

Solicitation Number: 692M15-19-R-00020

Federal Aviation Administration (FAA)
Unmanned Aircraft Systems (UAS) Integration
Office
Washington DC

BROAD AGENCY ANNOUNCEMENT 2019

Solicitation Number: 692M15-19-R-00020

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Federal Aviation Administration,
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Contents

I.	INTRODUCTION	2
	<i>General Information</i>	<i>3</i>
	<i>Points of Contact.....</i>	<i>5</i>
II.	SCOPE AND ESSENTIAL UAS INTEGRATION INTEREST TOPICS	6
	<i>Topic Number: UAS1901</i>	<i>6</i>
	<i>Topic Number: UAS1902</i>	<i>6</i>
	<i>Topic Number: UAS1903</i>	<i>6</i>
	<i>Topic Number: UAS1904</i>	<i>7</i>
	<i>Topic Number: UAS1905</i>	<i>7</i>
	<i>Topic Number: UAS1906</i>	<i>8</i>
	<i>Topic Number: UAS1907</i>	<i>9</i>
	<i>Topic Number: UAS1908</i>	<i>9</i>
	<i>Topic Number: UAS1909</i>	<i>10</i>
III.	WHITE PAPER AND PROPOSAL INFORMATION	10
	<i>General White Paper and Proposal Information.....</i>	<i>10</i>
	<i>White Paper Preparation, Submission, and Evaluation</i>	<i>11</i>
	<i>Proposal Preparation, Submission, and Evaluation</i>	<i>13</i>
IV.	OTHER PERTINENT INFORMATION	19
	<i>Certificate of Current Cost and Pricing Data.....</i>	<i>19</i>
	<i>Type of Contract.....</i>	<i>19</i>
	<i>Cost-Sharing.....</i>	<i>20</i>
	<i>Awards.....</i>	<i>20</i>
	<i>Restrictive Marking on Proposals</i>	<i>20</i>
	<i>Representations and Certifications.....</i>	<i>20</i>

I. INTRODUCTION

This Broad Agency Announcement (BAA), solicitation number 692M15-19-R-00020, is sponsored by the Federal Aviation Administration (FAA), Unmanned Aircraft Systems Integration Office (UASIO), UAS Program and Data Management Branch (AUS-410) and will be open for five (5) years from the date of original issue. This BAA will be valid through June 2, 2024, unless terminated sooner. This BAA includes integration interests from the UASIO, which is located in Washington D.C.

Solicitation Number: 692M15-19-R-00020

Under authority of the FAA Modernization and Reform Act (FMRA) of 2012 (P.L. 112-95) and the FAA Extension, Safety and Security Act (FESSA) of 2016 (P.L. 114-190), the FAA established seven UAS Test Sites (UASTS) to support the integration of unmanned aircraft systems into the national airspace system (NAS). Under the FAA Reauthorization Act of 2018 (P.L. 115-254), UASTS Pilot Program was extended to September 30, 2023. Some of the call requests issued under this BAA may be related to the UAS Test Sites. The seven UASTS are:

- University of Alaska Fairbanks (AK)
- North Dakota Department of Commerce (ND)
- New Mexico State University (NM)
- Griffiss International Airport (NY)
- State of Nevada (NV)
- Texas A&M University at Corpus Christi (TX)
- Virginia Polytechnic Institute & State University (VA)

Awards made under this BAA will not be limited specifically to UASTS Pilot Program efforts but will also support the FAA's overall efforts to integrate UAS into the NAS.

General Information

1. This BAA is issued under the Federal Aviation Administration (FAA) Acquisition Management System (AMS) under authority 49 USC 106(1) and (m), which provides for the selection of proposals submitted in response to this announcement. This issuance of a BAA is a means of soliciting proposals related to integration of Unmanned Aircraft Systems (UAS) into the national airspace system (NAS). BAAs may be used by agencies to fulfill their requirements for scientific study and experimentation directed toward advancing the state-of-the-art or increasing knowledge or understanding rather than focusing on a specific system or hardware solution. The BAA must only be used when meaningful proposals with varying technical/scientific approaches can be reasonably anticipated.
2. An open BAA allows for white paper submittals at any time until the expiration of the BAA. White papers and proposals will be evaluated according to the instruction described herein.

A two-step BAA will invite potential offerors to submit brief descriptive white papers in lieu of full proposals. The FAA may at its discretion then request full proposals from those potential offerors selected in the white paper evaluation process. When the FAA receives proposals, they are evaluated and selected according the procedures described herein.

