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|---|--|--|---|--|------------------|
| SOLICITATION, OFFER AND AWARD | | 1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350) | | RATING | PAGE 1 OF 106 |
| 2. CONTRACT NO. | 3. SOLICITATION NO. NNA364420R-ALR | 4. TYPE OF SOLICITATION <input type="checkbox"/> SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (RFP) | 5. DATE ISSUED 04/16/2012 | 6. REQUISITION/PURCHASE NO. 4200364420 | |
| 7. ISSUED BY NASA Ames Research Center Acquisition Branch Moffet Field, CA 94035-1000 Attn: Elisban Rodriguez | | CODE | 8. ADDRESS OFFER TO (If other than Item 7) NASA-Ames Research Center Elisban Rodriguez, Mail Stop 241-1 Bldg, 241, Room 246 P.O. Box 1 Moffet Field, CA 94035-001 | | |

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder"

SOLICITATION

9. Sealed offers in original and **5** copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if handcarried, in the depository located in **_N241, Room 246_** until **1600 hrs (Pacific)** local time, on **30 May 2012** (date).
CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L., Provision No. 52.214-7 or 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.

| | | | | |
|---------------------------|-------------------------------------|---|--|---|
| 10. FOR INFORMATION CALL: | A. NAME Elisban Rodriguez | B. TELEPHONE NO. (NO COLLECT CALLS) AREA CODE NUMBER EXT. (650) 604-4690 | | C. EMAIL ADDRESS elisban.u.rodriguez@nasa.gov |
|---------------------------|-------------------------------------|---|--|---|

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| <input checked="" type="checkbox"/> | A | SOLICITATION/CONTRACT FORM | | <input checked="" type="checkbox"/> | I | CONTRACT CLAUSES | |
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| <input checked="" type="checkbox"/> | C | DESCRIPTION/SPECS./WORK STATEMENT | | <input checked="" type="checkbox"/> | J | LIST OF ATTACHMENTS | |
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OFFER (Must be fully completed by offeror)

NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within _____ calendar days (60 calendar days unless a different period is inserted by the offeror) from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

| | | | | |
|---|--------------------|--------------------|--------------------|-----------------|
| 13. DISCOUNT FOR PROMPT PAYMENT (See Section I, clause No. 52-232-8) | 10 CALENDAR DAYS % | 20 CALENDAR DAYS % | 30 CALENDAR DAYS % | CALENDAR DAYS % |
| 14. ACKNOWLEDGMENT OF AMENDMENTS (The offeror acknowledges receipt of amendments to the SOLICITATION). For offerors and related documents numbered and dated: | AMENDMENT NO | DATE | AMENDMENT NO | DATE |
| | | | | |

| | | | |
|--|--|----------|---|
| 15. NAME AND ADDRESS OF OFFEROR | CODE | FACILITY | 16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print) |
| 15B. TELEPHONE NO. (Include area code) | 15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE – ENTER <input type="checkbox"/> SUCH ADDRESS IN SCHEDULE | | 17. SIGNATURE |
| | | | 18. OFFER DATE |

AWARD (To be completed by Government)

| | | |
|--|--|---|
| 19. ACCEPTED AS TO ITEMS NUMBERED | 20. AMOUNT | 21. ACCOUNTING AND APPROPRIATION |
| 22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION <input type="checkbox"/> 10 U.S.C. 2304(c) () <input type="checkbox"/> 41 U.S.C. 253(c) () | | 23. SUBMIT INVOICES TO ADDRESS SHOWN IN: ITEM (4 copies unless otherwise specified) |
| 24. ADMINISTERED BY (If other than Item 7) CODE | | 25. PAYMENT WILL BE MADE BY CODE |
| 26. NAME OF CONTRACTING OFFICER (Type or print) | 27. UNITED STATES OF AMERICA (Signature of Contracting Officer) | 28. AWARD DATE |

IMPORTANT – Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

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PART I - THE SCHEDULE

SECTION B - SUPPLIES OR SERVICES AND PRICE/COSTS

B.1 ESTIMATED COST AND FIXED FEE (NASA 1852.216-74) (DEC 1991)

The estimated cost of this contract is \$TBD exclusive of the fixed fee of \$TBD(Firm Fixed Fee Rate = TBD). The total estimated cost and fixed fee is \$TBD.

(End of clause)

NOTE: Offeror will propose a fixed fee percentage that will be applied to each Task Order after the estimated cost has been calculated. The amount of fixed fee calculated for each Task Order, based on the estimated costs, will be the fixed fee for that Task Order, regardless of the actual costs incurred during performance of the Task Order.

B.2 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is \$TBD. This allotment is for work conducted under CLIN 01 and covers the following estimated period of performance: October 3, 2012 through October 2, 2017.

(b) An additional amount of \$TBD is obligated under this contract for payment of fee.

(End of clause)

B.3 SUPPLIES/SERVICES TO BE PROVIDED

The contractor shall provide all resources (except as may be expressly stated in this contract as furnished by the Government) necessary to furnish supplies/services in accordance with the Description/Specification/Work Statement set forth in Section C.

| ITEM NO. | DESCRIPTION | UNIT OF ISSUE | QUANTITY | PRICE | ESTIMATED COST | FEE |
|----------|-----------------------|---------------|----------|-------|----------------|-----|
| *01 | REMS CPFF Task Orders | Task Order | TBD | | TBD | TBD |

*Line Item No. 01: At the time of award, a CPFF Task will be awarded.

(End of clause)

[END OF SECTION]

SECTION C - DESCRIPTION/SPECIFICATION/WORK STATEMENT

C.1 DESCRIPTION/SPECIFICATION/WORK STATEMENT

(a) In accordance with the contract's terms and conditions, the Contractor shall furnish all personnel, services, equipment, materials, and facilities and do all other things necessary for, or incidental to, performance of the requirements set forth herein.

The contractor shall comply with Federal, Agency, Center or other comparable regulations and guidance documents applicable to the work performed under this statement of work. Applicable regulations and other directive documents will be provided to the contractor by the government. In addition, where appropriate, the contractor shall be required to create, comply with and maintain the currency of standard operating procedures or other procedural guides and related documentation that describe the work being performed in fulfillment of this statement of work.

Software delivered to NASA shall be developed in accordance with NPR 7150.2 NASA Software Engineering Requirements.

ROTARY WING ENGINEERING, MODELING, AND SIMULATION

STATEMENT OF WORK

This Statement of Work (SOW) describes the requirements for contract services for aeronautical rotary wing engineering, research and development, systems analysis, and modeling and simulation.

1.0 Background

NASA pioneers the advancement of knowledge and innovative technology in subsonic rotary wing disciplines, rotorcraft aeromechanics and human-system integration. NASA conducts this research and development through many approaches, including the following.

- Conducts fundamental and applied research to improve rotorcraft performance in the areas of aerodynamics, dynamics, flight controls and handling qualities, flight testing, simulation, acoustics, comprehensive analysis and advanced design
- Develops the associated technology and transfer the results and tools to the U.S. aerospace community
- Develops new technologies for application to civilian helicopters, tilt rotor aircraft, and other advanced rotary-wing aircraft
- Provides the U.S. rotorcraft industry, Department of Defense, and other Government agencies with the technical expertise required to produce and use safe, affordable, and effective all-weather rotorcraft systems
- Conceives, develops, evaluates, and tests the procedures, processes, and actions for using manned and unmanned rotary wing vehicles, in conjunction with other aircraft, in the

national airspace system and proposed next generation airspace systems from the perspective of the pilot/operator, his/her interface, the passenger, and the ground controller interface and airspace infrastructure

The intent of this solicitation is to procure the needed skill, capabilities, goods and services to enable these efforts.

2.0 Use of Unique Research Facilities

The services performed under this contract may require the use of various research facilities including but not limited to, the following:

- Vertical Motion Simulator (VMS) at Ames Research Center
- National Full-scale Aerodynamics Complex (NFAC)
- Rotorcraft Aircrew Systems Concept Airborne Laboratory
- High End Computing Columbia Project

This solicitation does not preclude the possibility that facilities may be provided that are located at other NASA Centers or other federal laboratories.

3.0 Scope of Work

This SOW describes technical services required to fulfill the technology development needs to meet NASA's R&D mission. These services fall into the following broad categories:

- Rotary wing aeromechanics modeling and analysis
- Simulation facility hardware and software development for experimental research and feasibility assessments
- Aircraft performance, handling qualities, cockpit displays, and flight control systems analysis and evaluation
- Distributed and non-distributed models and simulation information technology
- Human-in-the-loop simulation research and development, test and evaluation, and training
- Mission effectiveness analysis, modeling and simulation, and program analysis and management
- Air traffic management development and assessment of new operating procedures and interfaces

The Government will issue Task Orders (TOs) to define the services through task order statements of work that include deliverables and period of performance for each task. All work shall require a TO approved by the Contracting Officer, and this shall constitute the normal basis for work accomplishment and performance assessment. Each TO will reference the applicable Section of this SOW and will define milestones, deliverables, applicable documents, reporting requirements, Government Furnished Equipment, and travel requirements. TOs will be

performance based; that is, they will be written in terms of expected outcomes that can be objectively measured by the government.

The Government reserves the right to increase or decrease the level of contractor services (including adding/revising requirements) in any of the identified areas or to add contractor services to other programs and facilities. Any such increases or decreases will be accomplished via a supplemental agreement.

4.0 Description of Required Services

The requirements of this SOW are organized into six Performance Areas:

- (1) Rotorcraft Aeromechanics Modeling and Analysis
- (2) Simulation Facility Hardware and Software Development for Experimental Research and Feasibility Assessments
- (3) Aircraft Performance, Handling Qualities, Cockpit Displays, and Flight Control Systems Analysis and Evaluation
- (4) Distributed and Non-Distributed Models and Simulation Information Technology Services
- (5) Human-in-the-Loop Simulation Research and Development, Test and Evaluation, and Training
- (6) Operations Effectiveness Analysis, Modeling and Simulation, and Program Analysis and Management

Within this SOW, descriptions of services may include bulleted lists. These lists are intended to describe some of the major activities within the service being described and should not be considered complete or comprehensive.

In order to meet the Government's objectives, the Contractor may, at times, be required to provide all or any portion of these services twenty-four hours a day, including weekends and holidays. In addition, these services may be provided to other NASA facilities, installations, or other Government Agencies.

4.1 Rotorcraft Aeromechanics Modeling and Analysis

4.1.1. Aeromechanics Simulation Model Development

The contractor shall develop comprehensive aeromechanics models for engineering analysis. Aeromechanics is the multidisciplinary discipline of helicopter analysis which embraces aerodynamics, dynamics, structural dynamics, loads, acoustics, aeroacoustics, and controls for vehicle flight as well as controls to enhance aeromechanical behavior. The contractor shall provide flight dynamics models of varying complexity as required to support the mission, from high fidelity real-time models for piloted engineering evaluations to simplified real-time models for pilot training and computer generated forces. The sophistication of these models will be tuned to match the application, and the computational intensity will be geared to the available computer equipment. In addition, the Contractor shall document the traceability of all simplified models to a primary engineering level model to insure appropriate fidelity at all levels.

4.1.2 Simulation Services to Support Flight Testing

The contractor shall perform automated flight test simulation services to support flight tests. These services shall include, but are not limited to:

- Assisting in flight test plan development, data acquisition strategies, data acquisition and reduction, and analysis
- Generating standard plot formats
- Performing sensitivity analyses on sensor locations and control input frequency content
- Conducting real-time simulation for test pilot familiarization
- Conducting on-line simulation during flight testing to enhance flight safety and support real-time planning and evaluation
- Utilizing simulated flight tests to augment actual flight testing

4.1.3 Aeromechanics Model Validation

The contractor shall perform services to validate aeromechanics models and simulations. These services shall include, but are not limited to:

- Preparation and processing of flight test data for use in validation
- Performing simulated flight tests and comparing the results of these tests with actual flight test results
- Processing of flight test data to enable further modeling and simulation prediction of radiated far field acoustics
- Upgrading model structure (structure validation) and model parameters (data validation) to improve correlation between flight test and simulation
- Validation of interference models

4.1.4 Aeromechanics Model Design Analysis

The contractor shall perform services to evaluate the design of aeromechanics models in terms of performance, stability, handling qualities, and other parameters. These services shall include, but are not limited to:

- Generating performance tests and assessing design tradeoffs
- Extracting linearized models and evaluating stability and controllability information
- Performing automated handling qualities evaluations in accordance with Aeronautical Design Standard 33, *Handling Qualities Requirements for Military Rotorcraft in Degraded Visual Environments*
- Predicting steady and vibratory loads
- Predicting acoustic footprints to optimize mission trajectories; altering design features to achieve acoustic requirements if required
- Predicting interference effects of main rotor, fuselage, and two-dimensional control surfaces on each other

4.1.5 Integration of Aeromechanics Simulation Models into Distributed Simulation Environments

The contractor shall provide services to integrate aeromechanics simulation models into distributed simulation environments. These services shall include, but are not limited to:

- The simulation of vehicles (including UAVs) to include strategic displays, navigation and communications equipment, radar sensors, weapon systems and countermeasures, and the modeling of the interaction between these systems, mother ship flight dynamics, and the air traffic management system
- Integration of high quality flight dynamics models with a high fidelity cockpit using a flexible application programming interface
- Integration of simplified flight dynamics models with behavioral modeling systems assigned to vehicles to provide realistic aviation computer generated forces
- Integration of flight dynamics models with a distributed interactive simulation interface in a multi-vehicle simulation and the establishment of a format for instancing the simulation in a specific scenario
- Integration of aeromechanics models with actual (real-world) flight control computers, control actuators, and digital databases

4.1.6 Training in Aeromechanics Modeling, Design, and Analysis

The contractor shall provide services to train users in the capabilities and limitations of specified aeromechanics models. These services shall include, but are not limited to:

- Self guiding tutorials in the use of aeromechanics simulations for design, evaluation, and testing, with examples that can be performed by those with access to simulations
- Formal classroom training which may include real world and on-line simulation examples

4.2 Simulation Facility Hardware and Software Development for Experimental Research and Feasibility Assessments

4.2.1 Simulation Scenario Design and Development

The contractor shall provide services to design and develop scenarios for mission simulation exercises. Scenarios shall portray realistic situations/conflicts in terms of fidelity of behaviors, scale of conflict, type of conflict, number of participants/combatants, types of participants/combatants, and other features. Behaviors of systems included in the scenarios shall conform to accepted/approved concepts of operation. Other systems shall be consistent with U. S. government data and expectations regarding performance capabilities and concepts of operation. The contractor shall also prepare dialogue and event scripts to augment each scenario.

4.2.2 Government Simulation Demonstration and Exercise Coordination

The contractor shall provide services to coordinate GFE models and simulations with Government multi-participant simulation demonstrations and simulation. The contractor shall identify facility and test requirements. The contractor shall establish procedures and guidelines to ensure compliance with demonstration/exercise objectives and compatibility of GFE models and simulations with the overall simulation environment and other participants.

