

**BROAD AGENCY ANNOUNCEMENT (BAA)**

**BAA-RWK-2015-0002**

**FULL TEXT ANNOUNCEMENT**

**NAICS: 541712 (Size Standard: 500 Employees)**

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

**BROAD AGENCY ANNOUNCEMENT TITLE:** Celestial-aided Strike at Any Range

**BROAD AGENCY ANNOUNCEMENT TYPE:** Initial Announcement

**BROAD AGENCY ANNOUNCEMENT NUMBER:** BAA-RWK-2015-0002

**CATALOG OF FEDERAL DOMESTIC ASSISTANCE (CFDA) NUMBER(S):** 12.800 AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM

**WHITE PAPER DUE DATE AND TIME:** White Papers are due by 2:00 pm Central Time on 27 Mar 2015. Deliver to: AFRL/RW, ATTN: Ms. Theresa Hughes, 101 West Eglin Blvd, Suite 207, Eglin AFB, FL 32542-6810. White Papers received after this due date and time shall be governed by the provisions of FAR 52.215-1(c)(3). See Section IV for additional information. Early White Paper submission is encouraged.

It should be noted that this installation observes strict security procedures to enter the facility. These security procedures are NOT considered an interruption of normal Government processes, and White Papers received after the above stated date and time as a result of security delays will be considered "late." Furthermore, note that if offerors utilize commercial carriers in the delivery of White Papers, they may not honor time-of-day delivery guarantees on military installations.

## **OTHER THAN WHITE PAPERS, NO PROPOSALS SHOULD BE SUBMITTED**

**AGAINST THIS BAA:** A letter requesting a Full Proposal (RFP) will be issued by the Contracting Officer (CO) when needed after a technical review of White Papers. Due dates and times will be specified in each letter requesting a Full Proposal issued by the CO in accordance with the instructions for Full Proposals in response to White Papers provided in this document. There will be no other announcement issued for this requirement. Offerors should monitor the Federal Business Opportunities website at <http://www.fbo.gov> in the event this announcement is amended.

### **I. PROGRAM DESCRIPTION**

The Air Force Research Laboratory Munitions Directorate, Contracting Division (AFRL/RWK) is soliciting White Papers for the Celestial-aided Strike at Any Range (CStAR) Program. Originators of White Papers selected for further consideration may subsequently be requested to submit formal written technical and cost proposals. Full Proposals submitted in response to this BAA that are selected for award are considered to be the results of full and open competition and in full compliance with the provisions of PL 98-369, the Competition in Contracting Act of 1984.

#### **Introduction:**

The purpose of this BAA is for industry to assist in the design and development of a celestial-aided navigation solution.

Over the last several years, many potential adversaries have invested significantly in counter measures associated with Global Positioning System (GPS) guided weapons. This has introduced many challenges associated with GPS navigation, particularly over featureless terrain such as desert, water, snow, and ice where proven terrain aided methods may not be used for position, navigation, and timing (PNT) updates.

The Air Force Research Laboratory's (AFRL's) response to this challenge is the Celestial-aided Strike at Any Range (CStAR) program. The CStAR program will reduce the risk for GPS denied Guidance, Navigation, and Control (GNC) for the Weapons Enterprise by developing an integrated navigation solution to address the problem of PNT in contested/denied environments.

For purposes of this announcement, AFRL/RW intends to contract for research in navigation technologies. Research includes scientific study and experimentation directed at navigation design and test. Efforts proposed under this BAA should be designed to demonstrate well defined and substantive research results, should not be overly ambitious or open-ended, and should not be a paper study that inherently requires a substantial testing effort. The Government is interested in multiple, diverse approaches to achieving the program objectives. The Government highly encourages component technologies applicable to the CStAR Phase 1 program be selected from ongoing programs with secured funding. Components may be selected from existing DoD investments, company product line investments, existing Independent Research and Development (IRAD) programs, etc. The Government has invested in the development

and maturation of a number of component technologies applicable to the CStAR program. Many of these efforts have been presented to interested bidders at the CStAR Industry Day for consideration of inclusion in the program but this does not preclude the use of other technologies. All component technologies will require justification and rationale for their selection to include but not limited to maturity, performance, schedule, cost, etc.

### **Program Objective:**

General Program Objective: The CStAR program will consist of 2 Phases.

The objectives for Phase 1 include:

- develop estimation/filter approach and assess, identify, and track maturity risks associated with ongoing component technologies considered for integration
- generate an analysis framework that links component attributes and platform dynamics to navigation accuracy (e.g. error model) and perform appropriate trade studies and analyses
- requirements flow down to the component level
- select and integrate component technologies to develop a navigation solution
- measure performance/identify limitations of the integrated navigation solution in non-form factored Critical Experiments

The objectives for Phase 2 include:

- form factor and demonstrate the navigation solution in a flight environment

The overall vision for the CStAR program (Phases 1 and 2) is to reduce the technical risk to future weapon systems by demonstrating an integrated navigation solution that can later be tailored to a specific weapon platform. This BAA covers the CStAR Phase 1 effort only. The Government intends to use a future BAA for CStAR Phase 2.

Specific CStAR Phase 1 Program Objectives and Requirements: The Celestial-aided Weapons Navigation Technology Security Classification Guide with Appendix and CStAR Phase 1 Specific Program Objectives and Requirements will be provided in accordance with the instructions found in Section I.(9)d. below.

**(1) Program Tasking:** The task is anticipated to include design, analysis, modeling and simulation, suitable prototype unit development for the Critical Experiments, development of Critical Experiment procedures, conducting the Critical Experiments, and cost analysis.

- a. Trade Study: The contractor team shall perform analyses and trade studies to define the celestial-aided navigation solution. These trade studies shall then be used to guide the development and integration of the navigation solution.