While the BAA will remain open for five years and allow white paper submission at any point during that time period, the Government might also issue requests

Solicitation Number: 692M15-19-R-00020

transmitted via “Calls”, using the Federal Aviation Administration Contract Opportunities (FAACO) (<https://www.faaco.faa.gov/>) bringing attention to one or more areas of interest requesting potential offerors to submit a white paper. The “Calls” might further define the specific UAS integration interests of the FAA; or might simply request a white paper for a specific topic.

3. White papers may be submitted at any time during the life of this BAA, as well as in direct response to a Call. The Government may award a contract at any time during the life of this BAA. An award may also be made after the BAA expiration date if the white paper is received before the expiration date occurs. An award may occur no later than six (6) months after the BAA expiration date. **Offerors that submit a proposal without first submitting a white paper may not be eligible for award.** Under certain circumstances some Calls may request proposals instead of white papers. When responding to specific Calls please refer to the instructions listed within that Call.
4. This announcement is general in nature, identifying the essential UAS integration areas of interest, including criteria for submitting and evaluating white papers, and solicit the participation of all offerors capable of satisfying the Government's needs. Proposals that are selected for award are considered to be in full compliance with the AMS. Resulting agreements may be in the form of purchase orders, contracts, grants, cooperative agreements, or other transaction depending upon the specifics of the effort, such as extent of Government involvement, actual scope of work, and cost.
5. The Government will consider Contractor Teaming Arrangements, as set forth in AMS Policy section 3.2.2.7.3 Contractor Team Arrangements.
6. The offeror, by submission of an offer or execution of a contract in response to this solicitation, certifies that the offeror is not debarred, suspended, declared ineligible for award of public contracts, or proposed for debarment pursuant to AMS 3.2.2.7.4. If the offeror cannot certify or if the status of the offeror changes prior to award, the offeror must provide detailed information as to its current status.
7. This BAA is an expression of interest only and does not commit the Government to make an award or pay for any costs associated with white paper or proposal preparation in response to this announcement or any Call. The cost of white paper and proposal preparation for response to a BAA is not considered an allowable direct charge to any resultant contract or any other contract. Any award will be made subject to availability of appropriated funds. Prospective offerors are reminded that only a duly warranted Contracting Officer may obligate the Government to an agreement involving expenditure of Government funds. The Government reserves the right to fund all, some, one, or none of the white papers or proposals received under this BAA. The Government anticipates making multiple awards subject to availability of funds.

Solicitation Number: 692M15-19-R-00020

8. This BAA may be amended as necessary, including to revise current topics or add new topics. Any and all amendments to this BAA will be published on the Federal Aviation Administration Contract Opportunities (FAACO) Webpage, <https://www.faaco.faa.gov>.
9. The FAA encourages industry, educational institutions, small businesses, and small disadvantaged business concerns, historically black colleges, university, and minority business enterprises and institutions, interested in assisting the FAA with integration of UAS into the National Airspace System, to submit white papers.
10. This BAA will address the development of non-specific UAS technologies or Non-System Specific Development (NSSD) and procedures after they have gone through the applied research phase. There is a preference for technologies that have a Technology Readiness Level (TRL) of five (5), six (6), or seven (7); however, the agency may consider others. TRL five through seven are defined as:
 - TRL 5: the basic technological components are integrated with reasonably realistic supporting elements so it can be tested in a simulated environment.
 - TRL 6: a system/subsystem model or prototype demonstration in a relevant environment; it represents a major step up from TRL 5 in a technology's demonstrated readiness.
 - TRL 7: the testing and evaluation of a prototype near, or at, planned operational system (pre-initial operating capability). Represents a major step up from TRL 6, requiring demonstration of an actual system prototype in an operational environment such as an aircraft, vehicle, or space.
11. This UAS BAA will support increased knowledge or understanding of the safety of unmanned aircraft systems, concepts of operations, and related navigation procedures before integration into the national airspace system. This is an open BAA that will typically require a two-step process, and which will allow for Calls in specific situations. This structures offerors maximum flexibility for the agency.