4.2.3 Independent Industry Project Assessments

The contractor shall provide services for independent assessment of government projects. Assessments shall include planning and coordinating project briefings, summarizing private

industry contributions and preparing a written review and critique to the government. The contractor shall arrange the participation of industry representatives and shall furnish the services, facilities, equipment, and materials necessary to conduct the review and critique.

4.2.4 Simulator System Development and Operation

The contractor shall provide services to develop simulator systems, assess system potentials for meeting present and future Department of Defense research and development simulation requirements, and provide overall detailed system analysis to ensure optimum design to meet user requirements. These services shall include, but are not limited to:

- Engineering and psychophysical evaluations
- Software and hardware development
- System refinements and upgrades
- System safety support
- Man-rating support
- Airworthiness assurance support
- Documentation for prototype technology demonstrations and delivered systems

The Contractor shall provide services for simulator operations and maintenance. These services shall include, but are not limited to:

- Assuring sufficient on-site maintenance services to expeditiously correct system malfunctions
- Conducting off-line diagnostics and repairs
- Procuring and maintaining an adequate supply of spare parts to maintain the operational integrity of the entire system

4.3 Aircraft Performance, Handling Qualities, Cockpit Displays, and Flight Control Systems Analysis and Evaluation

4.3.1 Handling Qualities Evaluations and Criteria Development

The contractor shall provide services to evaluate the handling qualities of fixed and rotary wing aircraft. The contractor shall also provide services to conduct or assist in the conduct of piloted simulations and flight tests to assess aircraft handling qualities. The contractor shall develop or modify handling qualities criteria as necessary to account for factors that are not included in existing criteria.

4.3.2 Flight Control System Design and/or Evaluation

The contractor shall provide services to evaluate and design control laws for new aircraft flight control systems and upgrades to existing systems. These services shall include, but are not limited to:

- Evaluation of and recommendation of improvement to developmental flight control systems
- Development and validation of modifications to existing flight control systems
- Conduct of basic research on flight control systems

4.3.3 Design of Display Symbology and Control Laws

The contractor shall provide services to design displays and controls for fixed and rotary wing aircraft. These services shall include, but are not limited to:

- Development of a methodology to quantify the impact of degraded visual cueing on rotorcraft handling qualities
- Development and evaluation of controls and displays for steep approaches in conditions of very low visibility
- Development and evaluation of symbology, raster displays, and control laws for heads-up displays (HUD), or helmet mounted displays (HMD) to assist in fixed-wing landings in conditions of very low visibility

4.3.4 Piloted Simulation for Evaluation of Displays and/or Handling Qualities

The contractor shall provide services to support the development and conduct of piloted simulations. These services shall include, but are not limited to:

- Development and checkout of the simulation code
- Preparation and execution of test plans
- Interpretation of the results from simulation handling qualities experiments

4.3.5 Flight Testing for Evaluation of Displays and Handling Qualities

The contractor shall provide engineering and test pilot services for fixed and rotary wing flight test programs related to the evaluation of controls, displays, and handling qualities.

4.4 Distributed and Non-Distributed Models and Simulation Information Technology Services

The contractor shall provide services to apply Information Technology principles to the analysis, use, and application of models and simulations in all phases of the software development processes. These services will encompass, among others, the application of high fidelity models and simulations library components to enhance advanced rotorcraft simulations, and the development and application of Verification and Validation (V&V) policies, procedures, and methodologies for aged monolithic models and simulations and distributed simulation systems. Under this task, the contractor will provide a staff of simulation analysts, and simulation, software, and satellite navigation engineering subject matter experts that can apply their expertise to aid the Government in the design, development, and V&V of advanced rotorcraft simulations, including real-time, high-fidelity, human-in-the-loop simulations for piloted operational assessments of future aircraft concepts. This expertise shall include experience in the design, implementation, and testing of navigation, surveillance, guidance and control, communications, and subsystems hardware and software, a novel approach to the V&V of complex legacy and developing simulation software that incorporates the use of automated tools, and hands-on experience in prototype V&V activities for distributed interactive simulations.

4.4.1 Development, Implementation and Application of Modeling and Simulation Software Modules and Techniques

The contractor shall provide services to develop and apply engineering level (high fidelity), platform (high fidelity), and mission/campaign (typically lower fidelity) simulations based on an

internal model and simulation library. These simulations will be used to assess the combat effectiveness of future aircraft designs in operations, pilot training, and mission planning.

4.4.2 Development and Implementation of Verification, Validation and Accreditation Plans, Policies, Procedures, and Methodologies

The contractor shall provide services to develop and implement Verification, Validation and Accreditation (VV&A) policies, procedures, and methodologies to ensure that models and simulations comply with Government standards and regulations. These services shall apply to VV&A policies, procedures, and methodologies for: 1) monolithic or standalone models and simulations, and 2) distributed systems, to include distributed simulation, Advanced Distributed Simulation (ADS), and High Level Architecture (HLA) applications. The contractor shall conduct planning, execution, and analysis of VV&A. These activities shall encompass the VV&A of legacy and developmental monolithic models and simulations as well as the VV&A of distributed simulation, ADS, and HLA design applications.

4.4.3 Modeling and Simulation Development

The contractor shall provide Modeling and Simulation development services. These services shall include, but are not limited to:

- Development of preliminary design goals and requirements
- Development of engineering level designs
- Development (coding) and modification of software
- Test and evaluation
- Preparation and review of documentation

Additional development activities include providing comparison analyses between similar classes of models and simulations and the evaluation of existing models and simulations to meet specified requirements. The contractor shall also maintain an awareness of the status of Modeling and Simulation within the Government and shall incorporate emerging strategies and trends into their software development practices.

4.4.4 Prototype Tool Development and Evaluation

The contractor shall provide services to survey and evaluate modeling and simulation tools. The contractor shall survey commercial off-the-shelf automated tools to determine their applicability to software development and V&V, and incorporate suitable tools into the simulation development environment. If no tools are found with the required functionality, the contractor shall develop new tools or augment existing ones.

4.4.5 Radio Frequency Safety Assurance Services

The contractor shall provide technical services to the in the area of radio frequency (RF) emission evaluation and shall advise the Government of the safety levels associated with the site. These services shall include, but are not limited to:

- Making field measurements and evaluations of RF emitters, providing expert guidance on how to investigate and resolve RF safety inquiries, providing expert testimony, and preparing documentation of all field surveys
- Maintaining an RF overexposure repository, including updating the repository with new cases and providing both summary reports and data retrieval

- Providing advice in response to specific technical/safety questions from field units regarding safe use of specific RF systems at their locations, facilitating and transferring field information and concerns to Government research personnel and new research information to field units, and maintaining a log to document all telephonic RF safety consultation

4.4.6 Simulation Based Acquisition Services

The contractor shall provide services to support Simulation Based Acquisition (SBA) efforts and initiatives. These services shall include, but are not limited to:

- Development of concepts, requirements, design of support architectures, and the design and development of models and simulations that fit within the architecture
- Compilation of relevant SBA-type models and associated tools that can be applied to the conceptual acquisition phases of relevant programs
- Definition of a virtual model of a generic SBA project. Design tailoring of the architecture for the SBA complying with applicable protocols and standards from Test and Training Enabling Architecture and HLA
- Development of a distributed architecture for integrated product and process development (IPPD) that can be used throughout the total life cycle of a system
- Demonstration of a conceptual architecture of the prototype Simulation Based Acquisition and Live Training tool

4.5 Human-In-The-Loop Simulation Research and Development, Test and Evaluation, and Training

4.5.1 Human-in-the-Loop Simulation Studies for Research and Development, and Test and Evaluation

The contractor shall provide services to develop designs for experiments on rotorcraft mission effectiveness ranging from analytical studies through part-task simulation to full-mission simulation. These experiments are expected to entail the use of flight simulators for both research on and training of pilot subjects and to require both traditional and innovative experimental design in applied behavioral research. These services shall include, but are not limited to:

- Definition of experimental objectives
- Design of experiments in accordance with accepted scientific methods
- Development of test plans for data collection, reduction, and analysis

4.5.2 Training, Training Programs, and Training Systems to Support Pilot-in-the-Loop Simulation Studies

The contractor shall provide services to develop training programs and training systems serving pilots, subject matter experts, and support personnel. The training will cover such topics as the operation of simulator controls and displays, the operation of auxiliary team stations, and the roles to be played by the support personnel in emulating full mission scenarios. The contractor shall provide the full spectrum of training activities, including:

- Training of simulation subjects
- Scheduling of training activities and data collection intervals

- Introductory lecture sessions
- Controls and displays training using the training stations
- In-simulator training

4.5.3 Development of Data Analysis Procedures and Performance and Effectiveness Measures

The contractor shall provide services to develop procedures for achieving rapid production of summaries and analyses of data collected during simulation experiments. These services shall include, but are not limited to:

- Specification of performance measurement data summary and analysis requirements in terms of formats, extraction sets, configurations, and time base as part of a pre-run file
- Formalization and extension of the post-run quick look data production
- Validity and integrity checking of the raw data collected
- Automation of the Relational Database populating procedures
- Automation of batch processing of data extraction, summarization, and analysis configuration processes
- Automation of the procedures for producing tabular and graphic data summaries as well as preliminary analyses such as Analysis of Variance and Multivariate Analysis of Variance
- Development procedures for rapid manual entry of data into the database

The contractor shall develop procedures for checking data integrity, automating the database population, data extraction, and data summary and analysis.

4.5.4 Development of Advanced Performance Measurement Techniques

The contractor shall provide services to develop performance measurement methodologies including Measures of Effectiveness that can be used to assess multi-faceted operator/crew/controller behavior in full-mission simulations and other complex environments such as field tests.

4.5.5 Research System Integration

The contractor shall provide services to coordinate research project goals and necessary simulator modifications. The contractor shall communicate with the Government research manager regarding project requirements, and to assist the project leader in obtaining and communicating accurate information to operations personnel in a timely fashion.

4.5.6 Human Factors Engineering

The contractor shall provide specialized human factors engineering services to support interface development, systems engineering, and testing of emerging mission-dependent technologies. These services will be applied to human-system design, operator/crew/controller mission performance measurement, and constructive and virtual simulation for acquisition decision support and evaluation of equipment, systems and procedures. These services shall include, but are not limited to:

- Context characterization and design; research, test and evaluation; and the development of simulation methodologies applying cognitive and behavioral task analysis, workload assessment and situation awareness assessment, and design of decision and situation awareness support systems

- The development and application of performance measurement techniques at the mission, function and task levels based on a full spectrum of objective data, video records, and observational judgments and subjective measurements
- The analysis of data using a variety of inferential statistical methods
- Preparation of conventional and multimedia reports with text, graphics, video and sound, to summarize and highlight the salient features of the research and testing outcomes
- Refinement and improvement of constructive and virtual simulation methodologies
- Preparation of quantitative descriptions of human cognitive and behavioral characteristics including latencies, durations, variabilities, accuracies, and errors suitable for use in constructive simulation and modeling of semi-automated forces as well as to support the verification and validation processes
- Enhancement of evaluation methodologies by analyzing and documenting the functional differences between complex mission-dependent systems, characterizing the impact of the differences on simulation development, system usability, and mission accomplishment

4.6 Operations Effectiveness Analysis, Modeling and Simulation, Program Analysis and Management

4.6.1 Operations Analysis

The contractor shall provide subject-matter-expert and consulting services concerning current and projected tactical and operational operations. Consulting services shall include informal and formal briefings detailing the employment of current and projected forces and systems in individual, combined, joint, and coalition operations in accordance with current and projected doctrine and tactics, techniques, and procedures.

4.6.2 Modeling and Simulation Support

The contractor shall provide services to evaluate simulation models under consideration for Government use. These evaluations shall include, but are not limited to, the areas of model fidelity, realistic player behavior, environmental effects, player component behavior, flexibility, compatibility with other models in a distributed simulation environment, and model-user interface issues. The contractor shall provide services to develop new simulation models and to modify existing models. Specific areas to be covered include developing appropriate characteristics and performance of aircraft and other systems types, defining the attributes of their systems and subsystems, representing effects of the tactical environment, representing realistic operational and tactical behaviors, defining user interfaces, and structuring and populating data input libraries.

4.6.3 Requirements Analysis

The contractor shall provide services to develop a requirements analysis process capable of defining functional level requirements for use in generating design specifications for both hardware and software. The contractor shall document the results in a format and a level of detail sufficient to develop system level hardware and software designs. The contractor shall provide services to develop a methodology for defining Measures of Effectiveness and Measures of Performance to support the requirements analysis process.

4.6.4 Development, Implementation and Management of Simulation Training Programs to Support Government Simulations

The contractor shall provide services to develop, implement, and manage training programs to support simulation demonstrations, experiments, operational tests, studies, and technical tests using constructive, virtual, and live simulation. These services shall include, but are not limited to:

- Reviewing objectives of demonstrations, experiments, and tests to determine training needs
- Identifying the type of training to be accomplished
- Determining schedules, resource requirements, and allocations
- Creating lesson plans and training objectives
- Executing and managing training programs

4.6.5 Scenario Generation

The contractor shall provide services to develop realistic tactical and operational scenarios. The scenarios shall include, but are not limited to:

- Participant orders of placement, and movement
- Specific vehicle and subsystem models with realistic characteristics, capabilities, and behaviors
- Terrain, environmental factors, and illumination to support scenario objectives
- Operations orders, maps, and other planning products
- Scenario timelines and scripting

4.6.6 Simulation Support Services

The contractor shall provide subject-matter-expertise for programs dealing with advanced civilian and/or military aircraft analysis, design, conceptualization, employment, application of advanced technologies, and simulation demonstrations, experiments, operational tests, studies, and technical tests using subject matter experts together with constructive, virtual, and real and/or non-real time simulation. These services shall include, but are not limited to:

- Reviewing program modeling and simulation objectives and making assessment on technical readiness and risk minimization to meet program goals, schedules, and budgets.
- Analyzing the application of advanced technologies for maximum benefits
- Developing training scenarios to highlight the capabilities of the assets on hand

4.6.7 Operational Requirements Analyses

The contractor shall provide services to perform operational requirements analyses. These services shall include, but are not limited to:

- Identifying pertinent references and sources related to operational and tactical issues
- Selecting and evaluating analytical tools for application suitability
- Performing analyses effectively to obtain results to desired degree of certainty
- Documenting final results including references, sources, and assumptions
- Translating operational requirements into terminology easily understood by engineers and scientists

4.6.8 Program Management

The contractor shall provide services to plan, execute, evaluate, and report research and development projects. These services shall include, but are not limited to:

- Planning, scheduling, cost estimation, budgeting, and resource allocation
- Establishing program-specific schedule and cost metrics and control measures

4.6.9 Development of Specifications and Standards

The contractor shall provide services to assist Government personnel in preparing and assessing Government Standards in technical areas such as cockpit controls, cockpit displays, remote operators, and airspace operators for manned and unmanned systems.