- b. Design Analysis: The contractor shall conduct analyses as necessary to predict and verify interdependencies of the components to meet the requirements and verify subsystem/component functional characteristics.
  - c. Modeling and Simulation: The contractor shall perform necessary modeling and simulation to predict performance requirements.
  - d. Critical Experiment Prototype Units: The contractor shall produce suitable integrated navigation solution prototype units to be used for the CStAR Phase 1 Critical Experiments
  - e. Hardware: The contractor shall identify supporting hardware needed for the Critical Experiments (either by fabrication or otherwise) along with associated costs.
  - f. Critical Experiment Procedures: The contractor shall develop a procedure(s) to demonstrate that performance of the prototype system meets or exceeds the requirements and include all ground and flight experiments, as well as an associated cost estimate. The contractor shall identify all necessary GFE and other assets, if any, to include experimental facilities and incorporate them into the test plan.
  - g. Early Consideration for Manufacturing: The contractor shall conduct a Manufacturing Readiness Assessment (MRA) of the non-form factored CStAR navigation subsystem in order to determine the Manufacturing Readiness Level (MRL) of key components. The contractor shall conduct this review prior to the end of the CStAR Phase 1 program after the critical technology items have been identified.
- (2) Risk:** The contractor shall identify risks associated with component technologies, integration efforts, and ground and flight experiments for all phases of the CStAR Program. The contractor is responsible for utilizing a risk management process, determining all major program risks, assigning values to those risks, and developing mitigations for those risks. The contractor team shall make risk evaluation a component of all technical reviews. The contractor shall provide an early consideration of the manufacturability and producibility of key components and subsystems for the CStAR program. Potential manufacturing risk areas shall be identified in order to develop early risk mitigation plans. In addition, any critical material needs shall be identified to ensure future availability, producibility, and affordability.
- (3) Management:** The contractor shall be responsible for meeting all requirements of this effort, including but not limited to: cost, technical, safety, schedule, security and subcontractor management. The contractor shall communicate the technical and programmatic status through Data Requirements submissions discussed in Section I.(4) and scheduled meetings discussed in Section I.(5). In addition to the interim and

final reviews, informal program status interchanges (such as bi-weekly teleconferences) are anticipated.

**(4) Data Requirements:** The following data submittals are expected to be required for each contract awarded;

- a. Monthly Status Reports for Cost, Schedule, and Technical Performance
- b. Contract Work Breakdown Structure
- c. Quarterly Contract Funds Status Reports
- d. Program Review Material
- e. Sensor and Measurement Models
- f. Algorithm Description Reports
- g. Error Budget and Flow Down Reports
- h. Design Drawings
- i. Critical Experiment Procedures
- j. Critical Experiment Data
- k. System Engineering Management Plan
- l. Final Technical Report
- m. The contractor may propose additional elements or submittal of combined elements or Data Item Descriptions (DIDs) as appropriate for the proposed program.

**(5) Meetings and Reviews:** The Government anticipates the following program meetings and reviews:

- a. Kickoff within 1 month of contract award at contractor's facilities
- b. Bi-weekly status telecons
- c. Interim Technical Interchange Meeting (TIM) after 3 months and/or at times coinciding with key program milestones or decision points that alternate between the contractor's facilities and Eglin AFB, FL
- d. Critical Experiment Planning Meetings

- e. Final Program review at completion of the program at Eglin AFB, FL

The contractor may propose to conduct or participate in other meetings with subcontractors, Government agencies, or third parties, as deemed necessary. The contractor may also propose different meeting locations for the formal reviews based on technical and or programmatic requirements.

**(6) Schedule:** The offeror's submission must include a CStAR Phase 1 program schedule consistent with a 36 month (or less) development and experiment approach for the integrated navigation solution. The Government is targeting FY15QTR4 CStAR Phase 1 contract award(s) and anticipates conducting the CStAR Phase 1 Critical Experiment in FY18QTR3. Accelerated development and experiment approaches (if feasible) are encouraged.

**(7) Expenditure Goals:** A detailed spend plan is not expected for White Paper submissions. Selected offeror's Full Proposal submission(s) must include a spend plan which predicts expenditure goals (per fiscal year and month). It is strongly encouraged that the offeror's spend plan is similar to the published OSD expenditure goals. A standard for expenditure goals is provided below. The Government is targeting FY15QTR4 CStAR Phase 1 contract award(s).

**FY15 Funding Expenditure Goals**

55% of total FY15 funding expended by end of Dec 2015  
100% of total FY15 funding expended by end of Sep 2016

**FY16 Funding Expenditure Goals**

65% of total FY16 funding expended by end of Sept 2016  
100% of total FY16 funding expended by end of Sep 2017

**FY17 Funding Expenditure Goals**

65% of total FY17 funding expended by end of Sept 2017  
100% of total FY17 funding expended by end of Sep 2018

**FY18 Funding Expenditure Goals**

40% of total FY18 funding expended by end of Feb 2018  
100% of total FY18 funding expended by end of Jun 2018

## (8) Other Requirements:

- a. **Program Security Requirements:** Portions of this program will be classified at the Secret level and a DD Form 254 will apply to the awarded contract. Thus, offerors must verify their Cognizant Security Office information is current with Defense Security Service (DSS) at [www.dss.mil](http://www.dss.mil).
- b. **Emissions Security (EMSEC)** requirements will apply. Generation of classified material is authorized only on equipment approved for classified processing by Air Force EMSEC authorities. See Section I.(9)d. to request the Celestial-aided Weapons Navigation Technology Security Classification Guide.
- c. **ITAR:** International Traffic in Arms Regulations and Public Law 98-94 (export control) will apply to this effort.
- d. **Data Rights:** It is anticipated that all data delivered under any resulting award will be delivered with unlimited rights; however different rights may be negotiated as appropriate. The contractor shall identify data rights assertions, licenses, patents, etc. that apply to any proprietary materials, technical data, products, software, or processes to be used by the prime or subcontractor(s) in the performance of this program; and shall address acquisition of data rights or licenses, or expected recoupment of development costs for those proprietary items that will be integral to the design. The contractor shall specifically address data rights/proprietary issues at each meeting discussed in Section I.(5). The contractor shall specifically address inventions/patents identified in the performance of the program at each meeting discussed in Section I.(5).
- e. **Subcontracting Plans:** Subcontracting plans will be required in accordance with [FAR 19.702](#) Small Business Programs.

