

PAST PERFORMANCE QUESTIONNAIRE

NASA LANGLEY RESEARCH CENTER

BASIC AND APPLIED AEROSPACE RESEARCH AND TECHNOLOGY (BAART)

Solicitation Number NNL14ZB1001R

INSTRUCTIONS TO COMPLETE QUESTIONNAIRE

OFFEROR:

- Complete Section I – Contract Information, and specify which Technical Areas should be evaluated by the Evaluator
- Send the partially completed questionnaire to your selected Evaluator

EVALUATOR:

- Complete Sections II and III, including evaluation of the Offeror in the specific Technical Areas indicated by the Offeror on page 3
- Send the completed questionnaire by the due date below to the NASA Contract Specialist (do not return to the Offeror):

Email: Mercer T. Hurst: larc-baart@mail.nasa.gov
Telephone (757)-864-2419

Regular Mail: NASA LANGLEY RESEARCH CENTER
ATTN: MERCER HURST
TO BE OPENED BY ADDRESSEE ONLY
MAIL STOP 12
HAMPTON VA 23681-2199

Evaluator: Please return this completed form to the NASA Contract specialist by October 23, 2014

SECTION I: CONTRACT INFORMATION

(This section to be completed by the Offeror)

A. Company Being Evaluated and Contract Information

Company Name (Specific Division): _____

Company Address:

Cage Code or DUNS: _____

Contract Number: _____

Total dollar value of work ordered: _____

Period of Performance: _____

Description of Work Performed:

Percentage of Work performed/responsible for (applicable if past performance is for subcontract performance only): _____

B. Contract Type (check all that apply):

- Prime Contractor
- Subcontractor
- Joint Venture Partner/Team Member
- Other: _____

- Firm Fixed Price
- Cost Plus Fixed Fee
- Cost Plus Award Fee
- Cost Plus Incentive Fee
- Cost-Share
- Time & Materials
- Other: _____

BAART Past Performance Questionnaire

Award/incentive Fee Ratings received over the past 3 years (if applicable):

Rating period: _____ Rating: _____

C. Evaluation Request – Instruction to Evaluators

Indicate the Tracks which the reference evaluator(s) must evaluate by checking the appropriate boxes below. It is very important that you specify only those Tracks for which you intend to offer a proposal.

- Track A: Advanced Materials and Structural Systems; Aerodynamics, Aerothermodynamics, and Acoustics
- Track B: Systems Analysis and Concepts
- Track C: Entry, Descent, and Landing
- Track D: Measurement Systems and Autonomous Technologies
- Track E: Flight-Critical and Intelligent Flight Systems

BAART Past Performance Questionnaire

SECTION II. EVALUATOR(S) WHO COMPLETED QUESTIONNAIRE

If possible, please ensure that the Technical Customer (PM, COR, QAE) and CO jointly complete or coordinate on the questionnaire.

Name	
Title	
Agency/Organization	
Email address	
Role in program/contract	

Name	
Title	
Agency/Organization	
Email address	
Role in program/contract	

Name	
Title	
Agency/Organization	
Email address	
Role in program/contract	

Name	
Title	
Agency/Organization	
Email address	
Role in program/contract	

Section III: Technical Track A Evaluation

Track A encompasses two major technical areas, A1: Advanced Materials and Structural Systems; and A2: Aerodynamics, Aerothermodynamics, and Acoustics. Please also complete the performance evaluation on page 6 for work performed by the contractor that fits within this technical area.

A1: Advanced Materials and Structural Systems

A1-1: Contractor has experience conducting research in advanced materials and materials processing.

Amount of Experience (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include: experimental synthesis of materials; advanced processing and fabrication of fiber-reinforced materials; additive manufacturing; materials characterization; materials and structural testing; employing industry-standard and newly-developed methods for materials processing, manufacturing, and assembly.

A1-2: Contractor has experience conducting research in durability, damage tolerance, and reliability.

Amount of Experience (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include: identify structural deformations and failure modes; develop and apply methods for failure analysis; develop and validate static and dynamic test techniques; develop design tools to assess the radiation environment, radiation risks, and radiation shielding materials.

A1-3: Contractor has experience conducting research in structural mechanics and structural concepts.

Amount of Experience (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include: integrate new material systems into structural designs; develop design methods to reduce design cycle time, perform sizing, optimization, and uncertainty analysis; study interaction of thermal and structural behavior; conduct experiments to validate analysis methods and structural performance.

