

IARPA

BROAD AGENCY ANNOUNCEMENT



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**IARPA-Wide Research
Broad Agency Announcement**

IARPA-BAA-17-01

Release Date: July 3, 2017

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1. OVERVIEW

Federal Agency Name	Intelligence Advanced Research Projects Activity (IARPA)
Funding Opportunity Title	IARPA-Wide Research (Seedlings)
Announcement Type	Initial Announcement
Funding Opportunity Number	IARPA-BAA-17-01
Dates	July 3, 2017 - May 2, 2018 This BAA closes May 2, 2018 at 5:00pm ET. NOTE: Offerors are highly encouraged to submit at any time throughout the open available time of this BAA. Offers will be accepted at all times during the period the BAA is open.
Anticipated Individual Awards	Multiple awards are anticipated.
Types of instruments that may be awarded	Procurement contracts, grants, cooperative agreements and other transactions
Agency Point of Contact <i>(Not for submissions, see Section 3.4)</i>	(not for proposal submissions, for submission information see Section 3.4) Intelligence Advanced Research Projects Activity Office of the Director of National Intelligence ATTN: IARPA-BAA-17-01 Washington, DC 20511 Fax: 301-851-7557 Electronic mail: dni-iarpa-baa-17-01@iarpa.gov
IARPA Website	http://www.iarpa.gov/index.php/about-iarpa/

BAA Summary – IARPA is soliciting proposals for research on topics that are not addressed by emerging or ongoing IARPA programs or other published IARPA solicitations. The BAA primarily, but not solely, seeks proposals for early stage research (which IARPA refers to as “seedlings”).

Questions – Submit questions on administrative, technical or contractual issues by email to dni-iarpa-baa-17-01@iarpa.gov. All request must include the full name and affiliation of a point of contact. All questions must include the name, e-mail address, and phone number of the requestor. Do not send questions with proprietary content. IARPA will accept questions until 18 April 2018, 2 weeks before the closing date of this BAA.

2. FULL TEXT OF ANNOUNCEMENT

2.1. Funding Opportunity

The Intelligence Advanced Research Projects Activity (IARPA) often selects its research efforts through the Broad Agency Announcement (BAA) process. The use of a BAA solicitation

allows a wide range of innovative ideas and concepts. The BAA will appear first on the FedBizOpps website, <http://www.fedbizopps.gov>, then the IARPA website at <http://www.iarpa.gov/>. The following information is for those wishing to respond to this BAA.

IARPA invests in high-risk, high-payoff research that has the potential to provide our nation with an overwhelming intelligence advantage. This BAA solicits abstracts and proposals for IARPA. A summary of topics of interest is described below by technical area:

a. Anticipatory Intelligence

Anticipatory intelligence focuses on characterizing and reducing uncertainty by providing decision makers with timely and accurate forecasts of significant global events. This BAA solicits research that explores or demonstrates the feasibility of revolutionary concepts that may deliver real-time indications and warning, in context, to support rapid, nuanced understanding by intelligence consumers. Research areas of particular interest in anticipatory intelligence include (in no particular order):

- Detection and forecasting of emergent phenomena (e.g., application of technical innovation and its adoption, novel cyber-attack methods, emerging infectious diseases).
- Automated generation and maintenance of taxonomies (e.g., scientific taxonomies, socio-political event taxonomies) across multiple facets. For example, research disciplines, applications, and methods could be different facets of a scientific taxonomy.
- Analysis and forecasting of rare events (e.g., catastrophic military conflicts, terrorist attacks, and pandemics).
- Quantitative risk assessments of emerging dual-use technologies.
- Causal inference from observational data.
- Methods for assessing capability and intent to develop weapons of mass destruction (WMD). This research area includes:
 - Data and methods to forecast technical progress towards development of critical sub-components of a WMD capability;
 - Data and methods to detect and/or forecast major policy shifts of foreign governments, especially with respect to development of WMD.
- Methods for assessing capability and intent to leverage cyber capabilities against U.S. critical infrastructure.

b. Analysis

Analysis focuses on maximizing insights from the massive, disparate, unreliable and dynamic data that are – or could be – available to analysts, in a timely manner. IARPA is pursuing new sources of information from existing and novel data, and developing innovative techniques that can be utilized in the processes of analysis. Analysis research efforts are diverse across technical disciplines but have the following common features: (a) they create technologies that can earn the trust of the analyst user by providing the reasoning for results; and (b) they address data uncertainty and provenance explicitly.

The following analysis topics (in no particular order) are of interest:

- Reliable, real-time feedback methods for assessing human judgment and reasoning;
- Discovering, tracking and categorizing emerging trends, events, and entities;
- Forensics on multimedia and/or social network data;
- Methods for analyzing, reconciling, and managing massive, multimodal, dynamic and diverse data;
- Enhancement of machine learning methods with transparent representations that allow for validation and high confidence in results;
- Methods to generate high resolution geospatial models or 4D geospatial/temporal models from multimodal data;
- Alternative computing regimes and data sharing environments that would facilitate multi-INT processing and asynchronous trusted collaboration;
- Dynamic means to expose and enhance unprocessed data and interim and/or alternative analytic products across domains and/or represent cascade effects of new information on existing models;
- Scalable and adaptable behavioral network science methods to organize information optimally for analytic effectiveness;
- Scalable cross-media anomaly detection and/or discovery methods to identify data and patterns resulting from distinct or novel causal processes;
- Methods for detecting and countering intentionally misleading information;
- Methods to rapidly identify, assess relevancy and reliability of, and/or exploit emerging or alternative sources of information or methods;
- Novel graph analytic techniques for representing, reasoning, and learning from massive or sparsely sampled heterogeneous data;
- Novel approaches to identify and assess persistent or shifting socio-cultural norms and/or effective methods to counter or influence attitudes, behavior or messaging;
- Autonomous agent, machine learning and/or physiological intelligence methods to gather latent or suppressed knowledge;
- Human language technologies to assist analysts with triage of massive quantities of data;
- Scalable and adaptable behavioral network science methods to organize information optimally for analytic effectiveness;
- Scalable anomaly detection and discovery methods to identify data and patterns resulting from distinct or novel causal processes;
- Methods for distinguishing and countering intentionally misleading information in heterogeneous communication networks;

- Financial market data analyses to complement current intelligence sources and methods;
- Computational social policy;
- Inference and privacy;
- Brain-inspired algorithms and architectures for artificial intelligence and machine learning;
- Brain computer interfaces to enhance cognitive processing or increase bandwidth of human-machine interactions;
- Rigorous mathematical or probabilistic research on state-of-the-art, or novel techniques for improving the understanding of machine learning that leads to significant progress in generalization and repeatability of learning algorithms in applications involving big data mining or high volume data streams;
- Multi-Sensor (2D-3D) alignment, data extraction and reasoning focusing on emerging commercial satellites; and
- Cyber geospatial analytics to include Geoinferencing, spatial temporal data mining, IP geolocation, new cyber facility discovery, cyber activity prediction.

c. Computing

Research in computing focuses on the IC's ability to operate freely and effectively in an often hostile and increasingly interdependent and resource-constrained environment. While some of our challenges stem from adversary activity, others emerge coincidentally with changes in technology or business practices. Research efforts are most often not application-specific, but concentrate instead on creating the foundations of a powerful and robust infrastructure for the IC that can maintain its integrity over time. This BAA solicits research that explores or demonstrates the feasibility of revolutionary concepts in computation, trust establishment and maintenance, and detecting and deflecting hostile intent.

The following computing topics (in no particular order) are of interest:

- Computational methods, architectures, and/or algorithms based on models other than digital Turing machines and/or platforms other than CMOS whose attributes are matched to efficient or secure solution of intelligence problems (e.g., optical, analog, biomolecular, neuromorphic, quantum, and hybrid computing systems);
- Novel ideas for technologies enabling energy-efficient computation beyond the efficiency projected for end-of-roadmap silicon, as well as strategies for using existing computing technologies to compute with lower power budgets;
- Design tools for non-traditional computing architectures/technologies and non-traditional materials;
- Robotized research methods;
- Approaches to operating securely with imperfect equipment, error-prone users, compromised components, and/or within an environment of unknown

trustworthiness. Constructing systems that can perform reliable and secure computations when some fraction of their components is unreliable or insecure;

- New techniques and applications for algebraic statistics and software development for algebraic statistics with an emphasis on user interface;
- New algorithms and techniques that take advantage of quantum entanglement to perform tasks (excluding quantum annealing) that are inefficient or impossible with classical algorithms and/or current platforms;
- Methods (including compilers and programming languages) for performing complicated computations securely, e.g. multi-party secure functional computation, full homomorphic encryption (HE) and HE applications, but with low overhead;
- Detection, classification, and mitigation of attempts by adversaries to compromise safety and security, including, but not limited to penetration and manipulation of electronic infrastructure; and
- Assurance techniques that take advantage of emergent enterprise architectural constructs, e.g. software-defined networking, multi-tenancy, and virtual hosting.

d. Collection

The goal of collections research is to dramatically improve the value of collected data from all sources by developing new sensor and transmission technologies, new collection techniques that more precisely target desired information, and means for collecting information from previously inaccessible sources. In addition, IARPA pursues new mechanisms for combining information gathered from multiple sources to enhance the quality, reliability, and utility of collected information.