## (9) Other Information:

- a. **Government Furnished Property (GFP):** The Government may assist in providing GFP, based on availability, if requested. Therefore, the offeror shall include a detailed list of Government resources, with their associated approximate value (if known), required to execute a contract in a timely and cost effective manner.
- b. **Base Support/Network Access:** The offeror should identify any they believe is necessary in their White Paper and any subsequent proposals.
- c. **Hazardous Materials:** The contractor must identify any hazardous materials to be used in performance of this effort in the White Paper and any subsequently requested proposals.

- d. Request for Celestial-aided Weapons Navigation Technology Security Classification Guide with Appendix and CStAR Phase 1 Specific Program Objectives and Requirements:** To receive the Celestial-aided Weapons Navigation Technology Security Classification Guide with Appendix and CStAR Phase 1 Specific Program Objectives and Requirements, the offeror must be certified to receive military critical technical data under the US/Canada Joint Certification Program (JCP) ([www.dlis.dla.mil/jcp](http://www.dlis.dla.mil/jcp)). To request the Celestial-aided Weapons Navigation Technology Security Classification Guide with Appendix and CStAR Phase 1 Specific Program Objectives and Requirements, forward a written request for release of export-controlled data related to the CStAR Program to [AFRL.RWW.Programs@us.af.mil](mailto:AFRL.RWW.Programs@us.af.mil) via email. The written request shall include:
- i. Certified copy of a DD Form 2345, Militarily Critical Technical Data Agreement
  - ii. Commercial and Government Entity (CAGE) code
  - iii. Approved address to receive classified mail
  - iv. Cognizant Defense Security Service office name/address
  - v. Facility Security Officer: name, phone, email, fax
  - vi. Name, phone, email, and fax of the person to receive the Celestial-aided Weapons Navigation Technology SCG with Appendix and CStAR Phase 1 Specific Program Objectives and Requirements

No supplemental documentation will be provided unless requested in strict accordance with these instructions.

## **II. AWARD INFORMATION**

- (1) Type of Contract:** The Government anticipates negotiating a Cost Plus Fixed Fee contract type for this effort.
- (2) Anticipated Number of Awards:** The Government anticipates negotiating one or more Cost Plus Fixed Fee contracts for the program. However, the Government reserves the right to award one, multiple, or no contracts pursuant to the BAA.
- (3) Anticipated Award Date:** The Government expects to receive White Papers within 20 days of publication of this BAA. The Government intends to evaluate White Papers and request Full Proposals from selected offerors. The Government may request discussions with selected offerors prior to Full Proposal submission.

Full Proposals are intended to be evaluated, and awards made without discussions, unless discussions are determined to be necessary. However, the Government may obtain clarifications to determine proposal acceptability. Discussions may be held with prospective awardees prior to award, if needed. In the event the Government is unable to conclude negotiations with the apparent successful offeror(s), it reserves the right to conduct negotiations with another acceptable offeror. Offerors are cautioned that only Contracting Officers are legally authorized to obligate funds and

commit the Government. The Government expects to receive Full Proposals within 30 days after request, and to negotiate and award one, or multiple awards within 8 weeks thereafter.

**(4) Anticipated Period of Performance:** The CStAR Phase 1 Program contract period will be 39 months (36 months for the technical effort, 1 month for first submission of the Final Report, 2 months for revisions and contract close-out).

**(5) Anticipated Funding:** All funding is subject to change due to Government discretion and availability. All potential offerors should be aware that due to unanticipated budget fluctuations, funding may change with little or no notice.

Not to Exceed (NTE) values for the CStAR Phase 1 program are listed below:

**Total Phase 1: NTE \$5.71M**

**FY15: NTE \$910K**

**FY16: NTE \$2.0M**

**FY17: NTE \$1.8M**

**FY18: NTE \$1.0M**

The Government will allow the offeror(s) to submit additional priced risk reduction activities, with justification for the activity, that exceed the NTE funding requirements in a separate priced listing by FYQTRs. The offeror(s) must provide the lowest risk White Paper/Full Proposal within the NTE requirements and must not require the additional risk reduction activities for the program to be successful.

The additional risk reduction activities allow the offeror(s) an opportunity to provide the Government with options for “buying down risk” to the program. The Government may choose to select none, one or any combination of risk reduction activities at the additional cost if it chooses.

### **III. ELIGIBILITY INFORMATION**

**(1) Eligible Offeror/Applicants/Notice to Foreign-owned Firms:** All applicants are potentially eligible, with the exception of foreign-owned offerors. A determination has been made for this solicitation, that all foreign participation at the prime contractor and subcontractor levels will be prohibited, with the exception of those with an appropriate Special Security Agreement (SSA) in place with the U.S. Government. Foreign or foreign-owned offerors should immediately contact the contracting office focal point for information if they contemplate responding. All correspondence must reference the title and BAA number.

**(2) Cost Sharing or Matching:** Cost sharing is not a requirement.

#### IV. WHITE PAPER AND FULL PROPOSAL APPLICATION/SUBMISSION INFORMATION

**(1) Application Package: THIS ANNOUNCEMENT CONSTITUTES THE ONLY SOLICITATION, AND WE ARE SOLICITING WHITE PAPERS ONLY FOR THE PHASE 1 CStar BAA. DO NOT SUBMIT A FULL PROPOSAL AT THIS TIME.**

Those offerors whose White Papers are found to be consistent with the intent of this BAA may later be invited to submit a technical and cost proposal. Offerors whose White Papers are not selected may contact the technical POC for feedback on their submission; however formal debriefings will not be provided.

**(2) General:**

- a. Offerors should be alert to any amendments that may be published. The Government reserves the right to amend due dates or other data as necessary, and to make awards without discussion.
- b. Multiple White Papers within the purview of this announcement may be submitted by an offeror.
- c. If an offeror wishes to restrict access to his/her White Paper/Proposal, it must be marked with the restrictive language stated in [FAR 52.215-1\(e\)](#). Restriction on Disclosure and Use of Data, to trade secrets or privileged commercial and financial information contained in the White Papers (and Full Proposals, if requested). For Full Proposals, submit separate Technical and Cost Volumes, and mark them as valid for 180 days. Volume 1 should provide the Technical proposal, and should be unclassified, if possible. Volume 2, Cost Proposal, must be unclassified, and should address the price and cost details.