A1-4: Contractor has experience conducting research in structural dynamics.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include: develop and validate improved methods to predict, verify, and control the dynamic responses of complex aerospace structures; confirm the validity of analysis methods by conducting tests on full-scale structures, structural elements, and scaled structural models.

BAART Past Performance Questionnaire

General Performance in Advanced Materials and Structural Systems

Assess the contractor's general performance for work performed that falls within the scope of this technical area. Only performance in the **past 3 years** is relevant.

Performance Area	Rating*
<p>Quality of Product or Service. Assess contractor's conformance to contract requirements, specifications, and standards of good workmanship. Were reports and data accurate? Did the product or service meet the specifications of the contract? Was the contractor able to resolve problems that arose during performance with minimal Government technical direction?</p>	
<p>Schedule. Assess timeliness of completion against the following: contract requirements; task orders; milestones; delivery schedules; administrative requirements.</p>	
<p>Cost Control. Assess contractor's effectiveness in forecasting, managing, and controlling contract cost. Did the contractor keep within the total estimated cost? Did the contractor do anything innovative that resulted in cost savings? Were billings current, accurate, and complete? Are the contractor's budgetary internal controls adequate?</p>	
<p>Business Relations. Assess the integration and coordination of all activity needed to execute the contract, such as: problem identification; corrective action plans; reasonable and cooperative behavior; customer satisfaction; timely award and management of subcontracts.</p>	

*Ratings:

E – Excellent; VG – Very good; S – Satisfactory; M – Marginal; U – Unsatisfactory; N/A – Not Applicable. See page 23 for ratings definitions.

Comments:

A2: Aerodynamics, Aerothermodynamics and Acoustics

Please also complete the performance evaluation on page 9 for work performed by the contractor that fits within this technical area.

A2-1: Contractor has experience conducting research in configuration aerodynamics and innovative aircraft systems.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include: aerodynamics of fixed and rotary wing vehicles; vehicle configurations for subsonic, supersonic, or hypersonic flight; analyzing control effectors and propulsion systems; integrating propulsion systems into the airframe.

A2-2: Contractor has experience conducting research in analytical and numerical methods, extending existing computational methods, and developing new methods to analyze vehicle components and complex vehicle configurations.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include modeling the following: noise from airframes and engines; turbulence and transition; chemically reacting flows; time-dependent flow fields; vehicle stability and control; aeroelastic stability; vehicle vibroacoustics. This also includes methods for post-processing and data visualization; multidisciplinary optimization, and high performance computing architectures.

A2-3: Contractor has experience conducting experimental and computational research to enhance the knowledge and understanding of flow physics and control.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include: active and passive flow control; three dimensional flow physics; vortical and separated flows; methods to predict boundary layer transition; computational methods to predict and study the control of viscous fluid flows; experimental methods for measuring flow fields and surface characteristics to validate computational methods.

A2-4: Contractor has experience conducting research in aerothermodynamics.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include: research to understand and predict the aerothermodynamics of flow fields of aerospace vehicles; developing technologies to address aerothermodynamic design issues, such as methods to enable, enhance, or optimize vehicle performance for access to space and planetary entry.

A2-5: Contractor has experience conducting multidisciplinary research in hypersonic airbreathing propulsion systems.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include: advanced technologies for hypersonic airbreathing propulsion, with a focus on airframe-integrated engine concepts with high performance over a wide range of flight Mach numbers; develop and validate integrated methods to design and analyze the effects of propulsion system parameters; utilize verified methods to assess and improve integrated engine and aero-thermo-structural performance; develop innovate experimental techniques, diagnostics, and tools for hypersonic ground test facilities; design and build specialized facility hardware for high Mach number wind tunnel tests.

A2-6: Contractor has experience conducting research in noise prediction and control for all classes of aircraft, spacecraft, and launch vehicles.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include: noise generation mechanisms; propulsion/airframe aeroacoustics; sound propagation through the atmosphere and community response; noise reduction techniques; interior noise and vibrations; fatigue due to high acoustic loads; loads and vibrations associated with launch vehicles.

A2-7: Contractor has experience conducting research in aeroelasticity.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include: understand, predict and measure aeroelastic phenomena; develop, evaluate, and validate aerodynamic and structural control concepts employing smart materials; develop and design flutter prevention methods through analysis and aeroelastically-scaled model tests.

