IARPA

BROAD AGENCY ANNOUNCEMENT

IARPA-BAA-15-11



CROWDSOURCING EVIDENCE, ARGUMENTATION, THINKING AND EVALUATION (CREATE)

Office of Anticipating Surprise

IARPA-BAA-15-11

**Release Date:** February 16, 2016

**IARPA**

BROAD AGENCY ANNOUNCEMENT: IARPA-BAA-15-11

**CROWDSOURCING EVIDENCE, ARGUMENTATION, THINKING AND EVALUATION (CREATE)**

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# OVERVIEW INFORMATION

This publication constitutes a Broad Agency Announcement (BAA) and sets forth research areas of interest in the area of Crowdsourcing, Evidence, Argumentation, Thinking, and Evaluation (CREATE). Awards based on responses to this BAA are considered to be the result of full and open competition.

* **Federal Agency Name** – Intelligence Advanced Research Projects Activity (IARPA), Office of Anticipating Surprise (OAS)
* **Funding Opportunity Title –** Crowdsourcing Evidence, Argumentation, Thinking and Evaluation (CREATE)
* **Announcement Type –** Initial
* **Funding Opportunity Number –** IARPA-BAA-15-11
* **Dates**
	+ Posting Date: February 16, 2016
	+ Proposal Due Date for Initial Round of Selections: **5:00 PM Eastern Time, April 16, 2016**
	+ BAA Closing Date: September 15, 2016
* **Anticipated individual awards** – Multiple awards are anticipated.
* **Types of instruments that may be awarded** – Procurement contracts are anticipated.
* **Agency contact information**

IARPA, Office of Anticipating Surprise

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* **Program Manager** ‒ Steve Rieber, Office of Anticipating Surprise
* **Program website** – http://www.iarpa.gov/index.php/research-programs/create
* **BAA Summary** –TheCREATE program seeks proposals to develop, and experimentally test, systems that use crowdsourcing and structured analytic techniques (STs) to improve analytic reasoning. These systems will help people better understand the evidence and assumptions that support—or conflict with—conclusions. Secondarily, they will also help users better communicate their reasoning and conclusions. STs hold promise for increasing the logical rigor and transparency of analysis. They can help reveal underlying logic and identify unstated assumptions. Yet they are not widely used in the Intelligence Community or elsewhere—possibly because current versions are cumbersome or require too much time. Crowdsourcing has the potential to solvethese problems by dividing the labor, allowing dispersed groups of analysts to contribute information and ideas where they have comparative advantages. Crowdsourcing can help analysts identify and understand alternative hypotheses, arguments, and points of view. Crowdsourcing of structured techniques may facilitate rational deliberation by integrating different perspectives, so that analysis can effectively benefit from “crowd wisdom.”
* **Questions** – IARPA will accept questions about the BAA until **5:00 PM Eastern Standard Time, March 15, 2016**. Questions about administrative, technical, or contractual issues must be submitted to the BAA email address at dni-iarpa-baa-15-11@iarpa.gov. If email is not available, fax questions to 301-851-7672, Attention: IARPA-BAA-15-11. All requests must include the name, e-mail address (if available), and phone number of a point of contact for the requested information. A consolidated Question and Answer response will be posted every few days on the Federal Business Opportunities (FedBizOpps) website (http://www.fbo.gov) and linked from the IARPA website, http://www.iarpa.gov/index.php/research-programs/create; no answers will go directly to the submitter. Do not send questions with proprietary content.

# FULL TEXT OF ANNOUNCEMENT

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# SECTION 1: FUNDING OPPORTUNITY DESCRIPTION

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.fbo.gov/, and then be linked to the IARPA website at http://www.iarpa.gov/. The following information is for those wishing to respond to this Program BAA.

IARPA is seeking innovative solutions for the Crowdsourcing Evidence, Argumentation, Thinking and Evaluation (CREATE) program. The CREATE program is envisioned to begin by September 1, 2016 and end by February 28, 2021.

## 1.A. Program Overview

**1.A.1. Problem Background**

*Current practice.* The Intelligence Community (IC), like many organizations, typically conducts analysis in traditional ways: individual analysts review information sources, think through issues, confer with colleagues, conduct their analysis, and embody their results in written products. This approach is time-tested, intuitive, and requires no special training in methods. But it has drawbacks. The WMD Commission noted, “Perhaps most troubling, we found an Intelligence Community in which analysts have a difficult time stating their assumptions up front, explicitly explaining their logic, and, in the end, identifying unambiguously for policymakers what they do not know.”

Current analysis and reporting tools provide little scaffolding to help users assess competing hypotheses, produce clear, well-supported judgments, or identify and overcome biases. Nor do they provide much support for explaining to others why those judgments were made, why seemingly plausible alternatives were rejected, and what major informational gaps remain.

*Structured Techniques.* A variety of STs have been devised with the goal of improving reasoning—for example, Argument Mapping, Analysis of Competing Hypotheses (ACH), and Bayesian Reasoning Networks. Some, but not all, STs involve software that visually represents the relationships among hypotheses, reasons, objections and evidence. Other approaches to STs might employ or combine wiki-editing, structured debates, a reasoning analogue of the World Health Organization’s (WHO) checklists, or similarly text-oriented approaches.

Intelligence analysts are trained in the use of some STs, and many have used one or more at least occasionally. But the routine use of STs is the exception rather than the rule. Often STs are difficult to employ: software implementation may not be user-friendly, and generating the full apparatus that an ST requires may be time-consuming, confusing, or difficult. Furthermore, complex STs may require extensive input in areas beyond an individual user’s particular expertise. User-friendly crowdsourcing has the potential to overcome some of these obstacles: analysts will be able to focus on components that most interest them and on which they are most knowledgeable, contributing when they are available and have something important to offer.

**1.A.2. Research Requirements**

CREATE seeks to improve reasoning in intelligence analysis through the use of crowdsourced STs. Proposals must link an ST to some form of crowdsourcing, but IARPA is open to the use of any STs and any crowdsourcing methods to achieve its goals. Proposers may use extant techniques, develop variations on extant techniques, or offer novel approaches.

For purposes of this BAA, an **ST** is any method designed to help people produce well-reasoned analysis that is also capable of being crowdsourced and instantiated in cloud-compatible software. If successful, CREATE will help analysts produce better reasoned analytic products, and will also make it easier for consumers of analytic products to understand the evidence and reasoning on which they are based.

For this BAA, **crowdsourcing** is any software-mediated approach to using a group of three or more individuals to collaboratively solve a problem. One simple form of crowdsourcing is online group deliberation, with or without a leader or moderator. Potential crowdsourcing techniques include, but are not limited to, systems that are automated or that give complete or partial control to one person or a large or small sub-group, as well as systems run entirely by members of the crowd. Other approaches to crowdsourcing might be based on techniques used in Wikipedia, Reddit, Polymath, StackExchange, or mass collaboration software. Still other techniques may include ideation tools, problem-solving games such as Fold-It, and technologically-aided systems for distributing the amassing of evidence (e.g., citizen science). Approaches may vary in whether, and to what extent, participants have access to input from other members of the crowd. The examples in this BAA are provided as illustration and are not intended to indicate preferred solutions.

One form of crowdsourcing, often used in prediction markets, is the algorithmic aggregation of individuals’ responses to produce better judgments. Offerors may incorporate algorithmic aggregation in their approach to crowdsourcing, but should not plan on making this their sole crowdsourcing method: other programs already focus on advancing these techniques and they do not address all of CREATE’s objectives

It is expected that teams submitting in response to this BAA will be multidisciplinary, with personnel such as behavioral scientists, social scientists, computer scientists, statisticians, and experts in informal reasoning and critical thinking, as appropriate. IARPA anticipates that universities and companies from around the world may want to participate in this research. As research progresses, opportunities for cooperation or collaboration between funded teams may arise, and IARPA may encourage joint efforts. Researchers will also be encouraged to publish their findings in publicly available academic journals and elsewhere. Members of CREATE performer teams need not hold security clearances, or be US citizens, or live in the US. No classified information will be used in CREATE.

CREATE’s first goal is to research whether the use of STs in general and crowdsourced STs in particular can produce fundamental advances in analytic reasoning. CREATE’s second goal is to increase the clarity of analytic products. Consumers of intelligence analysis (i.e., national security decision-makers) are busy and subject to information overload. Key judgments, the reasoning behind them, the strength and weakness of relevant evidence, and plausible alternative hypotheses must be presented succinctly yet accurately.

*Scope of analytic problems.* CREATE’s methods must be applicable to a wide range of problems, including political, military, economic, scientific and technological questions; for example:

* *Assessing current capabilities.* What is the likelihood that Country X has a rocket capable of reliably delivering a nuclear payload to the continental U.S.?
* *Interpreting visual evidence.* Is the convoy seen in this image more likely carrying military equipment or foodstuff?
* *Assessing a political situation.* Are domestic conflicts in region Y contributing to regional instability?
* *Understanding past events.* What caused the jet to crash in region Z?
* *Making long-term predictions.* How likely is it that by 2025 the Arctic Ocean will be open to transpolar shipping unaided by icebreakers at least eight months a year?
* *Producing broad-scale long-term scenarios.* Will the global trade regime become more protectionist to the detriment of U.S. interests, and if so why?
* *Assessing implications of possible technological advances.* Within a few years, will technology have advanced enough that a terrorist group will be able to develop and deploy a non-nuclear device that emits a powerful electro-magnetic pulse (EMP) from a high-flying plane?

CREATE research is expected to yield STs that will be tested on a range of questions including, but not necessarily limited to, some of the above problem types. For each of these, system output might include a narrative and/or graphic report discussing alternate hypotheses, evidence for each, weight of evidence, uncertainty of assumptions, etc.

Because of the complexity of the challenges involved, CREATE will proceed in three phases. **Phase 1** will develop and experimentally test one or more STs that are amenable to crowdsourcing on constrained problems. They may be, but need not be, crowdsourced during Phase 1. **Phase 2** will develop and experimentally test crowdsourced versions of one or more Phase 1 STs on constrained problems of increasing complexity. **Phase 3** will develop and experimentally test crowdsourced STs on constrained and unconstrained problems similar in complexity to those encountered by IC analysts. Phase 1 will last 20 months, while Phases 2 and 3 will last 17 months each, for a total of 4.5 years.

**Constrained problems** are problems that can be solved using provided materials supplemented only with unproblematic, well-known background facts and reasonable assumptions. In addressing constrained problems, subjects must use only common knowledge and provided problem-specific information. Constrained problems ensure that all subjects have access to the same problem-relevant information and only that information, and allow evaluators to hold constant or systematically vary factors such as source reliability, information or questions likely to trigger misleading psychological heuristics, redundant or misleading or irrelevant information, and other reasoning challenges. **Unconstrained problems** require subjects to investigate external sources and evaluate the plausibility of the information found in those sources. Analysts generally face unconstrained problems. However, constrained problems in CREATE are intended to simplify the analytic and evaluative processes, while approximating the situation of analysts who must respond to queries under limited time and resources. Constrained problems will also permit CREATE research to focus on particular areas. While some unconstrained problems may involve forecasting, most will not. And while some unconstrained problems will require considerable external investigations, not all of them will. In some cases, solving an unconstrained problem might require only an easy web search, where the “trick” to solving the problem is for subjects to realize what information is missing. Therefore the difference between constrained and unconstrained problems is a continuum and not a sharp dichotomy.