**(3) Content and Form of Submission of White Papers:** Offerors are required to submit either 1 electronic copy or 2 paper copies of a White Paper, not exceeding 15 pages single spaced with a font no smaller than 12 pitch, summarizing their proposed approach/solution. In addition, offerors are requested to provide their Commercial and Government Entity (CAGE) number, their Dun & Bradstreet Data Universal Numbering System (DUNS) number, a fax number, an e-mail address, and reference BAA-RWK-2015-0002 with their submission. Any pages in excess of the stated page limitation will be removed (after page 15) and will not be evaluated. The purpose of the White Paper is to preclude unwarranted effort on the part of an offeror whose proposed work is not of interest to the Government. **Offerors must properly mark submittal material in accordance with the Celestial-aided Weapons Navigation Technology Security Classification Guide. Any classified material must be provided in a separate Annex and must be properly marked as such. To reduce the risk of a security incident during White Paper submissions, offerors must handle all documents (both unclassified and classified) as classified during the White Paper submission process and submit White Papers to Ms. Theresa Hughes AFRL/RWWI, 101 W. Eglin Blvd, Bldg 13, Suite**

**207, Eglin AFB FL 32542-6810 via a classified package.** The format for the White Paper is as follows:

Section A: Cover Page (this section is NOT included in the page count).

BAA Reference number "BAA-RWK-2015-0002"

Title of Paper, Period of Performance

Estimated Cost

Name/Address of Company

Commercial and Government Entity (CAGE) number

Dun & Bradstreet (D&B) Data Universal Numbering System (DUNS) number,

Technical and Contracting Points of Contact (phones, fax and emails)

Section B: White Paper Details

- (1) White Papers shall address all areas indicated by the Factors and Evaluation Criteria, including how the contractor intends to achieve the CStAR Phase 1 objectives and requirements and solve the Technical Challenges for the program based on the anticipated funding.
- (2) A rough order of magnitude (ROM) cost estimate broken down by task shall be provided.
- (3) A schedule of technical and programmatic activities shall be provided.
- (4) Discuss risk (technical, schedule and cost) assessment, technology maturity levels and maturity plans required to meet objectives and requirements, and identify the modeling and simulation (M&S) software that will be used in system design and effectiveness assessments.

**(4) Content and Form of Full Proposals:** The Government reserves the right to request one, multiple or no proposals as a result of the White Paper evaluations. **In the event that the White Paper results in an invitation to submit a Full Proposal,** the paragraphs below identify proposal format and content. Offerors must submit one (1) original and two (2) paper copies, and one (1) electronic copy (on a CD or DVD) of both the Technical and Cost proposals. Offerors must properly mark submittal material in accordance with the Celestial-aided Weapons Navigation Technology Security Classification Guide. Any classified material must be provided in a separate Annex and must be properly marked and handled as such.

**a. Volume 1- Technical Proposal:**

**(i) Page Limitation:** The Proposal shall be limited to 50 pages, prepared and submitted in Microsoft Word format. Font shall be standard 10-point business font Arial or Times New Roman. Character spacing must be "normal," not condensed in any manner. Pages shall be single-spaced, single-sided, 8.5 by 11 inches, with at least one-inch margins on all sides. All text, including text in tables, must adhere to all font size and line spacing requirements listed herein. Font and line spacing requirements do not have to be followed for illustrations, flowcharts, drawings, and diagrams. These exceptions shall not be used to circumvent formatting requirements and page count limitations by including lengthy narratives in such items. The page limitation covers all

information except the cover page. **Any pages in excess of the stated page limitation will be removed (after page 50) and will not be considered.**

(ii) The Technical Proposal shall fully address the approach in accomplishing the program objectives and requirements and solving the Technical Challenges for the program. The contractor must also provide a summary of relevant past and present capabilities and experience. Both corporate and individual experience should be addressed. The offeror must provide sufficient technical discussion and technical detail to establish the soundness of the proposed approach; provide an adequate basis for assessing program technical cost and schedule risk; and form a sound basis for the cost proposed. The technical proposal shall also include an approach to conducting the Critical Experiments, with a supporting matrix and discussion, which identifies all contractor- and Government-conducted experiments, as well as the facilities at which the experiments are to occur. The contractor must demonstrate knowledge of the systems engineering process and make realistic assumptions of how the proposed technology enhances performance at the missile system level, GNC subsystem level, and component levels; identify any perceived risks, and risk mitigation actions to be taken.

**b. Volume 2 – Cost Proposal:**

Cost proposals have no page limitations; however, offerors are requested to keep cost proposals under 50 pages as a goal. See FAR Table 15.2 for specific information for adequate cost proposal requirements. Cost proposal spreadsheets must be submitted in Microsoft Excel format. The **formal cost proposal** must include and segregate the contract costs by year, and also provide a total summary. The contract costs shall include, as a minimum, a labor category and man-hour breakdown **by task**, including applicable labor rates, a cost element summary including labor, travel, other direct costs, consolidated bill of material, overheads, G&A, fee, etc., and reflecting **all rates** for the contract and data, and an expenditure schedule for the entire program. Refer to FY15-FY18 expenditure goals in Section I.(7). The offeror shall include estimates for the cost/value of any Government Furnished Property (GFP), and all costs expected to be incurred by the Government associated with providing the equipment, facilities and support necessary to meet the contractor's testing requirements. Any costs associated with data or data rights shall be separately identified in the cost proposal. Certified Cost or Pricing data shall be required in accordance with [FAR 15.403](#).