The following collection-related topics (in no particular order) are of interest:

- Innovative methods or tools for identifying and/or creating novel sources of new information. Sensor technologies that dramatically improve the reach, sensitivity, size, weight, power and duration for collection of broad signal or signature types;
- Methods for combining different measures and/or sensors to improve performance and accuracy of systems;
- Approaches for assessing and quantifying the ecological-validity of behavioral, neuro- and social science research;
- Innovative approaches to gain access to denied environments;
- Secure communication to and from collection points;
- Tagging, Tracking, and Location (TTL) techniques;
- Electrically small antennas and other advanced radio frequency (RF) concepts;
- Innovative means and methods to ensure the veracity of data collected from a variety of sources;

- Automated methods for sensor data fusion without predefined interface descriptions;
- Approaches to enable signal collection systems to conduct more effective targeted information acquisition rather than bulk collection; and
- Tools to identify and mask signal streams and records that contain personal information to avoid unauthorized collection and dissemination;
- Space systems and remote sensing technologies, including geospatial intelligence, signals intelligence, and measurement and signature intelligence;
- Computational photography;
- Autonomous systems and associated technology enablers in control and sensing;
- Activity based intelligence;
- Distributed sensing techniques.

e. Innovative approaches to Estimation of Performance

To ensure sound science and objective evaluations of progress, IARPA programs place considerable emphasis on sound procedures to measure or estimate performance. The topic areas listed above (Anticipatory Intelligence, Analysis, Computing, and Collections) pose a challenge to measurement, and in some cases a program-level investment in one of these topics may depend on developing new and innovative approaches to estimating performance. Consequently, this technical area seeks to enable or enhance measurement and estimation in any of the above listed topics. Measurement and estimation areas of interest include, but are not limited to, the following (in no particular order):

- Methods to estimate system performance in challenging circumstances; such as estimating accuracy of rare event forecasts, estimating the number of events not discovered by event discovery systems (e.g. number of cyber-attacks not detected), estimating system classification accuracy using only very fallible human raters, or in-situ performance estimates where data on the inputs and outputs contains measurement error, missing data and possible bias;
- Algebraic statistical methods that improve upon classical statistical methods when dealing with underlying discrete distributions;
- Topological exploratory data analysis for time evolving graphics or other related data structures;
- Advances in statistical methods to plan and maximize the power of a series of (often small sample size) experiments in challenging domains; as well as to detect and negate researcher bias in statistical analyses; and
- Methods to evaluate analytic accuracy in dynamic domains with changing phenomena, such as estimating the accuracy of causal claims and counterfactual forecasts in complex, non-repeatable domains such as geopolitical analysis.

This BAA seeks research ideas for topics that are not addressed by emerging or ongoing IARPA programs or other published IARPA solicitations. It is primarily, but not solely, intended for early stage research (i.e., seedlings), that may lead to larger, focused programs through a separate BAA in the future, so periods of performance generally will not exceed 12 months.

Offerors should demonstrate that their proposed effort has the potential to make revolutionary, rather than incremental, improvements to intelligence capabilities. Research that primarily results in evolutionary improvement to the existing state of practice is specifically excluded.

2.2. Award Information

Multiple awards are anticipated under this BAA. Awards generally will be for a period of performance of 12 months or less. The amount of resources made available under this BAA shall depend on the quality of the proposals received and the availability of funds.

The Government reserves the right to select for negotiation all, some, one, or none of the proposals received in response to this solicitation and to make awards without discussions with offerors. The Government also reserves the right to conduct discussions if it determines them to be necessary. IARPA reserves the right to accept proposals in their entirety or to select only portions of proposals for negotiations for award. In the event that IARPA desires to award only portions of a proposal, negotiations may be opened with that offeror. The Government also reserves the right to segregate portions of resulting awards into pre-priced options.

Awards under this BAA will be made to offerors on the basis of the evaluation criteria listed in Section 4.3, portfolio balance, and the availability of funds. Proposals identified for negotiation may result in a procurement contract, grant, cooperative agreement, or other transaction agreement (OTA). The Government reserves the right to negotiate the type of award instrument it determines appropriate under the circumstances.

The Government shall contact offerors whose proposals are selected for negotiation for award to obtain additional information required for award. The Government may establish a deadline for the close of fact-finding that allows a reasonable time for the award of a contract. Offerors that are not responsive to the Government-established deadlines communicated with the request may be removed from award consideration. Offerors may also be removed from award consideration should the parties fail to reach agreement within a reasonable time on contract terms, conditions, and cost/price.

2.3. Eligibility

All responsible sources capable of satisfying the Government's needs may submit a proposal. Historically Black Colleges and Universities (HBCUs), Small Businesses, Small Disadvantaged Businesses and Minority Institutions (MIs) are encouraged to submit proposals and join others in submitting proposals; however, no portion of this announcement shall be set aside for these organizations' participation due to the impracticality of reserving discrete or severable areas for exclusive competition among these entities. Other Government Agencies, Federally Funded Research and Development Centers (FFRDCs), University Affiliated Research Centers (UARCs), Government-Owned, Contractor-Operated (GOCO) facilities, Government Military Academies, and any other similar type of organization that has a special relationship with the Government, that gives them access to privileged and/or proprietary information or access to Government equipment or real property, are not eligible to submit proposals under this

BAA or participate as team members under proposals submitted by eligible entities. An entity of which only a portion has been designated as a UARC may be eligible to submit a proposal or participate as a team member subject to an organizational conflict of interest review described in Section 2.4.

Foreign entities and/or individuals may participate to the extent that participants comply with any necessary Non-Disclosure Agreements, Security Regulations, Export Control Laws and other governing statutes applicable under the circumstances. Proposers are expected to ensure that the efforts of foreign participants do not either directly or indirectly compromise the laws of the United States, nor its security interests. As such, offerors should carefully consider the roles and responsibilities of foreign participants as they pursue teaming arrangements.

2.4. Organizational Conflicts of Interest (OCI)

“Organizational conflict of interest” means that because of other activities or relationships with other persons, a person is unable or potentially unable to render impartial assistance or advice to the Government; or the person’s objectivity in performing the contract work is or might be otherwise impaired; or, a person/company has an unfair competitive advantage (real or perceived).

If a prospective offeror, or any of its proposed subcontractor teammates, believes that a potential conflict of interest exists or may exist (whether organizational or otherwise), the offeror should promptly raise the issue with IARPA and submit a notification by e-mail to the mailbox address for this BAA at dni-iarpa-baa-17-01@iarpa.gov. All notifications must be submitted through the prime offeror, regardless of whether the notification addresses a potential OCI for the prime offeror or one of its subcontractor teammates. A potential conflict of interest includes but is not limited to any instance where an offeror, or any of its proposed subcontractor teammates, is providing either scientific, engineering and technical assistance (SETA) or technical consultation to IARPA. In all cases, the offeror shall identify the contract under which the SETA or consultant support is being provided. Without a waiver from the IARPA Director, neither an offeror, nor its proposed subcontractor teammates, can simultaneously provide SETA support or technical consultation to IARPA and compete or perform as a performer under this solicitation.

All facts relevant to the existence of the potential conflict of interest, real or perceived, should be disclosed in the notification. The notification should also include a proposed plan to avoid, neutralize or mitigate such conflict. The prime offeror, or subcontractor teammate as appropriate, shall certify that all information provided is accurate and complete, and that all potential conflicts, real or perceived, have been disclosed. It is recommended that an offeror submit this notification as soon as possible after release of the BAA before significant time and effort are expended in preparing a proposal. If, in the sole opinion of the Government, after full consideration of the circumstances, a conflict exists which cannot be resolved or waived, any proposal submitted by the offeror that includes the conflicted entity will be excluded from consideration for award.

As part of their proposal, offerors who have identified any potential conflicts of interest shall include either an approved waiver signed by the IARPA Director, an IARPA determination letter stating no conflict of interest exists, or a copy of their notification. Otherwise, offerors shall include in their proposal a written certification that neither they

nor their subcontractor teammates have any potential conflicts of interest, real or perceived. A certification template is provided in Appendix A.

If, at any time during the solicitation or award process, IARPA discovers that an offeror has a potential conflict of interest, and no notification has been submitted by the offeror, IARPA reserves the right to immediately exclude the proposal from further consideration for award.

Offerors are strongly encouraged to read “Intelligence Advanced Research Projects Activity’s (IARPA) Approach to Managing Organizational Conflicts of Interest (OCI)”, found on IARPA’s website at <https://www.iarpa.gov/images/files/OCI%20policy%20FINAL%2010-31-2016.pdf>.

2.5. U.S. Academic Institutions

According to Executive Order 12333, as amended, paragraph 2.7, “Elements of the Intelligence Community are authorized to enter into contracts or arrangements for the provision of goods or services with private companies or institutions in the United States and need not reveal the sponsorship of such contracts or arrangements for authorized intelligence purposes. Contracts or arrangements with academic institutions may be undertaken only with the consent of appropriate officials of the institution.”