The category of constrained problems can be interpreted broadly, but those used for CREATE will be sufficiently challenging as to simulate some aspects of real-world problem solving.

The constrained problems of interest to CREATE are not always straightforward, may not provide an answer pool, and may not always have a clearly correct answer. These problems limit subjects to provided material, but may provide considerable material of different types, including relevant and irrelevant documents, photos, witness reports, maps and other material. “*Relatively simple*” constrained problems provide smaller amounts of material, and may be designed to test specific aspects of reasoning such as using base rate information, avoiding logical fallacies and identifying assumptions. “*Increasingly complex*” constrained problems will provide more, and/or more ambiguous, evidence sets. They may also require more difficult reasoning, and where answers are known they may be more complex and nuanced.

On problems with no definitively correct answer, evaluation will be based on the quality of the reasoning that yields the specific conclusions and eliminates others. On problems with a definitively correct answer, evaluation will be based on both the quality of reasoning included in the analytical product and the correctness of the answer.

To assist performers with system development, and to give them a sense of the kinds of problems that they should use to test their systems, the Independent Test and Evaluation (T&E) team will provide performers with a range of exemplar problems, of the kinds that might be used in formal tests of the performers’ approaches. The problems will be accompanied by explanations of the reasoning challenges that they are designed to pose. Performers can use these exemplars, supplemented by problems and items they construct, to develop and test their systems.

*Study Population.* Performers are expected to recruit their own subjects to test their STs prior to system delivery to IARPA. The T&E team will recruit its own subjects for its evaluation testing and research. For most experiments, T&E subjects will be similar to IC analysts in diversity of age and education. Performers should be aware of the kinds of subjects who will figure in tests of their systems, but they are nonetheless free to recruit any subjects who will aid them in their efforts.

Analysts range in experience from less than one year to more than 30 years on the job, with educational levels that range from high-school diplomas to PhDs, although most will have graduated from a college or university. Their degrees span a wide range of disciplines, including history, area studies, law, international policy, science, mathematics, and engineering. Unlike IC analysts, test subjects need not be US citizens or have a special interest in national security, as long as they are fluent in reading written English.

Proposals must discuss recruitment and retention plans and targets, as well as any planned monetary or non-monetary incentives designed to motivate involvement, retention, and the level and quality of participation.

**1.A.3. Program Deliverables**

Performers are expected to design and conduct their own research experiments on crowdsourced STs. These STs should enable users to produce narrative and/or graphic analytic products that are substantially better reasoned (as measured by the quality of reasoning metrics described below) and more clearly expressed (as measured by the quality of communication metrics described below) than products produced by the two control groups described below, while being at least as usable.

All deliverables are listed in Table 1. Performers’ systems submitted to the T&E team for independent testing must consist of at least:

* ST software to enable the T&E team’s test subjects to produce narrative and/or graphic products based on their analyses of specific problems (using crowdsourcing in Phases 2-3).
* A training module for users of the performer’s software, STs and related material. In-person training should not be a requirement.
* An instruction manual to guide the T&E team in setting up and running the software and other materials relating to subject numbers and any other special instructions. (IARPA and the T&E team may impose a cap on the number of test subjects employed on a single problem, and other instructions will be followed only to the extent that they are practically and financially feasible.)

Each performer shall deliver to IARPA and the T&E team a system for testing no later than one month before testing is set to begin. IARPA, as advised by the T&E team, can request bug and related fixes, describing specific areas where changes are needed for enhanced usability.

**Table 1: Schedule of Deliverables**

|  |  |
| --- | --- |
| **Month** | **Deliverable** |
| 1-54 | Monthly financial and technical status reports |
| 2 | Detailed Phase 1 project plan |
| 3 | Evidence of Institutional Review Board (IRB) approval for Phase 1 human subjects testing; interim demo or storyboard of software. |
| 9 | Interim results from performers’ human subjects testing of Phase 1 systems |
| 13 | Phase 1 ST software to support reasoning about constrained problems, training module, and instruction manual for independent testing |
| 17 | Draft Phase 1 report |
| 19 | Final Phase 1 report |
| 21 | Detailed Phase 2 project plan; evidence of IRB approval for Phase 2 human subjects testing |
| 26 | Interim results from performers’ human subjects testing of Phase 2 systems |
| 30 | Phase 2 crowdsourced ST software to support reasoning about constrained problems, training module, and instruction manual for independent testing |
| 34 | Draft Phase 2 report |
| 36 | Final Phase 2 report |
| 38 | Detailed Phase 3 project plan; evidence of IRB approval for Phase 3 human subjects testing |
| 43 | Interim results from performers’ human subjects testing of Phase 3 systems |
| 47 | Phase 3 crowdsourced ST software to support reasoning about constrained and unconstrained problems, training module, and instruction manual for independent testing |
| 51 | Draft Phase 3 report |
| 53 | Final Phase 3 report |

**1.A.4. Test and Evaluation Approach**

CREATE’s T&E team will independently assess techniques for their ability to produce **well-reasoned analyses** that properly include the following seven elements of good reasoning:

* Assess the evidence for plausible hypotheses, including those that are ultimately rejected.
* Estimate the probability of hypotheses.
* Justify key judgments by explicitly referencing the reasons, assumptions and evidence on which they are based.
* Indicate the quality, credibility and diagnosticity of key information sources.
* Describe (and where possible effectively rebut) potential objections to reasons, hypotheses and assumptions.
* Express and explain the potential implications of key unknowns.
* Identify new information that might increase the certainty of key judgments.

Each performer will deliver the most recent version of its system to IARPA for testing and evaluation. IARPA will choose an Independent Test and Evaluation organization to recruit and assign research subjects who will employ each performer’s system on a set of problems devised by the T&E team. The Government T&E team will evaluate the products resulting from each performer’s method. Products will be assessed for quality of reasoning and communication. To determine the overall benefits of using STs, whether alone or crowdsourced, the T&E team will use comparisons with a control group unaided by an ST and a separate control group using only the Analysis of Competing Hypotheses (ACH) ST as standardly employed in the IC[[1]](#footnote-1) (and will receive a brief training module on this method). The ACH control group need not be used in all testing, if IARPA and the T&E team have determined that it would not be informative for a particular test. Products from the control groups will be evaluated alongside products from the experimental group for quality of reasoning and communication. For some purposes a “control group” may consist of some number of individuals acting alone.

It is expected that T&E will examine not only the accuracy of conclusions, in cases where a correct answer or some characteristics of a correct answer are known, but also, and as appropriate, such outcomes as the degree to which analytic products assess the diagnosticity of evidence and the probability of hypotheses, distinguish causal from correlational relationships, recognize and avoid logical fallacies, account for base rates, evaluate source credibility, forestall groupthink, accurately summarize the reasoning, assumptions and evidence that figure in the analysis, report major objections to hypotheses and sub-hypotheses and replies to them, call attention to and explain the potential implications of key unknowns and identify new information that, if acquired, might increase or reduce the certainty of analytic conclusions.

Performers will be consulted about T&E testing methods and evaluation standards. Performers may suggest that the T&E team conduct additional research to advance CREATE’s goals, but the decision to perform such research is entirely IARPA’s.

IARPA may conduct preliminary testing to provide feedback to the performers, before the official testing period commences. Performers will be given feedback from official testing and from any preliminary testing. However, proposed plans should not require this additional testing to meet program goals.

Cooperation between performers, and between performers and the T&E team, is encouraged, particularly when this will result in economies of effort or otherwise advance CREATE’s goals. For example, insights into how best to recruit subjects and maintain their participation might be shared.

The selection of problems used to test performers’ systems is entirely at IARPA’s and the T&E team’s discretion. Each performer may, however, provide IARPA and the T&E team with proposed problems with its recommended solutions. Some of these may subsequently be adapted for testing performers’ systems or as exemplars for performers to use to refine their systems.

T&E test subjects will interact only with the T&E team; performers shall have no direct access to them. This places a premium on the clarity and usability of the software provided. The T&E team will group and assign subjects, in both the control and experimental conditions, to a range of problems that pose different reasoning challenges. The T&E team will also specify the kinds of products it requires, many of which will be similar to IC products in that they will take the form of narrative and/or graphic reports intended to summarize reasoning and analytic judgments for decision makers. In testing crowdsourced systems, the T&E team shall allow its experimental subjects to communicate electronically through a performer’s system to the extent that and in the ways that the performer’s instructions provide. Performers may also permit subjects to communicate through other media. Insofar as practical, the T&E team will collect and analyze the information that is exchanged.

Depending on their nature of the problem, **quality of reasoning** will be determined by the extent to which products exhibit the seven elements of good reasoning identified above (“Well-reasoned analyses”), and/or yield correct or more nearly correct answers where correct answers are known, and/or respond correctly to reasoning challenges built into specific problems.

Currently there are no methods generally accepted in the scientific community for evaluating the quality of reasoning in a document; thus, devising and validating these evaluation methods will be one of CREATE’s main T&E tasks. It is expected that expert assessments and comparisons against control groups will figure in the evaluation process. To the extent practical and appropriate, IARPA and the T&E team will establish and disclose intended means of evaluation at the start of each phase. However, if IARPA and the T&E team identify better evaluation methods during a phase, the T&E team may implement these new standards or methods, so long as all performers have been notified of them at least one month before evaluation begins, and given an opportunity to comment.

**Quality of communication** will be measured in at least two ways: (i) specific measures of how well third-party non-expert readers understand a product’s conclusions, reasoning and evidence and (ii) subjective quality evaluations by experts such as experienced readers of IC products.

**Usability** will be measured in at least two ways: (i) subjects’ answers to questions about ease of use and (ii) person-hours spent by subjects producing reports of comparable quality to those produced using standard methods.

Insofar as possible, evaluations of reasoning and communications quality will be conducted using means that are blind to the performer’s identity. The T&E team will use performers’ software and, insofar as fair and practical, will follow a performer’s recommended approach to producing products. However, the T&E team will recruit and choose test subjects and implement performers’ systems. Performers can, for example, decide to broadly crowdsource the final write-up of an analysis, but they cannot choose who will be in the crowd. Nor can performers choose those individuals who will have leadership or other special roles in coordinating the analysis or drafting final products. Performers may, however, recommend parameters of crowd composition and role assignments, which the T&E team will try to respect so long as, in consultation with IARPA, it judges the recommendations to be reasonable, and its subject pool and other circumstances of the evaluation allow such requests to be honored.

If a performer specifies that an approach is valid only for certain types of problems, testing shall be confined to problems of that type. However, such a limitation will be taken into account in the overall evaluation of the performer’s work.