**c. Cover Page:** Both the Technical and Cost proposal must have a cover page with the following information: BAA Reference number "BAA-RWK-2015-0002", Title of Paper, Period of Performance, Estimated Cost, Name/Address of Company, Commercial and Government Entity (CAGE) number, Dun & Bradstreet (D&B) Data Universal Numbering System (DUNS) number, Technical and Contracting Points of Contact (phones, fax and emails). The Cover Page is NOT included in the page count.

**(5) Submission Dates and Times:** White papers are due by 2:00 PM Central Time on 27 Mar 2015. White Papers received after this due date and time shall be governed by the provisions of [FAR 52.215-1\(c\)\(3\)](#). Offerors must properly mark submittal material in accordance with the Celestial-aided Weapons Navigation Technology Security

Classification Guide. Any classified material must be provided in a separate Annex and must be properly marked as such. To reduce the risk of a security incident during White Paper submissions, offerors must handle all documents (both unclassified and classified) as classified during the White Paper submission process and submit White Papers to Ms. Theresa Hughes AFRL/RWWI, 101 W. Eglin Blvd, Bldg 13, Suite 207, Eglin AFB FL 32542-6810 via a classified package.

**(6) Funding Restrictions:** The cost of preparing White Papers/Full Proposals in response to this announcement is not considered an allowable direct charge to any resulting contract or any other contract, but may be an allowable expense to the normal bid and proposal indirect cost specified in [FAR 31.205-18](#).

**(7) Contractual Authority:** Offerors are advised that only the Contracting Officer is legally authorized to contractually bind or otherwise obligate the Government. The Government reserves the right to award one, multiple, or no contracts, based on the proposals received and the requirements of the Government.

**(8) Other Submission Requirements:** If the offeror chooses to submit White Papers in hard copy, they must be submitted directly to the program manager and all documents shall reference BAA-RWK-2015-0002. Offerors must properly mark submittal material in accordance with the Celestial-aided Weapons Navigation Technology Security Classification Guide. Any classified material must be provided in a separate Annex and must be properly marked as such. To reduce the risk of a security incident during White Paper submissions, offerors must handle all documents (both unclassified and classified) as classified during the White Paper submission process and submit White Papers to Ms. Theresa Hughes AFRL/RWWI, 101 W. Eglin Blvd, Bldg 13, Suite 207, Eglin AFB FL 32542-6810 via a classified package.

## V. WHITE PAPER/ FULL PROPOSAL REVIEW INFORMATION

The Government reserves the right to request one, multiple or no proposals as a result of the White Paper evaluations.

**(1) White Paper Evaluation Criteria:** White Papers will be evaluated through a peer or scientific review process. White papers shall include a list of component candidates considered for integration (to include component performance history and heritage as well as both TRL and MRL), their respective anticipated design and performance characteristics, and information on which agency/company/program has secured funding to continue with component development work (technical milestones and schedule). White papers shall also include an overview of how these component technologies will be tracked during development and a plan for performing trade studies and integration work for the integrated navigation solution. White papers shall also include anticipated design and performance characteristics of the integrated navigation solution. The following Factors, listed in descending order of importance, will be used to determine whether Full Proposals will be invited based on the White Paper submitted:

### **Factor 1: Overall Scientific and Technical Merit**

An integrated assessment of the proposed technical approach to include scientific and technical merits and the potential contribution of the effort, including baseline system architecture, algorithmic methodologies, and component candidate selection and integration process.

### **Factor 2: Importance to Agency Programs**

The offeror demonstrates its capability to transition the technology to the research, industrial, and military communities in such a way as to enhance U.S. defense.

### **Factor 3: Offeror's Capabilities and/or Related Experience**

The offeror's capabilities, facilities and prior experience in similar efforts to accomplish the project. The offeror holds a current Contractor and Government Entity (CAGE ) code and facility clearance and safeguarding capabilities are verifiable in the Industrial Security Facilities Database for classified information.

### **Factor 4: Cost Realism and Reasonableness**

The proposed ROM is realistic for the technical and management approaches offered, including schedule, and determine the offeror's practical understanding of the effort.

**(2) Full Proposal Evaluation Criteria:** Full Proposals will be evaluated as to their projected success in achieving the objectives/requirements outlined in this BAA. Selections will be made based on the Best Value to the Government. Awards may be made without discussions. Full Proposals shall include a list of component candidates considered for integration (to include component performance history and heritage as well as both TRL and MRL), their respective anticipated design and performance characteristics, and information on which agency/company/program has secured funding to continue with component development work (technical milestones and schedule). Full Proposals shall also include an overview of how these component technologies will be tracked during development and a plan for performing trade studies and integration work for the integrated navigation solution. Full Proposals shall also include anticipated design and performance characteristics of the integrated navigation solution. Factors are listed in descending order of importance. All evaluation factors other than cost or price, when combined, are significantly more important than cost or price.

### **Factor 1: Overall Scientific and Technical Merit**

An integrated assessment of the proposed technical approach to include scientific and technical merits and the potential contribution of the effort, including baseline system architecture, algorithmic methodologies, and component candidate selection and integration process. Task descriptions and associated technical elements provided are complete and in a logical sequence with all proposed

deliverables clearly defined such that a final product that achieves the goal can be expected as a result of award. The Full Proposal clearly identifies major technical risks and clearly defines feasible planned mitigation strategies and efforts to address those risks. The Full Proposal clearly explains the technical approach(es) that will be employed to address the CStAR Phase 1 effort and Technical Challenges listed in previous sections of this BAA and provides ample justification as to why the approach(es) is/are feasible (to include supported error budget, current shortcomings in system or sensor performance and SWaP-C, as well as mitigation/development plans to meet weapon performance and SWaP-C specifications by the end of Phase 2). Deliverables of the contractor and all subcontractors shall be clearly identified through a logical, well structured, and traceable technical plan.

### **Factor 2: Importance to Agency Programs**

The offeror demonstrates its capability to transition the technology to the research, industrial, and military communities in such a way as to enhance U.S. defense. In addition, the evaluation will take into consideration the extent to which the proposed intellectual property (IP) rights will potentially impact the Government's ability to transition technology (a statement is still required if no IP rights are asserted).