It is required that offerors shall submit with their proposal a completed and signed Academic Institution Acknowledgement Letter for each U.S. academic organization that is a part of their team, whether the academic organization is serving in the role of prime contractor, subcontractor, or consultant at any tier of their team. A template of the Academic Institution Acknowledgement Letter is enclosed in this BAA at Appendix B. It should be noted that an appropriate senior official from the institution, typically the President, Chancellor, Provost, or other appropriately designated official must sign the completed form.

2.6. Cost Sharing

Cost sharing is not required and is not an evaluation criterion; however, cost sharing will be carefully considered and may be required where there is an applicable statutory or regulatory condition relating to the selected award instrument.

3. APPLICATION AND SUBMISSION

This notice comprises the complete BAA and contains all information required to submit a proposal.

The typical proposal should express an effort in support of one or more related technical area. If the proposed effort is inherently divisible and nothing is gained from the aggregation, offerors should consider submitting it as multiple independent efforts. Disjointed efforts should not be included in a single proposal. Tasks in all proposals should be clearly differentiated and plainly labeled. Associated costs for each task should be specified. Proposals not meeting the format described in the BAA may not be reviewed.

Classified abstracts and proposals are permitted but must conform to the security classification guide under which the work is to be performed. See Section 3.4.1 for guidance on submitting classified abstracts and proposals.

3.1. Application Process

Offerors are strongly encouraged to adhere to the following process when preparing a proposal for this BAA:

1. [Recommended] Engage with Program Manager(s) via email, telephone call, or meeting; then
2. [Recommended] Submit Abstract; then
3. [Required] Submit Proposal.

This process is intended to minimize unnecessary effort in proposal preparation and review.

3.1.1. [Recommended] Engage with Program Managers

In order to avoid the preparation and review of proposals that are poorly aligned with IARPA's mission, and therefore unlikely to be selected for negotiation for award, offerors are **strongly encouraged** to discuss their idea with the Program Manager(s) whose interests are aligned with their proposed concept through informal communications by email, telephone calls, or face-to-face meetings. The technical areas of each Program Manager and their contact information can be found at <http://www.iarpa.gov/index.php/our-program-managers>. The offeror should identify the topic to be discussed in the e-mail request. IARPA Program Managers will limit their communications with prospective offerors to conceptual questions, which allow the Program Managers to determine whether IARPA would be interested in pursuing the capability/technology.

3.1.2. [Recommended] Submit Abstract

Offerors are encouraged to submit a five-page abstract describing their proposed research as their first formal submittal to IARPA before preparing a full proposal. In your abstract submission identify the Program Manager that you have had preliminary discussions with and the applicable technical area(s). (See Section 3.2 for abstract requirements.) IARPA will review the abstract and provide comments which may be useful if the offeror decides to prepare a full proposal. IARPA will acknowledge receipt of the abstract and assign a control number that should be used in all further correspondence regarding the abstract. The offeror will be notified whether IARPA is interested in receiving a full proposal. Regardless of IARPA's response to a proposal abstract, offerors may submit a full proposal.

3.1.3. [Required] Submit Proposal

All proposals will first be reviewed against the criteria set forth in Section 4.2, "Initial Proposal Review," to determine whether the proposals are relevant to IARPA's mission. In your proposal submission identify the Program Manager that you have had preliminary discussions with and the applicable technical area(s). If it is determined that a proposal is not relevant to the IARPA mission, the proposal will not be considered further for award. Upon determination that a proposal is relevant to the IARPA mission, the proposal will then be evaluated, in accordance with Section 4.3, "Proposal Evaluation." Neither prior discussions with offerors regarding their proposed idea nor comments resulting from the review of an abstract submitted prior to the offeror's submission of a proposal will be considered in the proposal's evaluation. IARPA will respond to a proposal submission with a statement as to whether or not it has been selected for negotiation for award. Selection remains contingent on the evaluation criteria in Section 4.3, portfolio balance and the availability of funds. Proposal preparation instructions are provided in Section 3.3 below.

3.2. Abstract Format (5 Page Limit)

The offeror shall articulate the innovative concept, the technical path to its realization, milestones for progress along the path, and an estimate of the resources that will be required to achieve the proposed objectives. The cover sheet shall be clearly marked “ABSTRACT” and the total length shall not exceed five (5) pages, excluding the cover page. All pages shall be written in English and formatted to be printable on 8-1/2 by 11 inch paper, and IARPA desires that the font size not be smaller than 12 point. IARPA desires that the font size for figures, tables and charts not be smaller than 10 point. All contents must be clearly legible to the unaided eye. Excessive use of small font, for other than figures, tables, and charts or unnecessary use of figures, tables and charts to present abstract information may render the abstract non-compliant. The page limit includes all figures, tables, and charts. Foldout pages shall not be used. Neither Academic Institution Acknowledgement Letters nor OCI waiver/certifications is required for abstract submissions. Abstracts that do not conform to these requirements may be rejected without review.

3.2.1 Cover Sheet

The cover sheet must include the following (does not count against page limit):

- (1) BAA number
- (2) Technical Area
- (3) Lead organization submitting proposal
- (4) Type of business, selected from among the following categories: “LARGE BUSINESS”, “SMALL DISADVANTAGED BUSINESS”, “OTHER SMALL BUSINESS”, “HBCU”, “MI”, “OTHER EDUCATIONAL”, or “OTHER NONPROFIT”
- (5) Contractor’s internal reference number (if any)
- (6) Other team members (if applicable) and type of business for each and addresses
- (7) Abstract title
- (8) Technical point of contact to include: title, first name, last name, street address, city, state, zip code, telephone, fax (if available), e-mail (if available)
- (9) Date abstract was submitted
- (10) Total funds requested from IARPA and the amount of cost share (if any)
- (11) Administrative point of contact to include: title, first name, last name, street address, city, state, zip code, telephone, fax (if available), e-mail (if available)

3.3. Proposal Format

All proposals submitted to this BAA must include a Preamble, a Technical and Management section whose length is limited to fifteen (15) pages, and a concise Cost section. The preamble and its contents will not count against the length restrictions of the Technical and Management Section

All proposals must be written in English and formatted to be printable on 8-1/2 by 11 inch paper, and IARPA desires that the font size not be smaller than 12 point. Tables, charts, graphs, diagrams and figures shall be used wherever practical to depict organizations, systems and layout, implementation schedules, plans, etc. IARPA desires that the font size for figures, tables and charts not be smaller than 10 point. All proposal contents must be clearly legible to the unaided eye. Excessive use of small font, for other than figures, tables, and charts or unnecessary use of

figures, tables and charts to present proposal information may render the proposal non-compliant. Foldout pages shall not be used. The page limit includes all figures, tables, and charts.

Proposals that do not conform to these requirements may be rejected without review.

3.3.1. Preamble

The Preamble must include a cover sheet; transmittal letter; signed Academic Institution Acknowledgement Letter(s), if required; OCI certification, and determination, or notification. The cover sheet must contain the following:

- (12) BAA number
- (13) Technical Area
- (14) Lead organization submitting proposal
- (15) Type of business, selected from among the following categories: “LARGE BUSINESS”, “SMALL DISADVANTAGED BUSINESS”, “OTHER SMALL BUSINESS”, “HBCU”, “MI”, “OTHER EDUCATIONAL”, or “OTHER NONPROFIT”
- (16) Contractor’s internal reference number (if any)
- (17) Other team members (if applicable) and type of business for each
- (18) Proposal title
- (19) Technical point of contact to include: title, first name, last name, street address, city, state, zip code, telephone, fax (if available), e-mail (if available)
- (20) Administrative point of contact to include: title, first name, last name, street address, city, state, zip code, telephone, fax (if available), e-mail (if available)
- (21) IP rights have been addressed in accordance with Section 3.3.2.10? Yes/No
- (22) OCI waiver, IARPA determination stating no conflict of interest exists, or notification included? Yes/No
 - ♦ If no OCI, a written certification must be included (see OCI letter template at Appendix A).
- (23) Are one or more U.S. Academic Institutions part of your team? Yes/No
 - ♦ If yes, are you including an Academic Institution Acknowledgement Statement with your proposal for each Academic Institution that is part of your team? Yes/No
- (24) Total funds requested from IARPA and the amount of cost share (if any)
- (25) Date proposal was submitted
- (26) Proposal Validity (minimum 120 days)

A concise bibliography and copies of up to three references that place the proposed work in context may be included in the preamble and will not count against the length restrictions of the Technical and Management Section.

3.3.2. Technical and Management Section (15 Page Limit)

The Technical and Management section is limited to fifteen (15) pages. The Technical and Management section includes an Intellectual Property Appendix (see Section 3.3.2.12 and template in APPENDIX D) that is limited to three (3) pages. The Intellectual Property Appendix does not count against the 15-page limit for the Technical and Management section of the proposal. It also includes a Data Management Plan, estimated to be 2 to 3 pages (see Section 3.3.2.7 and

template in APPENDIX G). The Data Management Plan Appendix does not count against the 15-page limit for the Technical and Management section of the proposal.