### **1.A.5. Program Focus**

Under this BAA there will be no funding for:

* Programs primarily focused on improving the accuracy of forecasts. CREATE’s goal is to improve analytic reasoning; any improvements to forecasting would be incidental. However, there may be some problems for which forecasting improvement is a valid measure of reasoning quality; IARPA has the option to measure any such improvements.
* Programs primarily focused on improving training, even if they relate to critical thinking or preparing analytic products. Subjects may have to be taught how to use one or more STs and how to crowdsource them, and performers may wish to explore ways to most effectively train them. However, CREATE’s goal is to produce systems, tools, and/or processes that improve analytic reasoning; any improvements to training would be incidental.
* Programs primarily focused on automated reasoning systems. CREATE’s goal is to produce tools that directly support human reasoning and analysis, rather than tools that automate those processes or include human input only incidentally.

## 1.B Program Structure, Metrics and Milestones

**1.B.1. Program Overview**

**Table 2**

**CREATE Program Structure**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Phase 1 | Phase 2 | Phase 3 |
| *Duration* | 20 months | 17 months | 17 months |
| *Focus* | Develop STs for constrained problems | Develop crowdsourced STs for increasingly complex constrained problems | Develop crowdsourced STs for IC-complex constrained and unconstrained problems |

The Government will use metrics and milestones to evaluate the effectiveness of proposed solutions in achieving the stated program objectives, and to determine whether satisfactory progress is being made to warrant continued funding of the program and performers. The metrics are intended to bound the scope of effort, while affording maximum flexibility, creativity, and innovation in proposing solutions to the stated problem.

**Phase 1: Months 1 to 20**

The performer will:

* Develop at least one ST that subjects can use to produce products on a range of constrained problems. Crowdsourcing is allowed but not required.
* Conduct testing with subjects from its subject pool to ensure the efficacy of the system, the functionality of the software, and the clarity of the protocols under development. The results of these tests shall be shared with IARPA. The methods and schedule for testing shall be described in the proposal.
* Deliver system (software-based ST, incorporated training module, instruction manual) for evaluation on constrained problems, at least 1 month prior to the start of formal T&E testing. The T&E team may request reasonable upgrades (e.g., bug fixes, improvement of user interface) throughout their testing period. Performers may also, upon approval from the T&E team, deliver upgrades on their own initiative with the understanding that implementation of the new systems in place of earlier versions may take up to two months depending on the extent of the changes.
* Comment on the T&E team’s draft detailed testing plans.
* (Optional) Provide to IARPA and the T&E team suggested constrained problems that may provide a good test of STs, with suggested solutions. IARPA may in its judgment use these, possibly altered, as models for exemplar problems or for test problems.

**Phase 2: Months 21 to 37**

The performer will:

* Develop at least one version of the Phase 1 ST so that subjects can use crowdsourcing to produce products on a range of constrained problems of increasing complexity. Alternatively, with justification and IARPA approval, a performer may develop a new approach to produce such products.
* Conduct testing with subjects from its subject pool to ensure the efficacy of the system, the functionality of the software, and the clarity of the protocols under development. The results of these tests shall be shared with IARPA and T&E. The methods and schedule for testing shall be described in the proposal.
* Deliver system (software-based ST, incorporated training module, instruction manual) for evaluation on constrained problems, at least 1 month prior to the start of formal T&E testing. The T&E teams may request upgrades (e.g., bug fixes, improvement of user interface) throughout their testing period. Performers may also, upon approval from the T&E team, deliver upgrades on their own initiative with the understanding that implementation of the new systems in place of earlier versions may take up to two months depending on the extent of the changes.
* Comment on the T&E team’s draft detailed testing plans.
* (Optional) Provide to IARPA and the T&E team suggested constrained problems that may provide a good test of ST, with suggested solutions. IARPA may in its judgment use these, possibly altered, as models for exemplar or test problems.

**Phase 3: Months 38 to 54**

The performer will:

* Improve on the Phase 2 crowdsourced ST so that subjects can use it to produce analytic products on IC-complex constrained and unconstrained problems. Alternatively, with justification and IARPA approval, a performer may develop a new approach to produce such products.
* Conduct testing with subjects from its subject pool to ensure the efficacy of the system, the functionality of the software, and the clarity of the protocols under development. The results of these tests shall be shared with IARPA and the T&E team. The methods and schedule for testing shall be described in the proposal.
* Deliver system (software-based ST, incorporated training module, instruction manual) for evaluation on constrained problems, at least 1 month prior to the start of formal T&E testing. The T&E team may request upgrades (e.g., bug fixes, improvement of user interface) throughout their testing period. Performers may also, upon approval from the T&E team, deliver upgrades on their own initiative with the understanding that implementation of the new systems in place of earlier versions may take up to two months depending on the extent of the changes.
* Comment on the T&E team’s draft metrics and testing procedures
* (Optional) Provide IARPA and the T&E team suggested constrained and unconstrained problems that may provide a good test of STs, with suggested solutions. IARPA may in its judgment use these, possibly altered, as models for exemplars or its test problems.

**Table 3: Program Metrics – Minimum Target Effect Sizes for All Measures**

|  |  |
| --- | --- |
|   | **Minimum Target Effect Size Improvement** **Over Each of the Two Control Groups’ Scores****(Cohen’s *d,* pooled)** |
|  |
|   | Phase 1 | Phase 2 | Phase 3 |
| Quality of Reasoning | 0.25 | 0.5 | 1.0 |
| Usability | ≥ ACH control group | ≥ ACH control group | ≥ ACH control group |
| Quality of Communication | 0.1 | 0.2 | 0.3 |

**1.B.2. Guidance**

Offerors must specify how they intend to approach or accomplish the key tasks specified above. Offerors must describe in detail the ST(s) and crowdsourcing approaches they intend to employ or develop and the research that they intend to conduct. If Offerors have done prior research in a related area, they should describe that research and how they propose to build upon it.

Offerors must address their capacity to accomplish the specified tasks within the indicated time frame. Offerors must describe the research teams that they propose to assemble, indicate the specific skills that members of their teams will bring, include Curriculum Vitaes (CVs) or resumes of key staff where likely personnel are known, and present a plan for managing their teams and fulfilling the BAA’s requirements. Note that these are key members of the development team, as distinct from the people participating in testing.

Offerors must specify project risks they can envision and risk mitigation plans. Offerors may augment their proposals by specifying additional goals and work that would add value to the requirements indicated above.

Performers may face many challenges in developing, implementing, and testing crowdsourced ST systems. Proposals should identify and address the key challenges facing their systems. While most of these issues are not addressed specifically in this BAA, one challenge of particular concern to IARPA is that past crowdsourcing efforts have sometimes demonstrated vulnerability to participant sabotage. IARPA is interested in whether CREATE tools are vulnerable to such activities, and how easily they could be detected and countered. Although this is not one of the formal metrics for the program, solutions are encouraged that can demonstrate robustness in the face of such activities.

Offerors should describe, at minimum, how they will address the following challenges:

* Experimental subjects will not only vary widely in relevant skills and experience but also are unlikely to be familiar with STs and the reasoning frameworks they entail.
* Methods must be able to cope with a diverse set of reasoning problems, including problems that differ in topic, evidence availability, quantifiability, complexity, conditionality, and verifiability.
* Approaches must be found within the ST to effectively resolve disputes and to preclude fruitless or hostile exchanges.
* STs must work well with reasonable time constraints.

**1.C. Program Timeline**

During CREATE’s 4.5 years, testing will become increasingly rigorous on several criteria:

* Constrained 🡪 constrained & unconstrained
* Relatively-simple 🡪 increasingly-complex 🡪 IC-complex
* Crowd-sourcing optional 🡪 crowdsourcing required
* Improvement of Quality of Reasoning (Table 2)
* Improvement of Communication (Table 2)

IARPA will use the timeline in Table 4 to help CREATE maintain its 4.5-year schedule.

**Table 4. CREATE Program Timeline**

|  |  |
| --- | --- |
|  | **Phase 1** |
| **Month** | **Performer Deliverables/ Milestones** | **Other Activities and Information** |
| 1 | Deliver evidence that the IRB application has been submitted; Begin developing ST system; Schedule and financial status reports to be delivered monthly |  |
| 2 | Deliver Phase 1 detailed project plan  | Phase 1 Kickoff Meeting:* Performers share concepts/plans
* T&E team share, and discuss with performers, draft Phase 1 detailed testing plan
 |
| 3 | Deliver evidence that IRB approval is complete; Deliver interim demo or storyboard of software. |  |
| 4 |  | Government and T&E team provide feedback on software demos and/or storyboards |
| 5 |  | T&E team starts submitting to performers, every three months, draft changes to detailed testing plan; T&E starts providing performers exemplar problems with explanations |
| 6 | Milestone 1: Beta software/prototype ready for human subjects testing Performers start commenting, every three months, on T&E’s draft changes to detailed testing planSite Visits:* Performers demo beta system
* Performers share testing plans
* T&E team and performers discuss draft Phase 1 testing plan
 |  |
| 7 | Performers begin human subjects testing;  |  |