5.0 Abbreviations and Acronyms

| | |
|--------|--|
| ADS | Advanced Distributed Simulation |
| AHB | Ames Handbook |
| AMM | Ames Management Manual |
| AMSIM | Advanced Modeling and Simulation Facility |
| APEX | Advanced Prototyping, Engineering and eXperimentation Laboratory |
| APMS | Ames Power Management System |
| ARC | Ames Research Center |
| AMRDEC | Aviation and Missile Research and Development Engineering Center |
| CO | Contracting Officer |
| COTR | Contracting Officer's Technical Representative |
| DCFO | Deputy Chief Financial Officer |
| DO | Delivery Order |
| DoD | Department of Defense |
| FAR | Federal Acquisition Regulation |
| GFP | Government Furnished Property |
| HLA | High Level Architecture |
| HMD | Helmet Mounted Display |
| HUD | Heads-Up Display |
| IPO | Industrial Property Officer |
| IPPD | Integrated Product and Process Development |
| MIDAS | Man-Machine Integration Design and Analysis System |
| NASA | National Aeronautics and Space Administration |
| NFAC | National Full-Scale Aerodynamics Complex |
| NFS | NASA FAR Supplement |
| NEMS | NASA Equipment Management System |
| OSD | Office of the Secretary of Defense |
| OSHA | Occupational Safety and Health Administration |
| RF | Radio Frequency |
| SBA | Simulation Based Acquisition |
| SOP | Standard Operating Procedure |
| SOW | Statement of Work |
| V&V | Verification and Validation |
| VMS | Vertical Motion Simulator |
| VV&A | Verification, Validation and Accreditation |

[END OF SECTION]

SECTION D - PACKAGING AND MARKING

D.1 FAR 52.252-2 LISTING OF CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

| CLAUSE NUMBER | DATE | TITLE |
|------------------|------|-------|
|------------------|------|-------|

None included by reference.

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

| CLAUSE NUMBER | DATE | TITLE |
|------------------|----------|--|
| 1852.211-70 | SEP 2005 | Packaging, Handling and Transportation |

(End of Clause)

SECTION E - INSPECTION AND ACCEPTANCE

E.1 52.252-2 LISTING OF CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

| CLAUSE NUMBER | DATE | TITLE |
|------------------|----------|--|
| 52.246-8 | MAY 2001 | INSPECTION OF RESEARCH AND DEVELOPMENT COST REIMBURSEMENT |

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

| CLAUSE NUMBER | DATE | TITLE |
|------------------|------|-------|
|------------------|------|-------|

None included by reference.

(End of Clause)

E.2 MATERIAL INSPECTION AND RECEIVING REPORT (NFS 1852.246-72) (AUG 2003)

(a) At the time of each delivery to the Government under this contract, the Contractor shall furnish a Material Inspection and Receiving Report (DD Form 250 series) prepared in four (4) copies, an original and three (3) copies.

(b) The Contractor shall prepare the DD Form 250 in accordance with NASA FAR Supplement 1846.6. The Contractor shall enclose the copies of the DD Form 250 in the package or seal them in a waterproof envelope, which shall be securely attached to the exterior of the package in the most protected location.

(c) When more than one package is involved in a shipment, the Contractor shall list on the DD Form 250, as additional information, the quantity of packages and the package numbers. The Contractor shall forward the DD Form 250 with the lowest numbered package of the shipment and print the words "CONTAINS DD FORM 250" on the package.

(End of Clause)

[END OF SECTION]

SECTION F - DELIVERIES OR PERFORMANCE

F.1 52.252-2 LISTING OF CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

| CLAUSE NUMBER | DATE | TITLE |
|------------------|----------|--|
| 52.242-15 | AUG 1989 | STOP WORK ORDER (ALTERNATE I) (APR 1984) |
| 52.247-34 | NOV 1991 | F.O.B DESTINATION |

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

| CLAUSE NUMBER | DATE | TITLE |
|------------------|------|-------|
|------------------|------|-------|

None included by reference.

(End of Clause)

F.2 PERIOD OF PERFORMANCE

The period of performance of this contract shall be for 5 years from the date of contract award.

(End of Clause)

F.3 PLACE OF PERFORMANCE

The services to be performed under this contract shall be performed at the following location(s): Contractor's place of business, ARC and other locations as may be approved in writing by the Contracting Officer.

(End of Clause)

F.4 NOTICE OF DELAY (ARC 52.249-90) (FEB 1997)

If, because of technical difficulties, the Contractor becomes unable to complete the contract work at the time specified, notwithstanding the exercise of good faith and diligent efforts in

performing the work called for under this contract, the Contractor shall give the Contracting Officer written notice of the anticipated delay and the reasons for it. The notice and reasons shall be delivered promptly after the condition creating the anticipated delay becomes known to the Contractor but in no event less than 45 days before the completion date specified in this contract, unless otherwise permitted by the Contracting Officer. When notice is given, the Contracting Officer may extend the time specified in the Schedule for such period as is deemed advisable.

(End of clause)

[END OF SECTION]

SECTION G - CONTRACT ADMINISTRATION DATA

G.1 52.252-2 LISTING OF CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

| CLAUSE NUMBER | DATE | TITLE |
|------------------|------|-------|
|------------------|------|-------|

None included by reference.

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

| CLAUSE NUMBER | DATE | TITLE |
|------------------|----------|---|
| 1852.242-73 | NOV 2004 | NASA CONTRACTOR FINANCIAL MANAGEMENT REPORTING |
| 1852.245-70 | JUL 1997 | CONTRACTOR REQUESTS FOR GOVERNMENT-OWNED EQUIPMENT |
| 1852.245-71 | JAN 2011 | INSTALLATION-ACCOUNTABLE GOVERNMENT PROPERTY |
| 1852.245-74 | JAN 2011 | IDENTIFICATION AND MARKING OF GOVERNMENT EQUIPMENT |
| 1852.245-75 | JAN 2011 | PROPERTY MANAGEMENT CHANGES |
| 1852.245-77 | JAN 2011 | LIST OF GOVERNMENT PROPERTY FURNISHED PURSUANT TO FAR 52.245-2 |

(End of Clause)

G.2 PAYMENT OF FIXED FEE (NFS 1852.216-75) (DEC 1988)

The fixed fee shall be paid in monthly installments based upon the percentage of completion of work as determined by the Contracting Officer.

(End of Clause)

G.3 SUBMISSION OF VOUCHER FOR PAYMENT (NFS 1852.216-87) (MAR 1998)

- (a) The designated billing office for cost vouchers for purposes of the Prompt Payment clause of this contract is indicated below. Public vouchers for payment of costs shall include a reference to the number of this contract.
- (b) (1) If the contractor is authorized to submit interim cost vouchers directly to the NASA paying office, the original voucher should be submitted to:

NSSC – FMD Accounts Payable
 Bldg. 1111, C. Road
 Stennis Space Center, MS 39529
 Fax: (866) 209-5415
 Email: NSSC-AccountsPayable@nasa.gov

(2) For any period that the Defense Contract Audit Agency has authorized the Contractor to submit interim cost vouchers directly to the Government paying office, interim vouchers are not required to be sent to the Auditor, and are considered to be provisionally approved for payment, subject to final audit.

(3) Copies of vouchers should be submitted as directed by the Contracting Officer.

- (c) If the contractor is not authorized to submit interim cost vouchers directly to the paying office as described in paragraph (b), the contractor shall prepare and submit vouchers as follows:

- (1) One original Standard Form (SF) 1034, SF 1035, or equivalent Contractor's attachment to:

DCAA Regional Office [Offerors, please insert your appropriate DCAA mailing office below:]

- (2) A copy of SF 1034, SF 1035A, or equivalent Contractor's attachment to the following offices by insertion in the memorandum block of their names and addresses:

- (i) Copy 1 NASA Contracting Officer, STAMPED "INFO COPY"
 Submit one electronic copy to:
elisban.u.rodriquez@nasa.gov
- (ii) Copy 2 NASA Contract Specialist, STAMPED "INFO COPY"

Submit one electronic copy to:
wendy.l.takeguchi@nasa.gov

- (3) The Contracting Officer may designate other recipients as required.
- (d) Public vouchers for payment of fee shall be prepared similarly to the procedures in paragraphs (b) or (c) of this clause, whichever is applicable, and forwarded to:

NSSC – FMD Accounts Payable
Bldg. 1111, C. Road
Stennis Space Center, MS 39529
Fax: (866) 209-5415
Email: NSSC-AccountsPayable@nasa.gov

Also submit an electronic courtesy copy to:

- (i) Copy 1 NASA Contracting Officer, STAMPED "INFO COPY"
Submit one electronic copy to:
elisban.u.rodriguez@nasa.gov
- (ii) Copy 2 NASA Contract Specialist, STAMPED "INFO COPY"
Submit one electronic copy to:
wendy.l.takeguchi@nasa.gov

NSSC is the designated billing office for fee vouchers for purposes of the Prompt Payment clause of this contract.

- (e) In the event that amounts are withheld from payment in accordance with provisions of this contract, a separate voucher for the amount withheld will be required before payment for that amount may be made.

(End of Clause)

**G.4 DESIGNATION OF NEW TECHNOLOGY REPRESENTATIVE AND
PATENT REPRESENTATIVE (NFS 1852.227-72) (JUL 1997)**

- (a) For purposes of administration of the clause of this contract entitled "New Technology" or "Patent Rights -- Retention by the Contractor (Short Form)", whichever is included, the following named representatives are hereby designated by the Contracting Officer to administer such clause:

New Technology Representative

NASA/Ames Research Center
Mail Stop 202A-3

Moffett Field, CA 94035-1000

Patent Representative

NASA/Ames Research Center
Mail Stop 202A-4
Moffett Field, CA 94035-1000

(b) Reports of reportable items, and disclosure of subject inventions, interim reports, final reports, utilization reports, and other reports required by the clause, as well as any correspondence with respect to such matters, should be directed to the New Technology Representative unless transmitted in response to correspondence or request from the Patent Representative. Inquires or requests regarding disposition of rights, election of rights, or related matters should be directed to the Patent Representative. This clause shall be included in any subcontract hereunder requiring a "New Technology" clause or "Patent Rights--Retention by the Contractor (Short Form)" clause, unless otherwise authorized or directed by the Contracting Officer. The respective responsibilities and authorities of the above-named representatives are set forth in 1827.305-370 of the NASA FAR Supplement.

(End of clause)

G.5 TECHNICAL DIRECTION (NFS 1852.242-70) (SEP 1993)

(a) Performance of the work under this contract is subject to the written technical direction of the Contracting Officer Technical Representative (COTR), who shall be specifically appointed by the Contracting Officer in writing in accordance with NASA FAR Supplement 18-42.270. "Technical direction" means a directive to the Contractor that approves approaches, solutions, designs, or refinements; fills in details or otherwise completes the general description of work or documentation items; shifts emphasis among work areas or tasks; or furnishes similar instruction to the Contractor. Technical direction includes requiring studies and pursuit of certain lines of inquiry regarding matters within the general tasks and requirements in Section C of this contract.

(b) The COTR does not have the authority to, and shall not, issue any instruction purporting to be technical direction that--

- (1) Constitutes an assignment of additional work outside the statement of work;
- (2) Constitutes a change as defined in the changes clause;
- (3) Constitutes a basis for any increase or decrease in the total estimated contract cost, the fixed fee (if any), or the time required for contract performance;
- (4) Changes any of the expressed terms, conditions, or specifications of the contract; or
- (5) Interferes with the Contractor's rights to perform the terms and conditions of the contract.

(c) All technical direction shall be issued in writing by the COTR.

(d) The Contractor shall proceed promptly with the performance of technical direction duly issued by the COTR in the manner prescribed by this clause and within the COTR's authority.

If, in the Contractor's opinion, any instruction or direction by the COTR falls within any of the categories defined in paragraph

(b) above, the Contractor shall not proceed by shall notify the Contracting Officer in writing within 5 working days after receiving it and shall request the Contracting Officer to take action as described in this clause. Upon receiving this notification, the Contracting Officer shall either issue an appropriate contract modification within a reasonable time or advise the Contractor in writing within 30 days that the instruction or direction is--

(1) Rescinded in its entirety; or

(2) Within the requirements of the contract and does not constitute a change under the changes clause of the contract, and that the Contractor should proceed promptly with its performance.

(e) A failure of the Contractor and Contracting Officer to agree that the instruction or direction is both within the requirements of the contract and does not constitute a change under the changes clause, or a failure to agree upon the contract action to be taken with respect to the instruction or direction, shall be subject to the Disputes clause of this contract.

(f) Any action(s) taken by the Contractor in response to any direction given by any person other than the Contracting Officer or the COTR shall be at the Contractor's risk.

(End of Clause)

G.6 FINANCIAL REPORTING OF NASA PROPERTY IN THE CUSTODY OF CONTRACTORS (NFS 1852.245-73) (JAN 2011)

(a) The Contractor shall submit annually a NASA Form (NF) 1018, NASA Property in the Custody of Contractors, in accordance with this clause, the instructions on the form and NFS subpart 1845.71, and any supplemental instructions for the current reporting period issued by NASA.

(b)(1) Subcontractor use of NF 1018 is not required by this clause; however, the Contractor shall include data on property in the possession of subcontractors in the annual NF 1018.

(2) The Contractor shall mail the original signed NF 1018 directly to the cognizant NASA Center Deputy Chief Financial Officer, Finance, unless the Contractor uses the NF 1018 Electronic Submission System (NESS) for report preparation and submission.

(3) One copy shall be submitted (through the Department of Defense (DOD) Property Administrator if contract administration has been delegated to DOD) to the following address:

[*Insert name and address of appropriate NASA Center office.*], unless the Contractor uses the NF 1018 Electronic Submission System (NESS) for report preparation and submission.

(c)(1) The annual reporting period shall be from October 1 of each year through September 30 of the following year. The report shall be submitted in time to be received by October 15. The information contained in these reports is entered into the NASA accounting system to reflect current asset values for agency financial statement purposes. Therefore, it is essential that required reports be received no later than October 15. Some activity may be estimated for the month of September, if necessary, to ensure the NF 1018 is received when due. However, contractors' procedures must document the process for developing these estimates based on planned activity such as planned purchases or NASA Form 533 (NF 533 Contractor Financial Management Report) cost estimates. It should be supported and documented by historical experience or other corroborating evidence, and be retained in accordance with FAR Subpart 4.7, Contractor Records Retention. Contractors shall validate the reasonableness of the estimates and associated methodology by comparing them to the actual activity once that data is available, and adjust them accordingly. In addition, differences between the estimated cost and actual cost must be adjusted during the next reporting period. Contractors shall have formal policies and procedures, which address the validation of NF 1018 data, including data from subcontractors, and the identification and timely reporting of errors. The objective of this validation is to ensure that information reported is accurate and in compliance with the NASA FAR Supplement. If errors are discovered on NF 1018 after submission, the contractor shall contact the cognizant NASA Center Industrial Property Officer (IPO) within 30 days after discovery of the error to discuss corrective action.

(2) The Contracting Officer may, in NASA's interest, withhold payment until a reserve not exceeding \$25,000 or 5 percent of the amount of the contract, whichever is less, has been set aside, if the Contractor fails to submit annual NF 1018 reports in accordance with NFS subpart 1845.71 and any supplemental instructions for the current reporting period issued by NASA. Such reserve shall be withheld until the Contracting Officer has determined that NASA has received the required reports. The withholding of any amount or the subsequent payment thereof shall not be construed as a waiver of any Government right.