3.3.2.1. Heilmeier Questions

Successful proposals will concisely and completely answer the following questions, broadly known as the Heilmeier questions:

1. What are you trying to do?
2. How is it done at present? Who does it? What are the limitations of present approaches?
3. What is new about your approach? Why do you think that you can be successful at this time?
4. If you succeed, what difference will it make?
5. How long will it take? How much will it cost? How will you evaluate progress during and at the conclusion of the effort? (i.e., what are your proposed milestones and metrics?)

3.3.2.2. Statement of Work (SOW)

The proposal should articulate a statement of work with clearly defined technical tasks including, for each:

- ♦ the expected duration (generally not to exceed 12 months);
- ♦ interdependencies;
- ♦ resource requirements;
- ♦ explicit tasks;
- ♦ a product, event, or quantifiable milestone that defines its completion (i.e. exit criterion);
- ♦ the primary organization responsible for its execution; and
- ♦ deliverables to be provided to the Government.

Do not include proprietary information in the statement of work.

3.3.2.3. Management Plan

A concise summary of the offeror's management plan that identifies and describes:

- ♦ key personnel (with short biographies);
- ♦ subcontractor and consulting relationships;
- ♦ facilities;
- ♦ previous accomplishments; and
- ♦ relevant Government contracts is required.

3.3.2.4. Key Personnel Summary

A table of key personnel and significant contributors including names, organizations, roles, task assignments, and required time commitments shall be included.

3.3.2.5. Government Activity Efforts

If the proposed work has been submitted to another Government agency for funding, the date of submission and a point of contact at the corresponding agency must be identified.

3.3.2.6. Government Furnished Equipment (GFE), Information (GFI) or Property (GFP)

Information or equipment that needs to be provided by the Government for the effort to be successful shall be clearly delineated and justified. Offerors must identify and describe any data sources to be utilized or gathered in pursuit of the proposed research goals, and must explain clearly how the data selected will be an appropriate and adequate set for exploring the research topic being proposed.

3.3.2.7. Data Management Plan

Offerors must submit a Data Management Plan which outlines how they will manage and preserve the research data collected or produced in their work. The Data Management Plan need not require the preservation of all research data: offerors should consider the cost and benefits of managing and preserving the research data in determining whether to preserve it. At a minimum, all research data associated with a peer-reviewed manuscript or final published article (hereinafter “Publications”) must be made publicly accessible by the award recipient before, on or at a reasonable time after the publication date. The Publications whose data must be covered by the Data Management Plan are deliverables as described in the Statement of Work. Privacy, confidentiality, and security concerns must be protected, and intellectual property rights and commercial interests must be taken into account and protected accordingly.

The DMP must address the following:

- Describe the types of research data collected or produced in the course of the project. Include standards to be used for research data and metadata content and format.
- A plan for making the research data that underlie Publications digitally accessible to the public before, at the time of publication/conference or within a reasonable time after publication. The requirement could be met by including the data as supplementary information to the Publication or by depositing the data in searchable, machine-readable and digitally accessible form suitable for repositories available to the public free of charge. Such repositories could be discipline-specific repositories, general purpose research data repositories or institutional repositories. The published article or conference paper should indicate how the public may access research data underlying the paper’s results and findings. Offerors should attempt to make the data available for at least three years after published article or conference. (NOTE: Offerors shall make a best effort in identifying research data sets that may be used for Publications that occur after contract end. The offeror must deliver these data sets to the Government and should also make them available in depositories available to the public prior to the end of the period of performance, if not included as supplementary information to Publications.)
- Policies and provisions for sharing and preservation, including a) policies and provisions for appropriate protection of privacy, confidentiality, security, and intellectual property, b) descriptions of tools, including software, which may be needed to access and interpret the data, and c) policies and provisions for re-use, re-distribution, and production of derivatives.
- If, for legitimate reasons (e.g., privacy, confidentiality, security, intellectual property rights considerations; size of data sets, cost; time), the data underlying the results of

peer-reviewed publications or conference papers cannot be shared and preserved, the plan must include a justification citing such reasons.

In addressing these elements (e.g., types of data to be shared and preserved, standards to be used for data and metadata, repositories to be used for archiving data, timeframes for sharing and preservation), the Data Management Plan should reflect the best practices of the relevant scientific discipline and research community. At a minimum, research data underlying Publications and associated metadata should include acknowledgement of IARPA support and a link to the associated Publication.

3.3.2.8. *Data Sources*

Identification and description of data sources to be utilized in pursuit of the project research goals. Offerors proposing to use existing data sets shall provide written verification that all data were obtained in accordance with U.S. laws and, where applicable, are in compliance with End User License Agreements, Copyright Laws, Terms of Service, and laws and policies regarding privacy protection of U.S. Persons. Offerors shall identify any restrictions on the use or transfer of data sets being used, and, if there are any restrictions, the potential cost to the Government to obtain at least Government Purpose Rights in such data sets.¹

Offerors proposing to obtain new data sets shall ensure that their plan for obtaining the data complies with U.S. Laws and where applicable, with End User License Agreement, Copyright Laws, Terms of Service, and laws and policies regarding privacy protection of U.S. Persons.

The Government reserves the right to reject a proposal if it does not appropriately address all data issues.

¹ “Government Purpose Rights” (or “GPR”) means the rights to use, modify, reproduce, release, perform, display, or disclose technical data and computer software within the Government without restriction; and to release or disclose technical data and computer software outside the Government and authorize persons to whom release or disclosure has been made to use, modify, reproduce, release, perform, display, or disclose that data or software for any United States Government purpose. United States Government purposes include any activity in which the United States Government is a party, including cooperative agreements with international or multi-national defense organizations, or sales or transfers by the United States Government to foreign governments or international organizations. Government purposes include competitive procurement, but do not include the rights to use, modify, reproduce, release, perform, display, or disclose technical data or computer software for commercial purposes or authorize others to do so.

3.3.2.9. Resource Share

Include the type of support, if any, the offeror might request from the Government, such as facilities, equipment or materials, or any such resources the offeror is willing to provide at no additional cost to the Government to support the research effort. Cost sharing is not required from offerors and is not an evaluation criterion, but is encouraged where there is a reasonable probability of a potential commercial application related to the proposed research and development effort

3.3.2.10. Security Plans

A security plan demonstrating the appropriate handling and protection of classified information commensurate with the proposed classification level is required if classified work is proposed. A security plan is not required for unclassified research. Contact the IARPA Security Officer at (301) 851-7580 if you require guidance.

3.3.2.11. Human Use

All proposals which include research involving human subjects, to include use of human biological specimens and human data, must comply with Section 5.3.

3.3.2.12. Animal Use

All proposals which include research involving an animal subjects, to include use of animal biological specimens and animal data, must comply with Section 5.4.

3.3.2.13. Intellectual Property/Data Rights (3 Page Limit)

The Government requires at a minimum Government Purpose Rights for all deliverables; anything less shall be considered a weakness in the proposal. However, if limited or restricted rights are asserted by the offeror in any deliverable or component of a deliverable, the proposal shall identify the potential cost associated with the Government obtaining Government Purpose Rights in such deliverables. Proposals that do not include this information shall be considered non-compliant and may not be reviewed by the Government.

In APPENDIX D of the proposal, offerors shall describe the proposed approach to intellectual property for all deliverables, together with a supporting rationale of why this approach is in the Government's best interest. This shall include all proprietary claims to the results, prototypes, intellectual property or systems supporting and/or necessary for the use of the research, results and/or prototype, and a brief explanation of how the offerors may use these materials in their program. To the greatest extent feasible, offerors should not include background proprietary technical data and computer software as the basis of their proposed technical approach. Because the Government requires at a minimum Government Purpose Rights for all deliverables, offerors are highly encouraged not to employ third-party software as part of the solution, unless such software is open source, in which case it must be included in the final software delivery.

If offerors (including their proposed teammates) desire to use in their proposed approach, in whole or in part, technical data or computer software or both that is proprietary to offeror, any of its teammates, or any third party, in APPENDIX D they should: (1) clearly identify such data/software and its proposed particular use(s); (2) identify and explain any and all restrictions on

the Government's ability to use, modify, reproduce, release, perform, display, or disclose technical data, computer software, and deliverables incorporating such technical data and computer software; (3) identify the potential cost to the Government to acquire GPR in all deliverables that use the proprietary technical data or computer software the offeror intends to use; (4) explain how the Government shall be able to reach its program goals (including transition) within the proprietary model offered; and (5) provide possible nonproprietary alternatives in any area in which a Government entity would have insufficient rights to transfer, within the Government or to Government contractors or other entities in support of a Government purpose, deliverables incorporating proprietary technical data or computer software, or that might cause increased risk or cost to the Government under the proposed proprietary solutions.

Offerors also shall identify all commercial technical data and/or computer software that may be embedded in any noncommercial deliverables contemplated under the research effort, along with any applicable restrictions on the Government's use of such commercial technical data and/or computer software. If offerors do not identify any restrictions, the Government shall assume that there are no restrictions on the Government's use of such deliverables. Offerors shall also identify all noncommercial technical data and/or computer software that it plans to generate, develop and/or deliver under any proposed award instrument in which the Government shall acquire less than unlimited rights. If the offeror does not submit such information, the Government shall assume that it has unlimited rights to all such noncommercial technical data and/or computer software. Offerors shall provide a short summary for each item (commercial and noncommercial) asserted with less than unlimited rights that describes the nature of the restriction and the intended use of the intellectual property in the conduct of the proposed research.