Points of Contact

1. All submissions and technical questions or clarifications should be sent via email to the Technical Point of Contact (TPOC) associated with the respective Essential UAS Integration Interest Topic, with the Contracting Officer and Acquisition Management Team Mailbox (see below) included on the cc line. Once an offeror has submitted a white paper or proposal, all communication between that offeror and the Agency must be through the Contracting Officer.
2. Contractual questions must be directed to Contracting Officer, Stephen Jenniss, at email: Stephen.Jenniss@faa.gov. Acquisition Team Mailbox: 9-AFN-UAS-BAA@faa.gov

II. SCOPE AND ESSENTIAL UAS INTEGRATION INTEREST TOPICS

This part of the BAA contains statements of interest represented as Topics from the UAS Program and Data Management Branch. Each Topic identifies a TPOC. Prior to white paper submission, questions on technical matters and availability of project funding relating to a particular Essential UAS Integration Interest Topic should be directed to the TPOC identified for that topic.

NOTE: When responding/inquiring on a specific area of Essential UAS Integration Topics, refer to the Topic Number.

Topic Number: UAS1901

Develop and enforce geographic and altitude limitations

Describe geofencing and other possible system solutions that would limit geographical ranges and prescribe altitudes as required. This should include the ability to contain UAS within specific areas (laterally and vertically) and additionally, prohibit the UAS from operating in other areas defined by FAA.

Organization: UAS Program & Data Management Branch (AUS-410) Technical POC: Mr. John Reinhardt, 9-AFN-UAS-BAA@faa.gov

Topic Number: UAS1902

Provide for alerts by the manufacturer of an unmanned aircraft system regarding any hazards or limitations on flight, including prohibition on flight as necessary

Evaluate statements by which manufacturers alert operators to unsafe conditions or hazards. This could include the notification of software updates needed to enable new features increasing the safety of the UAS operating within the NAS. One example would be geofencing UAS from specific areas restricted from UAS operations.

Organization: UAS Program & Data Management Branch (AUS-410)
Technical POC: Mr. John Reinhardt, 9-AFN-UAS-BAA@faa.gov

Topic Number: UAS1903

Detect and Avoid capability

“Detect and Avoid” (DAA) capability must provide for self-separation and ultimately for collision avoidance protection between UAS and other aircraft analogous to the “see and

Solicitation Number: 692M15-19-R-00020

avoid” operation of manned aircraft that meets an acceptable level of safety. DAA technology development is immature. In manned flight, see and avoid, radar, visual sighting, separation standards, proven technologies and procedures, and well-defined pilot behaviors combine to ensure safe operation. Unmanned flight will require new or revised operational rules to regulate the use of DAA systems as an alternate method to comply with “see and avoid” operational rules currently required of manned aircraft. DAA system standards are necessary to assure compliance with the mentioned operational rule. Interoperability constraints between systems must also be defined for safe and secure interactions between DAA-enabled UAS and other airborne and ground-based collision avoidance systems. While DAA may be an independent system, it must be designed to be compatible across other modes (e.g., ATC separation services).

- Evaluate the performance, interoperability, and effectivity of Detect and Avoid Systems by conducting flight tests at a UAS Test Site.
- Evaluate the performance, interoperability and effectiveness of Remote ID requirements against DAA.

Organization: UAS Program & Data Management Branch (AUS-410) Technical POC: Mr. John Reinhardt, 9-AFN-UAS-BAA@faa.gov

Topic Number: UAS1904
Beyond-Visual-Line-of-Sight Operations

Expanded Operations will include risk-based expansion of current regulations to enable operations beyond the original 107 rule, and beyond operations that can be enabled by waivers to the existing 107 rule. Predicated on safely demonstrated operations, this may include operations for small UAS Beyond Visual Line of Sight (BVLOS).

- Evaluate unmanned aircraft systems, concept of operations, and safety risk analysis of Beyond Visual Line of Sight Operations at a UAS Test Site.

Organization: UAS Program & Data Management Branch (AUS-410)
Technical POC: Mr. John Reinhardt, 9-AFN-UAS-BAA@faa.gov

Topic Number: UAS1905
Operations over people

Risks of small UAS flying at low altitudes over people in urban settings and public events need to be understood by the FAA to minimize injury or fatalities. The initial

Solicitation Number: 692M15-19-R-00020

phase for UAS integration addresses this immediate need to streamline the approval process and implement risk-based decision-making. Currently, operations over people require waivers to part 107 on a case-by-case basis. Operations Over People represent an initial set of expansions of part 107 aimed at managing risk and institutionalizing certain operations currently waivable under part 107.