(d) A final report shall be submitted within 30 days after disposition of all property subject to reporting when the contract performance period is complete in accordance with paragraph (b)(1) through (3) of this clause.

(End of clause)

G.7 LIST OF GOVERNMENT PROPERTY FURNISHED PURSUANT TO FAR 52.245-1. NFS 1852.245-76 (JAN 2011)

For performance of work under this contract, the Government will make available Government property identified below or in J.1(a)(3) of this contract on a no charge-for-use basis pursuant to the clause at FAR 52.245-1, Government Property, as incorporated in this contract. The Contractor shall use this property in the performance of this contract at Ames Research Center and at other location(s) as may be approved by the Contracting Officer. Under FAR 52.245-1, the Contractor is accountable for the identified property.

(End of clause)

[END OF SECTION]

SECTION H - SPECIAL CONTRACT REQUIREMENTS

H.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE (FAR 52.252-2) (FEB 1998)

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

| CLAUSE NUMBER | DATE | TITLE |
|------------------|------|-------|
|------------------|------|-------|

None included by reference.

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

| CLAUSE NUMBER | DATE | TITLE |
|------------------|----------|---|
| 1852.208-81 | NOV 2004 | Restrictions on Printing and Duplicating |
| 1852.223.75 | FEB 2002 | Major Breach of Safety or Security |
| 1852.225-70 | FEB 2000 | Export Licenses |
| 1852.235.73 | DEC 2006 | Final Scientific and Technical Reports (ALT II) (DEC 2005) |
| 1852.244-70 | APR 1985 | Geographic Participation in the Aerospace Program |

(End of clause)

H.2 TASK ORDERING PROCEDURE (NFS 1852.216-80) (OCT 1996)

(a) Only the Contracting Officer may issue task orders to the Contractor, providing specific authorization or direction to perform work within the scope of the contract and as specified in the schedule. The Contractor may incur costs under this contract in performance of task orders and task order modifications issued in accordance with this clause. No other costs are authorized unless otherwise specified in the contract or expressly authorized by the Contracting Officer.

(b) Prior to issuing a task order, the Contracting Officer shall provide the Contractor with the following data:

(1) A functional description of the work identifying the objectives or results desired from the contemplated task order.

(2) Proposed performance standards to be used as criteria for determining whether the work requirements have been met.

(3) A request for a task plan from the Contractor to include the technical approach, period of performance, appropriate cost information, and any other information required to determine the reasonableness of the Contractor's proposal.

(c) Within 10 calendar days after receipt of the Contracting Officer's request, the Contractor shall submit a task plan conforming to the request.

Per Contract Clause I.9(c), each task plan shall include a representation of any proposed delivery of Limited Rights Data/Restricted Computer Software.

(d) After review and any necessary discussions, the Contracting Officer may issue a task order to the Contractor containing, as a minimum, the following:

(1) Date of the order.

(2) Contract number and order number.

(3) Functional description of the work identifying the objectives or results desired from the task order, including special instructions or other information necessary for performance of the task.

(4) Performance standards, and where appropriate, quality assurance standards.

(5) Maximum dollar amount authorized (cost and fee or price). This includes allocation of award fee among award fee periods, if applicable.

(6) Any other resources (travel, materials, equipment, facilities, etc.) authorized.

(7) Delivery/performance schedule including start and end dates.

(8) If contract funding is by individual task order, accounting and appropriation data.

(e) The Contractor shall provide acknowledgment of receipt to the Contracting Officer within 3 calendar days after receipt of the task order.

(f) If time constraints do not permit issuance of a fully defined task order in accordance with the procedures described in paragraphs (a) through (d), a task order which includes a ceiling price may be issued.

(g) The Contracting Officer may amend tasks in the same manner in which they were issued.

(h) In the event of a conflict between the requirements of the task order and the Contractor's approved task plan, the task order shall prevail.

(End of clause)

H.3 SAFETY AND HEALTH (NFS 1852.223-70) (APR 2002)

(a) Safety is the freedom from those conditions that can cause death, injury, occupational illness, damage to or loss of equipment or property, or damage to the environment. NASA's safety priority is to protect: (1) the public, (2) astronauts and pilots, (3) the NASA workforce (including contractor employees working on NASA contracts), and (4) high-value equipment and property.

(b) The Contractor shall take all reasonable safety and occupational health measures in performing this contract. The Contractor shall comply with all Federal, State, and local laws applicable to safety and occupational health and with the safety and occupational health standards, specifications, reporting requirements, and any other relevant requirements of this contract.

(c) The Contractor shall take, or cause to be taken, any other safety, and occupational health measures the Contracting Officer may reasonably direct. To the extent that the Contractor may be entitled to an equitable adjustment for those measures under the terms and conditions of this contract, the equitable adjustment shall be determined pursuant to the procedures of the changes clause of this contract; provided, that no adjustment shall be made under this Safety and Health clause for any change for which an equitable adjustment is expressly provided under any other clause of the contract.

(d) The Contractor shall immediately notify and promptly report to the Contracting Officer or a designee any accident, incident, or exposure resulting in fatality, lost-time occupational injury, occupational disease, contamination of property beyond any stated acceptable limits set forth in the contract Schedule; or property loss of \$25,000 or more, or Close Call (a situation or occurrence with no injury, no damage or only minor damage (less than \$1,000) but possesses the potential to cause any type mishap, or any injury, damage, or negative mission impact) that may be of immediate interest to NASA, arising out of work performed under this contract. The Contractor is not required to include in any report an expression of opinion as to the fault or negligence of any employee. In addition, service contractors (excluding construction contracts) shall provide quarterly reports specifying lost-time frequency rate, number of lost-time injuries, exposure, and accident/incident dollar losses as specified in the contract Schedule.

(e) The Contractor shall investigate all work-related incidents, accidents, and Close Calls, to the extent necessary to determine their causes and furnish the Contracting Officer a report, in such form as the Contracting Officer may require, of the investigative findings and proposed or completed corrective actions.

(f)(1) The Contracting Officer may notify the Contractor in writing of any noncompliance with this clause and specify corrective actions to be taken. When the Contracting Officer becomes aware of noncompliance that may pose a serious or imminent danger to safety and health of the public, astronauts and pilots, the NASA workforce (including contractor employees working on NASA contracts), or high value mission critical equipment or property, the Contracting Officer shall notify the Contractor orally, with written confirmation. The Contractor shall promptly take and report any necessary corrective action.

(2) If the Contractor fails or refuses to institute prompt corrective action in accordance with subparagraph (f)(1) of this clause, the Contracting Officer may invoke the stop-work order clause in this contract or any other remedy available to the Government in the event of such failure or refusal.

(g) The Contractor (or subcontractor or supplier) shall insert the substance of this clause, including this paragraph (g) and any applicable Schedule provisions and clauses, with

appropriate changes of designations of the parties, in all solicitations and subcontracts of every tier, when one or more of the following conditions exist:

(1) The work will be conducted completely or partly on premises owned or controlled by the Government.

(2) The work includes construction, alteration, or repair of facilities in excess of the simplified acquisition threshold.

(3) The work, regardless of place of performance, involves hazards that could endanger the public, astronauts and pilots, the NASA workforce (including Contractor employees working on NASA contracts), or high value equipment or property, and the hazards are not adequately addressed by Occupational Safety and Health Administration (OSHA) or Department of Transportation (DOT) regulations (if applicable).

(4) When the Contractor (or subcontractor or supplier) determines that the assessed risk and consequences of a failure to properly manage and control the hazard(s) warrants use of the clause.

(h) The Contractor (or subcontractor or supplier) may exclude the provisions of paragraph (g) from its solicitation(s) and subcontract(s) of every tier when it determines that the clause is not necessary because the application of the OSHA and DOT (if applicable) regulations constitute adequate safety and occupational health protection. When a determination is made to exclude the provisions of paragraph (g) from a solicitation and subcontract, the Contractor must notify and provide the basis for the determination to the Contracting Officer. In subcontracts of every tier above the micro-purchase threshold for which paragraph (g) does not apply, the Contractor (or subcontractor or supplier) shall insert the substance of paragraphs (a), (b), (c), and (f) of this clause).

(i) Authorized Government representatives of the Contracting Officer shall have access to and the right to examine the sites or areas where work under this contract is being performed in order to determine the adequacy of the Contractor's safety and occupational health measures under this clause.

(j) The contractor shall continually update the safety and health plan when necessary. In particular, the Contractor shall furnish a list of all hazardous operations to be performed, and a list of other major or key operations required or planned in the performance of the contract, even though not deemed hazardous by the Contractor. NASA and the Contractor shall jointly decide which operations are to be considered hazardous, with NASA as the final authority. Before hazardous operations commence, the Contractor shall submit for NASA concurrence --

(1) Written hazardous operating procedures for all hazardous operations; and/or

(2) Qualification standards for personnel involved in hazardous operations.

(End of clause)

H.4 KEY PERSONNEL AND FACILITIES (NFS 1852.235-71) (MAR 1989)

(a) The personnel and/or facilities listed below (or specified in the contract Schedule) are considered essential to the work being performed under this contract. Before removing, replacing, or diverting any of the listed or specified personnel or facilities, the Contractor shall (1) notify the Contracting Officer reasonably in advance and (2) submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact on this contract.

(b) The Contractor shall make no diversion without the Contracting Officer's written consent; provided, that the Contracting Officer may ratify in writing the proposed change, and that ratification shall constitute the Contracting Officer's consent required by this clause.

(c) The list of personnel and/or facilities (shown below or as specified in the contract Schedule) may, with the consent of the contracting parties, be amended from time to time during the course of the contract to add or delete personnel and/or facilities.

TBD

(End of Clause)

H.5 EMERGENCY PREPAREDNESS AND RESPONSE (ARC 52.223-90) (SEP 2007)

(a) Contractors shall comply with Ames Procedural Requirements (APR) 1601.4, "Emergency Operations Plan."

(b) Contractors doing business with ARC are also employers in their own right and, as such, are responsible for protecting their employees, the environment, and property from the effects of hazardous events. Contractors shall develop and maintain appropriate emergency response and recovery plans, facility shutdown/startup plans, standard operations procedures, and checklists for emergency response to their facilities and operations. Contractors shall ensure training and certification of their employees as required to support their emergency response and recovery plan. Contractors shall participate in ARC drills and/or exercises to validate adequacy of emergency response and recovery plans and to ensure contractor employees are trained on how to respond. During a disaster/emergency, the contractor's Project Manager or other line supervisor shall be prepared to provide personnel accountability and facility status information to the designated NASA Facility Manager or Emergency Operations Center (EOC) Representative.

(c) Many contractor employees also serve as emergency response or mission essential resources with regards to performing certain emergency response and recovery functions associated with the overall NASA Ames Research Center and agency response. As such, their emergency response or mission essential roles for the Center and agency need to be identified prior to an emergency or disaster. These individuals must also be notified of their roles, trained in their roles and participate in any drills that serve to increase the Center's effectiveness in responding to and recovering from emergencies and disasters.

(d) The contractor's obligation may include resolution of unusual or emergency situations, pursuant to FAR Part 18, "Emergency Acquisitions." The contractor may be required to assist NASA, within the general scope of work, but in currently unidentified ways, in preparation for, or in response to emergencies. Obligations under this requirement shall only arise under prescribed circumstances that enable NASA to utilize "Emergency Acquisition Flexibilities," as defined at FAR 18.001. If the emergency preparedness and response requirements result in changes to the contract, all contract adjustments will be processed in accordance with the changes clause.

(End of clause)

H.6 DISASTER ASSISTANCE AND RESCUE TEAM (DART) PARTICIPATION (APR 2004)

a. Contractor employees are eligible to participate in the Disaster Assistance and Rescue Team (DART) if approved in writing by the Contractor and appointed by the Government. If a Contractor approves of an employee's participation, the contractor agrees to modify the employee's position description to include participation in DART, and to provide additional indemnification (e.g., worker's compensation insurance, general liability, etc.) as may be necessary to protect its employee and/or the Government while the employee is participating in the program.

b. DART Definition. This team is comprised of civil service, contractor, Ames Associate, resident agent, and military personnel that work at Ames Research Center, the NASA Research Park, and Moffett Federal Airfield. The team composition includes, but is not limited to, scientists, engineers, wind tunnel mechanics, aircraft mechanics, facility maintenance personnel, computer specialists, industrial hygienists, safety professionals, heavy equipment operators, administrative personnel, managers, procurement officials, and data specialists. DART is an umbrella organization that has ten functional groups. The groups are Search, Rescue, Hazardous Materials Response, Damage and Utility Control, Structural Assessment, Emergency Communications, Medical, Logistics, Technical Support, and Emergency Operations Center as well as the Emergency Communications Facility. Typically, participation will involve approximately 5% of the employee's (full) time, except for initial training/orientation, which will involve approximately 10% of the employee's (full) time. The executive management at Ames Research Center strongly encourages contractor participation on DART, which needs all of our support, as it has proven to be a valuable element of the Center's Emergency Service Program.

(End of Clause)

H.7 MANAGEMENT AND PROTECTION OF DATA (ARC 52.227-93) (JUL 1988)

(a) In the performance of this contract it is anticipated that the Contractor may have access to, be furnished, use, or generate the following types of data (recorded information):

(1) Data submitted to the Government with limited rights or restricted rights notices;

(2) Data of third parties which the Government has agreed to handle under protective arrangements; and

(3) Data generated by or on behalf of the Government which the Government intends to control the use and dissemination thereof.

(b) In order to provide management appropriate for protecting the interests of the Government and other owners of such data, the Contractor agrees with respect to data in category (a)(1) above, and with respect to any data in categories (a)(2) and (a)(3) when so identified by the Contracting Officer, to:

(1) Use and disclose such data only to the extent necessary to perform the work required under this contract, with particular emphasis on restricting disclosure of the data to those persons who have a definite need for the data in order to perform under this contract;

(2) Not reproduce the data unless reproduction of the data is specifically permitted elsewhere in the contract or by the Contracting Officer;

(3) Refrain from disclosing the data to third parties without the written consent of the Contracting Officer; and

(4) Return or deliver the data including all copies thereof to the Contracting Officer or his designated recipient when requested by the Contracting Officer.

(End of Clause)

H.8 HANDLING OF DATA (ARC 52.227-96) (JUN 1989)

(a) Paragraph (d)(1) of the "Rights in Data--General" clause of this contract permits the Government to restrict the Contractor's right to use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Contractor in the performance of the contract provided such restriction is expressly set forth in the contract. Pursuant to this authority, the following restrictions shall apply to such data and shall be included, in substance, in all subcontracts:

(b) Data specifically used.

(1) In the performance of this contract, it is anticipated the Contractor may have access, or be furnished, data (including financial, administrative, cost or pricing, or management information as well as technical data or computer software) of third parties which the Government has agreed to handle under protective arrangements, as well as such Government data for which the Government intends to control the use and dissemination.

(2) In order to protect the interests of the Government and the owners of such data, the Contractor agrees, with respect to such third party or Government data that is either marked with a restrictive legend or specifically identified in this contract or in writing by the Contracting Officer as being subject to this clause, to use and disclose such data only to the extent necessary to perform the work required under this contract, preclude disclosure of such data outside the Contractor's organization, and return or dispose of such data as directed by the Contracting Officer when the data is no longer needed for contract performance.