### **Factor 3: Offeror's Capabilities and/or Related Experience**

The offeror's capabilities, facilities and prior experience in similar efforts must clearly demonstrate an ability to deliver products that meet the proposed technical performance within the proposed budget and schedule. The offeror holds a current Contractor and Government Entity (CAGE) code and facility clearance and safeguarding capabilities are verifiable in the Industrial Security Facilities Database for classified information. The proposed team has the expertise to manage the cost and schedule. Similar efforts completed/ongoing by the offeror in this area are fully described including identification of other Government sponsors.

### **Factor 4: Cost Realism and Reasonableness**

The proposed costs are reasonable and realistic for the technical and management approaches offered, including schedule, and reflect the offeror's practical understanding of the effort. The Full Proposal will be reviewed to determine if the costs proposed are based on realistic assumptions, reflect a sufficient understanding of the technical goals and objectives of the BAA, and are consistent with the offeror's technical approach (to include the proposed Statement of Work). This will involve the review, at the prime and subcontract level, of the type and number of labor hours proposed per task as well as the types and kinds of materials, equipment and fabrication costs proposed. It is expected

that the effort will leverage all available relevant prior research in order to obtain the maximum benefit from the available funding. The evaluation criterion recognizes that undue emphasis on cost, which may motivate offerors to offer low-risk ideas with minimum uncertainty or to staff the effort with junior personnel in order to be in a more competitive posture, is discouraged.

**(3) White Paper and Full Proposal Risk Assessment/Criteria:** Risks for technical, cost, and schedule will be assessed for White Papers and Full Proposals, should they be requested, as part of the evaluation of the above evaluation criteria. Risk relates to the identification and assessment of the risks associated with an offeror's proposed approach as it relates to accomplishing the proposed effort. Tradeoffs of the assessed risk will be weighed against the potential scientific benefit. Risk for schedule relates to an assessment of the risks associated with the offeror's proposed number of hours, labor categories, materials, or other cost elements as it relates to meeting the proposed period of performance. Risk may be assessed as High, Moderate, or Low.

**High:** Likely to cause significant disruption of schedule, increase cost, or degradation of performance. Risk may be unacceptable even with special contractor emphasis and close Government monitoring.

**Moderate:** Can potentially cause some disruption of schedule, increase cost, or degradation of performance. Special contractor emphasis and close Government monitoring will probably be able to overcome difficulties.

**Low:** Has little potential to cause disruption of schedule, increase cost, or degradation of performance. Normal contractor effort and normal Government monitoring will probably be able to overcome difficulties.

**(4) Specific Criteria for White Paper Selection and Full Proposal Award:** The factors identified below, listed in descending order of importance will be considered during White Paper and Full Proposal evaluation.

**Factors 1, 2, 3 and 4 Evaluation Criteria:**

Exceeds the criteria (evaluation team should address key aspects of the Full Proposal which demonstrate why the Full Proposal exceeds the criteria) \*Exceeds will only be used for Full Proposal evaluation

Meets the criteria (evaluation team should address key aspects of the White Paper/Full Proposal which demonstrate why the White Paper/Full Proposal meets the criteria)

Does not meet the criteria (evaluation team should address key aspects of the White Paper/Full Proposal which demonstrate why the White Paper/Full Proposal does not meet the criteria)

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

**Category I:** Proposal is well conceived, scientifically and technically sound, pertinent to the program goals and objectives, and offered by a responsible contractor with the competent scientific and technical staff and supporting resources needed to ensure satisfactory program results. Proposals in Category I are recommended for acceptance (subject to availability of funds) and normally are displaced only by other Category I proposals.

**Category II:** Proposal is scientifically or technically sound, requiring further development and is recommended for acceptance, but at a lower priority than Category I.

**Category III:** Proposal is not technically sound or does not meet agency needs.

**No further evaluation criteria will be used.** Individual White Papers/Full Proposals will be evaluated against the evaluation criteria without regard to other White Papers and Full Proposals submitted under this BAA. White Papers and Full Proposals submitted will be evaluated as they are received.

It is the policy of AFRL/RW to treat all White Papers and Full Proposals as privileged information, and to disclose the contents only for the purposes of evaluation. Those selected as a result of initial review will be subject to an extensive evaluation by highly qualified Government scientists. The offeror must appropriately indicate any limitation to be placed on disclosure of information contained in the White Paper or Full Proposal. Should portions of a proposal be incorporated into a resulting contract, that portion may be subject to release under the Freedom of Information Act unless exempt from release.

## **VI. AWARD ADMINISTRATION INFORMATION**

**(1) Selection Notices for White Papers:** Those White Papers evaluated in accordance with Section V.(1) and determined to be of Best Value to the Government **may** be invited to submit a technical and cost proposal. Notification by email or letter will be sent by the contracting or technical POC. Such invitation does not assure that the submitting organization will be awarded a contract. Those White Papers not selected to submit a Full Proposal will be notified in the same manner. Prospective offerors are advised that only Contracting Officers are legally authorized to commit the Government.

Offerors may request status of their White Paper no earlier than 15 days after submission.

**(2) Award Notices for Full Proposals:** Offerors will be notified whether their Full Proposal is recommended for award, by letter or e-mail. The notification is not to be construed to mean the award of a contract is assured, as availability of funds and successful negotiations are prerequisites to any award. The Government reserves the right to award one, multiple, or no contracts pursuant to this BAA.

**(3) Administrative and National Policy Requirements:** Depending on the work to be performed, the offeror may require a classified facility clearance and safeguarding

capability; therefore, personnel identified for assignment to a classified effort must be cleared for access to information at the equivalent level of security at the time of award. In addition, the offeror may be required to have, or have access to, a certified and Government-approved facility to support work under this BAA. Data subject to export control constraints may be involved and only firms holding certification under the US/Canada Joint Certification Program (JCP) ([www.dlis.dla.mil/jcp](http://www.dlis.dla.mil/jcp)) are allowed access to such data.

**(4) Reporting:** Contractors should expect any contract resulting from this BAA would contain the requirement to provide various types of periodic and final technical reports, and possibly cost and other reports.