|  |  |  |
| --- | --- | --- |
| 9 | Performers provide interim testing results to Government and T&E teamSite Visits:* Performers share interim testing results
* Performers demo testing protocols
* T&E team and performers discuss changes to detailed testing plan
 |  |
| 10 |  | Government and T&E team provide feedback on interim testing to performers |
| 12 | Milestone 2: Complete human subjects testing on software  | PI Meeting:* Performers share testing results
* Performers share preliminary plans for Phase 2 crowdsourcing software
* T&E team and performers discuss final Phase 1 detailed testing plan
 |
| 13 | Deliver ST software to T&E team |  |
| 14 | Performers begin Phase 2 software development | T&E team begins testing Phase 1 software; T&E team starts submitting to performers, every 3 months, draft changes to Phase 2 detailed testing plan |
| 15 | Site Visits:* Preliminary T&E report on testing
* Performers share initial materials for Phase 1 reports
* Performers report on Phase 2 progress
* T&E team and performers discuss draft Phase 2 detailed testing plan
 |  |
| 17 | Phase 1 final report draft due |  |
| 18 |  | T&E testing complete; Government and T&E team provide feedback on Phase 1 report draftsPI Meeting:* Preliminary feedback from T&E
* Performers share Phase 2 development status
* Performers preview Phase 1 reports
* T&E team & performers discuss changes to Phase 2 detailed testing plan
 |
| 19 | Phase 1 final report due | T&E report on evaluation results |
| 20 |  | Phase 2 decisions from Government |
|  | **Phase 2** |
|  | **Deliverables/ Milestones**  | **Other Information** |
| 21 | Deliver evidence that IRB approval for Phase 2 performer testing is complete (if needed separate from earlier approval); Deliver updated detailed Phase 2 project plan; Deliver interim demo or storyboard of Phase 2 system | Phase 2 Kickoff PI Meeting:* Performers share concepts/plans
* Performers demo software
* T&E team and performers discuss revised Phase 2 detailed testing plan
 |
| 22 |  Performers share human subjects testing plans with Government and T&E team |   |
| 23 | Milestone 3: Beta systems/prototypes ready for human subjects testing  | Government and T&E team provide feedback on performer testing plans |
| 24 | Performers begin human subjects testing of Phase 2 systems/prototypes  |  |
| 26 | Performers provide interim testing results to Government and T&E teamSite Visits:* Performers share interim testing results
* Performers demo testing protocols
* T&E team and performers discuss changes to detailed testing plan
 |   |
| 27 |  | Government and T&E team provide feedback on interim testing to performers |
| 29 | Milestone 4: Complete human subjects testing on system  | PI meeting:* Performers share testing results
* Performers share preliminary plans for Phase 2 crowdsourcing software
* T&E team and performers discuss final detailed testing plan
 |
| 30 | Performers deliver crowdsourced ST software to T&E team |  |
| 31 | Performers begin Phase 3 software development | T&E team begin testing Phase 2 software |
| 32 | Site Visits:* Preliminary T&E report on testing
* Performers share initial materials for Phase 2 reports
* Performers report on Phase 3 progress
 | T&E team starts submitting to performers, every 3 months, draft Phase 3 detailed testing plan |
| 34 | Phase 2 final report draft due |  |
| 35 |  | T&E testing complete; Government and T&E team provide feedback on Phase 2 final reportPI Meeting:* Preliminary feedback from T&E
* Performers share Phase 3 development status
* Performers preview Phase 2 reports
* T&E and performers discuss changes to Phase 3 detailed testing plan.
 |
| 36 | Phase 2 final report due | T&E report on evaluation results |
| 37 |  | Phase 3 decisions from Government |
|  | **Phase 3** |
|  | **Deliverables/Milestones**  | **Other Information** |
| 38 | Deliver evidence that IRB approval for Phase 3 performer testing is complete (if needed separate from earlier approval); Deliver updated detailed Phase 3 project plan; Deliver interim demo or storyboard of Phase 3 system | Phase 3 Kickoff PI Meeting:* Performers share concepts/plans
* Performers demo software
* T&E team and performers discuss changes to Phase 3 detailed testing plan
 |
| 39 | Performers share human subjects testing plans |  |
| 40 | Milestone 5: Beta systems/prototypes ready for human subjects testing | Government & T&E team provide feedback on performer testing plans |
| 41 | Performers begin human subjects testing of Phase 3 beta systems/prototypes |  |
| 43 | Performers provide interim testing results to Government and T&E teamSite Visits:* Performers share interim testing results
* Performers demo testing protocols
 |  |
| 44 |  | Government & T&E team provide feedback on interim testing to performers |
| 46 | Milestone 6: Complete human subjects testing on software  | PI meeting* Performers share testing results
* T&E team and performers discuss final Phase 3 detailed testing plan
 |
| 47 | Performers deliver crowdsourced ST software to T&E team |  |
| 48 | Performers begin work on final report; Performers begin supplementary testing if appropriate. | T&E team begin Phase 3 testing |
| 49 | Site Visits:* T&E team share preliminary testing results
* Performers preview Phase 3 reports
 |   |
| 51 |  Phase 3 final report draft due |  |
| 52 |  | T&E testing complete; Government and T&E team provide feedback on Phase 3 report draftsPI meeting: * Preliminary feedback from T&E
* Performers share results from final reports and supplementary testing
 |
| 53 | Phase 3 final report due | T&E report on test results |
| 54 |  Final schedule and financial status reports | Technical and programmatic closeoutCapstone meeting:* Share program results with performers, partners and stakeholders
 |

# SECTION 2: AWARD INFORMATION

The CREATE program is envisioned as a 4.5-year effort that is intended to begin in September 2016. Phase 1 of the program (Base Period) will last 20 months with two possible Option Periods - Phase 2 (Option Period 1) will last 17 months, and Phase 3 (Option Period 2) will last 17 months. All option periods must be costed in the proposal as priced options. Costs associated with the commercialization of technology are not allowable under this solicitation.

This BAA will result in awards for all phases of the program; however, funding for Optional Period(s) will depend upon performance during the Base Period (and succeeding Optional Periods), as well as program priorities, the availability of funding, and IARPA priorities. Funding of Option Periods is at the sole discretion of the Government. Participants considered for funding in the Option Period will be those performer teams that have made significant technical and programmatic progress in the Base Period and have correctly understood and contributed to the overarching goals of the program. Depending on prior period(s) of performance, technical evaluations, availability of funding and IARPA priorities, a performer that fails to demonstrate such progress, or that provides only minor improvements above the current state of the art will not be invited to continue with the Program.

Multiple Phase 1 awards are anticipated. The amount of resources made available under this BAA will 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. Additionally, 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.

Awards under this BAA will be made to offerors on the basis of the evaluation criteria listed in 5.A, program balance, and availability of funds. Proposals selected for negotiation may result in procurement contracts. However, the Government reserves the right to negotiate the type of award instrument it determines appropriate under the circumstances.

The Government will contact offerors whose proposals are selected for negotiations to obtain additional information required for award. The Government may establish a deadline for the close of fact-finding and negotiations that allows a reasonable time for the award of a contract. Offerors that are not responsive to 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 on contract terms, conditions, and cost/price within a reasonable time.

# SECTION 3: ELIGIBILITY INFORMATION

## 3.A. Eligible Applicants

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 will 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 3.A.1.

Foreign entities and/or individuals may participate to the extent that such participants comply with any necessary Non-Disclosure Agreements, Security Regulations, Export Control Laws and other governing statutes applicable under the circumstances. Offerors 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 to propose to the CREATE BAA.

### **3.A.1. 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 has an unfair competitive advantage.

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-15-11@iarpa.gov. All notifications must be submitted through the offeror, regardless of whether the notification addresses a potential OCI for the 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 request should also include a proposed plan to avoid, neutralize or mitigate such conflict. The 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, the conflict situation 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 that 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 sample certification is provided in APPENDIX D.

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 withdraw 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: http://www.iarpa.gov/index.php/working-with-iarpa/iarpas-approach-to-oci.

## 3.B. US 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 highly recommended that offerors submit with their proposal a completed and signed Academic Institution Acknowledgment Letter for each U.S. academic organization that is a part of their team, whether the academic institution is serving in the role of prime, or a subcontractor or consultant at any tier of their team. A template of the Academic Institution Acknowledgment Letter is enclosed in this BAA at APPENDIX A. 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. Note that this paperwork **must** be received before IARPA can enter into any negotiations with any offeror when a U.S. academic institution is a part of its team.

## 3.C. Other Eligibility Criteria

### **3.C.1. Collaboration Efforts**

Collaborative efforts and teaming arrangements among potential performers are strongly encouraged. Specific content, communications, networking and team formations are the sole responsibility of the participants.

# SECTION 4: PROPOSAL AND SUBMISSION INFORMATION

This notice constitutes the total BAA and contains all information required to submit a proposal. No additional forms, kits, or other materials are required.

## 4.A. Content and Form of Application Submission

### **4.A.1. Proposal Information**

Interested offerors are required to submit full proposals in order to receive consideration for funding. All proposals submitted under the terms and conditions cited in this BAA will be reviewed. Proposals must be received by the time and date specified in section 4.C.1 in order to be assured of consideration during the initial round of selections. IARPA may evaluate proposals received after this date for a period of up to one year from the date of initial posting on FedBizOpps. Selection remains contingent on the evaluation criteria, program balance and availability of funds. The typical proposal should express a consolidated effort in support of one or more related technical concepts or ideas. Disjointed efforts should not be included in a single proposal.

Offerors shall submit proposals for a Base Period of 20 months and two Option Periods, Option Period 1 for 17 months and Option Period 2 for 17 months.

The Government intends to use employees of Vencore, Booz Allen Hamilton, the Johns Hopkins University Applied Physics Laboratory (APL), Los Alamos National Laboratory (LANL), Sandia National Laboratories (SNL), BRTRC Federal Solutions, OPS Consulting LLC, and TeleCommunication Systems Inc. (TCS) to provide expert advice regarding portions of the proposals submitted to the Government and to provide logistical support in carrying out the evaluation process. 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 these organizations 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 send 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.

All administrative correspondence and questions regarding this solicitation should be directed by email to dni-iarpa-baa-15-11@iarpa.gov. Proposals must be submitted in accordance with the procedures provided in Section 4.C.2.

### **4.A.2. Proposal Format**

All proposals must be in the format given below. Non-compliant proposals may be rejected without review. Proposals shall consist of two volumes: “Volume 1 - Technical and Management Proposal” and “Volume 2 - Cost Proposal.” All pages shall be printed on 8-1/2 by 11 inch paper with type not smaller than 12 point and at least one-inch margins on all sides. Foldout pages shall not be used. Font size for figures, tables and charts shall generally not be smaller than 10 point. The page limitation for full proposals includes all figures, tables, and charts. All pages must be numbered. Unnecessarily elaborate brochures or presentations beyond what is sufficient to present a complete and effective proposal are not acceptable and will be discarded without review.

### **4.A.3. Proposal Classification**

The Government anticipates that proposals submitted under this BAA will be unclassified. No classified information will be accepted in response to this BAA.

## 4.B. Proposal Content Specifics

Each proposal submitted in response to this BAA shall consist of the following:

**Volume 1 – Technical & Management Proposal**

Section 1 - Cover Sheet & Transmittal Letter

Section 2 – Summary of Proposal

Section 3 – Detailed Proposal

Section 4 – Attachments (number appropriately for elements included)

1 – Academic Institution Acknowledgment Letter(s), if required

2 – Restrictions on Intellectual Property Rights

3 – OCI Waiver, Determination, Notification, or Certification

4 – Bibliography

5 – Relevant Papers (up to three)

6 – Human Use Documentation, if applicable (see Section 6.B.4)

7 – Consultant Letters of Commitment

**Volume 2 – Cost Proposal**

Section 1 – Cover Sheet

Section 2 – Detailed Estimated Cost Breakdown

### **4.B.1. Volume 1, Technical and Management Proposal {Limit of 35 pages}**

Volume 1, Technical and Management Proposal, may include an attached bibliography of relevant technical papers or research notes (published and unpublished) which document the technical ideas and approach on which the proposal is based. Copies of not more than three relevant papers can be included with the submission. The submission of other supporting materials along with the proposal is strongly discouraged and will not be considered for review. Except for the cover sheet, transmittal letter, table of contents (optional), and the attachments included in Volume 1, Section 4, Volume 1 shall not exceed 35 pages. Any pages exceeding this limit will be removed and not considered during the evaluation process. Full proposals must be accompanied by an official transmittal letter, using contractor format. All proposals must be written in English.