(3) Notwithstanding (2) above, the Contractor shall not be restricted in the use and disclosure of any data that becomes generally available without breach of this clause by this Contractor, is known to or is developed by the Contractor independently of any disclosure of proprietary, restricted, or confidential data hereunder, or is rightfully received by the Contractor from a third party without restriction.

(c) Data first produced.

Data first produced by the Contractor under this contract may include data for which the Government wants to control the use and dissemination. The Contracting Officer may require, or this contract may presently specify, that the Contractor apply restrictive legends to such identified data prior to delivery to the Government, or to third parties at the Government's direction, that restrict the use and disclosure of the data by any third party recipient. However, such restrictive legends shall in no way affect the Contractor's or the Government's rights to such data as provided in the "Rights in Data--General" clause of this contract.

(End of Clause)

H.9 INFORMATION INCIDENTAL TO CONTRACT ADMINISTRATION (ARC 52.227-98) (OCT 2004)

NASA shall have unlimited rights in information incidental to contract administration including administrative and management information created by the Contractor and specified for delivery to NASA in performance of the contract, expressly excluding financial information. Specifically, NASA shall have the right to release such administrative and management information to any third party to satisfy NASA's requirements.

(End of Clause)

H.10 SEVERANCE PAY (ARC 52.231-90) (JUN 2008)

In conjunction with FAR 31.205-6(g), the severance pay cost shall not exceed 40 hours pay for each year of employment per employee up to a maximum of 80 hours per eligible employee. Severance cost eligibility computation for reimbursement shall also be limited to only the period of employment on the service contract at Ames Research Center. In no event shall the Government reimburse the Contractor for severance cost for employees who voluntarily accept employment in place with the succeeding contractor within ninety (90) days after completion of the current contract.

(End of Clause)

H.11 ADDITIONAL REPORTS OF WORK –RESEARCH AND DEVELOPMENT (NFS 1852.235-74) (FEB 2003)

In addition to the final report required under this contract, the Contractor shall submit the following report(s) to the Contracting Officer:

(a) *Monthly progress reports.* The Contractor shall submit separate monthly reports of all work accomplished during each month of contract performance. Reports shall be in narrative form, brief, and informal. They shall include a quantitative description of progress, an indication of any current problems that may impede performance, proposed corrective action, and a discussion of the work to be performed during the next monthly reporting period.

(b) *Quarterly progress reports.* The Contractor shall submit separate quarterly reports of all work accomplished during each three-month period of contract performance. In addition to factual data, these reports should include a separate analysis section interpreting the results obtained, recommending further action, and relating occurrences to the ultimate objectives of the contract. Sufficient diagrams, sketches, curves, photographs, and drawings should be included to

convey the intended meaning.

(c) *Submission dates.* Monthly and quarterly reports shall be submitted by the 15th day of the month following the month or quarter being reported. If the contract is awarded beyond the middle of a month, the first monthly report shall cover the period from award until the end of the following month. No monthly report need be submitted for the third month of contract effort for which a quarterly report is required. No quarterly report need be submitted for the final three months of contract effort since that period will be covered in the final report. The final report shall be submitted within (the specified period on the individual task orders) ____ days after the completion of the effort under the contract.

(End of clause)

H.12 OBSERVANCE OF LEGAL HOLIDAYS (NFS 1852.242-72) (AUG 1992) Alternate I (SEP 1989) (Alternate II) (OCT 2000)

(a) The on-site Government personnel observe the following holidays:

New Year's Day

Labor Day

Martin Luther King, Jr.'s Birthday

Columbus Day

President's Day

Veterans Day

Memorial Day

Thanksgiving Day

Independence Day

Christmas Day

Any other day designated by Federal statute, Executive order, or the President's proclamation.

(b) When any holiday falls on a Saturday, the preceding Friday is observed. When any holiday falls on a Sunday, the following Monday is observed. Observance of such days by Government personnel shall not by itself be cause for an additional period of performance or entitlement of compensation except as set forth within the contract.

(c) On-site personnel assigned to this contract shall not be granted access to the installation during the holidays in paragraph (a) of the clause, except as follows: the Contractor shall provide sufficient on-site personnel to perform round-the-clock requirements of critical work already in process, unless otherwise instructed by the Contracting Officer or authorized representative. If the Contractor's on-site personnel work during a holiday other than those in paragraph (a) of this clause, no form of holiday or other premium compensation shall be reimbursed as either a direct or indirect cost. However, this does not preclude reimbursement for authorized overtime work that would have been overtime regardless of the status of the day as a holiday.

(d) The Contractor shall place identical requirements, including this paragraph, in all subcontracts that require performance of work on-site, unless otherwise instructed by the

Contracting Officer.

- (e) When the NASA installation grants administrative leave to its Government employees (e.g., as a result of inclement weather, potentially hazardous conditions, or other special circumstances), Contractor personnel working on-site should also be dismissed. However, the contractor shall provide sufficient on-site personnel to perform round-the-clock requirements of critical work already in process, unless otherwise instructed by the Contracting Officer or authorized representative.
- (f) Whenever administrative leave is granted to Contractor personnel pursuant to paragraph (e) of this clause, it shall be without loss to the Contractor. The cost of salaries and wages to the Contractor for the period of any such excused absence shall be a reimbursable item of cost under this contract for employees in accordance with the Contractor's established accounting policy.

(End of Clause)

H.13 NON-PERSONAL SERVICES

- (a) As stated in the Office of Federal Procurement Policy Letter 92-1, dated September 23, 1992, Inherently Governmental Functions, no personal services shall be performed under this contract. No Contractor employee will be directly supervised by the Government. All individual employee assignments, and daily work direction, shall be given by the applicable employee supervisor. If the Contractor believes any Government action or communication has been given that would create a personal services relationship between the Government and any Contractor employee, the Contractor shall promptly notify the Contracting Officer of this communication or action.
- (b) The Contractor shall not perform any inherently governmental actions under this contract. No Contractor employee shall hold him or herself out to be a Government employee, agent, or representative. No Contractor employee shall state orally or in writing at any time that he or she is acting on behalf of the Government. In all communications with third parties in connection with this contract, Contractor employees shall identify themselves as Contractor employees and specify the name of the company for which they work. In all communications with other Government contractors in connection with this contract, the Contractor employee shall state that they have no authority to in any way change the contract and that if the other contractor believes this communication to be a direction to change their contract, they should notify the Contracting Officer for that contract and not carry out the direction until a clarification has been issued by the Contracting Officer.
- (c) The Contractor shall ensure that all of its employees working on this contract are informed of the substance of this clause. Nothing in this clause shall limit the Government's rights in any way under any other provision of the contract, including those related to the Government's right to inspect and accept the services to be performed under this contract. The substance of this clause shall be included in all subcontracts at any tier.

(End of Clause)

H.14 CONTRACTOR PURCHASING (COST REIMBURSEMENT)

The contract (or task order) Statement of Work (SOW) describes the work to be performed. The contractor may determine a need to procure supplies and services from outside vendors which are incidental to performing this SOW. These purchasing activities should promote competition to the maximum extent possible and promote best value purchases; however, these purchasing functions are limited to necessary and incidental items tied directly to contractor performance. As such, the contractor is prohibited from purchasing items for direct use by the government as these items should be procured by the Government. The contractor shall not perform purchasing functions or act in any other way as an agent for the government. Examples of prohibited purchases that are typical for most support service contracts include the purchase, for government use, of the following: office supplies, hardware, computers and other peripheral devices, vehicles, personal and convenience items. Other examples of prohibited purchases include: pass-through purchases unrelated to the overall scope of the contract (i.e., non-contract related ODCs). The Contracting Officer at the time of negotiation will make a determination as to the appropriateness of the ODCs being proposed by the contractor. The contractor is required to notify the Contracting Officer of any requests by Government personnel to direct a specific procurement action to a specific source without appropriate justification and approval (see NFS 1806.303-170).

The contractor shall not be entitled to payment or reimbursement for any purchase that is not incidental to the direct performance of the specific work they have agreed to perform under the Contract. Furthermore, the contractor shall not be entitled to payment or reimbursement for any tasks or services performed, nor for any incidental or administrative expenses whatsoever not incurred in or incidental to direct performance of the contract SOW.

(END OF CLAUSE)

H.15 ORGANIZATIONAL CONFLICTS OF INTEREST, AND LIMITATION OF FUTURE CONTRACTING (FEB 2012)

(a) The Contracting Officer has determined that this acquisition may give rise to a potential organizational conflict of interest. Accordingly, the attention of prospective offerors is directed to FAR Subpart 9.5 - Organizational Conflicts of Interest.

(b) The nature of this potential conflict is:

The contractor may develop and/or implement strategic plans relative to rotary wing research for NASA and other Government agencies. NASA's future rotary wing research (and related contracts) may include these plans thereby providing contractor an unfair advantage. Another potential source of organizational conflict results from the fact that, in the performance of this contract, the contractor may be given appropriate access to Government Sensitive Data and/or third-party proprietary data. Additionally, the awardee may be involved in the development of or have input to specifications and requirements resulting in future procurements.

(c) To avoid, neutralize, or mitigate the potential organizational conflict of interest, the following restrictions upon future contracting shall apply:

(1) If the Contractor, under the terms of this contract, or through the performance of tasks pursuant to this contract, is required to develop specifications or statements of work that are to be incorporated into a solicitation, the Contractor shall be ineligible to perform the work described in that solicitation as a prime or first-tier subcontractor under an ensuing NASA contract. This restriction shall remain in effect for a reasonable time, as agreed to by the Contracting Officer and the Contractor, sufficient to avoid unfair competitive advantage or potential bias (this time shall in no case be less than the duration of the initial production contract). NASA shall not unilaterally require the Contractor to prepare such specifications or statements of work under this contract.

(2) The Contractor shall not, during the performance of the contract and for a period of three years following completion of performance thereof, engage in the following activities:

(i) Participate in competitions, as either a prime proposer or a proposed subcontractor, based upon data obtained because of the Contractor's access under performance of work under this Contract to, and support of, NASA strategic plans, or participation in the development of specifications and/or requirements; or participate in competitions, as either a prime proposer or a proposed subcontractor, where the Contractor participated in defining requirements of the competition as a result of supporting the development of NASA strategic plans or when supporting the development of specifications and/or requirements under performance of work under this contract.

(d) If, in the performance of work under this Contract, the Contractor has access to Government Sensitive Data or third-party proprietary data, the Contractor shall protect such data from unauthorized use or disclosure so long as it remains proprietary. In addition, the Contractor shall not be permitted to use such data other than in performance under this Contract, unless:

(1) It receives the explicit written permission of the owner of such data and the Contracting Officer; or

(2) Such data has been released or otherwise made available to the public by the Government or the owner of the third-party proprietary data.

In addition, the Contractor agrees that to the extent it receives or is given access to proprietary data, data protected by the Privacy Act of 1974 (5 U.S.C. 552a), or other confidential or privileged technical, business, or financial information under this Contract, it shall treat such information in accordance with any use or dissemination restrictions imposed on such information.

Further, the Contractor shall not submit an unsolicited proposal to the Government which is based on such data until one year after such data is released or otherwise made available to the public.

(e) (1) If, in the performance of work under this Contract, the Contractor enters into a separate agreement with a company for the protection of Government Sensitive Data or third-party proprietary data, the Contractor shall furnish a copy of that agreement to the Contracting Officer.

(2) The Contractor must educate its employees, through formal training, not to divulge Government Sensitive Data or third-party proprietary data, trade secrets, confidential information, or restricted data of companies received in connection with the performance of

work under this Contract. The Contractor shall provide a plan to implement this training for the approval of the Contracting Officer.

(3) The Contractor shall obtain from all employees having access to Government Sensitive Data or third-party proprietary data under this Contract a written agreement which shall prohibit those employees, during the term of their employment and thereafter, from disclosing to others or using for their own behalf, such data received in connection with the performance of work under this Contract, and from retaining a copy of such data after termination of their employment under this Contract.

(f) The term "Contractor" as used in this clause shall include (i) the corporate or other entity executing this Contract with the Government; (ii) such entity's parent, subsidiary, affiliate, or successor entities to the extent that the parent, subsidiary, affiliate, or successor entity has responsibility for the performance of work under this Contract; and (iii) the Contractor's subcontractors that (A) support Rotary Engineering, Modeling and Simulation (REMS) Contract, as delineated in the Statement of Work of this Contract or (B) handle, receive, reduce, interpret, or transmit data obtained, used, or produced in conjunction with research programs in REMS.

(g) The term "Contract" as used in this clause shall include options, extensions, and any successor contracts performed or to be performed by the Contractor without any other contractor intervening.

(h) The term "Data" as used in this clause, means recorded information, regardless of form or media on which it may be recorded. The term includes technical data and computer software. The term further includes Government Sensitive Data or third-party proprietary data including proprietary data, trade secret information, data protected by the Privacy Act of 1974 (5 U.S.C. 552a) and other confidential or privileged technical, business or financial data.

(i) The term "Government Sensitive Data" as used in this clause means data for which the disclosure or use is controlled by U.S. Statute or implementing published federal regulations or NASA policy and, where so identified, includes data first produced by the Contractor.

(j) The Contractor's Organizational Conflict of Interest Avoidance Plan is incorporated by reference into this contract (see Attachment J.1(a)(6)). This Plan addresses Organizational conflicts of Interest at the contract level. Each individual task order will state if additional Organizational Conflict of Interest Avoidance Plan may be required by the Contracting Officer to address potential conflicts of interest prior to authorization of that task order.

(k) The Contractor shall include paragraphs (a) through (i) of this clause in every subcontract. The Contractor shall be responsible for ensuring compliance with all of the provisions of this clause by each of its subcontractors.

(END OF CLAUSE)

H.16 INCORPORATION OF THE CONTRACTOR'S PROPOSAL

The Contractor's (TBD) proposal, including revision(s), submitted in response to the solicitation entitled "REMS" is hereby incorporated into the contract by reference.

(END OF CLAUSE)

H.17 DEVELOPMENT AND USE OF OPEN SOURCE SOFTWARE (APR 2011)

The Government may designate for certain tasks under this contract that software (including documentation) developed under specified contract tasks be released as "Open Source" software, as that term is defined by the Open Source Definition promulgated by the Open Source Initiative web (see <http://opensource.org/docs/osd>). This Open Source release shall be done in compliance with NASA Policy Requirement (NPR) 2210.1A External Release of NASA Software. Accordingly, the contractor shall be required to assign copyright in the developed software (including documentation) to the Government.

Where possible, the developed Open Source software shall be governed by the terms of the NASA Open Source Agreement (NOSA), which can be found at <http://opensource.arc.nasa.gov/page/nosa-software-agreement> or <http://opensource.org/licenses/nasa1.3.php>

It is anticipated that the software developed under this contract may include enhancements (bug fixes, feature additions) to existing Open Source software, such software being covered by an external Open Source software license. Some Open Source licenses require further development/enhancement of the covered Open Source software be further transferred only under that particular Open Source software license (e.g., GNU General Public License (GPL)), making the external software license not compatible with the NOSA. The decision to incorporate into software developed under this contract any Open Source software that is governed by an Open Source software license that is not compatible with the NOSA shall be made deliberately in consultation with the Government task manager and Patent Counsel prior to any development of software under this contract.

