a justification why this property should be furnished by the Government must be submitted. State the organization's inability or unwillingness to furnish the facilities or equipment. Offerors must provide an itemized list of permanent equipment showing the cost for each item. Permanent equipment is any article or tangible nonexpendable property having a useful life of more than one year and an acquisition cost of \$5,000.00 or more per unit. The basis for the cost of each item of permanent equipment included in the budget must be disclosed, such as:

- 1) Vendor Quotes: Show name of vendor, number of quotes received and justification, if intended award is to other than lowest bidder
- 2) Historical Cost: Identify vendor, date of purchase, and whether or not cost represents lowest bid; include reason(s) for not soliciting current quotes
- 3) Engineering Estimate: Include rationale for quote and reason for not soliciting current quotes; if applicable, the following additional information shall be disclosed in the Offeror's cost proposal:
- 4) Special test equipment to be fabricated by the awardee for specific research purposes and its cost
- 5) Standard equipment to be acquired and modified to meet specific requirements, including acquisition and modification costs, listed separately
- 6) Existing equipment to be modified to meet specific research requirements, including modification costs; do not include equipment the organization will purchase with its funds if the equipment will be capitalized for Federal income tax purposes; proposed permanent equipment purchases during the final year of an award shall be limited and fully justified
- 7) Grants and cooperative agreements may convey title to an institution for equipment purchased with project funds. At the discretion of the Contracting/Grants Officer, the agreement may provide for retention of the title by the Government or may impose conditions governing the equipment conveyed to the organization. The Government will not convey title to commercial contractors.

D) Travel: Forecasts of travel expenditures (domestic and foreign) that identify the destination and the various cost elements (airfare, mileage, per diem rates, etc.) must be submitted. The costs should be in sufficient detail to determine the reasonableness of such costs. Allowance for air travel normally will not exceed the cost of round-trip, economy air accommodations. Specify the type of travel and its relationship to the research project. Additional travel may be requested for travel to Army laboratories and facilities to enhance agreement objectives and to achieve technology transfer.

E) Materials, Supplies, and Consumables: A general description and total estimated cost of expendable equipment and supplies are required. The basis for developing the cost estimate (vendor quotes, invoice prices, engineering estimate, purchase order history, etc.) must be included. If possible, provide a material list.

F) Publication, Documentation, and Dissemination: The budget may request funds for the costs of preparing, publishing, or otherwise making available to others the findings and products of the work conducted under an agreement, including costs of reports, reprints, page charges, or other journal costs (except costs for prior or early publication); necessary illustrations, cleanup, documentation, storage, and indexing of data and databases; and development, documentation, and debugging of software.

G) Consultant Costs: Offerors normally are expected to utilize the services of their own staff to the maximum extent possible in managing and performing the project's effort. If the need for consultant services is anticipated, the nature of proposed consultant services should be justified and included in the technical proposal narrative. The cost proposal should include the names of consultant(s), primary organizational affiliation, each individual's expertise, daily compensation rate, number of days of expected service, and estimated travel and per diem costs.

H) Computer Services: The cost of computer services, including computer-based retrieval of scientific, technical, and educational information, may be requested. A justification/explanation based on the established computer service rates at the proposing organization should be included. The budget also may request costs, which must be shown to be reasonable, for leasing automatic data processing equipment. The purchase of computers or associated hardware and software should be requested as items of equipment.

I) Subawards (subcontracts or subgrants): A precise description of services or materials that are to be awarded by a subaward must be provided. For subawards totaling \$10,000.00 or more, provide the following specific information:

- 1) A clear description of the work to be performed
- 2) If known, the identification of the proposed subawardee and an explanation of why and how the subawardee was selected or will be selected
- 3) The identification of the type of award to be used (cost reimbursement, fixed price, etc.)
- 4) Whether or not the award will be competitive and, if noncompetitive, rationale to justify the absence of competition
- 5) A detailed cost summary

J) Other Direct Costs: Itemize and provide the basis for proposed costs for other anticipated direct costs such as communications, transportation, insurance, and rental of equipment other than computer related items. Unusual or expensive items shall be fully explained and justified.

K) Profit/Fee: Profit/fee is not allowed for the recipient of an assistance instrument (grant or cooperative agreement) or a subawardee/subrecipient under an assistance instrument. A subaward is an award of financial assistance in the form of money, or property in lieu of money, made under a DoD grant or cooperative agreement by a recipient to an eligible subrecipient. The term includes financial assistance for substantive program performance by the subrecipient of a portion of the program for which the DoD grant or cooperative agreement was made.