### **4.B.1.1. Section 1: Cover Sheet & Transmittal Letter**

A. Cover sheet: (*See APPENDIX B for Cover Sheet Template*)

B. Official Transmittal Letter.

### **4.B.1.2. Section 2: Summary of Proposal {Limit of 10 pages}**

Section 2 shall provide an overview of the proposed work as well as introduce associated technical and management issues. This section shall contain a technical description of and technical approach to the research as well as a succinct portrayal of the uniqueness and benefits of the proposed work. It shall make the technical objectives clear and quantifiable and shall provide a project schedule with definite decision points and endpoints. Offerors must address:

1. A technical overview of the proposed research and plan: This section is the centerpiece of the proposal and should succinctly describe the proposed approach and research. The overview should provide an intuitive understanding of the approach and design, technical rationale, and constructive plan for accomplishment of technical goals and deliverable production. The approach should be supported by basic, clear, calculations/estimates. Additionally, proposals should clearly explain the innovative claims and technical approach(es) that will be employed to meet or exceed each program metric and provide ample justification as to why the approach(es) is/are feasible. The use of non-standard terms and acronyms should be avoided. This section will be supplemented with a more detailed plan in Volume 1, Section 3 of the proposal.
2. A summary table of the calculated Phase 1, 2, and 3 end-of-phase system performance metrics that includes the page number(s) of Volume 1, Section 3 of the proposal which provide details on how the performance metric will be achieved. The table should not just simply list the IARPA program metrics and state they can be achieved, but provide calculated values from the proposed approach.
3. Summary of the products, transferable technology and deliverables associated with the proposed research results. Definemeasurable deliverables that show progress toward achieving the stated Program Milestones. Detail in Attachment 2 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. If there are no proprietary claims, this should be stated. Should no proprietary claims be made, Government rights will be unlimited.
4. Schedule and milestones for the proposed research. Summarize, in table form, the schedule and milestones for the proposed research. Do not include proprietary information with the milestones.
5. Related research. General discussion of other research in this area.
6. Project contributors. Offerors must include a clearly defined organizational chart of all anticipated project participants.

1. A three chart summary of the proposal in PowerPoint that quickly and succinctly indicates the concept overview, key innovations, expected impact, and other unique aspects of the proposal. The format for the summary slides is included as **Error! Reference source not found.**H to this BAA and does not count against the page limit. Slide 1 should be a self-contained, intuitive description of the technical approach and performance. These slides may be used during the evaluation process to present a summary of the proposal from the proposer’s view.
2. Technical Resource Summary:
* Summarize total level of effort by labor category and technical discipline (i.e. research scientist/chemist/physicist/engineer/administrative, etc.) and affiliation (prime/ subcontractor/consultant).  Key Personnel shall be identified by name. Provide a brief description of the qualifications for each labor category (i.e. education, certifications, years of experience, etc.)
* Summarize level of effort by labor category and technical discipline for each major task, by affiliation
* Identify software and intellectual property required to perform, by affiliation (List each item separately)
* Identify materials and equipment (such as IT) required to perform, by affiliation (List each item separately)
* Identify any other resources required to perform (i.e. services, data sets, facilities, government furnished property, etc., by affiliation, list each item separately)
* Estimated travel, including purpose of travel and number of personnel per trip, by affiliation

The above information shall cross reference to the tasks set forth in the offeror’s statement of work, as described in BAA section 4.B.1.3, and shall be supported by the detailed cost and pricing information provided in the offeror's Volume 2 Cost Proposal.

### **4.B.1.3. Section 3: Detailed Proposal Information**

This section of the proposal shall provide the detailed, in-depth discussion of the proposed research as well as supporting information about the offeror’s capabilities and resources. Specific attention must be given to addressing both the risks and payoffs of the proposed research and why the proposed research is desirable for IARPA to pursue. This part shall provide:

1. Statement of Work (SOW) - In plain English, clearly define the technical tasks and sub-tasks to be performed, their durations and the dependencies among them. For each task and sub-task, provide:
* A general description of the objective;
* A detailed description of the approach to be taken, developed in an orderly progression and in enough detail to establish the feasibility of accomplishing the goals of the task;
* Identification of the primary organization responsible for task execution (prime, sub-contractor, team member, etc.) by name;
* The exit criteria for each task/activity, i.e., a product, event or milestone that defines its completion;
* Definition of all deliverables (e.g., data, reports, software, etc.) to be provided to the Government in support of the proposed research tasks/activities.

***Note: Do not include any proprietary information in the SOW.***

At the end of this section, provide a Gantt chart, showing all the tasks and sub-tasks on the left with the performance period (in years/quarters) on the right. All milestones shall be clearly labeled on the chart.

1. A detailed description of the objectives, scientific relevance, technical approach and expected significance of the work. The key elements of the proposed work should be clearly identified and related to each other. Proposals should clearly detail the technical method(s) and/or approach(es) that will be used to meet or exceed each program milestone and should provide ample justification as to why the proposed method(s)/approach(es) is/are feasible. Any anticipated risks should be described and possible mitigations proposed. General discussion of the problem without specific detail about the technical implementation will result in an unacceptable rating.
2. State-of-the-art.Comparison with other on-going research, highlighting the uniqueness of the proposed effort/approach and differences between the proposed effort and the current state-of-the-art clearly stated. Identify the advantages and disadvantages of the proposed work with respect to potential alternative approaches.
3. Data sources. Identification and description of human subject populations, data sources, and data analysis techniques to be utilized in pursuit of the project research goals. Explain clearly how the data and populations selected will be an appropriate and adequate set for exploring the research topic being proposed. Offerors shall include the documentation required in Appendix E. Documentation must be well written and logical; claims for exemptions from Federal regulations for human subject protection must be accompanied by a strong defense of the claims. The draft human subjects protocol is not included in the total page count. The Government reserves the right to reject a proposal if it does not appropriately address all data issues.
4. Description of the Deliverables Associated with the Proposed Research Results, Enhancing That of Section 1.A.3.

Deliverables should be defined that show progress toward achieving the stated Program Milestones. Deliverables should be specified for each of the Phases as detailed in Table 1 of this BAA. Deliverables are to include all software, evaluation analyses and documents (software documentation, research reports, and publications). Interim deliverables are to include research status reports and publications. For all deliverables describe the proposed approach to intellectual property rights, together with supporting rationale of why this approach offers the best value to the Government.

The Government requires at a minimum Government Purpose Rights (GPR) for all deliverables; anything less will 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 must identify the potential cost associated with the Government obtaining Government Purpose Rights in such deliverables. Proposals that do not include this information will be considered non-compliant and may not be reviewed by the Government.

In Attachment 2 of the proposal, offerors must 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.

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 Attachment 2 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 will 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 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 will 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 will acquire less than unlimited rights. If the offeror does not submit such information, the Government will 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 must also be addressed in Attachment 2. Offerors should leverage the format in APPENDIX G for their response. (See also section 6.B.2. Intellectual Property.) The technical content of Attachment 2 shall include only the information necessary to address the proposed approach to intellectual property; any other technical discussion in Attachment 2 will not be considered during the evaluation process. Attachment 2 is limited to 5 pages.

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 otherwise herein. If offerors propose intellectual property rights that are not defined in FAR part 27 or herein, offerors must clearly define such rights in Attachment 2 of their proposal. Offerors are reminded of the requirement for prime contractors to acquire sufficient rights from subcontractors to accomplish the program goals.

1. Cost, schedule, milestones. Cost, schedule, and milestones for the proposed research, including estimates of cost by task, total cost, and company cost share, if any. Where the effort consists of multiple portions that could reasonably be partitioned for purposes of funding, these should be identified as options with separate cost estimates for each. The milestones must not include proprietary information.
2. Offeror’s previous accomplishments. Discuss previous accomplishments and work in this or closely related research areas and how these will contribute to and influence the current work.
3. Facilities.Describe the facilities that will be used for the proposed effort, including computational and experimental resources.
4. Detailed Management Plan. The Management Plan should identify both the organizations and the individuals within those organizations that make up the team and delineate the expected duties, relevant capabilities and task responsibilities of team members and expected relationships among team members. Expected levels of effort (percentage time or fraction of an FTE) for all key personnel and significant contributors should be clearly noted. A description of the technical, administrative and business structure of the team and the internal communications plan should be included. Project/function/sub-contractor relationships (including formal teaming agreements), Government research interfaces, and planning, scheduling, and control practices should be described. The team leadership structure should be clearly defined. Provide a brief biography of the key personnel (including alternates, if desired) who will be involved in the research along with the amount of effort to be expended by each person during the year. Participation by key personnel and significant contributors is expected to exceed 25% of their time. A compelling explanation of any variation from this figure is required.

If the team intends to use consultants, they must be included in the organizational chart as well. Indicate if the person will be an “individual” or “organizational” consultant (that is, will the consultant represent himself/herself or his/her organization). In both cases, the organizational affiliation should be identified. The consultant should make a written commitment to be available to the team; the commitment should be attached to the Cost Volume. Table 6 shows an example chart.

Table 6: Key Personnel

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Participants** | **Citizen-ship** | **Org** | **Role** | **Unique, Relevant Capabilities** | **Specific Task(s)/ Contributions** | **Time Commitment** |
| Jane Doe | USA | ABC University | PI/KeyPersonnel | Electrical Engineer | Program Manager | 100% |
| John Doe, Jr. | CAN | ABC University | KeyPersonnel | Computer Programmer | Real-time programming | 25% |
| Dan Doe | USA | ABC University | KeyPersonnel | Plasma physics | Assimilation & interpolation | 90% |
| Julie Coe, IV | UK | JCI Consulting | Individual Consultant | Computer science | Interface design | 200 hours |
| Rachel Roe, III | USA | XYZ Co. | Co-PI/KeyPersonnel | Applied mathematics | Ionospheric weather model design | 25% |

1. 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.
2. The names of other federal, state or local agencies or other parties receiving the proposal and/or funding the proposed effort. If none, so state.

### **4.B.1.4. Section 4: Attachments**

[NOTE: The attachments listed below must be included with the proposal, if applicable, but do not count against the Volume 1 page limit.]

Attachment 1: Signed Academic Institution Acknowledgment Letter(s) (if applicable). Template provided as APPENDIX A. See paragraph 3.B, US Academic Institutions.

Attachment 2: Restrictions on Intellectual Property Rights (if applicable). Template provided as APPENDIX G. This attachment is limited to 5 pages.

Attachment 3: OCI Waiver/Determination/Notification or Certification. Template, provided as APPENDIX D. See paragraph 3.A.1., Organizational Conflicts of Interest (OCI).

Attachment 4: Bibliography. A brief bibliography of relevant technical papers and research notes (published and unpublished) which document the technical ideas on which the proposal is based.

Attachment 5: Relevant Papers. Copies of not more than three relevant papers may be included in the submission. The proposers should include a one page technical summary of each paper provided, suitable for individuals who are not experts in the field.

Attachment 6: Human Use Documentation. If applicable. See paragraph 6.B.4 for a description of the required documentation.