Evaluation is needed to assess the performance thresholds, mitigation strategies, operational constraints, and system requirements for commercial sUAS operating over people. The opportunity exists to leverage operational and sensor data to provide real-time information processing, collision avoidance maneuvers, and safe operational management.

- Evaluate unmanned aircraft systems, concept of operations, and safety risk analysis of Operations Over People at a UAS Test Site.
- Evaluate UAS Operations Over People compliance with the draft rulemaking requirements. Publish findings that promote or recognize changes required during the public comment period.

Organization: UAS Program & Data Management Branch (AUS-410)

Technical POC: Mr. John Reinhardt 9-AFN-UAS-BAA@faa.gov

Topic Number: UAS1906

Operation of Multiple Small Unmanned Aircraft Systems

According to 14 CFR §107.35, a person may not operate or act as a remote pilot in command (RPIC) or visual observer in the operation of more than one unmanned aircraft (UA) at the same time. The FAA recognizes that industry has developed technology that may allow an RPIC to operate multiple small UA as one system. While such a system may, in some circumstances, help address the split-attention problem discussed above, it would introduce significantly more risk into the operation because of the remote pilot's potentially reduced ability to resolve multiple aircraft or system failures to a safe outcome. For example, if one small unmanned aircraft of a multi-aircraft system loses its link to the control station, it may cause the whole system to break down, resulting in loss of positive control of multiple small unmanned aircraft and significantly increasing the risk to the NAS. The FAA notes that, at this time, none of the current technologies have established a necessary level of reliability through a nationally recognized formal testing process such as through ASTM International, SAE International, or civil aviation airworthiness certification. Accordingly, this section of part 107 prohibits a person from manipulating the flight controls of more than one unmanned aircraft or acting as a remote pilot in command or visual observer in the operation of more than one unmanned aircraft at the same time.

Solicitation Number: 692M15-19-R-00020

- Develop the technical data requirements, test methods, and administrative processes for sUAS swarm operations.
- Develop scenarios that assist in recognizing limitations to swarms – size of vehicles, number of vehicles, ability to control swarm and address potential issues like flyaway or loss of control.

Organization: UAS Program & Data Management Branch (AUS-410)

Technical POC: Mr. John Reinhardt 9-AFN-UAS-BAA@faa.gov

Topic Number: UAS1907

Unmanned Aircraft Systems Traffic Management (UTM)

This topic supports the FAA meet the requirements of P.L. 115-254, Section 376, *Plan For Full Operational Capability Of Unmanned Aircraft Systems Traffic Management (UTM)* and Section 377, *Early Implementation Of Certain UTM Services*. This effort supports obtaining data and information related to the implementation of UTM services that expand operations: beyond visual line of sight, have full operational capability, and ensure the safety and security of all aircraft. Examples include but are not limited to:

- Conduct testing of unmanned aircraft operations, of increasing volumes and density, in airspace above test ranges.
- Test various remote identification and tracking technologies evaluated by the Unmanned Aircraft Systems Identification and Tracking Aviation Rulemaking Committee.
- Conduct UTM tests using 14 CFR part 107 operations requiring complex waivers conditions.
- Determine if certain UTM services may operate safely in the national airspace system before completion of the implementation plan required by section 376.

Organization: UAS Program & Data Management Branch (AUS-410)

Technical POC: Mr. John Reinhardt 9-AFN-UAS-BAA@faa.gov

Topic Number: UAS1908

Other critical priorities

This includes other areas that could be consider critical to the integration of UAS into the NAS beyond topics already covered in the BAA. The proponent should consider activities that add value to the NAS and or augment potential systems and increase safety and/or security.

Organization: UAS Program & Data Management Branch (AUS-410)

Technical POC: Mr. John Reinhardt, 9-AFN-UAS-BAA@faa.gov

Solicitation Number: 692M15-19-R-00020

Topic Number: UAS1909

Improve Privacy Protections Through the Use of Advances in Unmanned Aircraft Systems Technology

Advances in UAS technologies are tailored towards operations that could affect privacy, safety, and security. Privacy factors with UAS are more related to continuing to ensure privacy protections. While there are many areas of privacy that must continue to evolve, one that requires our attention is cyber security as a function of privacy.

The proponents should consider how to improve the protection of control and imagery data transmitted, collected, and stored during and after UAS operations.