Additionally, if offerors propose the use of any open source or freeware, any conditions, restrictions or other requirements imposed by that software shall also be addressed in APPENDIX D. Offerors should leverage the format in APPENDIX D for their response. The technical content of APPENDIX D shall include only the information necessary to address the proposed approach to intellectual property; any other technical discussion in APPENDIX D shall not be considered during the evaluation process. APPENDIX D is estimated not to exceed 4 pages.

For this solicitation, IARPA recognizes only the definitions of intellectual property rights in accordance with the terms as set forth in the Federal Acquisition Regulation (FAR) part 27, or as defined herein. If offerors propose intellectual property rights that are not defined in FAR part 27 or herein, offerors shall clearly define such rights in APPENDIX D of their proposal. Offerors are reminded of the requirement for prime contractors to acquire sufficient rights from subcontractors to accomplish the program goals.

"Research data" is defined herein as "the digital recorded factual material commonly accepted in the scientific community as necessary to validate research findings including data sets used to support scholarly publications, but does not include laboratory notebooks, preliminary analyses, drafts of scientific papers, plans for future research, peer review reports, communications with colleagues, or physical objects, such as laboratory specimens."

3.3.3. Cost Section {No Page Limit}

A succinct cost proposal is required. The purpose of this section is to establish whether the offeror has fully analyzed its budget requirements, assess that the proposed budget is appropriate to accomplish the proposed work in accordance with the proposed schedule, and determine cost/price realism and reasonableness. Additional information and supporting data may be required during negotiation of an award.

IARPA recognizes that undue emphasis on cost may motivate offerors to offer low-risk ideas with minimum uncertainty and to staff the effort with junior personnel in order to be in a more competitive posture. IARPA discourages such cost strategies. Cost reduction approaches that shall be received favorably include innovative management concepts that maximize direct funding for technology and limit diversion of funds into overhead.

Subcontracts and major equipment purchases shall be itemized with rationale supporting their relationship to the program's objectives.

If the offeror asserts limited or restricted rights in any deliverable or component of a deliverable, the cost proposal must separately identify the estimated cost associated with the Government obtaining Government Purpose Rights in such deliverables (reference sections 3.3.2.8 and 3.3.2.12).

Projected funding requirements by month, the source, nature and amount of cost sharing (where proposed), and identification of the pricing assumptions for the proposed award instrument are required.

Consultant letter(s) of commitment shall be attached to the cost proposal and estimated costs shall be included in the cost estimates.

3.3.3.1 Section 1: Cover Sheet

See Appendix – Cover Sheet Template

3.3.3.2 Section 2: Estimated Cost Breakdown

Offerors shall submit numerical cost and pricing data using Microsoft Excel. The Excel document, in the format provided in APPENDIX E, shall include intact formulas and shall not be hard numbered. The base and option period cost data should roll up into a total cost summary. The Excel files may be write-protected but shall not be password protected. The Cost/Price Volume shall include the following:

- A. Completed Cost/Price Template - Offerors shall submit a cost element breakdown for the base period, each option period and the total program summary in the format provided in APPENDIX E².

² **NOTE:** Educational institutions and non-profit organizations as defined in FAR Part 31.3 and 31.7, respectively, at the prime and subcontractor level may deviate from the cost template in APPENDIX E and APPENDIX F when estimating the direct labor portion of the proposal to allow for OMB guided accounting methods (2 CFR Part 220) that are used by their institutions. The methodology shall be clear and provide sufficient detail to substantiate proposed

- B. Subcontractor/Inter-organizational Transfers (IOTs) and Consultants summary in the format provided in APPENDIX F. (After selection, offerors may be required to submit full cost proposals, see 3.3.3.3. Subcontracts.)
- C. Total cost broken down by major task
- D. Major program tasks by fiscal year
- E. A summary of projected funding requirements by month
- F. A summary table listing all labor categories used in the proposal and their associated direct labor rates, along with escalation factors used for each base and option period of the acquisition.
- G. A summary table listing all indirect rates used in the proposal for each for each base and option period of the acquisition.

3.3.3.3 Supporting Information

In addition to the above, supporting cost and pricing information shall be provided in sufficient detail to substantiate the offeror's cost estimates. Include a description of the basis of estimate (BOE) in a narrative for each cost element and provide supporting documentation, as applicable:

Direct Labor – Provide a complete cost breakout by labor category, hours and rates (APPENDIX E). Specify all key personnel by name and clearly state their labor category and proposed rate. Describe the basis of the proposed rates and provide a copy of the most recent Forward Pricing Rate Agreement (FPRA) with the Government. If offerors do not have a current FPRA with the Government, provide payroll records or contingency hire letters with salary data to support each proposed labor category, including those for key individuals, and the most recent Forward Pricing Rate Proposal Submission, if applicable. Offeror should also address whether any portion of their labor rates is attributable to uncompensated overtime.

Labor Escalation Factor – State the proposed escalation rate and the basis for that rate (e.g., based upon Global Insight indices, Cost Index or historical data). If the escalation rate is based upon historical data, provide data to demonstrate the labor escalation trend. Provide a sample calculation demonstrating application of the factor to direct labor.

Subcontracts (to include consultants and IOTs) – The offeror is responsible for compiling and providing all subcontractor proposals with the Cost Volume. Subcontractor cost element sheets shall be completed for the base period, each option period and the total summary in the format provided in APPENDIX F (Excel is not required for initial submittal, see paragraph below). Consultant letter(s) of commitment shall also be attached.

If a proposal is selected for negotiations, the prime shall be prepared to present full subcontractor proposals (if applicable per subcontract type) for the base period, each option period and total cost summary including all direct and indirect costs immediately upon request by the Contracting Officer. Information shall be presented in Excel with intact formulas using the format provided in APPENDIX E and addressing the supporting cost information as outlined in 3.3.3.2 and 3.3.3.3. In addition to the full and complete

labor costs. For example, each labor category shall be listed separately; identify key personnel, and provide hours/rates or salaries and percentage of time allocated to the project.

subcontractor cost proposal, the offeror shall also provide its analysis of the subcontractor's proposal including justification for why the subcontractor was selected and its determination that the cost/price is fair and reasonable (Reference FAR Part 44 and FAR clause 52.244-2). If subcontractors have concerns about proprietary cost information, subcontractors can submit their detailed cost proposals directly to the Contracting Officer.

Materials and Equipment – Provide copies of quotes, historical data or any other information including offeror's analysis to support proposed costs.

Other Direct Costs (ODCs) and Travel – ODCs shall be listed separately and supported by quotes, historical data or any other information including the offeror's analysis. The proposed travel supporting detail shall include destination and purpose of the trip, number of travelers per trip and price per traveler in sufficient detail to verify the BOE. Proposed travel costs shall comply with the limitations set forth in FAR Part 31.

Government Purpose Rights - If the offeror asserts limited or restricted rights in any deliverable or component of a deliverable, the cost proposal shall separately identify the estimated cost associated with the Government obtaining Government Purpose Rights in such deliverables (reference sections 3.3.2.8 and 3.3.2.12).

Indirect Costs – The offeror shall show indirect cost calculations, identify the proposed indirect rate by contractor fiscal year and program period (base, option period) and provide information on indirect cost pools and allocation bases for each year and program period involved. If a Government agency recently audited the offeror's indirect rates, the offeror shall state by which agency the audit was conducted, when the rates were approved and the period for which they are effective. Include a copy of this rate agreement. Absent current Government rate recommendations, it is incumbent on the offeror to provide some other means of demonstrating indirect rate realism (e.g., 3 years of historical actual costs with applicable pools and bases). If proposed rates vary significantly from historical experience, the offeror shall provide an explanation of the variance.

Cost sharing – Describe the source, nature and amount of cost-sharing, if any. Reference Section 3.3.2.9.

Other Pricing Assumptions - Identify pricing assumptions which may require incorporation into the resulting award instrument (e.g., use of Government Furnished Property/Facilities/Information, access to Government Subject Matter Experts, etc.). Reference Section 3.3.2.9.

Facilities Capital Cost of Money (FCCM) – If proposing FCCM, the offeror shall show FCCM cost calculations, identify the proposed FCCM factors by contractor fiscal year and program year and provide a copy of the FPRA, FPRS or FPRR, if available.

Profit/Fee - Identify the proposed profit/fee percentage and the proposed profit/fee base. Provide justification for your proposed fee/profit.

Systems: For the Systems listed below, provide a brief description, the cognizant federal agency and audit results. If the system has been determined inadequate, provide a short narrative of the steps your organization has taken to address the inadequacies and the current status. If a formal audit has been performed by a Government Agency, please provide a complete copy of the audit report or adequacy determination letter. If the system has never received a formal Government review/approval include a statement to that effect. Address whether your organization has contracts that are Cost Accounting Standards (CAS) covered and if so, whether they are subject to full or modified CAS coverage.