Attachment 7: Consultant Commitment Letters. If applicable. If the offeror intends to utilize any consultants, each consultant must make a written commitment of its participation on the team using his/her preferred format.

### **4.B.2. Volume 2: Cost Proposal {No Page Limit}**

Section 1: Cover Sheet. See APPENDIX C for Cover Sheet Template

Section 2: Estimated Cost Breakdown.

(1) Cost element breakdown for the base period and each option period for the offeror and each subcontractor. See APPENDIX E and APPENDIX F for format. Educational institutions and non-profit organizations as defined in FAR part 31.3 and 31.7, respectively (prime and subcontractor level), can 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 that are used by their institutions. The methodology must be clear and provide sufficient detail to substantiate proposed labor costs. For example, each labor category must be listed separately; identify key personnel, and provide hours/rates or salaries and percentage of time allocated to the project.

(2) Total cost broken down by major task

(3) Major program tasks by fiscal year

(4) Proposed subcontract costs and equipment purchases

(5) Proposed purchase of any information technology

(6) A summary of projected funding requirements by month

(7) The source, nature and amount of industry cost-sharing, if any

(8) Identification of 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.).

The prime contractor is responsible for compiling and providing all subcontractor proposals. All subcontractor proposals shall include burdened rates in the cost breakdown listed above. If a proposal is selected for negotiations, both the prime and subcontractors must be prepared to present full cost proposals including all direct and indirect rates immediately upon request by the Contracting Officer. Subcontractor proposals should include Interdivisional Work Transfer Agreements (ITWA) or similar arrangements. Where the effort consists of multiple portions which could reasonably be partitioned for purposes of funding, these should be identified as options with separate cost estimates for each.

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 4.B.1.3.D and 4.B.1.3.E).

Supporting cost and pricing information must be provided in sufficient detail to substantiate the summary cost estimates in Volume 1. Include a description of the method used to estimate costs and supporting documentation. Key personnel must be listed by name for the prime and all subcontractors.

Certified “cost or pricing data” may be required if the offeror is seeking a procurement contract award of $700,000 or greater unless the Contracting Officer approves an exception from the requirement to submit cost or pricing data.

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

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 will be received favorably include innovative management concepts that maximize direct funding for technology and limit diversion of funds into overhead.

## 4.C. Submission Details

### **4.C.1. Due Dates**

See BAA Overview Information Section for proposal due date and time.

### **4.C.2. Proposal Delivery**

Proposals must be submitted electronically through the IARPA Distribution and Evaluation System (IDEAS). **Offerors interested in providing a submission in response to this BAA must first register by electronic means in accordance with the instructions provided on the following web site: https://iarpa-ideas.gov. Offerors who plan to submit proposals for evaluation in the first round are strongly encouraged to register at least one week prior to the due date for the first round of proposals.** Offerors who do not register in advance do so at their own risk, and IARPA will not extend the due date for the first round of proposals to accommodate such offerors. Failure to register as stated will prevent the offeror’s submission of documents.

After registration has been approved, offeror’s should upload proposals, including Volume 1, Volume 2, scanned certifications and permitted additional information in ‘PDF’ format. Offerors are responsible for ensuring compliant and final submission of their proposals to meet the BAA submittal deadlines. Time management to upload and submit is wholly the responsibility of the offeror.

Upon completing the proposal submission, the offeror will receive an automated confirmation email from IDEAS. IARPA strongly suggests that the offeror document the submission of their proposal package by printing the electronic receipt (time and date stamped) that appears on the final screen following compliant submission of a proposal to the IDEAS website.

Proposals submitted by any means other than IDEAS (e.g., hand-carried, postal service, commercial carrier and email) will not be considered unless the offeror attempted electronic submission, but was unsuccessful. Should an offeror be unable to complete the electronic submission, the offeror must employ the following procedure. The offeror must send an e-mail to dni-iarpa-baa-15-11@iarpa.gov prior to the proposal due date and time specified in the BAA, 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.

Proposals must be submitted by the time and date specified in the BAA in order to be assured of consideration during the first round of selections. IARPA may evaluate proposals received after this date for a period up to one year from the date of initial posting on FedBizOpps. Selection remains contingent on proposal evaluation, program balance and availability of funds. Failure to comply with the submission procedures may result in the submission not being evaluated.

## 4.D. Funding Restrictions

Facility construction costs are not allowable under this activity. Funding may not be used to pay for commercialization of technology.

Government facility test costs, if any, are to be reported as a cost share in Volume 1, section (3)(J) rather than being funded directly by the performer. Such use of Government facilities will be a factor in resource realism.

# SECTION 5: PROPOSAL REVIEW INFORMATION

## 5.A. Technical and Programmatic Evaluation Criteria

The criteria to be used to evaluate and select proposals for this program BAA are described in the following paragraphs. Because there is no common statement of work, each proposal will be evaluated on its own merits and its relevance to the program goals rather than against other proposals responding to this BAA. Specifics about the evaluation criteria are provided below, in descending order of importance.

Note to offerors regarding the evaluation criteria: Award(s) will be made to offerors on the basis of the evaluation criteria within this section, program balance, and availability of funds and subject to successful negotiations with the Government. Award recommendations will not be made to offeror(s) whose proposal(s) are determined not to be selectable. Offerors are cautioned that evaluation ratings may be lowered or proposals rejected if submission instructions are not followed.

### **5.A.1. Overall Scientific and Technical Merit**

Overall scientific and technical merit of the proposal is substantiated, including unique and innovative methods, approaches, and/or concepts. The offeror clearly articulates an understanding of the problem to be solved. The technical approach is credible, and includes a clear assessment of primary risks and a means to address them. The proposed research advances the state-of-the-art.

### **5.A.2. Effectiveness of Proposed Work Plan**

The feasibility and likelihood that the proposed approach will satisfy the program’s milestones and metrics are explicitly described and clearly substantiated along with risk mitigation strategies for achieving stated milestones and metrics. The proposal reflects a mature and quantitative understanding of the Program milestones and metrics, and the statistical confidence with which they may be measured. Any offeror-proposed milestones and metrics are clear and well-defined, with a logical connection to enabling offeror decisions and/or Government decisions. The schedule to achieve the milestones is realistic and reasonable.

The roles and relationships of prime and sub-contractors are clearly delineated with all participants fully documented. Work plans must demonstrate the ability to provide full Government visibility into and interaction with key technical activities and personnel, and a single point of responsibility for contract performance. Work plans must also demonstrate that key personnel have sufficient time committed to the Program to accomplish their described Program roles.

The requirement and rationale for and the anticipated use or integration of Government resources, including but not limited to all equipment, facilities, information, etc., is fully described including dates when such Government Furnished Property (GFP), Government Furnished Equipment (GFE), Government Furnished Information (GFI) or other similar Government-provided resources will be required.

The offeror’s proposed intellectual property and data rights are consistent with the Government’s need to be able to effectively manage the Program and evaluate the technical output and deliverables, communicate program information across Government organizations and support transition and further use and development of the program results to Intelligence Community users at an acceptable cost. The proposed approach to intellectual property rights is in the Government’s best interest.

### **5.A.3. Contribution and Relevance to the IARPA Mission and Program Goal**

The proposed solution meets the letter and intent of the stated program goals and all elements within the proposal exhibit a comprehensive understanding of the problem. The offeror clearly addresses how the proposed effort will meet and progressively demonstrate CREATE Program goals. The offeror describes how the proposed solution contributes to IARPA’s mission to invest in high-risk/high-payoff research that can provide the U.S. with an overwhelming intelligence advantage over its future adversaries.

### **5.A.4. Relevant Experience and Expertise**

The offeror’s capabilities, related experience, facilities, techniques, or unique combination of these which are integral factors for achieving the proposal’s objectives will be evaluated, as well as qualifications, capabilities, and experience of the proposed principal investigator, team leader, and key personnel critical in achieving the proposal objectives. Time commitments of key personnel must be sufficient for their proposed responsibilities in the effort.

### **5.A.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.

## 5.B. Method of 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. In order to provide the desired evaluation, qualified Government personnel will conduct reviews and may convene panels of experts in the appropriate areas.

IARPA will only evaluate proposals against the criteria described under Section 5, and will not evaluate them against other proposals, since they are not submitted in accordance with a common work statement. For evaluation purposes, a proposal is the document described in Sections 4.A and 4.B. Other supporting or background materials submitted with the proposal will not be considered. 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 above, program 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.

## 5.C.  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.

## 5.D Proposal Retention

IARPA’s policy is to treat all proposals as competitive information and to disclose their contents only for the purpose of evaluation. Proposals will not be returned upon completion of the source selection process. The original of each proposal received will be retained at IARPA and all other non-required copies will be destroyed. A certification of destruction may be requested, provided that the formal request is sent to IARPA via e-mail within five (5) days after notification of proposal results.

# SECTION 6: AWARD ADMINISTRATION INFORMATION

## 6.A. Award Notices

Upon completion of evaluations and source selection decision, offerors will be notified as soon as practicable that: (1) the proposal has been selected for negotiations, or (2) the proposal has not been selected.

## 6.B. Administrative and National Policy Requirements

### **6.B.1. Proprietary Data**

It is the policy of IARPA to treat all proposals as competitive information, and to disclose their contents, only for the purpose of evaluation. All proposals containing proprietary data should have the cover page and each page containing proprietary data clearly marked as containing proprietary data. It is the offeror’s responsibility to clearly define to the Government what the offeror considers proprietary data.

The performer may use their own data for development purposes as long as they follow the guidelines in 6.B.12 Lawful Use and Privacy Protection Measures.

### **6.B.2. Intellectual Property**

### **6.B.2.A. Noncommercial Items (Technical Data and Computer Software)**

Offerors responding to this BAA requesting a procurement contract shall identify in Volume 1, Attachment 2 of the proposal all noncommercial technical data and noncommercial computer software that it plans to generate, develop and/or deliver under any proposed award instrument in which the Government will acquire less than unlimited rights and to assert specific restrictions on those deliverables, the basis for such restrictions, the potential cost to the Government to acquire GPR in all deliverables incorporating such noncommercial technical data and computer software, and the intended use of the technical data and noncommercial computer software in the conduct of the proposed research and development of applicable deliverables. If offerors intend to incorporate noncommercial, proprietary technical data or computer software into any deliverable, offerors should provide in Volume 1, Attachment 2 of their proposals all of the information regarding such proprietary technical data or computer software as described in sections 4.B.1.3(D) and 4.B.1.3(E) of this BAA.

In the event that offerors do not submit such information, the Government will assume that it automatically has unlimited rights to all noncommercial technical data and noncommercial computer software generated, developed, and/or delivered under any award instrument, unless it is substantiated that development of the noncommercial technical data and noncommercial computer software occurred with mixed funding. If mixed funding is anticipated in the development of noncommercial technical data and noncommercial computer software generated, developed and/or delivered under any award instrument, then offerors should identify the data and software in question and that the Government will receive GPR in such data and software. The Government will automatically assume that any such GPR restriction is limited to a period of five years, at which time the Government will acquire unlimited rights unless the parties agree otherwise. A sample format for complying with this request is shown in APPENDIX G. If no restrictions are intended, then the offeror should state “NONE.”