(END OF CLAUSE)

[END OF SECTION]

PART II - CONTRACT CLAUSES

SECTION I - CONTRACT CLAUSES

I.1 FAR 52.252-2 LISTING OF CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

<http://www.acquisition.gov/comp/far/index.html>

<http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm>

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

| CLAUSE NUMBER | DATE | TITLE |
|------------------|----------|---|
| 52.202-1 | JUL 2004 | DEFINITIONS |
| 52.203-3 | APR 1984 | GRATUITIES |
| 52.203-5 | APR 1984 | COVENANT AGAINST CONTINGENT FEES |
| 52.203-6 | SEP 2006 | RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT |
| 52.203-7 | OCT 2010 | ANTI-KICKBACK PROCEDURES |
| 52.203-8 | JAN 1997 | CANCELLATION, RESCISSION AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY |
| 52.203-10 | JAN 1997 | PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY |
| 52.203-12 | OCT 2010 | LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS |
| 52.203-13 | APR 201 | CONTRACTOR CODE OF BUSINESS ETHICS AND CONDUCT |
| 52.203-14 | DEC 2007 | DISPLAY OF HOTLINE POSTER(S) |
| 52.204-2 | AUG 1996 | SECURITY REQUIREMENTS |
| 52.204-4 | MAY 2011 | PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER |
| 52.204-7 | APR 2008 | CENTRAL CONTRACTOR REGISTRATION REPORTING EXECUTIVE COMPENSATION |
| 52.204-10 | JUL 2010 | AND FIRST-TIER SUBCONTRACT AWARDS |
| 52.209-6 | DEC 2010 | PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT |
| 52.215-2 | OCT 2010 | AUDIT AND RECORDS-NEGOTIATION |
| 52.215-8 | OCT 1997 | ORDER OF PRECEDENCE - UNIFORM |

| | | |
|-----------|----------|--|
| | | CONTRACT FORMAT |
| 52.215-17 | OCT 1997 | WAIVER OF FACILITIES COST OF MONEY |
| 52.215-19 | OCT 1997 | NOTIFICATION OF OWNERSHIP CHANGES |
| 52.215-21 | OCT 2010 | REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA -- MODIFICATIONS |
| 52.216-7 | JUN 2011 | ALLOWABLE COST AND PAYMENT Insert 30 th in Paragraph (a)(3). |
| 52.216-8 | JUN 2011 | FIXED FEE |
| 52.219-6 | JUN 2003 | NOTICE OF TOTAL SMALL BUSINESS SET-ASIDE |
| 52.219-8 | JAN 2011 | UTILIZATION OF SMALL BUSINESS CONCERNS |
| 52.219-14 | NOV 2011 | LIMITATIONS ON SUBCONTRACTING |
| 52.222-1 | FEB 1997 | NOTICE TO THE GOVERNMENT OF LABOR DISPUTES |
| 52.222-2 | JUL 1990 | PAYMENT FOR OVERTIME PREMIUMS Insert "\$__N/A__" in paragraph (a). |
| 52.222-3 | JUN 2003 | CONVICT LABOR |
| 52.222-21 | FEB 1999 | PROHIBITION OF SEGREGATED FACILITIES |
| 52.222-26 | MAR 2007 | EQUAL OPPORTUNITY (ALTERNATE I) (FEB 1999) |
| 52.222-35 | SEP 2010 | EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS |
| 52.222-36 | OCT 2010 | AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES |
| 52.222-37 | SEP 2010 | EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS |
| 52.222-50 | FEB 2009 | COMBATING TRAFFICKING IN PERSONS |
| 52.222-54 | JAN 2009 | EMPLOYMENT ELIGIBILITY VERIFICATIONS |
| 52.223-3 | JAN 1997 | HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (ALTERNATE I) (JUL 1995) Insert "__TBD__" in paragraph (b). |
| 52.223-6 | MAY 2001 | DRUG-FREE WORKPLACE |
| 52.223-18 | AUG 11 | ENCOURAGING CONTRACTOR POLICIES TO BAN TEXT MESSAGING WHILE DRIVING |
| 52.225-13 | JUN 2008 | RESTRICTIONS ON CERTAIN FOREIGN PURCHASES |
| 52.225-25 | NOV 2011 | PROHIBITION ON CONTRACTING WITH ENTITIES ENGAGING IN SANCTIONED ACTIVITIES RELATING TO IRAN-REPRESENTATION AND CERTIFICATION |
| 52.227-1 | DEC 2007 | AUTHORIZATION AND CONSENT |

| | | |
|-----------|----------|---|
| | | (ALTERNATE I) (APR 1984) |
| 52.227-2 | DEC 2007 | NOTICE AND ASSISTANCE REGARDING |
| | | PATENT AND COPYRIGHT INFRINGEMENT |
| 52.227-11 | DEC 2007 | PATENT RIGHTS-OWNERSHIP BY THE |
| | | CONTRACTOR |
| 52.227-16 | JUN 1987 | ADDITIONAL DATA REQUIREMENTS |
| 52.227-17 | DEC 2007 | RIGHTS IN DATA-SPECIAL WORKS |
| 52.227-23 | JUN 1987 | RIGHTS TO PROPOSAL DATA (TECHNICAL) |
| | | <u>To be completed by Offeror:</u> |
| | | Insert page number and proposal date in first |
| | | sentence (fill-ins below: |
| | | Page Number: _____ |
| | | Proposal Date: _____ |
| 52.232-9 | APR 1984 | LIMITATION ON WITHHOLDING OF |
| | | PAYMENTS |
| 52.232-17 | OCT 2010 | INTEREST |
| 52.232-18 | APR 1984 | AVAILABILITY OF FUNDS |
| 52.232-19 | APR 1984 | AVAILABILITY OF FUNDS FOR THE NEXT |
| | | FISCAL YEAR |
| 52.232-22 | APR 1984 | LIMITATION OF FUNDS |
| 52.232-23 | JAN 1986 | ASSIGNMENT OF CLAIMS |
| 52.232-25 | OCT 2008 | PROMPT PAYMENT |
| 52.232-33 | OCT 2003 | PAYMENT BY ELECTRONIC FUNDS |
| | | TRANSFER-CENTRAL CONTRACTOR |
| | | REGISTRATION |
| 52.233-1 | JUL 2002 | DISPUTES |
| 52.233-3 | AUG 1996 | PROTEST AFTER AWARD (ALTERNATE I) (JUN |
| | | 1985) |
| 52.233-4 | OCT 2004 | APPLICABLE LAW FOR BREACH OF |
| | | CONTRACT CLAIM |
| 52.242-1 | APR 1984 | NOTICE OF INTENT TO DISALLOW COSTS |
| 52.242-3 | MAY 2001 | PENALTIES FOR UNALLOWABLE COSTS |
| 52.242-4 | JAN 1997 | CERTIFICATION OF FINAL INDIRECT COSTS |
| 52.242-13 | JUL 1995 | BANKRUPTCY |
| 52.243-2 | AUG 1987 | CHANGES--COST-REIMBURSEMENT |
| | | (ALTERNATE V) (APR 1984) |
| 52.244-2 | OCT 2010 | SUBCONTRACTS |
| 52.244-5 | DEC 1996 | COMPETITION IN SUBCONTRACTING |
| 52.244-6 | DEC 2010 | SUBCONTRACTS FOR COMMERCIAL ITEMS |
| 52.245-1 | AUG 2010 | GOVERNMENT PROPERTY |
| 52.245-2 | AUG 2010 | GOVERNMENT INSTALLATION OPERATION |
| | | SERVICES |
| 52.245-9 | AUG 2010 | USE AND CHARGES |
| 52.247-1 | FEB 2006 | COMMERCIAL BILL OF LADING NOTATIONS |
| 52.249-6 | MAY 2004 | TERMINATION (COST-REIMBURSEMENT) |
| 52.249-14 | APR 1984 | EXCUSABLE DELAYS |
| 52.253-1 | JAN 1991 | COMPUTER GENERATED FORMS |

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

| CLAUSE NUMBER | DATE | TITLE |
|---------------|----------|--|
| 1852.203-70 | JUN 2001 | DISPLAY OF INSPECTOR GENERAL HOTLINE POSTERS |
| 1852.209-72 | DEC 1998 | COMPOSITION OF THE CONTRACTOR |
| 1852.216-89 | JUL 1997 | ASSIGNMENT AND RELEASE FORMS |
| 1852.219-74 | SEP 1990 | USE OF RURAL AREA SMALL BUSINESSES |
| 1852.219-76 | JUL 1997 | NASA 8 PERCENT GOAL |
| 1852.223-74 | MAR 1996 | DRUG AND ALCOHOL-FREE WORKFORCE |
| 1852.227-11 | | Patent Rights – Retention by the Contractor (Short Form) (<i>modifies FAR 52.227-11, Patent Rights – Ownership by the Contractor, by inserting the following information in paragraph (j)</i>): Patent Representative Office of Chief Counsel NASA Ames Research Center Moffett Field, CA 94035-0001 |
| 1852.227-70 | MAY 2002 | NEW TECHNOLOGY |
| 1852.228-75 | OCT 1988 | INSURANCE COVERAGE |
| 1852.235-70 | DEC 2006 | CENTER FOR AEROSPACE INFORMATION |
| 1852.237-70 | DEC 1998 | EMERGENCY EVACUATION PROCEDURES |
| 1852.242-78 | APR 2001 | EMERGENCY MEDICAL SERVICES AND EVACUATION |
| 1852.243-71 | MAR 1997 | SHARED SAVINGS |
| 1852.245-81 | JAN 2011 | LIST OF AVAILABLE GOVERNMENT PROPERTY |

(End of Clause)

1.2 PERSONAL IDENTITY VERIFICATION OF CONTRACTOR PERSONNEL (FAR 52.204-9) (JAN 2011)

(a) The Contractor shall comply with agency personal identity verification procedures identified in the contract that implement Homeland Security Presidential Directive-12 (HSPD-12), Office of Management and Budget (OMB) guidance M-05-24, and Federal Information Processing Standards Publication (FIPS PUB) Number 201.

(b) The Contractor shall account for all forms of Government-provided identification issued to the Contractor employees in connection with performance under this contract. The Contractor shall return such identification to the issuing agency at the earliest of any of the following, unless otherwise determined by the Government;

(1) When no longer needed for contract performance.

(2) Upon completion of the Contractor employee's employment.

(3) Upon contract completion or termination.

(c) The Contracting Officer may delay final payment under a contract if the Contractor fails to comply with these requirements.

(d) The Contractor shall insert the substance of clause, including this paragraph (d), in all subcontracts when the subcontractor’s employees are required to have routine physical access to a Federally-controlled facility and/or routine access to a Federally-controlled information system. It shall be the responsibility of the prime Contractor to return such identification to the issuing agency in accordance with the terms set forth in paragraph (b) of this section, unless otherwise approved in writing by the Contracting Officer.

FIPS 201 Appendix A graphically displays the following procedure for the issuance of a PIV credential.

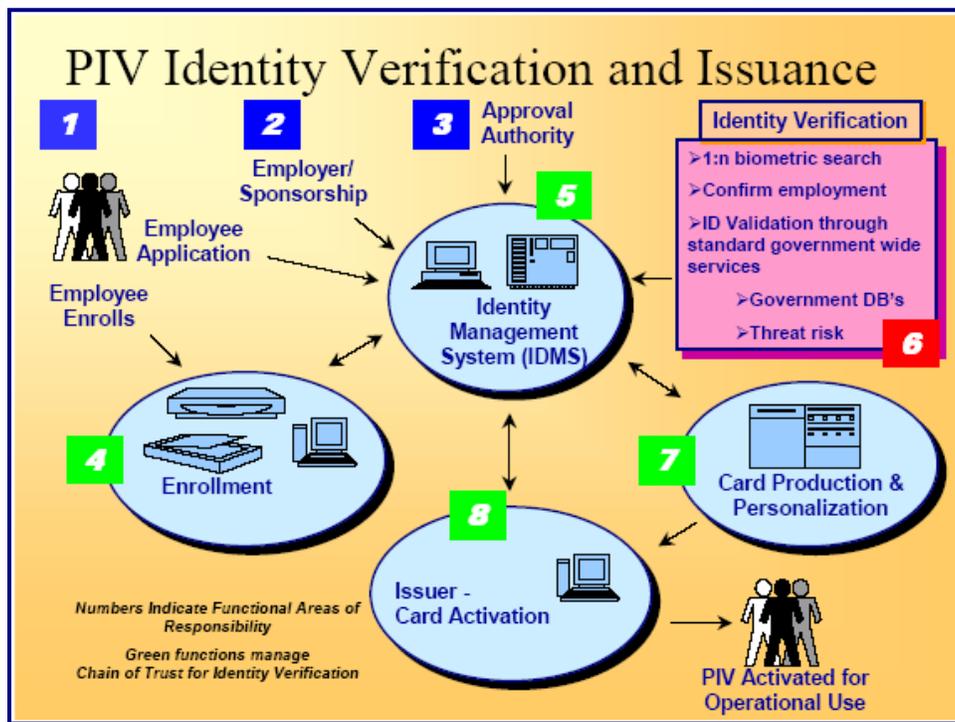


Figure A-1, FIPS 201, Appendix A

The following steps describe the procedures for the NASA Personal Identity Verification Card Issuance (PCI) of a PIV credential:

Step 1:

The Contractor’s Corporate Security Officer (CSO), Program Manager (PM), or Facility Security Officer (FSO) submits a formal letter that provides a list of contract employees (applicant) names requesting access to the NASA Contracting Officer’s Technical Representative (COTR). In the case of a foreign national applicant, approval through the NASA Foreign National Management System (NFMMS) must be obtained for the visit or assignment before any processing for a PIV credential can take place. Further, if the foreign national is not under a contract where a COTR has been officially designated, the foreign national will provide the information directly to their

visit/assignment host, and the host sponsor will fulfill the duties of the COTR mentioned herein. In each case, the letter shall provide notification of the contract or foreign national employee's (hereafter the "applicant") full name (first, middle and last), social security number (SSN) or NASA Foreign National Management System Visitor Number if the foreign national does not have a SSN, and date of birth. If the contract employee has a current satisfactorily completed National Agency Check with Inquiries (NACI) or an equivalent or higher degree of background investigation, the letter shall indicate the type of investigation, the agency completing the investigation, and date the investigation was completed. Also, the letter must specify the risk/sensitivity level associated with the position in which each applicant will be working (NPR 1600.1, §4.5 is germane) Further, the letter shall also acknowledge that contract employees may be denied access to NASA information or information systems based on an unsatisfactory background investigation/adjudication.

After reviewing the letter for completeness and concurring with the risk/sensitivity levels, the COTR/host must forward the letter to the Center Chief of Security (CCS). The CCS shall review the OPM databases (e.g., DCII, PIP, et al.), and take appropriate steps to validate the applicant's investigation status. Requirements for a NACI or other investigation shall be initiated only if necessary.