Organization: UAS Program & Data Management Branch (AUS-410)

Technical POC: Mr. John Reinhardt 9-AFN-UAS-BAA@faa.gov

III. WHITE PAPER AND PROPOSAL INFORMATION

General White Paper and Proposal Information

1. In accordance with this Broad Agency Announcement, the primary basis for funding selection within the FAA AUS will be determined by technical merit, importance to mission/agency programs, and availability of funding. Therefore, those contemplating submission of a white paper are highly encouraged to contact the technical point of contact listed for the particular Topic area to determine the level of interest and available funding for the intended NSSD effort. This process is designed to limit potential Offerors and Government expenditure of efforts and resources to prepare and review white papers (and eventually proposals) for projects that may have little or no opportunity to be funded.
2. To be eligible for award of a contract, all prospective offerors, must meet certain minimum standards pertaining to financial resources, adequacy of accounting systems, ability to comply with performance schedules, prior record of past performance, integrity, organizational structure, experience, operational controls, technical skills, and facilities and equipment.
3. T3.1.5 Conflict of interest and AMS 3.1.7 Conflicts of Interest apply. If a prospective offeror believes a potential conflict of interest may exist, the situation must be brought to the attention of the Contracting Officer before expending time and effort in proposal preparation.
4. Offerors that include data in their white papers or proposals which they do not want disclosed to the public for any purpose, or used by the Government except

Solicitation Number: 692M15-19-R-00020

for evaluation purposes by the UAS Integration Office, must be specifically identified in the summary white paper or proposal and marked as proprietary.

White Paper Preparation, Submission, and Evaluation

1. Preparation:

- a. In preparing white papers, offeror must focus on scientific study and experimentation directed toward advancing the state-of-the-art or increasing knowledge or understanding of technologies that the FAA considers essential to the safe integration of UAS in the National Airspace Systems. It should include all the information specified in this announcement in order to avoid delays in evaluation. Offerors are advised that the quality of the information presented in the white paper is significantly more important than the quantity.
- b. Format: White papers must be electronically submitted, must not exceed seven (7) pages in length (single sided, single-spaced, Times Roman 12-size font), and must state the topic number under which they are being submitted. The 7 pages does not include the rough-order-of-magnitude (ROM) of costs.
- c. The white paper must address the following:
 - i. A high-level description of the concept, technology or product; answer the following questions:
 1. What are you trying to do? Articulate your objectives using absolutely no jargon. Also,
 - a. What is your Technology Readiness Level?
 - b. Is the proposed technology leveraged from commercial programs?
 - c. Does the proposed technology or product contain a proprietary solution or other proprietary intellectual property?
 - d. Can the technology be matured sufficiently to meet a Technology Readiness Level (TRL) of 6-8 after 12 months of effort?
 2. How is it done today, and what are the limits of current practice?
 3. What is new in your approach and why do you think it will be successful?

Solicitation Number: 692M15-19-R-00020

4. Who will benefit from this work? If you are successful, what difference will it make?
 5. What are the expected deliverables?
 6. What are the risks?
 7. How long will it take?
 8. What are the mid-term and final “exams” to check for success?
- ii. Estimated cost of effort ROM. The ROM cost consists of the total cost plus profit/fee, if applicable. It is a best guess, good faith estimate of the anticipated cost of the effort. The ROM should be consistent with any dollar value or ranges, if any, specified in the announcement, as well as the level of work being proposed.
2. Submission:
 - a. Under the Two-Step BAA process, offerors will be required to first submit a white paper for preliminary consideration. Offerors that submit a proposal without first submitting a white paper may not be eligible for award, unless otherwise specified in a specific call.
 - b. White papers must be submitted via email to the respective Technical Point of Contact with a carbon copy (CC) to the Contracting Officer, and Acquisition Team Mailbox.
3. White Paper Review:
 - a. The FAA anticipates responding to Offerors within 60 calendar days of receipt of a white paper, but reserves the right to take longer. The FAA may respond by requesting a technical and/or cost proposal based on the merits of the white paper and availability of funding. White papers will be reviewed for applicability and potential value to FAA AUS missions. The evaluation team will evaluate the white paper to determine its overall technical merit, importance to mission/agency programs, and availability of funding. White papers considered not to have sufficient merit or relevance to the understanding technologies that the FAA considers essential to the safe integration of UAS in the National Airspace Systems, or in areas for which funds are not expected to be available, or for other reasons in the best interests of the FAA may be declined without further review.

Proposal Preparation, Submission, and Evaluation

NOTE: The guidance presented below is general in nature. A Request for Proposal (RFP) against an approved white paper will provide specific details. It is incumbent upon an offeror to ensure that it complies with the instructions of a specific RFP.