Offerors are advised that the Government will use this information during the source selection evaluation process to evaluate the impact of any identified restrictions and may request additional information from the offeror, as may be necessary, to evaluate the offeror’s assertions.

For all technical data and computer software that the offeror intends to deliver with other than unlimited rights that are identical or substantially similar to technical data and computer software that the offeror has produced for, delivered to, or is obligated to deliver to the Government under any contract or subcontract, the offeror shall identify the contract number under which the data, software, or documentation were produced; the contract number under which, and the name and address of the organization to whom, the data and software were most recently delivered or will be delivered; and any limitations on the Government’s rights to use or disclose the data and software, including, when applicable, identification of the earliest date the limitations expire.

### **6.B.2.B. Commercial Items (Technical Data and Computer Software)**

Offerors shall identify in Section 4 (Attachment 2, template provided as APPENDIX G) of its proposal all commercial technical data and commercial computer software that may be incorporated 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 commercial computer software. In the event that offerors do not submit the list, the Government will assume that there are no restrictions on the Government’s use of such commercial items. The Government may use the list during the source selection evaluation process to evaluate the impact of any identified restrictions and may request additional information from the offeror, as may be necessary, to evaluate the offeror’s assertions. If no restrictions are intended, then the offeror should state “NONE.”

A sample format for complying with this request is shown in APPENDIX G.

### **6.B.2.C. All Offerors – Patents**

Include documentation using the format provided in APPENDIX G, proving ownership of or possession of appropriate licensing rights to all patented inventions (or inventions for which a patent application has been filed) that will be utilized under the proposal for the IARPA program. If a patent application has been filed for an invention that the proposal utilizes, but the application has not yet been made publicly available and contains proprietary information, the offeror may provide only the patent number, inventor name(s), assignee names (if any), filing date, filing date of any related provisional application, and a summary of the patent title, together with either: (1) a representation that the offeror owns the invention, or (2) proof of possession of appropriate licensing rights in the invention.

If offerors intend to incorporate patented technology into any deliverable, i.e., if offerors intend for any deliverable to embody any invention covered by any patent or patent application the offerors list in APPENDIX G, offerors should also provide in Volume 1, Attachment 2 of their proposals all of the information described in section 4.B.1.3(E) of this BAA.

### **6.B.2.D. All Offerors – Intellectual Property Representations**

The offeror shall provide a good faith representation that they either own or possess appropriate licensing rights to all other intellectual property that will be utilized under their proposal for the CREATE program.

### **6.B.3. Meeting and Travel Requirements**

Performers are expected to assume responsibility for administration of their projects and to comply with contractual and program requirements for reporting, attendance at program workshops and availability for site visits.

### **6.B.3.A. Workshops** **and Meetings**

The CREATE Program intends to hold a Program-level Kick-Off meeting during the second month of the Program and then hold Program-level Principal Investigators (PI) meetings per Table 4. These two- to three-day meetings will focus on technical aspects of the Program and on facilitating open technical exchanges, interaction and sharing among the various Program participants. Program participants will be expected to present the technical status and progress of their projects as well as to demonstrate their technical capabilities to other participants and invited guests at these events.

### **6.B.3.B. Site Visits**

Site visits by the Contracting Officer Representative and the CREATE Program Manager will take place per Table 4. These visits will occur at the performer’s facility or an appropriate alternate location as agreed to by Government, T&E, and performer. Reports on technical progress, details of successes and issues, and contributions to the program goals and technology demonstrations will be expected at such visits.

### **6.B.4. 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).

Institutions awarded funding for research involving human subjects must provide documentation of a current Assurance of Compliance with Federal regulations for human subject protection, 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 also have a valid Assurance.

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. 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 C.F.R. 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 one to three 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 C.F.R. § 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.

### **6.B.5. Publication Approval**

It is anticipated that research funded under this program will be unclassified research that will not require a pre-publication review with IARPA. However, performers will need to remain complaint with publication approval requirements described in their agreements with *Data Provider(s)* to prevent the inadvertent disclosure of proprietary or sensitive information. Performers should note that pre-publication approval of research information associated with IARPA may be required if it is determined that the release of such information may result in the disclosure of sensitive information. Prior to public release, a courtesy soft copy of any work submitted for publication must be provided to the IARPA Program Manager and the Contracting Officer’s Technical Representative (COTR), as well as a copy of the publication.

### **6.B.6. Export Control**

(1) The offeror shall comply with all U.S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 C.F.R. Parts 120 through 130, and the Export Administration Regulations (EAR), 15 C.F.R. Parts 730 through 799, in the performance of this contract. In the absence of available license exemptions/exceptions, the offeror shall be responsible for obtaining the appropriate licenses or other approvals, if required, for exports of (including deemed exports) hardware, technical data, and software, or for the provision of technical assistance.

(2) The offeror shall be responsible for obtaining export licenses, if required, before utilizing non-U.S. persons (as defined in the ITAR and EAR, as applicable) in the performance of this contract, including instances where the work is to be performed on-site at any Government installation (whether in or outside the United States), where the foreign person will have access to export-controlled technologies, including technical data or software.

(3) The offeror shall be responsible for all regulatory record keeping requirements associated with the use of licenses and license exemptions/exceptions.

(4) The offeror shall appropriately mark all contract deliverables controlled by ITAR and/or EAR.

(5) The offeror shall be responsible for ensuring that the provisions of this section apply to its sub-contractors.

(6) The offeror will certify knowledge of and intended adherence to these requirements in the representations and certifications of the contract.

### **6.B.7. Subcontracting**

It is the policy of the Government to enable small business and small disadvantaged business concerns to be considered fairly as sub-contractors to contractors performing work or rendering services as prime contractors or sub-contractors under Government contracts and to assure that prime contractors and sub-contractors carry out this policy. Each offeror that submits a proposal that includes sub-contractors and is selected for funding (pending negotiations) may be asked to submit a sub-contracting plan before award, in accordance with FAR 19.702(a) (1) and (2). The plan format is outlined in FAR 19.704. Offerors must declare teaming relationships in their proposals and must specify the type of teaming arrangement in place, including any exclusive teaming arrangements. IARPA neither promotes nor discourages the establishment of exclusive teaming agreements within offeror teams. Individuals or organizations associated with multiple teams must take care not to over-commit those resources being applied.

### **6.B.8. Reporting**

Fiscal and management responsibility are important to the CREATE Program. Although the number and types of reports will be specified in the award document, all performers will, at a minimum, provide the Contracting Office, Contracting Officer’s Technical Representative and the CREATE Program Manager with monthly technical reports and monthly financial reports. The reports shall be prepared and submitted in accordance with the procedures contained in the award document and mutually agreed upon before award. Technical reports will describe technical highlights and accomplishments, priorities and plans, issues and concerns; will provide evaluation results; and will detail future plans. Financial reports will present an on-going financial profile of the project, including total project funding, funds invoiced, funds received, funds expended during the preceding month and planned expenditures over the remaining period. Additional reports and briefing material may also be required, as appropriate, to document progress in accomplishing program metrics.

The performer will prepare a research report of their work by the 2nd-to-last month of each phase (see section 1.C). The reports shall be delivered to the Contracting Agent, Contracting Officer Representative and the CREATE Program Manager. The reports will include:

* System design and development
* Approach to, and results from, human subjects research and iterative testing
* Description of final system submitted for independent evaluation
* General description of system output for typical problems
* Information on system requirements for users
* Information on system requirements for network capacity and computational capability
* Information on performance limitations and potential mitigation
* Anticipated path ahead
* Final identification of all commercial, third-party, or proprietary hardware, software, or technical data integrated into any deliverable and all applicable use restrictions.

### **6.B.9. System for Award Management (SAM)**

Selected offerors not already registered in the Systems for Award Management (SAM) may be required to register in SAM prior to any award under this BAA. Information on SAM registration is available at http://www.sam.gov.

### **6.B.10. Representations and Certifications**

Prospective offerors may be required to complete electronic representations and certifications at http://www.sam.gov. Successful offerors will be required to complete additional representations and certifications prior to award.

### **6.B.11.Wide Area Work Flow (WAWF)**

Unless using another approved electronic invoicing system, the performer may be required to submit invoices for payment directly via the Internet/WAWF at https://wawf.eb.mil. Registration to WAWF may be required prior to any award under this BAA.

### **6.B.12. Lawful Use and Privacy Protection Measures**

All data gathered by performers must be obtained in accordance with U.S. laws and in compliance with the End User License Agreement, Copyright Laws, Terms of Service, and laws and policies regarding privacy protection of U.S. Persons. Before using such data, the performer must provide proof that the data was acquired in accordance with U.S. laws and regulations.

### **6.B.13 Public Access to Results**

IARPA is committed to making the results of this research available and maximally useful to the public, industry, government, and the scientific community, in accordance with the policy set forth in the White House Office of Science and Technology Policy’s memorandum “Increasing Access to the Results of Federally Funded Scientific Research,” dated February 22, 2013, consistent with all other applicable law and policy; agency mission; resource constraints; and U.S. national, homeland, and economic security[[2]](#footnote-2).

Awardees will be required to submit to IARPA the final version of peer-reviewed publication manuscripts related to research funded under this BAA. Awardees will be required to authorize IARPA to release these manuscripts to the public no later than twelve (12) months after the manuscript’s official publication date in a journal or other publication. In addition, IARPA intends to make unclassified data sets, samples, and other supporting materials developed or delivered under awards available to the public, unless IARPA stipulates otherwise or to the extent that such public release would compromise the ability to file for intellectual property protection on any invention arising from the data.

Insofar as possible, all data produced for CREATE, all reports to IARPA, and all CREATE-based publications must follow the suggestions of the Center for Open Science. Insofar as possible, all CREATE publications should qualify for Open Science’s[[3]](#footnote-3) Open Data and Open Materials badges.

To the extent possible, all reports to IARPA and all CREATE]-based publications should be consistent with the statistical and methodological requirements for publication found in the 2014 Psychological Science editorial “Not Business as Usual”.[[4]](#footnote-4)  For example, wherever appropriate, effect sizes and confidence intervals (or the Bayesian equivalents) should be reported, and the data and methodology must be presented so that it is easily used for meta-analysis and independent re-analysis of the data. All offerors are encouraged to include statisticians and methodologists who are expert in these areas. All offerors must describe the plans to ensure that the above requirements are satisfied.

### **6.B.14 Cloud Compatibility**

Software deliverables must be deployable to cloud platforms for testing and must be approvable for production use in the cloud. Technical approaches should generally avoid the following: requiring high-performance, special-purpose, or excessive quantities of virtual hardware not readily available in the cloud; requiring an obscure operating system, middleware, or plug-in code not readily available for use in the cloud or on the desktops used to access the cloud; leveraging inherently risky protocols, e.g., Telnet, or software packages, e.g., FOCI-relevant; or including custom code that is not inspectable by Information System Security professionals.