Applicants who do not currently possess the required level of background investigation shall be directed to the e-QIP web site to complete the necessary background investigation forms online. The CCS shall provide to the COTR/host information and instructions on how to access the e-QIP for each contract or foreign national employee requiring access

Step 2:

Upon acceptance of the letter/background information, the applicant will be advised that in order to complete the investigative process, he or she must appear in-person before the authorized PIV registrar and submit two forms of identity source documents in original form. The identity source documents must come from the list of acceptable documents included in Form I-9, Employment Eligibility Verification, one which must be a Federal¹ or State issued picture identification. Fingerprints will be taken at this time. The applicant must appear no later than the entry on duty date.

When the applicant appears, the registrar will electronically scan the submitted documents; any document that appears invalid will be rejected by the registrar. The registrar will capture electronically both a facial image and fingerprints of the applicant. The information submitted by the applicant will be used to create or update the applicant identity record in the Identity Management System (IDMS).

Step 3:

Upon the applicant's completion of the investigative document, the CCS reviews the information, and resolves discrepancies with the applicant as necessary. When the applicant has appeared in person and completed fingerprints, the package is electronically submitted to initiate the NACI. The CCS includes a request for feedback on the NAC portion of the NACI at the time the request is submitted.

Step 4:

¹ A non-PIV government identification badge, including the NASA Photo Identification Badge, MAY NOT BE USED for the original issuance of a PIV vetted credential

Prior to authorizing physical access of a contractor employee to a federally-controlled facility or access to a Federal information system, the CCS will ensure that a check has been performed with the National Crime Information Center (NCIC) and Interstate Identification Index. In the case of a foreign national, a national check of the Bureau of Immigration and Customs Enforcement (BICE) database will be performed for each applicant. If this process yields negative information, the CCS will immediately notify the COTR/host of the determination regarding access made by the CCS.

Step 5:

Upon receipt of the completed NAC, the CCS will update IDMS from the NAC portion of the NACI and indicate the result of the suitability determination. If an unsatisfactory suitability determination is rendered, the COTR will advise the contractor that the employee is being denied physical access to all federally-controlled facilities and Federal information systems.

Based on a favorable NAC and NCIC/III or BICE check, the CCS will authorize the issuance of a PIV federal credential in the Physical Access Control System (PACS) database. The CCS, based on information provided by the COTR/host, will determine what physical access the applicant should be granted once the PIV issues the credential.

Step 6:

Using the information provided by the applicant during his or her in-person appearance, the PIV card production facility creates and instantiates the approved PIV card for the applicant with an activation date commensurate with the applicant's start date.

Step 7:

The applicant proceeds to the credential issuance facility to begin processing for receipt of his/her federal credential.

The applicant provides to the credential issuing operator proof of identity with documentation that meets the requirements of FIPS 201 (DHS Employment Eligibility Verification (Form I-9) documents. These documents must be the same documents submitted for registration.

The credential issuing operator will verify that the facial image, and optionally reference finger print, matches the enrollment data used to produce the card. Upon verification of identity, the operator will locate the employee's record in the PACS database, and modify the record to indicate the PIV card has been issued. The applicant will select a PIN for use with his or her new PIV card. Although root data is inaccessible to the operator, certain fields (hair color, eye color, et al.) may be modified to more accurately record the employee's information.

The applicant proceeds to a kiosk or other workstation to complete activation of the PIV card using the initial PIN entered at card issuance.

ALTERNATIVE FOR APPLICANTS WHO DO NOT HAVE A COMPLETED AND ADJUDICATED NAC AT THE TIME OF ENTRANCE ON DUTY

Steps 1 through 4 shall be accomplished for all applicants in accordance with the process described above. If the applicant is unable to appear in person until the time of entry on duty, or does not, for any other reason, have a completed and adjudicated NAC portion of the NACI at the time of entrance on duty, the following interim procedures shall apply.

1. If the documents required to submit the NACI have not been completed prior to EOD, the applicant will be instructed to complete all remaining requirements for submission of the investigation request. This includes presentation of I-9 documents and completion of fingerprints, if not already accomplished. If the applicant fails to complete these activities as prescribed in NPR 1600.1 (Chapters 3 & 4), it may be considered as failure to meet the conditions required for physical access to a federally-controlled facility or access to a Federal information system, and result in denial of such access.
2. Based on favorable results of the NCIC, the applicant shall be issued a temporary NASA identification card for a period not-to-exceed six months. If at the end of the six month period the NAC results have not been returned, the agency will at that time make a determination if an additional extension will be granted for the temporary identification card.
3. Upon return of the completed NAC, the process will continue from Step 5.

(End of clause)

I.3 ORDERING (FAR 52.216-18) (OCT 1995)

(a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the individuals or activities designated in the Schedule. Such orders may be issued from the effective date of the contract through the end of contract performance as specified in clause F.2.

(b) All delivery orders or task orders are subject to the terms and conditions of this contract. In the event of conflict between a delivery order or task order and this contract, the contract shall control.

(c) If mailed, a delivery order or task order is considered "issued" when the Government deposits the order in the mail. Orders may be issued orally, by facsimile, or by electronic commerce methods only if authorized in the Schedule.

(End of clause)

I.4 ORDER LIMITATIONS (FAR 52.216-19) (OCT 1995)

(a) *Minimum order.* When the Government requires supplies or services covered by this contract in an amount of less than \$1,000.00, the Government is not obligated to purchase, nor is the Contractor obligated to furnish, those supplies or services under the contract.

(b) *Maximum order.* The Contractor is not obligated to honor-

(1) Any order for a single item in excess of \$10,000,000.00;

(2) Any order for a combination of items in excess of \$20,000,000.00; or

(3) A series of orders from the same ordering office within _____5_____ days that together call for quantities exceeding the limitation in paragraph (b)(1) or (2) of this section.

(c) If this is a requirements contract (*i.e.*, includes the Requirements clause at subsection 52.216-21 of the Federal Acquisition Regulation (FAR)), the Government is not required to order a part of any one requirement from the Contractor if that requirement exceeds the maximum-order limitations in paragraph (b) of this section.

(d) Notwithstanding paragraphs (b) and (c) of this section, the Contractor shall honor any order exceeding the maximum order limitations in paragraph (b), unless that order (or orders) is returned to the ordering office within 5 days after issuance, with written notice stating the Contractor's intent not to ship the item (or items) called for and the reasons. Upon receiving this notice, the Government may acquire the supplies or services from another source.

(End of clause)

I.5 INDEFINITE QUANTITY (FAR 52.216-22) (OCT 1995)

(a) This is an indefinite-quantity contract for the supplies or services specified and effective for the period stated, in the Schedule. The quantities of supplies and services specified in the Schedule are estimates only and are not purchased by this contract.

(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. The Contractor shall furnish to the Government, when and if ordered, the supplies or services specified in the Schedule up to and including the quantity designated in the Schedule as the "maximum." The Government shall order at least the quantity of supplies or services designated in the Schedule as the "minimum."

(c) Except for any limitations on quantities in the Order Limitations clause or in the Schedule, there is no limit on the number of orders that may be issued. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.

(d) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; *provided*, that the Contractor shall not be required to make any deliveries under this contract after 60 days after the end of the Contract Period of Performance.

(End of clause)

I.6 NOTIFICATION OF EMPLOYEE RIGHTS UNDER THE NATIONAL LABOR RELATIONS ACT (FAR52.222-40) (DEC 2010)

(a) During the term of this contract, the Contractor shall post an employee notice, of such size and in such form, and containing such content as prescribed by the Secretary of Labor, in conspicuous places in and about its plants and offices where employees covered by the national

Labor Relations Act engage in activities relating to the performance of the contract, including all places where notices to employees are customarily posted both physically and electronically, in the languages employees speak, in accordance with 29 CFR 471.2(d) and (f).

(1) Physical posting of the employee notice shall be in conspicuous places in and about the Contractor's plants and offices so that the notice is prominent and readily seen by employees who are covered by the National Labor Relations Act and engage in activities related to the performance of the contract.

(2) If the Contractor customarily posts notices to employees electronically, then the Contractor shall also post the required notice electronically by displaying prominently, on any Web site that is maintained by the Contractor and is customarily used for notices to employees about terms and conditions of employment, a link to the Department of Labor's Web site that contains the full text of the poster. The link to the Department's Web site, as referenced in (b)(3) of this section, must read, "Important Notice about Employee Rights to Organize and Bargain Collectively with Their Employers."

(b) This required employee notice, printed by the Department of Labor, may be—

(1) Obtained from the Division of Interpretations and Standards, Office of Labor-Management Standards, U.S. Department of Labor, 200 Constitution Avenue, NW., Room N-5609, Washington, DC 20210, (202) 693-0123, or from any field office of the Office of Labor-Management Standards or Office of Federal Contract Compliance Programs;

(2) Provided by the Federal contracting agency if requested;

(3) Downloaded from the Office of Labor-management Standards Web site at <http://www.dol.gov/olms/regs/compliance/EO13496.htm> ; or

(4) Reproduced and used as exact duplicate copies of the Department of Labor's official poster.

(c) The required text of the employee notice referred to in this clause is located at Appendix A, Subpart A, 29 CFR Part 471.

(d) The Contractor shall comply with all provisions of the employee notice and related rules, regulations, and orders of the Secretary of Labor.

(e) In the event that the Contractor does not comply with the requirements set forth in paragraphs (a) through (d) of this clause, this contract may be terminated or suspended in whole or in part, and the Contractor may be suspended or debarred in accordance with 29 CFR 471.14 and subpart 9.4 Such other sanctions or remedies may be imposed as are provided by 29 CFR part 471, which implements Executive Order 13496 or as otherwise provided by law.

(f) Subcontracts.

(1) The Contractor shall include the substance of this clause, including this paragraph (f), in every subcontract that exceeds \$10,000 and will be performed wholly or partially in the United States, unless exempted by the rules, regulations, or orders of the Secretary of Labor issued pursuant to section 3 of Executive Order 13496 of January 30, 2009, so that such provisions will be binding upon each subcontractor.

(2) The Contractor shall not procure supplies or services in a way designed to avoid the applicability of Executive Order 13496 or this clause.

(3) The Contractor shall take such action with respect to any such subcontract as may be directed by the Secretary of Labor as a means of enforcing such provisions, including the imposition of sanctions for noncompliance.

(4) However, if the Contractor becomes involved in litigation with a subcontractor, or is threatened with such involvement, as a result of such direction, the Contractor may request the United States, through the Secretary of Labor, to enter into such litigation to protect the interests of the United States.

(End of clause)

I.7 RIGHTS IN DATA-GENERAL (FAR 52.227-14) (DEC 2007)(ALT II-DEC 2007)(ALT III-DEC 2007)

(a) *Definitions.* As used in this clause--

“Computer database” or “database” means a collection of recorded information in a form capable of, and for the purpose of, being stored in, processed, and operated on by a computer. The term does not include computer software.

“Computer software”—

(1) *Means*

(i) Computer programs that comprise a series of instructions, rules, routines, or statements, regardless of the media in which recorded, that allow or cause a computer to perform a specific operation or series of operations; and

(ii) Recorded information comprising source code listings, design details, algorithms, processes, flow charts, formulas, and related material that would enable the computer program to be produced, created, or compiled.

(2) Does not include computer databases or computer software documentation.

“Computer software documentation” means owner’s manuals, user’s manuals, installation instructions, operating instructions, and other similar items, regardless of storage medium, that explain the capabilities of the computer software or provide instructions for using the software.

“Data” means recorded information, regardless of form or the media on which it may be recorded. The term includes technical data and computer software. The term does not include information incidental to contract administration, such as financial, administrative, cost or pricing, or management information.

“Form, fit, and function data” means data relating to items, components, or processes that are sufficient to enable physical and functional interchangeability, and data identifying source, size, configuration, mating, and attachment characteristics, functional characteristics, and performance requirements. For computer software it means data identifying source, functional characteristics, and performance requirements but specifically excludes the source code, algorithms, processes, formulas, and flow charts of the software.

“Limited rights” means the rights of the Government in limited rights data as set forth in the Limited Rights Notice of subparagraph (g)(2) if included in this clause.

“Limited rights data” means data, other than computer software, that embody trade secrets or are commercial or financial and confidential or privileged, to the extent that such data pertain to items, components, or processes developed at private expense, including minor modifications.

“Restricted computer software” means computer software developed at private expense and that is a trade secret; is commercial or financial and is confidential or privileged; or is copyrighted computer software, including minor modifications of the computer software.

“Restricted rights,” as used in this clause, means the rights of the Government in restricted computer software, as set forth in a Restricted Rights Notice of paragraph (g) if included in this clause, or as otherwise may be provided in a collateral agreement incorporated in and made part of this contract, including minor modifications of such computer software.

“Technical data” means recorded information (regardless of the form or method of the recording) of a scientific or technical nature (including computer databases and computer software documentation). This term does not include computer software or financial, administrative, cost or pricing, or management data or other information incidental to contract administration. The term includes recorded information of a scientific or technical nature that is included in computer databases (See 41 U.S.C. 403(8)).

“Unlimited rights” means the right of the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, in any manner and for any purpose, and to have or permit others to do so.

(b) Allocation of rights.

(1) Except as provided in paragraph (c) of this clause, the Government shall have unlimited rights in—

- (i) Data first produced in the performance of this contract;
- (ii) Form, fit, and function data delivered under this contract;

(iii) Data delivered under this contract (except for restricted computer software) that constitute manuals or instructional and training material for installation, operation, or routine maintenance and repair of items, components, or processes delivered or furnished for use under this contract; and

(iv) All other data delivered under this contract unless provided otherwise for limited rights data or restricted computer software in accordance with paragraph (g) of this clause.

(2) The Contractor shall have the right to—

(i) Assert copyright in data first produced in the performance of this contract to the extent provided in paragraph (c)(1) of this clause;

(ii) Use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Contractor in the performance of this contract, unless provided otherwise in paragraph (d) of this clause;

(iii) Substantiate use of, add or correct limited rights, restricted rights, or copyright notices and to take other appropriate action, in accordance with paragraphs (e) and (f) of this clause; and

(iv) Protect from unauthorized disclosure and use those data that are limited rights data or restricted computer software to the extent provided in paragraph (g) of this clause.

(c) *Copyright*—

(1) *Data first produced in the performance of this contract.*

(i) Unless provided otherwise in paragraph (d) of this clause, the Contractor may establish, without prior approval of the Contracting Officer, claim to copyright in scientific and technical articles based on or containing data first produced in the performance of this contract and published in academic, technical or professional journals, symposia proceedings or similar works. The prior, express written permission of the Contracting Officer is required to assert copyright in all other data first produced in the performance of this contract.

(ii) When authorized to assert copyright to the data, the Contractor shall affix the applicable copyright notices of 17 U.S.C. 401 or 402, and acknowledgment of Government sponsorship (including contract number).