1. Preparation:

- a. In preparing proposals, it is important that the offeror focuses on enhancing information provided in the accepted white paper. It should include all the information specified in this announcement and the subsequent RFP in order to ensure completeness and avoid delays in evaluation. Offerors are advised that the quality of the information presented in the proposal is significantly more important than the quantity.
- b. Proposals must reference the topic number for the specific essential integration activity and must be valid for at least 180 days.
- c. The technical and cost aspects of an offeror's submission will be evaluated at the same time. Proposals must be broken into two volumes, Volume I – Technical, and Volume II – Cost/Price. Offerors are requested to limit their Volume I to 25 pages, size 12 Times New Roman font; Volume II has no page limit. Both technical and cost information must be provided for the proposal to be considered. The proposal is the only vehicle available to the offeror for receiving consideration for award. The proposal must stand on its own merit; only information provided in the proposal can be used in the evaluation process leading to an award. The proposal should be prepared simply and economically, providing straightforward, concise delineation of capabilities necessary to perform the proposed work.
- d. Format: The proposal must include the following , as applicable:
 - I. Cover Letter: On your organization's letterhead stationery, provide the following:
 - i. Legal name and address of your organization
 - ii. Cage Code
 - iii. Type of organization (e.g. Large Business, Small Business, Small Disadvantaged Business, etc.)
 - iv. Place of performance
 - v. Title of the proposed essential UAS integration interest effort
 - vi. Period of performance
 - vii. Estimated cost and of cost matching/sharing if applicable
 - viii. Type of contract proposed (e.g. Firm Fixed Cost, Cost Plus Fixed Fee, Cost Matching/Sharing, etc.)

Solicitation Number: 692M15-19-R-00020

- ix. Name and title of the Principal Investigator or Project Director, if required.
- x. Name, title, and signature of an official authorized to legally bind the organization

II. Summary: All proposals must contain a brief summary describing the proposed effort. It should include a concise statement of work (SOW) and a basic approach to be utilized in the effort. This should be unclassified and non-proprietary in nature.

III. Volume I – Technical (includes sections 4-8 below):

This technical portion includes Program Management, Government Furnished Property, Subcontracting Plan, Past Performance, Intellectual Property, as required.

The technical portion must include, but is not limited to:

- i. A detailed background, discussion, and/or description of the work proposed. An indication that the offeror understands the topic area should be exhibited.
- ii. A clear, concise definition of the work effort objectives and the approach(es) to meet them.
- iii. A discussion which details the feasibility and the methodology of the proposed approach(s) and identifies the level of effort to be employed. Technical uncertainties must be identified.
- iv. Proposed innovative approaches, unique capabilities, and/or specialized experience should be identified.

IV. Program Management:

The program management portion must include, but is not limited to:

- i. Proposal must address the areas of personnel, facilities, management, structure of the organization, schedule, milestones, and deliverables proposed.
- ii. Resumes of key personnel must be included in this section, including the name and resume of the Principal Investigator. If the Principal Investigator or other key personnel sever their connection with the organization, or become unable to continue active participation, the Contracting Officer must be immediately notified and the Government has the option to terminate the contract.
- iii. Identify any potential organizational conflicts of interest, including any prior federal employment of the proposed personnel within two years from the date of proposal submission. If there are no such potential conflicts of interest, this must be so noted in the proposal.

Solicitation Number: 692M15-19-R-00020

- iv. In the event organizational or personal conflicts of interest are identified, a conflict of interest mitigation plan must be submitted as part of the offeror's proposal.

V. Subcontracting Plan:

If the amount of the proposal exceeds \$700,000 and the offeror is other than a small business concern, the offeror must agree to prepare and must submit and negotiate for incorporation into the contract, a plan for subcontracting to small and small disadvantaged business for participation in the effort. A subcontracting plan is not required for an Other Transaction Agreement; however, if a team arrangement is contemplated, then the offeror must provide a copy of the arrangement that specifies each contractor's responsibility.

1. Past Performance:

The offeror must provide past performance information for the same or similar work. Each referenced contract for the past performance section must contain contract numbers, Government points of contact, dollar amounts, period of performance, and services provided.

2. Intellectual Property:

a. Noncommercial Items (Technical Data and Computer Software)

Proposers must deliver all software developed under this effort, including but not limited to waveform code, VHDL code, Modeling and Simulation Basis, and Test Software, including both source and executable codes. Unlimited rights are desired.