- Accounting system
- Purchasing system

Certified “cost or pricing data” may be requested after selection for procurement contract awards of \$750,000 or greater, unless the Contracting Officer approves an exception from the requirement to submit cost or pricing data. (Reference FAR Part 15.403.)

If a potential offeror does not have an approved accounting system IARPA will be unable to issue a Cost type contract.

3.4. Submission Details

Abstracts and proposals may be submitted throughout the period that this BAA remains open. Offerors are encouraged to submit early and at any time up to 5:00 PM Eastern Time on 2 May 2018. Abstracts will not be accepted after this date. Proposals will not be accepted after this date unless the proposal’s abstract was submitted prior to the deadline and the offeror received a written exception from the Government. A new deadline will be provided to the offeror in those cases. **Offerors are encouraged to submit at any time throughout the open available time of the BAA. Offers will be accepted at all times during the dates of the open BAA.**

Unclassified abstracts and proposals must be submitted electronically through the IARPA Distribution and Evaluation System (IDEAS). (Refer to Section 3.4.1 for instructions on how to submit a classified abstract or proposal.) **Offerors interested in providing a submission in response to this BAA must first register by electronic means in accordance with the instructions provided at <https://iarpa-ideas.gov>.** Failure to register as stated will prevent the offeror’s submission of documents.

After registration has been approved, offerors should upload abstracts or proposals, along with any supporting documents, in ‘.pdf’ format. Any pricing information will be in Microsoft Excel format (.xls). Offerors are responsible for ensuring abstracts and proposals are compliant with this BAA and final submission meets the BAA submittal deadlines. Time management to upload and submit is wholly the responsibility of the offeror.

Upon completing the abstract or proposal submission, the offeror will receive an automated confirmation email from IDEAS. Please forward that automated message to dni-iarpa-baa-17-01@iarpa.gov. IARPA strongly suggests that the offeror document the submission of its proposal package by printing the electronic receipt (time and date stamped) that appears on the final screen following compliant submission of an abstract or proposal to the IDEAS website.

Abstracts and proposals submitted by any means other than the Proposal Submission website at <https://iarpa-ideas.gov> (e.g., hand-carried, postal service, commercial carrier, e-mail,

etc.) will not be considered unless the offeror attempted and failed to electronically submit its abstract/proposal prior to the BAA submittal deadline or the proposal is classified or contains a classified addendum and the delivery method has been coordinated in advance (see section 3.4.1).

If the offeror attempted to electronically submit its abstract/proposal before the BAA deadline and was unsuccessful, the offeror must employ the following procedure to be considered. The offeror must send an e-mail to dni-iarpa-baa-17-01@iarpa.gov prior to the BAA submittal deadline and indicate that an attempt was made to submit electronically but that the submission was unsuccessful. This e-mail must include contact information for the offeror. Additional guidance will be provided.

Offerors are solely responsible for ensuring timely delivery of their abstracts and proposals. FAILURE TO COMPLY WITH THESE SUBMISSION PROCEDURES MAY RESULT IN THE SUBMISSION NOT BEING EVALUATED.

3.4.1. Security

The Government anticipates that abstracts and proposals submitted under this BAA will be unclassified. Offerors choosing to submit a classified abstract or proposal must first receive permission from the Original Classification Authority to use their information in replying to this BAA.

For classified submissions, contact the IARPA Security Office at 301-851-7580 for further guidance and instructions prior to writing or transmitting classified information to IARPA. IARPA will not accept classified proposals without prior validation of accredited spaces and systems on which to write the proposal. If the proposal is classified at the SCI level, a Co-Use/Joint-Use Agreement must be coordinated by IARPA with the cognizant security organization prior to writing a response to this BAA. Offerors choosing to submit a classified abstract or proposal are reminded that the proposal deadline remains the same regardless of whether the offeror's abstract or proposal, in whole or in part, is classified. Additional processing time may be required if all or part of a submission is classified. Offerors must have approved capabilities (personnel and facilities) at the classification level at which they propose to perform their research and development existing and in place prior to award. IARPA will not sponsor facility accreditations or personnel security clearances. IARPA will not accept classified deliveries without prior coordination with IARPA Security staff.

Further security classification guidance will not be provided at this time since IARPA is soliciting ideas only. After reviewing the submitted proposals, if a determination is made that an award may result in access to classified information, a security classification guide will be issued and attached as part of the award.

4. ABSTRACT / PROPOSAL REVIEW INFORMATION

4.1. Abstract Review

IARPA will acknowledge receipt of the abstract and assign a control number that should be used in all further correspondence regarding the abstract. Submitted abstracts will be reviewed for compliance with the BAA submission guidelines. Abstracts that fail to comply with these guidelines may result in the submission not being reviewed. IARPA will prepare comments back

to the offeror which may be useful if the offeror decides to prepare a full proposal. IARPA will provide the offeror comments on the abstract, along with notification as to whether IARPA is interested in receiving a full proposal. Regardless of IARPA's response to the abstract, offerors may submit a full proposal.

4.2. Initial Proposal Review

IARPA will perform an initial review of each proposal to determine whether it is relevant to IARPA's mission. IARPA will consider the following factors in determining whether a proposal is relevant to its mission:

- Whether the proposal aligns with IARPA's research model;
- Whether the proposal fits within the research mission of IARPA;
- Whether the proposal has the potential to lead to a future research program that could provide the U.S. with an overwhelming intelligence advantage;
- Whether the proposal has a period of performance that will generally not exceed 12 months; and
- Whether the proposal is not addressed by emerging or ongoing IARPA programs or other published IARPA solicitations.

If IARPA determines that a proposal is not relevant to the IARPA mission, the proposal will not be considered further for award.

4.3. Proposal Evaluation

Upon determination that a proposal is relevant to the IARPA mission, the proposal will then be evaluated, in order of descending importance, for Overall Scientific and Technical Merit, Contribution to IARPA Mission, Effectiveness of the Proposed Work Plan, Relevant Experience and Expertise, and Resource Realism. There is no common statement of work for this announcement. Therefore, proposals will not be evaluated against other proposals responding to the announcement.

4.3.1. Overall Scientific and Technical Merit

The technical approach is credible, innovative, and concisely delineated with a clear assessment of primary risks and means to mitigate them. Innovation will be judged in the context of the current state of the art.

4.3.2. Contribution to the IARPA Mission

The proposed work aligns with IARPA's research model, fits within the mission of IARPA, has a period of performance that will generally not exceed 12 months, and has the potential to lead to a future research program that could provide the U.S. with an overwhelming intelligence advantage. The proposal clearly articulates quantitatively substantiated answers to each of the Heilmeyer questions cited above. The proposed approach to intellectual property rights is in the best interest of the Government.

4.3.3. Effectiveness of the Proposed Work Plan

The work plan is efficient, in that it is targeted to demonstrate concept feasibility as quickly and cost effectively as possible. The offeror's approach to achieving quantifiable milestones is explicitly described and substantiated. The milestones are clearly defined and logically support decisions by the offeror or the Government. The proposed schedule is realistic and critical paths

are identified. The roles and relationships among team members are balanced and transparent, and the time commitments from key personnel are sufficient. Requirements for timing and delivery of Government Furnished Property, Equipment, or Information (GFP, GFE, or GFI) are clearly delineated.

4.3.4. Relevant Experience and Expertise

The offeror's capabilities, related experience, facilities, techniques, or unique combination of these which are integral for achieving the proposal's objectives will be evaluated. In addition, the offeror's qualifications, capabilities, and experiences of the principal investigator and key personnel will be evaluated against the proposal objectives.

4.3.5. Resource Realism

The proposed resources are well justified and consistent with the unique technical approach and methods of performance described in the offeror's proposal. Proposed resources reflect a clear understanding of the project, a perception of the risks and the ability to organize and perform the work. The labor hours and mix are consistent with the Technical and Management proposal and are realistic for the work proposed. Material, equipment, software, data collection and travel, especially foreign travel, are well justified, reasonable and required for successful execution of the proposed work.

IARPA recognizes that undue emphasis on cost may motivate offerors to offer low-risk ideas with minimum uncertainty and to staff the effort with junior personnel in order to be in a more competitive posture. IARPA discourages such strategies and encourages approaches such as innovative management concepts that maximize direct funding for technology and limit diversion of funds into overhead.

OFFERORS ARE CAUTIONED THAT EVALUATION RATINGS MAY BE LOWERED OR PROPOSALS REJECTED IF SUBMITTAL INSTRUCTIONS ARE NOT FOLLOWED.

4.4. Evaluation and Selection Process

IARPA's policy is to ensure impartial, equitable, comprehensive proposal evaluations and to select the source (or sources) whose offer meets the Government's technical, policy and programmatic goals. Qualified Government personnel will conduct reviews and may convene panels of experts in the appropriate areas.

Proposals will only be evaluated against the evaluation criteria described in Section 4.3, portfolio balance, and availability of funds, and will not be evaluated against other proposals because they are not submitted in accordance with a common work statement.