A2-8: Contractor has experience investigating and developing technologies and methods for model systems.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include: develop test articles and instrumentation systems for sub-scale flight vehicles that integrate complex hardware and instrumentation systems; improve the capabilities of scaled model systems; develop model systems for morphing and dynamic control of test articles; develop model systems for characterization and integration of strain, force, and angle-of-attack sensors.

BAART Past Performance Questionnaire

General Performance in Aerodynamics, Aerothermodynamics, and Acoustics

Assess the contractor's general performance for work performed that falls within the scope of this technical area. Only performance in the **past 3 years** is relevant.

Performance Area	Rating*
<p>Quality of Product or Service. Assess contractor's conformance to contract requirements, specifications, and standards of good workmanship. Were reports and data accurate? Did the product or service meet the specifications of the contract? Was the contractor able to resolve problems that arose during performance with minimal Government technical direction?</p>	
<p>Schedule. Assess timeliness of completion against the following: contract requirements; task orders; milestones; delivery schedules; administrative requirements.</p>	
<p>Cost Control. Assess contractor's effectiveness in forecasting, managing, and controller contract cost. Did the contractor keep within the total estimated cost? Did the contractor do anything innovative that resulted in cost savings? Were billings current, accurate, and complete? Are the contractor's budgetary internal controls adequate?</p>	
<p>Business Relations. Assess the integration and coordination of all activity needed to execute the contract, such as: problem identification; corrective action plans; reasonable and cooperative behavior; customer satisfaction; timely award and management of subcontracts.</p>	

*Ratings:

E – Excellent; VG – Very good; S – Satisfactory; M – Marginal; U – Unsatisfactory; N/A – Not Applicable. See page 23 for ratings definitions.

Comments on performance in areas covered by Technical Track A:

Section III Technical Track B: Systems Analysis and Concepts

Please also complete the performance evaluation on page 12 for work performed by the contractor that fits within this technical track.

B-1: Contractor has experience conducting analyses that support the definition and refinement of complex mission-level concepts.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include: multiple-mission or multi-phase campaigns; vehicle management in a complex airspace; improved gate-to-gate mobility and safety in air transportation; identifying and assessing architecture requirements for space exploration; identifying and prioritizing capability and technology requirements for missions.

B-2: Contractor has experience conducting systems analyses and developing concepts for revolutionary and evolutionary aerospace vehicle systems architectures and configurations.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include: estimating standard vehicle performance metrics such as mass, physical dimensions, mission performance, and thermal management; integration of airframe and propulsion systems.

B-3: Contractor has experience assessing the benefits of advanced technologies on aerospace vehicle performance and related figures of merit.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include: collecting, compiling, and assessing data on advanced aerospace technologies; developing baseline concepts or systems for technology trade studies; developing fast-acting surrogate models for probabilistic analyses; probabilistic analyses.

B-4: Contractor has experience performing systems analyses and trade studies for the integration of aerospace vehicle subsystems.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include: advanced propulsion concepts; radiation and thermal protection; communications, sensors, power, and thermal subsystems; spacecraft payload integration, including layout, packaging, sizing, and closure.

BAART Past Performance Questionnaire

B-5: Contractor has experience analyzing operational factors of aerospace systems.

Amount of Work Performed (check one):

- Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include: life cycle cost analysis; reliability analysis; operability in different flight regimes; Earth to orbit launch vehicle designs and related systems; analyzing mission life-cycle costs; resource utilization during mission phase.

B-6: Contractor has experience assessing and enhancing existing analytical methods and tools, as well as developing new methods and tools, to design and analyze aerospace concepts and systems.

Amount of Work Performed (check one):

- Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include: assess and enhance existing methods and tools; develop new methods and tools; tools for visualizing design concepts.

General Performance in Systems Analysis and Concepts

Assess the contractor's general performance for work performed that falls within the scope of this technical track. Only performance in the **past 3 years** is relevant.