**(5) Data Rights Assertions:** It is anticipated that all data delivered under any resulting award will be delivered with unlimited rights; however different rights may be negotiated as appropriate. The contractor shall identify data rights assertions, licenses, patents, etc. that apply to any proprietary materials, technical data, products, software, or processes to be used by the prime or subcontractor(s) in the performance of this program; and shall address acquisition of data rights or licenses, or expected recoupment of development costs for those proprietary items that will be integral to a resulting contract. Any data delivered or anticipated to be delivered with less than unlimited rights must be reported in a separate, appropriately marked appendix to the final report of any awarded contract resulting from this BAA.

**(6) Occupational Safety and health (OSHA) and Voluntary Protection Program (VPP):** Eglin AFB is in the process of pursuing recognition under the OSHA VPP. If required as a part of a resulting contract from this BAA, AFFARS Clause 5352.223-9001 mandates that adequate health and safety requirements be identified in the contract.

Contractors can gain more information regarding the OSHA VPP Program at <http://www.osha.gov/dcsp/vpp/index.html>.

## VII. AGENCY CONTACTS

(1) Questions of a programmatic/technical nature shall be directed to the programmatic/technical point of contact listed below:

Program Manager

Ms. Theresa Hughes  
AFRL/RWWI, 101 W. Eglin Blvd, Bldg 13, Suite 207  
Eglin AFB FL 32542-6810  
Phone: (850) 883-0861  
Fax: (850) 882-3344  
E-mail: [theresa.hughes.1@us.af.mil](mailto:theresa.hughes.1@us.af.mil)

Deputy Program Manager

Lt. Tim Ballenski  
AFRL/RWWI, 101 W. Eglin Blvd, Bldg 13, Suite 207  
Eglin AFB FL 32542-6810  
Phone: 850-883-0878  
Fax: (850) 882-3344  
E-mail: [timothy.ballenski@us.af.mil](mailto:timothy.ballenski@us.af.mil)

Lead Engineer

Dr. Kevin Brink  
AFRL/RWWI, 101 W. Eglin Blvd, Bldg 13, Suite 210  
Eglin AFB FL 32542-6810  
Phone: (850) 882-4600  
Fax: (850) 882-3344  
E-mail: [kevin.brink@us.af.mil](mailto:kevin.brink@us.af.mil)

(2) Questions of a contractual/business nature shall be directed to the contract specialist:

Wilma Adams  
101 W. Eglin Blvd Ste. 337  
Eglin AFB, FL 32542-6810  
Phone: (850) 883-2679  
Email: [wilma.adams@us.af.mil](mailto:wilma.adams@us.af.mil)  
Fax: (850) 882-9599

**Note: Any correspondence shall reference the BAA title, number, and research area in the Subject Line.**

(4) In accordance with [AFFARS 5301.9102](#), an ombudsman has been appointed to hear and facilitate the resolution of concerns from offerors, potential offerors, and others for this acquisition announcement. Before consulting with an ombudsman, interested parties must first address their concerns, issues, disagreements, and/or recommendations to the contracting officer for resolution. [AFFARS Clause 5352.201-9101](#) Ombudsman (Aug 2005) will be incorporated into all contracts awarded under this BAA. The Ombudsman is as follows: Barbara Gehrs, Director of Contracting (AFRL/PK), (937) 904-4407, [barbara.gehrs@us.af.mil](mailto:barbara.gehrs@us.af.mil).

## VIII. INFORMATION PERTINENT TO AWARD OF CONTRACTS

**A. Support Contractors:** Only Government employees will evaluate the White Papers/Full Proposals for selection. The AFRL Munitions Directorate has contracted for various business and staff support services, some of which require contractors to obtain administrative access to proprietary information submitted by other contractors. Administrative access is defined as "handling or having physical control over information for the sole purpose of accomplishing the administrative functions specified in the administrative support contract, which do not require the review, reading, or

comprehension of the content of the information on the part of non-technical professionals assigned to accomplish the specified administrative tasks." These contractors have signed general non-disclosure agreements and organizational conflict of interest statements. The required administrative access will be granted to non-technical professionals. Examples of the administrative tasks performed include:

1. Assembling and organizing information for R&D case files;
2. Accessing library files for use by government personnel; and
3. Handling and administration of proposals, contracts, contract funding and queries.

Any objection to administrative access must be in writing to the Contracting Officer and shall include a detailed statement of the basis for the objection.

**B. Communication:** Dialogue between prospective offerors and Government representatives is encouraged until submission of proposals. Discussions with any of the points of contact shall not constitute a commitment by the Government to subsequently fund or award any proposed effort. Only Contracting Officers are legally authorized to commit the Government.

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

**D. Wide Area Work Flow Notice:** Any contract award resulting from this announcement will contain the clause at [DFARS 252.232-7003](#), Electronic Submission of Payment Requests and Receiving Reports, which requires electronic submission of all payment requests. The clause cites three possible electronic formats through which to submit electronic payment requests. Effective 01 October 2006, the Department of Defense adopted Wide Area Work Flow-Receipt and Acceptance (WAWF-RA), as the electronic format for submission of electronic payment requests. Any contract resulting from this announcement will establish a requirement to use WAWF-RA for invoicing and receipt/acceptance, and provide coding instructions applicable to this contract. Contractors are encouraged to take advantage of available training (both web-based and through your cognizant DCMA office), and to register in the WAWF-RA system. Information regarding WAWF-RA, including the web-based training and registration, can be found at <https://wawf.eb.mil/>. Note: WAWF-RA requirement does not apply to Universities that are audited by an agency other than DCAA.