L) Small Business Subcontracting Plan: Small Business Subcontracting Plan requirements do not apply to assistance instruments.

CONTRACT FACILITIES CAPITAL COST OF MONEY: If cost of money is proposed, a completed Contract Facilities Capital Cost of Money (FCCM) (DD Form 1861) is required.

6. Acronyms:

ACC (APG) RTP –	Army Contracting Command (Aberdeen Proving Ground) Research Triangle Park Division
AFMES –	Armed Forces Medical Examiner System
AOR –	Authorized Organization Representative
ARL –	Army Research Laboratory
ARO –	Army Research Office
ATD –	Advanced Technology Development
BAA –	Broad Agency Announcement
BIMA –	Biometrics Identity Management Agency
CAGE –	Commercial and Government Entity
CFDA –	Catalogue of Federal Domestic Assistance
CFR –	Code of Federal Regulations
COM –	Cost of Money
CONUS –	Continental United States
CPFF –	Cost Plus Fixed Fee
D&B –	Dun and Bradstreet, Inc.
DC3 –	Department of Defense Cyber Crime Center
DCAA –	Defense Contract Audit Agency
DCMA –	Defense Contract Management Agency
DD –	Department of Defense
DFARS –	Defense Federal Acquisition Regulation Supplement
DFBA –	Defense Forensics and Biometrics Agency
DFSC –	Defense Forensics Science Center
DLSC –	Defense Logistics Service Center
DNA –	Deoxyribonucleic Acid
DoD –	Department of Defense
DoDGARs –	Department of Defense Grant and Agreement Regulations
DUNS –	Data Universal Numbering System
EFT –	Electronic Fingerprint Transmission
EIN –	Employer Identification Number
EPA –	Environmental Protection Agency
FAPIIS –	Federal Awardee Performance and Integrity Information System
FAR –	Federal Acquisition Regulation
FCCM –	Facilities Capital Cost of Money
FFP –	Firm Fixed Price
FFRDC –	Federally Funded Research and Development Center
FOIA –	Freedom of Information Act
FSC –	Federal Service Code
FY –	Fiscal Year
G&A –	General and Administrative
GFD –	Government Furnished Data
GFE –	Government Furnished Equipment
GFI –	Government Furnished Information
GFP –	Government Furnished Property
GSA –	General Services Administration
HBCU/MI –	Historically Black College or University/Minority Serving Institution
HPCMP –	Department of Defense High Performance Computing Program
HUB Zone –	Historically Underutilized Business Zone

IBC –	Institutional Biosafety Committee
IR&D –	Independent Research and Development
JPAC –	Joint POW/MIA Accounting Command
CIL –	Central Identification Laboratory
MIPR –	Military Interdepartmental Purchase Request
NAS –	National Academy of Sciences
ODC –	Other Direct Cost
OMB –	Office of Management and Budget
OPMG –	Office of the Provost Marshall General
OPSEC –	Operations Security
OTA –	Other Transaction for Prototype
PCR –	Polymerase Chain Reaction
PDF –	Portable Document Format
PI –	Principal Investigator
PL –	Public Law
POW/MIA –	Prisoner of War/Missing in Action
PWS –	Performance Work Statement
R&D –	Research & Development
RDT&E –	Research, Development, Test, and Evaluation
SAM –	System for Award Management
SF –	Standard Form
TIA –	Technology Investment Agreement
TIN –	Taxpayer Identification Number
UIC –	Unit Identification Code
USC –	United States Code

7. Definitions:

Advanced Technology Development: This term refers to efforts that include the development of technologies, components, or prototypes that can be tested in field experiments and/or simulated environments. Projects in this category have a direct relevance to identified military needs. These projects should demonstrate the general military utility or cost reduction potential of technology in the following areas- personnel selection, assignment, and retention; training strategies and techniques; leader education and development; performance measurement; and team and inter-organizational mission effectiveness. These projects should focus on a more direct operational benefit and if successful, the technology should be available for transition.

Applied Research: This term refers to systematic study to gain knowledge or understanding necessary to determine the means by which a recognized and specific need may be met. The term does not include efforts whose principal aim is the design, development, or testing of specific products, systems or processes to be considered for sale or acquisition.

Basic Research: This term refers to systematic study directed toward greater knowledge or understanding of the fundamental aspects of phenomena and/or observable facts without specific applications toward processes or products in mind.