General Performance	Rating*
<p>Quality of Product or Service. Assess contractor's conformance to contract requirements, specifications, and standards of good workmanship. Were reports and data accurate? Did the product or service meet the specifications of the contract? Was the contractor able to resolve problems that arose during performance with minimal Government technical direction?</p>	
<p>Schedule. Assess timeliness of completion against the following: contract requirements; task orders; milestones; delivery schedules; administrative requirements.</p>	
<p>Cost Control. Assess contractor's effectiveness in forecasting, managing, and controlling contract cost. Did the contractor keep within the total estimated cost? Did the contractor do anything innovative that resulted in cost savings? Were billings current, accurate, and complete? Are the contractor's budgetary internal controls adequate?</p>	
<p>Business Relations. Assess the integration and coordination of all activity needed to execute the contract, such as: problem identification; corrective action plans; reasonable and cooperative behavior; customer satisfaction; timely award and management of subcontracts.</p>	

*Ratings:

E – Excellent; VG – Very good; S – Satisfactory; M – Marginal; U – Unsatisfactory; N/A – Not Applicable. See page 23 for ratings definitions.

BAART Past Performance Questionnaire

Comments on performance in areas covered by Technical Track B:

Section III Technical Track C: Entry, Descent, and Landing

Please also complete the performance evaluation on page 15 for work performed by the contractor that fits within this technical track.

C-1: Contractor has experience developing concepts for EDL systems.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include: conduct systems analyses and trade studies to compare different concepts for EDL; analyze flight mechanics, EDL systems, and payload packaging concepts; design, fabricate, and integrate of EDL subsystems; configuration design studies to determine optimum vehicle shapes and entry trajectories; configuration studies to determine guidance and control algorithms.

C-2: Contractor has experience investigating and developing revolutionary and evolutionary EDL technologies.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of these technologies include: rigid and flexible materials; deployable structures; aeroassist techniques; inflation systems and pyrotechnics; guidance, navigation, and control.

C-3: Contractor has experience developing and fabricating test articles for ground and flight testing.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work includes: structural and thermal analysis of test articles; ground-based proof-of-concept testing in relevant environments; augmenting and modifying simulation software; aerodynamic, aerothermodynamic, and trajectory analysis and simulation.

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General Performance in Entry, Descent, and Landing

Assess the contractor's general performance for work performed that falls within the scope of this technical track. Only performance in the **past 3 years** is relevant.

General Performance	Rating*
<p>Quality of Product or Service. Assess contractor's conformance to contract requirements, specifications, and standards of good workmanship. Were reports and data accurate? Did the product or service meet the specifications of the contract? Was the contractor able to resolve problems that arose during performance with minimal Government technical direction?</p>	
<p>Schedule. Assess timeliness of completion against the following: contract requirements; task orders; milestones; delivery schedules; administrative requirements.</p>	
<p>Cost Control. Assess contractor's effectiveness in forecasting, managing, and controller contract cost. Did the contractor keep within the total estimated cost? Did the contractor do anything innovative that resulted in cost savings? Were billings current, accurate, and complete? Are the contractor's budgetary internal controls adequate?</p>	
<p>Business Relations. Assess the integration and coordination of all activity needed to execute the contract, such as: problem identification; corrective action plans; reasonable and cooperative behavior; customer satisfaction; timely award and management of subcontracts.</p>	

*Ratings:

E – Excellent; VG – Very good; S – Satisfactory; M – Marginal; U – Unsatisfactory; N/A – Not Applicable. See page 23 for ratings definitions.

Comments on performance in areas covered by Technical Track C:

Section III Technical Track D: Measurement Systems and Autonomous Technologies

Please also complete the performance evaluation on page 17 for work performed by the contractor that fits within this technical track.

D-1: Contractor has experience conducting research and developing technologies in quantitative nondestructive evaluation (NDE) sciences, methods, and systems for characterization of aerospace materials and structures in the laboratory and in the field.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of these technologies include: ultrasound; acoustic emission; acoustic microscopy; electromagnetics; optics and fiber optics; radiography; computed tomography; thermography; terahertz imaging.

D-2: Contractor has experience conducting research and development of *in situ* sensors and sensor systems for aerospace vehicle applications.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples include: sensors to monitor the structural, dynamic, aerodynamic, aerothermodynamic, and electromagnetic state of a vehicle or vehicle model; measuring chemically reactive processes, engine propulsion, emissions, and performance; miniaturizing sensors and measurement systems; optimizing placement of sensors.

D-3: Contractor has experience investigating and developing advanced remote sensing technologies, methods and diagnostic systems.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include: laser-based diagnostics; optical physics and optical properties of materials; optical/laser systems for Earth and planetary studies.