# APPENDIX A

**Academic Institution Acknowledgment Letter**

**Template**

**IARPA Broad Agency Announcement**

**CREATE**

**(IARPA-BAA-15-11)**

**-- Please Place on Official Letterhead --**

<insert date>

To: Contracting Officer

ODNI/IARPA

Office of the Director of National Intelligence

Washington, D.C. 20511

Subject: Academic Institution Acknowledgment 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 IARPA-BAA-15-11 and is hereby approved by the undersigned official, serving as the president, vice-president, chancellor, vice-chancellor, or provost of the institution.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

<Name> Date

 <Position>

# APPENDIX B

**SAMPLE COVER SHEET**

**for**

**VOLUME 1: Technical/Management Details**

**BROAD AGENCY ANNOUNCEMENT (BAA)**

**CREATE**

**(IARPA-BAA-15-11)**

|  |  |
| --- | --- |
| (1) BAA Number | **IARPA-BAA-15-11** |
| (2) Lead Organization Submitting Proposal |  |
| (3) Type of Business, Selected Among the Following Categories: “Large Business”, “Small Disadvantaged Business”, “Other Small Business”, “HBCU”, “MI”, “Other Educational”, or “Other Nonprofit” |  |
| (4) Contractor’s Reference Number (if any) |  |
| (5) Other Team Members (if applicable) and Type of Business for Each |  |
| (6) Proposal Title |  |
| (7) Technical Point of Contact to Include: Title, First Name, Last Name, Street Address, City, State, Zip Code, Telephone, Fax (if available), Electronic Mail (if available) |  |
| (8) Administrative Point of Contact to Include: Title, First Name, Last Name, Street Address, City, State, Zip Code, Telephone, Fax (if available), Electronic Mail (if available) |  |
| (9) Volume 1 (no more than 35 pages) | Yes/No |
| (10) Restrictions on Intellectual property rights details provided in APPENDIX G format? | Yes/No |
| (11) OCI Waiver or Waiver Request [see Section 3.A.1] Included? | Yes/No |
| (11a) If No, is written certification included (APPENDIX D)? | Yes/No |
| (12) Are one or more U.S. Academic Institutions part of your team? | Yes/No |
| (12a) If Yes, are you including an Academic Institution Acknowledgment Statement with your proposal for each U.S. Academic Organization that is part of your team (APPENDIX A)? | Yes/No |
| (13) Total Funds Requested from IARPA and the Amount of Cost Share (if any) | $ |
| (14) Date Proposal as Submitted. |  |

# APPENDIX C

**SAMPLE COVER SHEET**

**for**

**VOLUME 2: Cost Proposal**

**BROAD AGENCY ANNOUNCEMENT (BAA)**

**CREATE**

**(IARPA-BAA-15-11)**

|  |
| --- |
|  |
| (1) BAA Number | **IARPA-BAA-15-11** |
| (2) Lead organization submitting proposal |  |
| (3) Type of Business, Selected Among the Following Categories: “Large Business”, “Small Disadvantaged Business”, “Other Small Business”, “HBCU”, “MI”, “Other Educational”, or “Other Nonprofit” |  |
| (4) Contractor’s Reference Number (if any) |  |
| (5) Other Team Members (if applicable) and Type of Business for Each |  |
| (6) Proposal Title |  |
| (7) Technical Point of Contact to Include: Title, First Name, Last Name, Street Address, City, State, Zip Code, Telephone, Fax (if available), Electronic Mail (if available) |  |
| (8) Administrative Point of Contact to Include: Title, First Name, Last Name, Street Address, City, State, Zip Code, Telephone, Fax (if available), Electronic Mail (if available) |  |
| (9) Contract type/award Instrument Requested: specify |  |
| (10) Place(s) and Period(s) of Performance |  |
| (11) Total Proposed Cost Separated by Basic Award and Option(s) (if any) |  |
| (12) Name, Address, Telephone Number of the Offeror’s Defense Contract Management Agency (DCMA) Administration Office or Equivalent Cognizant Contract Administration Entity, if Known |  |
| (13) Name, Address, Telephone Number of the Offeror’s Defense Contract Audit Agency (DCAA) Audit Office or Equivalent Cognizant Contract Audit Entity, if Known |  |
| (14) Date Proposal was Prepared |  |
| (15) DUNS Number |  |
| (16) TIN Number |  |
| (17) CAGE Code |  |
| (18) Proposal Validity Period [minimum of 180 days] |  |
| (19) Cost Summaries Provided (APPENDIX E and APPENDIX F) |  |
| (20) Size of Business in accordance with NAICS Code 541712 |  |

# APPENDIX D

**Letter Template**

**For**

**Organizational Conflicts of Interest Certification Letter**

**Template**

**IARPA Broad Agency Announcement (BAA)**

**CREATE**

**(IARPA-BAA-15-11)**

(Month DD, YYYY)

Office of the Director of National Intelligence

Intelligence Advanced Research Projects Activity (IARPA)

Washington, DC 20511

ATTN: Dr. Steve Rieber

Subject: OCI Certification

Reference: CREATE IARPA-BAA-15-11, (Insert assigned proposal ID#, if received)

Dear Dr. Rieber:

In accordance with IARPA Broad Agency Announcement IARPA-BAA-15-11,Section 3.A.1, *Organizational Conflicts of Interest (OCI)*, and on behalf of \_\_\_\_\_\_\_ (offeror name), I certify that neither \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (offeror name) nor any of our subcontractor teammates has as a potential conflict of interest, real or perceived, as it pertains to the CREATE program.

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) (Must be signed by an official that has the authority to bind the organization)

(Insert signature)

(Insert name of signatory)

(Insert title of signatory)

# APPENDIX E

**Sample Prime Contractor Cost Element Sheet**

**For**

**VOLUME 2: Cost Proposal**

**IARPA Broad Agency Announcement (BAA)**

**CREATE**

**(IARPA-BAA-15-11)**

|  |
| --- |
| **PRIME CONTRACTOR COST ELEMENT SHEET [SAMPLE]** |
| **Complete a Cost Element Sheet for the Base Period and each Option Period** |
| **COST ELEMENT** | **BASE** | **RATE** | **AMT** |
| **DIRECT LABOR (List each labor category separately. Identify Key Personnel by name.)** | # of Hours | $ | $ |
| **TOTAL DIRECT LABOR** |  |  | $ |
| **FRINGE BENEFITS** | $ | % | $ |
| **TOTAL LABOR OVERHEAD** | $ | % | $ |
| **SUBCONTRACTORS, IOTS, CONSULTANTS (List separately. See below table.)** |  |  | $ |
| **MATERIALS & EQUIPMENT (List each material and equipment item separately.)** | Quantity | $ unit price | $ |
| **SOFTWARE & INTELLECTUAL Property (List separately. See table below.)** | $ | $ | $ |
| **TOTAL MATERIALS & EQUIPMENT** |  |  | $ |
| **MATERIAL OVERHEAD** | $ | % | $ |
| **TRAVEL (List each trip separately.)** | # of travelers | $ price per traveler | $ |
| **TOTAL TRAVEL** |  |  | $ |
| **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 |
| **SUBCONTRACTOR IOT & CONSULTANT NAME** | **SOW TASKS PERFORMED\*** | **TYPE OF AWARD** | **SUBCONTRACTOR, IOT & CONSULTANT QUOTED PRICE** | **COST PROPOSED BY PRIME FOR THE SUBCONTRACTOR, IOT & CONSULTANT** | **DIFFERENCE (Column D - Column E) IF APPLICABLE** |
|  |  |  |  |  |  |
| 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. |

|  |
| --- |
| **Software and Intellectual Property Costs** |
| **Item** | **Cost** | **Date of Expiration** |
| (List) |  |  |
|  |  |  |
|  |  |  |

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 that are used by their institutions. The methodology must be clear and provide sufficient detail to substantiate proposed labor costs. For example, each labor category must be listed separately; identify key personnel, and provide hours/rates or salaries and percentage of time allocated to the project.

# APPENDIX F

**Sample Subcontractor Cost Element Sheet**

**For**

**VOLUME 2: Cost Proposal**

**IARPA Broad Agency Announcement (BAA)**

**CREATE**

**(IARPA-BAA-15-11)**

|  |
| --- |
| **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.)** | # of Hours | $ | $ |
| **TOTAL DIRECT LABOR** |  |  | $ |
| **SUBCONTRACTORS, IOTS, CONSULTANTS** |  |  | $ |
| **MATERIALS & EQUIPMENT (List each material and equipment item separately.)** | Quantity | $ unit price | $ |
| **TOTAL MATERIALS & EQUIPMENT** |  |  | $ |
| **TRAVEL (List each trip separately)** | # of travelers | $ price per traveler | $ |
| **TOTAL TRAVEL** |  |  | $ |
| **OTHER DIRECT COSTS (List each item separately.)** | Quantity | $ unit price | $ |
| **TOTAL OTHER DIRECT COSTS** |  |  | $ |
| **TOTAL PRICE/COST** |  |  | $ |

|  |
| --- |
| **Software and Intellectual Property Costs** |
| **Item** | **Cost** | **Date of Expiration** |
| (List) |  |  |
|  |  |  |
|  |  |  |

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 that are used by their institutions. The methodology must be clear and provide sufficient detail to substantiate proposed labor costs. For example, each labor category must be listed separately; identify key personnel, and provide hours/rates or salaries and percentage of time allocated to the project.

# APPENDIX G

**Restrictions on Intellectual Property Rights**

**For**

**VOLUME 1: Technical and Management Proposal**

**(OPTIONAL)**

**IARPA Broad Agency Announcement (BAA)**

**CREATE**

**(IARPA-BAA-15-11)**

APPENDIX G

**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) |
|  |  |  |  |

**Additional information required by BAA sections 4.B.1.3.D, 4.B.1.3.E, and 6.B.2.A:**

**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) |
|  |  |  |  |

**Additional information required by BAA sections 4.B.1.3.D, 4.B.1.3.E, and 6.B.2.B:**

**Patents**

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

**Additional information required by BAA sections 4.B.1.3.D, 4.B.1.3.E, and 6.B.2.C:**

1. See for example “A Tradecraft Primer: Structured Analytic Techniques for Improving Intelligence Analysis,” https://www.cia.gov/library/center-for-the-study-of-intelligence/csi-publications/books-and-monographs/Tradecraft%20Primer-apr09.pdf, pp. 14-15. [↑](#footnote-ref-1)
2. https://www.whitehouse.gov/sites/default/files/microsites/ostp/ostp\_public\_access\_memo\_2013.pdf [↑](#footnote-ref-2)
3. Open Science (2013). Badges to acknowledge open practices. https://openscienceframework.org/project/TVyXZ/ [↑](#footnote-ref-3)
4. Psychological Science (2014) http://pss.sagepub.com/content/25/1/3 [↑](#footnote-ref-4)