**E. Item Identification and Valuation:** Any contract award resulting from this announcement may contain the clause at [DFARS 252.211-7003](#), Item Identification and Valuation, (Aug 2008) which requires unique item identification and valuation of any deliverable item for which the Government's unit acquisition cost is \$5,000 or more; subassemblies, components, and parts embedded within an item valued at \$5,000 or more; or items for which the Government's unit acquisition cost is less than \$5,000 when determined necessary by the requiring activity for serially managed, mission essential, or controlled inventory. Also included are any DoD serially managed subassembly,

component, or part embedded within a delivered item and the parent item that contains the embedded subassembly, component, or part. Per [DFARS 211.274-3](#) policy for valuation, it is DoD policy that contractors shall be required to identify the Government's unit acquisition cost for all items delivered, even if none of the criteria for placing a unique item identification mark applies. Therefore, your proposal must clearly break out the unit acquisition cost for any deliverable items. Per [DFARS 211.274-3](#) policy for valuation, "the Government's unit acquisition cost is the contractor's estimated fully burdened unit cost at time of delivery to the Government for cost type or undefinitized line, subline, or exhibit line items" (per DoD, "fully burdened unit costs" to the Government would include all direct, indirect, G&A costs, and an appropriate portion of fee). If you have questions regarding the unique item identification requirements, please contact the contracting point of contact listed above. For more information, see the following website: <http://www.acq.osd.mil/dpap/sitemap.html> .

**F. Forward Pricing Rate Agreements:** If Full Proposals are requested, offerors who have Forward Pricing Rate Agreements (FPRAs) shall submit them with their proposals.

**G. Pre-Award Clearance:** Pursuant to [FAR 22.805](#), a pre-award clearance must be obtained from the U.S. Department Of Labor, Employment Standards Administration, Office Of Federal Contract Compliance Program's (OFCCP) prior to award of a contract (or subcontract) of \$10,000,000 or more unless the contractor is listed in OFCCP's National Preaward Registry <http://www.dol-esa.gov/preaward> . This registry indicates that the contractor has been found to be "in compliance" within the past 2 years with The Equal Employment Opportunity (EEO) regulations that the OFCCP is mandated to enforce. The registry is updated nightly and facilities reviewed more than 2 years ago are removed and new ones are added. Award may be delayed if you are not currently listed in the registry and the contracting officer must request a preaward clearance from the OFCCP.

**H. Excessive Pass-Through Charges:** Any contract award resulting from this announcement may contain the clause at [FAR 52.215-23](#), Limitations on Pass-Through Charges, (Oct 2009) which requires the contractor to identify in its proposal the percentage of effort to be performed by the prime contractor and the percentage expected to be performed by each subcontractor. If the contractor intends to subcontract more than 70% of the total cost of work under the contract or task order, then it shall identify the amount of the contractor's indirect costs and profit applicable to the subcontract work, and a description of the value added by the contractor. If any subcontractor intends to subcontract to a lower tier subcontractor more than 70% of the total cost of its work, then it shall identify the amount of the subcontractor's indirect costs and profit applicable to the lower tier subcontract work, and a description of the value added by the subcontractor.

**I. Associate Contractor Agreements:** Associate Contractor Agreements (ACAs) are agreements between contractors working on government contract projects that specify requirements for them to share information, data, technical knowledge, expertise, or resources. The contracting officer may require ACAs when contractors working on separate government contracts must cooperate, share resources or otherwise jointly participate in working on contracts or projects. Prime contractor to subcontractor

relationships do not constitute ACAs. For each award, the contracting officer will identify associate contractors with whom agreements are required.

**J. Post-Award Small Business Program Rerepresentation:** As prescribed in [FAR 19.308](#), [FAR Clause 52.219-28](#), Post-Award Small Business Program Rerepresentation (Jul 2013), is incorporated by reference in this solicitation. This clause will be contained in any contracts resulting from this solicitation. This clause requires a contractor to rerepresent its size status when certain conditions apply. The clause provides detail on when the rerepresentation must be complete and what the contractor must do when a rerepresentation is required.

**K. Employment Eligibility Verification:** As prescribed by FAR 22.1803, FAR Clause 52.222-54, Employment Eligibility Verification (Aug 2013), is hereby incorporated by reference in this solicitation. Any contract awarded as a result of this BAA that is above the Simplified Acquisition Threshold, and contains a period of performance greater than 120 days, shall include this clause. This clause provides the requirement of contractors to enroll as a Federal Contractor in the E-Verify program within 30 days after contract award.

**L. Reporting Executive Compensation and First-Tier Sub-contract/Sub-recipient Awards:** As prescribed by FAR 4.1403(a), FAR 52.204-10 Reporting Executive Compensation and First-Tier Subcontract Awards (Jul 2013) is hereby incorporated by reference in this solicitation. Any contract valued at \$25,000 or more, excluding classified contracts or contractors with individuals, must contain this clause.

**M. Updates of Publicly Available Information Regarding Responsibility Matters:** Any contract or assistance award that exceeds \$500,000.00; when an offeror checked "has" in paragraph (b) of the provision FAR 52.209-7, shall contain the clause/article, FAR 52.209-9 Updates of Publicly Available Information Regarding Responsibility Matters (Jul 2013).

**N. Contractor Business Systems:** DFARS 252.242-7005, Contractor Business Systems (Feb 2012), is hereby incorporated by reference.

**O. Enabling Clause:** Any contract award resulting from this announcement will contain a special clause entitled "Enabling Clause between Prime Contractors and Service Contractors", when a prime contractor must agree to cooperate with a support contractor during the performance of this contract.

**P. Provisions of the Federal Acquisition Regulation may be accessed electronically at this address:** <http://farsite.hill.af.mil>

**Q. System for Award Management (SAM) Registration:** FAR 52.204-7, System for Award Management (SAM) (Jul 2013), and DFARS 252.204-7004, Alternate A, System for Award Management (SAM) (May 2013), are included by reference. SAM is the primary Government repository for prospective federal awardee information and the centralized Government system for certain contracting, grants, and other assistance related processes. It replaces CCR/FedReg, On-line Representations and Certifications

(ORCA) and the Excluded Parties Lists System (EPLS). Contractors shall be registered in the SAM database prior to submitting an invoice and through final payment of any contract, basic agreement, basic ordering agreement, or blanket purchasing agreement resulting from this solicitation. Contractors may obtain information on registration and annual confirmation requirements via the SAM accessed through <https://www.acquisition.gov> or by calling 866-606-8220.