D-4: Contractor has experience researching and developing advanced sensors, transducers, arrays, and emission sources.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples include: nanotubes; quantum dots; advanced optical fibers; nonlinear optical materials; Micro-Electrical Mechanical systems (MEMS); Micro-Optical-Electrical-Mechanical Systems (MOEMS); arrays of ultrasonic, eddy current or optical sensors.

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D-5: Contractor has experience developing and applying algorithms for offline and/or real-time data reduction, processing, and analysis of large data sets and high-speed data streams.

Amount of Work Performed (check one):

- Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples include developing and applying approaches for managing and processing large data sets and data sets with high information rates.

D-6: Contractor has experience researching and developing technologies for autonomous functionality of measurement systems.

Amount of Work Performed (check one):

- Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include: autonomous data acquisition, reduction, interpretation, and display; autonomous sensor fusion; sensor and software-based decision making and operations; self-controlled mobile measurement systems; artificial intelligence and machine learning; adaptability and uncertainty in complex systems; tightly coupled hardware and software.

General Performance in Measurement Systems and Autonomous Technologies

Assess the contractor's general performance for work performed that falls within the scope of this technical track. Only performance in the **past 3 years** is relevant.

General Performance	Rating*
<p>Quality of Product or Service. Assess contractor's conformance to contract requirements, specifications, and standards of good workmanship. Were reports and data accurate? Did the product or service meet the specifications of the contract? Was the contractor able to resolve problems that arose during performance with minimal Government technical direction?</p>	
<p>Schedule. Assess timeliness of completion against the following: contract requirements; task orders; milestones; delivery schedules; administrative requirements.</p>	
<p>Cost Control. Assess contractor's effectiveness in forecasting, managing, and controller contract cost. Did the contractor keep within the total estimated cost? Did the contractor do anything innovative that resulted in cost savings? Were billings current, accurate, and complete? Are the contractor's budgetary internal controls adequate?</p>	
<p>Business Relations. Assess the integration and coordination of all activity needed to execute the contract, such as: problem identification; corrective action plans; reasonable and cooperative behavior; customer satisfaction; timely award and management of subcontracts.</p>	

*Ratings:

E – Excellent; VG – Very good; S – Satisfactory; M – Marginal; U – Unsatisfactory; N/A – Not Applicable. See page 23 for ratings definitions.

BAART Past Performance Questionnaire

Comments on performance in areas covered by Technical Track D:

A large empty rectangular box intended for handwritten or typed comments on performance.

Section III Technical Track E: Flight-Critical and Intelligent Flight Systems

Please also complete the performance evaluation on page 23 for work performed by the contractor that fits within this technical track.

E-1: Contractor has experience investigating technologies, methods, and procedures to improve flight crew situational awareness for Next Generation Air transportation system (NextGen) operations.

(a) Experience with presentation of real-time information electronically.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include: four-dimensional position; traffic, terrain, obstacle, and hazardous weather locations; flight path and surface route; air traffic control instructions; alerts of hazardous situations.

(b) Experience with flight deck displays and interface concepts.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples include: synthetic vision; human-machine interface; human-centered design.

(c) Experience with communication, navigation, and surveillance infrastructure technologies.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

(d) Experience with human-in-the-loop experimentation.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

E-2: Contractor has experience investigating and developing technologies and methods to increase air traffic control situation awareness.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples include: strategic and tactical collaborative decision making; seamless surveillance; controller-pilot data link; communications; alerting flight crew of path/route deviations.

E-3: Contractor has experience conducting research in Formal Methods.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include mechanical theorem proving, model checking, and static analysis.

E-4: Contractor has experience conducting research in the safety assurance of complex systems.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

E-5: Contractor has experience conducting research in design and assessment methods and techniques for the Validation & Verification of complex systems.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of this work include: composable verification; static analysis methods; model-based development.

E-6: Contractor has experience conducting research in software assurance and certification.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

E-7: Contractor has experience conducting research in airworthiness and systems safety.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

E-8: Contractor has experience conducting research in architectural principles for redundancy management and fault-tolerance.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

E-9: Contractor has experience conducting research in the modeling of faults, failures, disturbances, and degradation.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

E-10: Contractor has experience conducting research in integrated systems health management.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

E-11: Contractor has experience conducting systems engineering in support of novel flight critical systems analysis and development from research concept through simulation and test to flight experiment.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples include: requirements analysis; complex system functional decomposition; experimental system specification and design; system verification and validation; cost-benefit studies; modeling and simulation; configuration management; systems integration and systems assurance.