The Government intends to use employees of Booz Allen Hamilton, SCITOR Corporation/SAIC, TASC/Engility, and Welkin Associates/Mantech working under IARPA SETA contracts to assist in administering the evaluation of the proposals. These personnel will have signed and be subject to the terms and conditions of non-disclosure agreements. By submission of its proposal, an offeror agrees that its proposal information may be disclosed to employees of Booz Allen Hamilton, SCITOR Corporation/SAIC, TASC/Engility, and Welkin Associates/Mantech for the limited purpose stated above. Offerors who object to this arrangement must provide clear notice of their objection as part of their transmittal letter. If offerors do not include a notice of objection to this arrangement in their transmittal letter, the Government will

assume consent to the use of contractor support personnel in assisting the review of submittal(s) under this BAA.

Only Government personnel will make evaluation and award determinations under this BAA. Selections for award will be made on the basis of the evaluation criteria listed in Section 4.3, portfolio balance, and the availability of funds. Selections for award will not be made to offeror(s) whose proposal(s) are determined to be not selectable.

4.5. Negotiation and Contract Award

Award of a contract is contingent on successful negotiations. After selection and before award, the contracting officer will determine cost/price realism and reasonableness, to the extent appropriate, and negotiate the terms of the contract.

The contracting officer will review anticipated costs including those of associate, participating organizations to ensure the offeror has fully analyzed the budget requirements, provided sufficient supporting cost/price information and that cost data are traceable and reconcilable. Additional information and supporting data may be requested.

If the parties cannot reach mutually agreeable terms, a contract will not be awarded.

4.6. Proposal and Abstract Retention

IARPA treats all abstracts and proposals as competition sensitive information and discloses their contents only for the purpose of evaluation. Proposals and abstracts will not be returned. Upon completion of the source selection process, the original of each abstract and proposal received will be retained at IARPA and all other copies will be destroyed. A certification of destruction may be requested, provided that the formal request is sent to IARPA via e-mail to dni-iarpa-baa-17-01@iarpa.gov less than five (5) days after notification of abstract or proposal evaluation results.

4.7. Proprietary Data

All abstracts and proposals that contain proprietary data must label the cover page and each page containing proprietary data. It is the offeror's responsibility to clearly mark what data are considered to be proprietary.

5.0 AWARD ADMINISTRATION INFORMATION

5.1. Evaluation/Award Notices

Offerors will be notified in writing if their proposals were determined not to be relevant to IARPA's mission under Section 4.2 and were therefore not considered further for award. Offerors whose proposals are determined to be relevant to IARPA's mission under Section 4.2 and were evaluated further against the criteria set forth in Section 4.3 will be notified in writing whether their proposal was selected for contract negotiations as soon as IARPA's evaluation is complete. Although the specific terms and conditions for award will vary with the contracting agent and award type, the following considerations are generally relevant and should be addressed in the proposal where they are appropriate.

5.2. Meeting and Travel Requirements

Performers are responsible for administering their projects and complying with contractual requirements for reporting, attendance at program workshops, and availability for site visits. Site visits by representatives of IARPA will typically occur at six month intervals at the performer's facility.

5.3. Human Use

All research involving human subjects, to include use of human biological specimens and human data, selected for funding must comply with the federal regulations for human subject protection, namely 45 CFR Part 46, *Protection of Human Subjects*, (<http://www.hhs.gov/ohrp/humansubjects/guidance/45cfr46.html>).

For all proposed research that will involve human subjects, the institution must provide evidence of or a plan for review by an Institutional Review Board (IRB) on final proposal submission to IARPA. The IRB conducting the review must be the IRB identified on the institution's Assurance of Compliance with Federal regulations for human subject protection (Assurance). The protocol, separate from the proposal, must include a detailed description of the research plan; study population; risks and benefits of study participation; recruitment and consent process; data collection; and data analysis. Consult the designated IRB for guidance on writing the protocol. The informed consent document must comply with Federal regulations (45 CFR Part 46).

The amount of time required to complete the IRB review/approval process may vary depending on the complexity of the research and/or the level of risk to study participants. Ample time should be allotted to complete the approval process. The IRB approval process can last between three to six months. No IARPA funding can be used towards human-subject research until ALL approvals are granted.

In limited instances, human subject research may be exempt from Federal regulations for human subject protection, for example, under Department of Health and Human Services, 45 CFR 46.101(b). Offerors claiming that their research falls within an exemption from Federal regulations for human subject protection must provide written documentation with their proposal that cites the specific applicable exemption and explains clearly how their proposed research fits within that exemption.

Institutions awarded funding for research involving human subjects must provide documentation of a valid Assurance; for example, a Department of Health and Human Services, Office of Human Research Protection Federal Wide Assurance (<http://www.hhs.gov/ohrp>). All institutions engaged in human subject research, to include sub-contractors, must have a valid Assurance.

5.4. Animal Use

The offeror's care and use of any animals³ in the proposed research must conform with the applicable laws of the United States, regulations of the Department of Agriculture (see 7 U.S.C. § 2131 et seq. and 9 C.F.R. subchapter A, parts 1-4), and the Department of Health and Human Service's Public Health Service Policy on Humane Care and Use of Laboratory Animals. Offerors shall acquire animals from dealers licensed by the Secretary of Agriculture

³ The term "animal" shall have the meaning provided in 9 C.F.R. § 1.1.

under 7 U.S.C. § 2133 and 9 C.F.R. §§ 2.1 through 2.11, or from a source that is exempt from licensing under those sections⁴.

Institutions awarded funding for research involving animals must register with the Secretary of Agriculture in accordance with 7 U.S.C. § 2136 and 9 C.F.R. § 2.30 and furnish evidence of such registration to the Contracting Officer before undertaking work under this contract. Performers shall maintain their registration and comply with the requirements of 9 C.F.R. part 2, subpart C throughout all Phases of the program.

For all proposed research that will involve animals, the offeror must provide a plan for review by the cognizant Institutional Animal Care and Use Committee(s) (IACUC). If selected for award, the offeror must provide IARPA a copy of the cognizant Institutional Animal Care and Use Committee(s)'s (IACUC) approval of the animal research protocols, along with the protocols, before beginning any animal research. Consult the designated IACUC for guidance on writing the protocol. An awardee will not be authorized to begin animal research using IARPA funding until ACUC approval is granted and IARPA receives and accepts the IACUC approval documents.

5.5. Publication Approval

The Contractor is encouraged to publish unclassified research executed under this effort for peer review. The Contractor shall provide a copy of any unclassified research publication to the IARPA PM and COTR upon publication. Contractor publications shall include the following acknowledgement and disclaimer: "This research is based upon work supported in part by the Office of the Director of National Intelligence (ODNI), Intelligence Advanced Research Projects Activity (IARPA). The views and conclusions contained herein are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of ODNI, IARPA, or the U.S. government. The U.S. government is authorized to reproduce and distribute reprints for governmental purposes notwithstanding any copyright annotation therein' . .

5.6. Export Controls

The offeror must comply with all U.S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120 through 130, and the Export Administration Regulations (EAR), 15 CFR Parts 730 through 799, in the performance of work under awards.

5.7. Reporting

Although reporting requirements are subject to negotiation, awardees will be expected to provide monthly technical and financial reports to the Contracting Office, the Contracting Officer's Technical Representative, and the IARPA Program Manager. A final report will also be required.

⁴ Offerors may request registration of their facility and obtain a current listing of licensed dealers from the Regional Office of the Animal and Plant Health Inspection Service (APHIS), USDA, for the region in which its research facility is located. The location of the appropriate APHIS Regional Office, as well as information concerning this program may be obtained by contacting the Animal Care Staff, USDA/APHIS, 4700 River Road, Riverdale, Maryland 20737 (E-mail: ace@aphis.usda.gov; Website: (http://www.aphis.usda.gov/animal_welfare/)).

5.8. Representations and Certifications

Prospective offerors may be required to complete electronic representations and certifications in the System for Award Management (SAM) at its website (<https://www.sam.gov>). Successful offerors shall be required to complete additional representations and certifications prior to award.

APPENDIX A: Organizational Conflicts of Interest Letter Template

<Insert date>

Office of the Director of National Intelligence
Intelligence Advanced Research Projects Activity (IARPA)
ATTN: IARPA Director
Washington, DC 20511

Subject: OCI Certification

Reference: <Insert solicitation #> <Insert assigned proposal ID#, if received>

Dear (Insert Contracting Officer Name),

In accordance with IARPA Broad Agency Announcement IAPRA-BAA-<insert solicitation #>, Section 2.4, Procurement Integrity, Standards of Conduct, Ethical Considerations and Organizational Conflicts of Interest (OCI), and on behalf of <insert offeror's name> I certify that neither <insert offeror's name> nor any of our subcontractor teammates has a potential conflict of interest, real or perceived, as it pertains to the IARPA-Wide BAA.

If you have any questions, or need any additional information, please contact <insert name of contact> at <insert phone number> or <insert e-mail address>.

Sincerely,

<Insert organization name>

(Note: Must be signed by an official who has the authority to bind the organization)

<Insert signature>

<Insert name of signatory>
<Insert title of signatory>

APPENDIX B: Academic Institution Acknowledgement Letter Template

<Insert date>

To: Contracting Officer
ODNI/IARPA
Office of the Director of National Intelligence
Washington, D.C. 20511

Subject: Academic Institution Acknowledgement Letter

Reference: Executive Order 12333, As Amended, Para 2.7

This letter is to acknowledge that the undersigned is the responsible official of <insert name of the academic institution>, authorized to approve the contractual relationship in support of the Office of the Director of National Intelligence’s Intelligence Advanced Research Projects Activity and this academic institution.