Offeror's responding to this BAA requesting a procurement contract to be issued under the AMS, must identify 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. In the event that offerors do not submit the list, 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. Offerors are advised that the Government will use the list during the source selection evaluation process to evaluate the impact of any identified restrictions, and may request additional information from the proposer, as may be necessary, to evaluate the offeror's assertions. If no restrictions are intended, then the proposer should state "NONE."

A sample list for complying with this request is as follows:

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

b. Items (Technical Data and Computer Software)

Offerors responding to this BAA requesting a procurement contract to be issued under the AMS must identify all commercial technical data and commercial computer software that may be embedded in any noncommercial deliverables contemplated under the essential UAS integration interest 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 assertions. If no restrictions are intended, then the proposer should state “NONE.”

A sample list for complying with this request is as follows:

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

c. Patents:

Include documentation proving your 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 your proposal. If a patent application has been filed for an invention that your proposal utilizes, but the application has not yet been made publicly available and contains proprietary information, you 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 you own the

invention, or 2) proof of possession of appropriate licensing rights in the invention.

d. Intellectual Property Representations:

Provide a good faith representation that you either own or possess appropriate licensing rights to all other intellectual property that will be utilized under your proposal. Additionally, offerors must provide a short summary for each item 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 essential UAS integration interest effort.

3. Cost:

The offeror's cost proposal must be prepared in a clear and concise manner that accurately reflects the offeror's cost estimate for accomplishing the proposed technical effort. Cost data must include all costs expected during the performance of the contract. All details, broken down by cost element, must be prepared for each major task along with a supporting rationale. All cost data is subject to Government evaluation and verification. If applicable, cost sharing/matching must also be detailed within the cost proposal.

The cost proposal should include the following elements of cost for the proposed effort:

- a. **Direct Labor:** The labor category, number of hours, direct labor rate per hour for each category, and totals for each category of the effort.
- b. **Materials:** An itemized listing of material requirements for the effort. Unless otherwise specified, all materials purchased for performance of the effort are to be delivered to the Government upon completion/termination of the contract.
- c. **Travel:** Contemplated expenditures for travel which support the effort.
- d. **Other Direct Costs:** Costs associated with laboratory usage, computer usage, reproduction, etc.
- e. **Costs for Consultants:** The number of hours and total costs must be indicated as well as the nature and scope of the service furnished by any consultant. State the reason(s) why a consultant was required to complete the effort.
- f. **Cost for Subcontractors:** A breakdown of the subcontract amount by cost element and fee must be shown to fully evaluate the proposal.
- g. **Indirect Labor Cost:** Overhead and general administrative rates. Indirect cost must indicate whether the rates used are fixed or provisional. Also indicate the time frames to which the rates are applicable.
- h. **Funding Profile:** Since contracts awarded under this BAA may be incrementally funded, the offeror must include its desired funding profile

Solicitation Number: 692M15-19-R-00020

indicating planned expenditures by calendar quarters as well as cost matching if applicable.

- i. Total Price: Total proposed price of all cost elements referenced above (a-j).

2. Submission:

- a. Proposals must be submitted via email to the respective the Contracting Officer, and Acquisition Team Mailbox. The offeror must also adhere to any additional or detailed submission instructions included in the Call posted on FAACO.

3. Evaluation:

- a. Proposals will be reviewed by a process of peer and technical review.
- b. The following criteria in descending order of importance are: (A) Overall scientific and technical merit, (B) Demonstrate or validate technologies that the Federal Aviation Administration consider essential to the safe integration of unmanned aircraft systems (UAS) in the National Airspace System at Federal Aviation Administration designated UAS test sites, (C) Offeror's capabilities, (D) Past Performance, (E) Key Personnel, (F) Cost Realism.
- c. Proposals will not be evaluated against other proposals in the same general essential UAS integration interest effort topic. Awards will be made on the merit and relevance of the specific effort proposal as it relates to overall UAS program needs.
- d. Evaluation Factors: Proposals submitted in response to this BAA will be evaluated as received, using the following factors:
 - A. The scientific and/or technical merits of the proposal and its relevance to the area of interest addressed, including how the proposal meets the AMS requirements for scientific study and experimentation directed toward advancing the state-of-the-art or increasing knowledge or understanding, rather than focusing on a specific system or hardware solution. This includes the approach proposed to accomplish the scientific and technical objective or the merit of the ideas or concepts proposed, and pertinent novel ideas in the specific branch of science and technology involved. It should demonstrate the offerors understanding of the scope of the work. This is the most important factor for evaluation.
 - B. The potential contributions of the effort to the mission of integrating UASs into the NAS and the extent to which the effort will contribute to the overall goals of the UASIO's technology programs.