E-12(a): Contractor has experience developing guidance and control technologies for operations through adverse conditions.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples of adverse conditions include: atmospheric disturbances, such as weather and wake vortices; crew input errors; system errors or malfunctions; terrain, other fixed obstacles, or other aircraft.

E-12(b): Contractor has experience considering and evaluating the impact of vehicle and system failures on flight dynamics.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Example failures include: control system component failures (sensors, actuators, control surfaces); propulsion system; vehicle impairment and damage.

E-12(c): Contractor has experience considering and evaluating vehicle upset conditions.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples include: operation beyond the normal flight envelope; unstable modes of motion; stall and/or departure from controlled flight; uncommanded motions due to asymmetric thrust or failures.

E-12(d): Contractor has experience integrating vehicle health management with guidance and control functions.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples include: defining and utilizing diagnostic and prognostic information for predicting and controlling performance, averting loss of control, and life-extending control.

E-12(e): Contractor has experience developing guidance and control technologies, investigating flight dynamics, and developing simulation concepts and methods related to multi-vehicle scenarios.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples include formation flight, and flight management in a mixed environment containing piloted and autonomous vehicles.

E-13: Contractor has experience developing algorithms and software to implement autonomy for aircraft and spacecraft.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples include: pilot autonomy relative to ground control; on-vehicle autonomy to compensate for partial loss of capability; autonomy for unmanned air vehicles flying solo or in formation.

E-14: Contractor has experience developing algorithms and software to estimate vehicle state and health and automatically reconfigure the flight control system to compensate for changes in vehicle state and health.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

Examples include: adaptive controls; artificial intelligence and machine learning; statistics-based approaches that account for uncertainties in vehicle state or control system.

E-15: Contractor has experience developing concepts to facilitate the integration of automated systems with human operators on the flight deck and on the ground.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

E-16: Contractor has experience developing autonomous systems for the ground and the flight deck to facilitate implementation of air traffic control measures that manage safety, operational efficiency, and environmental impact.

Amount of Work Performed (check one):

Significant Amount Moderate Amount Minimal Amount Not Applicable

BAART Past Performance Questionnaire

General Performance in Flight-Critical and Intelligent Flight Systems

Assess the contractor's general performance for work performed that falls within the scope of this technical track. Only performance in the **past 3 years** is relevant.

General Performance	Rating*
Quality of Product or Service. Assess contractor's conformance to contract requirements, specifications, and standards of good workmanship. Were reports and data accurate? Did the product or service meet the specifications of the contract? Was the contractor able to resolve problems that arose during performance with minimal Government technical direction?	
Schedule. Assess timeliness of completion against the following: contract requirements; task orders; milestones; delivery schedules; administrative requirements.	
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Business Relations. Assess the integration and coordination of all activity needed to execute the contract, such as: problem identification; corrective action plans; reasonable and cooperative behavior; customer satisfaction; timely award and management of subcontracts.	

*Ratings:

E – Excellent; VG – Very good; S – Satisfactory; M – Marginal; U – Unsatisfactory; N/A – Not Applicable. See page 23 for ratings definitions

Comments on performance in areas covered by Technical Track E:

BAART Past Performance Questionnaire

Ratings Definitions:

Rating	Definition
Exceptional (E)	Performance meets contractual requirements and exceeds many to the Government's benefit. The contractual performance of the element or sub-element being assessed was accomplished with few minor problems for which corrective actions taken by the contractor were highly effective.
Very Good (VG)	Performance meets contractual requirements and exceeds some to the Government's benefit. The contractual performance of the element or sub-element being assessed was accomplished with some minor problems for which the corrective actions taken by the contractor were effective.
Satisfactory (S)	Performance meets contractual requirements. The contractual performance of the element or sub-element being assessed contains some minor problems for which corrective actions taken by the contractor appear or were satisfactory.
Marginal (M)	Performance does not meet some contractual requirements. The contractual performance of the element or sub-element being assessed reflects a serious problem for which the contractor has not yet identified corrective actions. The contractor's proposed actions appear only marginally effective or were not fully implemented.
Unsatisfactory (U)	Performance does not meet most contractual requirements and recovery is not likely in a timely manner. The contractual performance of the element or sub-element contains a serious problem(s) for which the contractor's corrective actions appear or were ineffective.
Not Applicable(NA)	Ratings will not be applied to this particular area for evaluation.