The undersigned further acknowledges that he/she is aware of the Intelligence Advanced Research Projects Activity’s proposed contractual relationship with <insert name of institution> through <insert solicitation #> and is hereby approved by the undersigned official, serving as the president, vice-president, chancellor, vice-chancellor, or provost of the institution.

<Name>
<Position>

Date

APPENDIX C: Statement of Work (SOW) Template

Statement of Work (SOW) <Project Name>

Dated: XX/XX/XXXX

A. Statement of Work (SOW)

Date	Tasks	Milestone
Month 1	Task X	<Fill in>
Month 2	Task X	<Fill in>
Month 3	Task X	<Fill in>
Month 4	Task X	<Fill in>
Month 5	Task X	<Fill in>
Month 6	Task X	<Fill in>
Month 7	Task X	<Fill in>
Month 8	Task X	<Fill in>
Month 9	Task X	<Fill in>
Month 10	Task X	<Fill in>
Month 11	Task X	<Fill in>
Month 12	Task X	<Fill in>

The proposed schedule of phases, tasks, major milestones and deliverables is summarized in the table above and explained in more detail below.

<Fill in>

Specific tasks include:

Task X, <Fill in narrative>

Task X, <Fill in narrative>

Task X, <Fill in narrative>
Task X, <Fill in narrative>
Task X, <Fill in narrative>

<Fill in as appropriate>

APPENDIX D: Restrictions on Intellectual Property Rights Template

Noncommercial Items (Technical Data and Computer Software)

NONCOMMERCIAL ITEMS			
Technical Data, Computer Software To be Furnished With Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
(LIST)	(LIST)	(LIST)	(LIST)

Description of restrictions on Government's ability to use, modify, reproduce, release, perform, display, or disclose technical data, computer software, and deliverables incorporating technical data and computer software listed above:

Potential cost to the Government to acquire GPR in all deliverables incorporating the technical data and computer software listed above:

Intended use of the technical data and computer software listed above in the conduct of the proposed research:

Commercial Items (Technical Data and Computer Software)

COMMERCIAL ITEMS			
Technical Data, Computer Software To be Furnished With Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
(LIST)	(LIST)	(LIST)	(LIST)

Patents

PATENTS			
Patent number (or application number)	Patent name	Inventor name(s)	Patent owner(s)
(LIST)	(LIST)	(LIST)	(LIST)

APPENDIX E: Sample Prime Contractor Cost Element Sheet

PRIME CONTRACTOR COST ELEMENT SHEET [SAMPLE]
Complete a Cost Element Sheet for the Base Period and <u>each</u> Option Period

COST ELEMENT	BASE	RATE	AMOUNT
DIRECT LABOR (List each labor category separately. Identify Key Personnel by name.)	# of Hours	\$	\$
TOTAL DIRECT LABOR			\$
FRINGE BENEFITS	\$	%	\$
TOTAL LABOR OVERHEAD	\$	%	\$
SUBCONTRACTOR, IOTS, CONSULTANTS (List separately. See below table.)			\$
MATERIALS & EQUIPMENT (List each material and equipment item separately.)	Quantity	\$ unit price	\$
SOFTWARE & INTTELECTUAL PROPERTY (List separately. See table below.)	\$		\$
TOTAL MATERIALS & EQUIPMENT			\$
MATERIAL OVERHEAD	\$	%	\$
TRAVEL (List each trip separately.)	# of travelers		\$
TOTAL TRAVEL (List each trip separately.)			\$
OTHER DIRECT COSTS (List each item separately.)	Quantity	\$ unit price	\$
TOTAL ODCS			\$

G&A	\$		\$
SUBTOTAL COSTS			\$
COST OF MONEY	\$		\$
TOTAL COST			\$
PROFIT/FEE	\$		\$
TOTAL PRICE/COST			\$
GOVERNMENT SHARE, IF APPLICABLE			\$
RECIPIENT SHARE, IF APPLICABLE			\$

SUBCONTRACTORS/INTERORGANIZATIONAL TRANSFERS (IOT) & CONSULTANTS PRICE SUMMARY					
A	B	C	D	E	F
TOTALS					
*Identify Statement of Work, Milestone or Work Breakdown Structure paragraph, or provide a narrative explanation as an addendum to this Table that describes the effort to be performed.					

APPENDIX F: Sample Subcontractor Cost Element Sheet

SUBCONTRACTOR COST ELEMENT SHEET [SAMPLE]			
Complete a Cost Element Sheet for each applicable period			
COST ELEMENT	BASE	BURDENED RATE	AMT
DIRECT LABOR (List each labor category separately. Identify Key Personnel by name.)	# hrs	\$	\$
TOTAL DIRECT LABOR			\$
SUBCONTRACTORS, IOTS, CONSULTANTS			\$
MATERIALS & EQUIPMENT (List each material and equipment item separately.)	qty	\$ unit price	\$
TOTAL MATERIALS & EQUIPMENT			\$
TRAVEL (list each trip separately)	# of travelers	\$ price per traveler	\$
TOTAL TRAVEL			\$
OTHER DIRECT COSTS (List each item separately.)	qty	\$ unit price	\$
TOTAL OTHER DIRECT COSTS			\$
TOTAL PRICE/COST			\$

APPENDIX G: Data Management Plan Template

Data Management Plan (DMP)

The offeror must address each of the elements noted below in red text. Upon completion of the Plan, no red text should remain.

The DMP shall comply with the requirements stated in Section 4.B.1.c.L. of the BAA. In doing so, it will support the objectives of the ODNI Public Access Plan at <https://www.iarpa.gov/index.php/working-with-iarpa/public-access-to-iarpa-research>.

1. **Sponsoring IARPA Program** (required):
2. **Offeror** (i.e., lead organization responding to BAA) (required):
3. **Offeror point of contact** (required):
The point of contact is the proposed principal investigator (PI) or his/her Designee.
 - a. **Name and Position:**
 - b. **Organization:**
 - c. **Email:**
 - d. **Phone:**
4. **Data types** (required):
Provide a brief, high-level description of the types of data to be collected or produced in the course of the project.
5. **Standards for data and metadata content and format** (required):

Use standards reflecting the best practices of the relevant scientific discipline and research community whenever possible.

6. **Plans for making the research data that underlie the results in peer-reviewed journal articles and conference papers digitally accessible to the public** at the time of publication/conference or within a reasonable time thereafter (required):

The requirement could be met by including the data as supplementary information to a peer reviewed journal article or conference paper or by depositing the data in suitable repositories available to the public.

- a. **Anticipated method(s) of making data publicly accessible:**
___ Provide dataset(s) to publisher as supplementary information (if publishers allow public access)
___ Deposit dataset(s) in Data Repository
___ Other (*specify*) _____

- b. **Proposed data repository or repositories** (for dataset(s) not provided as supplementary information):

Suitable repositories could be discipline-specific repositories, general purpose research data repositories, or institutional repositories, as long as they are publicly accessible.

- c. **Retention period, at least three years after publication of associated research results:**

State the minimum length of time the data will remain publicly accessible.

- d. **Submittal of metadata to IARPA:**

Offerors are required to make datasets underlying the results published in peer-reviewed journal or conferences digitally accessible to the public to the extent feasible. Here, the offeror should state a commitment to submit metadata on such datasets to IARPA in a timely manner. A template for submittals is provided in a separate appendix to the BAA. Note: This does not supersede any requirements for deliverable data, as the award document may include metadata as a deliverable item.

7. **Policies and provisions for sharing and preservation** (as applicable):

- a. Policies and provisions for appropriate protection of privacy, confidentiality, security, and intellectual property:

- b. Descriptions of tools, including software, which may be needed to access and interpret the data:

- c. Policies and provisions for re-use, re-distribution, and production of derivatives:

8. **Justification for not sharing and/or preserving data underlying the results of peer-reviewed publications** (as applicable):

If, for legitimate reasons, the data cannot be shared and preserved, the plan must include a justification detailing such reasons. Potential reasons may include privacy, confidentiality, security, intellectual property rights considerations; size of data sets; cost of sharing and preservation; time required to prepare the dataset(s) for sharing and preservation.

Instructions to Offerors APPENDIX H is only needed if a Firm Fixed Price contract is being awarded. If a cost type contract is being awarded a payment/invoicing schedule is not necessary.

APPENDIX H: Payment/Invoicing Schedule Template

MONTH	DELIVERABLE	PAYMENT AMOUNT
1	<Fill in>	\$X.XX
2	<Fill in>	\$X.XX
3	<Fill in>	\$X.XX
4	<Fill in>	\$X.XX
5	<Fill in>	\$X.XX
6	<Fill in>	\$X.XX
7	<Fill in>	\$X.XX
8	<Fill in>	\$X.XX
9	<Fill in>	\$X.XX
10	<Fill in>	\$X.XX
11	<Fill in>	\$X.XX
12	<Fill in>	\$X.XX
TOTAL	<Fill in>	\$X.XX