- C. The offeror's capabilities, related experience, facilities (research, test, laboratories, or shop facilities), techniques, or unique combinations of these which are integral factors for achieving the proposal objective.
- D. Past Performance. An offeror's past performance will be used to evaluate the likelihood of success on this BAA. The government reserves the right to use self-submitted past performance data, questionnaires, or the Past Performance Information Retrieval System (PPIRS) systems to evaluate an offeror's past performance. The reviewers will also consider a record of accomplishment in specific topic areas, including patents and publications.
- E. The qualifications, experience and availability of the proposed principal investigator, team leader and other key personnel who are critical to achievement of the proposed objectives.

Cost/Price

The proposed contract costs will be considered in the overall cost evaluation. Cost will not be rated or scored; rather, the Government will analyze each offeror's cost and pricing information in terms of completeness, reasonableness, and realism, magnitude and affordability. The evaluation will determine what the Government can reasonably expect to pay for the proposed effort, the offeror's understanding of the work, and the offeror's ability to perform the contract. Included in this evaluation will be the impact of the Intellectual Property rights asserted in the proposal to the total cost to the FAA.

IV. OTHER PERTINENT INFORMATION

Certificate of Current Cost and Pricing Data

If the Contracting Officer requires the submission of certified cost or pricing data, upon completion of negotiations and agreement of contract price, in association with cost and pricing data submitted, the offerors must submit a Certificate of Current Cost or Pricing Data. A Certificate of Current Cost or Pricing Data does not apply if an Other Transaction Agreement is being contemplated.

Type of Contract

Selection of the type of contract is based upon various factors, such as the type of work to be performed, the contractor's experience in maintaining cost records, and the ability to detail and allocate proposed costs and performance of the work. Any contract awards resulting from this BAA will incorporate the most current AMS clauses.

Solicitation Number: 692M15-19-R-00020

The Government intends to award Cost Plus Fixed Fee (CPFF), Cost Matching/Sharing, and Firm Fixed Price (FFP) type contracts concerning this BAA. However, an offeror may propose alternate contract types or other transaction type agreements providing that the alternative is supported in the proposal. Also, the Government reserves the right to select the contract type as a matter of negotiation.

Cost-Sharing

Cost sharing- contracts may be expected. This type will be a cost reimbursement contract where the contractor receives no fee and is reimbursed only for an agreed upon portion of its allowable cost. It may be used when the contractor agrees to absorb a portion of the cost in the expectation of substantial compensating benefits. To use this type of contract, the contractor's accounting system must be adequate for determining costs applicable to the contract. Appropriate government surveillance during performance will provide reasonable assurance that efficient methods and cost controls are used.

Awards

With the submittal of all required information as described herein and the favorable evaluation of your proposal, the Government may unilaterally make award; therefore, it is in the offeror's best interest to review all requirements listed within. Performance after the receipt of an award signed by the Contracting Officer indicates your full acceptance of all terms and conditions within the award. Awards will consist of all applicable clauses and contracts will be in accordance with the Uniform Contract Format (UCF).

Restrictive Marking on Proposals

Notwithstanding FAA AMS policy, if information contained in the proposal is in the public domain or cannot be protected under law as trade secret (e.g., a patent application), the FAA will not accept liability for failure to safeguard it against open disclosure. If an offeror wishes to restrict the proposal, the offeror should mark the title page with the following legend: "This data shall not be disclosed outside the Government and shall not be duplicated, used or disclosed in whole or in part for any purpose other than to evaluate the proposal; provided that if a contract is awarded to this BAA responder as a result of or in connection with the submission of this data, the Government shall have the right to duplicate, use or disclose the data to the extent provided in the contract. This restriction does not limit the Government's right to use information contained in the proposal if it obtained from another source without restriction. The data subject to this restriction is contained on page _____."

Representations and Certifications

The vendor must complete and submit Certifications and Representations via <https://www.sam.gov>. Vendors attest that at the time of their proposal submissions, their record at System for Award Management (SAM) is current, accurate, and complete.