(iii) For data other than computer software, the Contractor grants to the Government, and others acting on its behalf, a paid-up, nonexclusive, irrevocable worldwide license in such copyrighted data to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government. For computer software, the Contractor grants to the Government and others acting on its behalf, a paid-up nonexclusive,

irrevocable worldwide license in such copyrighted computer software to reproduce, prepare derivative works, and perform publicly and display publicly (but not to distribute copies to the public) by or on behalf of the Government.

(2) *Data not first produced in the performance of this contract.* The Contractor shall not, without prior written permission of the Contracting Officer, incorporate in data delivered under this contract any data not first produced in the performance of this contract unless the Contractor—

(i) Identifies the data; and

(ii) Grants to the Government, or acquires on its behalf, a license of the same scope as set forth in subparagraph (c)(1) of this clause or; if such data are restricted computer software, the Government shall acquire a copyright license as set forth in subparagraph (g)(4) of this clause (if included in this contract) or as otherwise provided in a collateral agreement incorporated in or made part of this contract.

(3) *Removal of copyright notices.* The Government will not remove any authorized copyright notices placed on data pursuant to this paragraph (c), and will include such notices on all reproductions of the data.

(d) *Release, publication and use of data.* The Contractor shall have the right to use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Contractor in the performance of this contract, except—

(1) As prohibited by Federal law or regulation (e.g., export control or national security laws or regulations);

(2) As expressly set forth in this contract; or

(3) If the Contractor receives or is given access to data necessary for the performance of this contract which contain restrictive markings, the Contractor shall treat the data in accordance with such markings unless otherwise specifically authorized otherwise in writing by the Contracting Officer.

(e) *Unauthorized marking of data.*

(1) Notwithstanding any other provisions of this contract concerning inspection or acceptance, if any data delivered under this contract are marked with the notices specified in paragraph (g)(3) or (g)(4) of this clause and use of the notices is not authorized by this clause, or if such data bears any other restrictive or limiting markings not authorized by this contract, the Contracting Officer may at any time either return the data to the Contractor, or cancel or ignore the markings. However, pursuant to 41 U.S.C. 253d, the following procedures shall apply prior to canceling or ignoring the markings.

(i) The Contracting Officer will make written inquiry to the Contractor affording the Contractor 60 days from receipt of the inquiry to provide written justification to substantiate the propriety of the markings;

(ii) If the Contractor fails to respond or fails to provide written justification to substantiate the propriety of the markings within the 60-day period (or a longer time approved in writing by the Contracting Officer for good cause shown), the Government shall have the right to cancel or ignore the markings at any time after said period and the data will no longer be made subject to any disclosure prohibitions.

(iii) If the Contractor provides written justification to substantiate the propriety of the markings within the period set in subdivision (e)(1)(i) of this clause, the Contracting Officer will consider such written justification and determine whether or not the markings are to be canceled or ignored. If the Contracting Officer determines that the markings are authorized, the Contractor will be so notified in writing. If the Contracting Officer determines, with concurrence of the head of the contracting activity, that the markings are not authorized, the Contracting Officer will furnish the Contractor a written determination, which determination shall become the final agency decision regarding the appropriateness of the markings unless the Contractor files suit in a court of competent jurisdiction within 90 days of receipt of the Contracting Officer's decision. The Government shall continue to abide by the markings under this paragraph (e)(1)(iii) until final resolution of the matter either by the Contracting Officer's determination becoming final (in which instance the Government will thereafter have the right to cancel or ignore the markings at any time and the data will no longer be made subject to any disclosure prohibitions), or by final disposition of the matter by court decision if suit is filed.

(2) The time limits in the procedures set forth in subparagraph (e)(1) of this clause may be modified in accordance with agency regulations implementing the Freedom of Information Act (5 U.S.C. 552) if necessary to respond to a request thereunder.

(3) Except to the extent the Government's action occurs as the result of final disposition of the matter by a court of competent jurisdiction, the Contractor is not precluded by paragraph (e) of this clause from bringing a claim, in accordance with the Disputes clause of this contract, that may arise as a result of the Government removing or ignoring authorized markings on data delivered under this contract.

(f) *Omitted or incorrect markings.*

(1) Data delivered to the Government without any restrictive markings shall be deemed to have been furnished with unlimited rights. The Government is not liable for the disclosure, use, or reproduction of such data.

(2) If the unmarked data has not been disclosed without restriction outside the Government, the Contractor may request, within 6 months (or a longer time approved by the Contracting Officer in writing for good cause shown) after delivery of such data,

permission to have authorized notices placed on qualifying data at the Contractor's expense, and the Contracting Officer may agree to do so if the Contractor—

- (i) Identifies the data to which the omitted notice is to be applied;
- (ii) Demonstrates that the omission of the notice was inadvertent;
- (iii) Establishes that the use of the proposed notice is authorized; and
- (iv) Acknowledges that the Government has no liability for the disclosure, use, or reproduction of any data made prior to the addition of the notice or resulting from the omission of the notice.

(3) If data has been marked with an incorrect notice, the Contracting Officer may—

- (i) Permit correction of the notice at the Contractor's expense if the Contractor identifies the data and demonstrates that the correct notice is authorized, or
- (ii) Correct any incorrect notices.

(g) *Protection of limited rights data and restricted computer software.*

(1) The Contractor may withhold from delivery qualifying limited rights data or restricted computer software that are not data identified in paragraphs (b)(1)(i), (ii), and (iii) of this clause. As a condition to this withholding, the Contractor shall—

- (i) Identify the data being withheld; and
- (ii) Furnish form, fit, and function data instead.

(2) Limited rights data that are formatted as a computer database for delivery to the Government shall be treated as limited rights data and not restricted computer software.

(3) Notwithstanding paragraph (g)(1) of this clause, the contract may identify and specify the delivery of limited rights data, or the Contracting Officer may require by written request the delivery of limited rights data that has been withheld or would otherwise be entitled to be withheld. If delivery of that data is required, the Contractor shall affix the following "Limited Rights Notice" to the data and the Government will treat the data, subject to the provisions of paragraphs (e) and (f) of this clause, in accordance with the notice:

Limited Rights Notice (Dec 2007)

(a) These data are submitted with limited rights under Government Contract No. _____ (and subcontract _____, if appropriate). These data may be reproduced and used by the Government with the express limitation that they will not, without written permission of the Contractor, be used for purposes of manufacture nor disclosed outside the Government; except that the Government may disclose these data outside the Government for the following purposes, if any; provided that the Government makes such disclosure subject to prohibition against further use

and disclosure: (i) Use (except for manufacture) by support service contractors; (ii) Evaluation by nongovernment evaluators; and (iii) Use (except for manufacture) by other contractors participating in the Government's program of which the specific contract is part.

(b) This Notice shall be marked on any reproduction of these data, in whole or in part.

(End of notice)

(4)(i) Notwithstanding paragraph (g)(1) of this clause, the contract may identify and specify the delivery of restricted computer software, or the Contracting Officer may require by written request the delivery of restricted computer software that has been withheld or would otherwise be entitled to be withheld. If delivery of that computer software is required, the Contractor shall affix the following "Restricted Rights Notice" to the computer software and the Government will treat the computer software, subject to paragraphs (e) and (f) of this clause, in accordance with the notice:

Restricted Rights Notice (Dec 2007)

(a) This computer software is submitted with restricted rights under Government Contract No. _____ (and subcontract _____, if appropriate). It may not be used, reproduced, or disclosed by the Government except as provided in paragraph (b) of this notice or as otherwise expressly stated in the contract.

(b) This computer software may be—

(1) Used or copied for use with the computer(s) for which it was acquired, including use at any Government installation to which the computer(s) may be transferred;

(2) Used or copied for use with a backup computer if any computer for which it was acquired is inoperative;

(3) Reproduced for safekeeping (archives) or backup purposes;

(4) Modified, adapted, or combined with other computer software, *provided* that the modified, adapted, or combined portions of the derivative software incorporating any of the delivered, restricted computer software shall be subject to the same restricted rights;

(5) Disclosed to and reproduced for use by support service Contractors or their subcontractors in accordance with paragraphs (b)(1) through (4) of this notice;

(6) Used or copied for use with a replacement computer;

(7) Evaluation by nongovernment evaluators; and,

(8) Use (except for manufacture) by other contractors participating in the Government's program of which the specific contract is part

(c) Notwithstanding the foregoing, if this computer software is copyrighted computer software, it is licensed to the Government with the minimum rights set forth in paragraph (b) of this notice.

(d) Any other rights or limitations regarding the use, duplication, or disclosure of this computer software are to be expressly stated in, or incorporated in, the contract.

(e) This notice shall be marked on any reproduction of this computer software, in whole or in part.

(End of notice)

(ii) Where it is impractical to include the Restricted Rights Notice on restricted computer software, the following short-form notice may be used instead:

Restricted Rights Notice Short Form (Jun 1987)

Use, reproduction, or disclosure is subject to restrictions set forth in Contract No. _____ (and subcontract, if appropriate) with _____ (name of Contractor and subcontractor).

(End of notice)

(iii) If restricted computer software is delivered with the copyright notice of [17 U.S.C. 401](#), it will be presumed to be licensed to the Government without disclosure prohibitions, with the minimum rights set forth in paragraph (b) of this clause.

(h) *Subcontracting*. The Contractor shall obtain from its subcontractors all data and rights therein necessary to fulfill the Contractor's obligations to the Government under this contract. If a subcontractor refuses to accept terms affording the Government such rights, the Contractor shall promptly notify the Contracting Officer of the refusal and shall not proceed with the subcontract award without authorization in writing from the Contracting Officer.

(i) *Relationship to patents or other rights*. Nothing contained in this clause shall imply a license to the Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Government.

(End of Clause)

I.8 AUTHORIZED DEVIATIONS IN CLAUSES (FAR 52.252-6) (APR 1984)

(a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of (DEVIATION) after the date of the clause.

(b) The use in this solicitation or contract of any NASA FAR Supplement (48 CFR 18) clause with an authorized deviation is indicated by the addition of (DEVIATION) after

the name of the regulation.

(End of Clause)

I.9 SECURITY REQUIREMENTS FOR UNCLASSIFIED TECHNOLOGY RESOURCES (NFS 1852.204-76) (DEVIATION) (SEP 2009)

- (a) The Contractor shall protect the confidentiality, integrity, and availability of NASA Electronic Information and IT resources and protect NASA Electronic Information from unauthorized disclosure.
- (b) This clause is applicable to all NASA contractors and subcontractors that process, manage, access, or store unclassified electronic information, to include Sensitive But Unclassified (SBU) information, for NASA in support of NASA's missions, programs, projects and/or institutional requirements. Applicable requirements, regulations, policies, and guidelines are identified in the Applicable Documents List (ADL) provided as an attachment to the contract. The documents listed in the ADL can be found at: www.nasa.gov/offices/ocio/itsecurity/index.html. For policy information considered sensitive, the documents will be identified as such in the ADL and made available through the Contracting Officer.
- (c) Definitions
 - (1) IT resources means any hardware or software or interconnected system or subsystem of equipment, that is used to process, manage, access, or store electronic information.
 - (2) NASA Electronic Information is any data (as defined in the Rights in Data clause of this contract) or information (including information incidental to contract administration, such as financial, administrative, cost or pricing, or management information) that is processed, managed, accessed or stored on an IT system(s) in the performance of a NASA contract.
 - (3) IT Security Management Plan -- This plan shall describe the processes and procedures that will be followed to ensure appropriate security of IT resources that are developed, processed, or used under this contract.
 - (4) IT Security Plan – this is a FISMA requirement; see the ADL for applicable requirements.

Within 30 days after contract award, the Contractor shall develop and deliver an IT Security Management Plan. The delivery address and approval authority will be included in the ADL.

All contractor personnel requiring physical or logical access to NASA IT resources must complete NASA's annual IT Security Awareness training. Refer to the IT Training policy located in the IT Security website at <https://itsecurity.nasa.gov/policies/index.html>.

- (d) The Contractor shall afford Government access to the Contractor's and subcontractors' facilities, installations, operations, documentation, databases, and personnel used in performance of the contract. Access shall be provided to the extent required to carry out a program of IT inspection (to include vulnerability testing), investigation and audit to safeguard against threats and hazards to the integrity, availability, and confidentiality of NASA Electronic Information or to the function of IT systems operated on behalf of NASA, and to preserve evidence of computer crime.
- (e) At the completion of the contract, the contractor shall return all NASA information and IT resources provided to the Contractor during the performance of the contract in accordance with retention documentation available in the ADL. The Contractor shall provide a listing of all NASA Electronic information and IT resources generated in performance of the contract. At that time, the Contractor shall request disposition instructions from the Contracting Officer. The Contracting Officer will provide disposition instructions within 30 calendar days of the contractor's request.
- (f) The Contracting Officer may waive specific requirements of this clause upon request of the contractor. The Contractor shall provide all relevant information requested by the Contracting Officer to support the waiver request.
- (g) The Contractor shall insert this clause, including this paragraph in all subcontracts that process, manage, access or store NASA Electronic Information in support of the mission of the Agency.

(End of Clause)

**I.10 SUBCONTRACTING AND DATA RIGHTS (ARC 52.227-97) (NOV 2010)
ALTERNATE I**

- (a) The Contractor shall flow down the data rights provisions of this contract to lower tier subcontractors to ensure that it can fulfill its data rights obligations to the Government. See Clause FAR 52.227-14(h), *Rights in Data—General*. The Contractor shall be held responsible to obtain rights for the Government where it fails to fulfill such obligations.
- (b) Pursuant to Clause FAR 52.227-14(c)(2), the Contractor must obtain Contracting Officer approval before incorporating any data not first produced under the Contract into data delivered under the contract. Before delivering such data, the Contractor must identify it and grant the Government, or acquire on its behalf, the broad licenses required by subparagraph (c) of the *Rights in Data—General* clause.
- (c) The Contractor shall make the representation required by FAR 52.227-15 for each contract task order. On a case-by-case basis, the Government will insert the purposes, rights or limitations under which the Government can use Limited Rights Data and Restricted Computer Software into the alternate clauses II and III of FAR 52.227-14.
- (d) This contract includes clause 52.227-17, *Rights in Data—Special Works* (as modified by 1852.227-17). The Special Works clause for this Contract applies to electronic media/web pages produced by Contractor under Contract Task Orders.

(End of Clause)

**I.11 INFORMATION INCIDENTAL TO CONTRACT ADMINISTRATION
(ARC 52.227-98) (OCT 2004)**

NASA shall have unlimited rights in information incidental to contract administration including administrative and management information created by the Contractor and specified for delivery to NASA in performance of the contract, expressly excluding financial information. Specifically, NASA shall have the right to release such administrative and management information to any third party to satisfy NASA's requirements.

(End of Clause)

**I.12 OMBUDSMAN (NFS 1852.215-84) (NOV 2011) (ALTERNATE I)
(JUN 2000)**

(a) An ombudsman has been appointed to hear and facilitate the resolution of concerns from offerors, potential offerors, and contractors during the preaward and postaward phases of this acquisition. When requested, the ombudsman will maintain strict confidentiality as to the source of the concern. The existence of the ombudsman is not to diminish the authority of the contracting officer, the Source Evaluation Board, or the selection official. Further, the ombudsman does not participate in the evaluation of proposals, the source selection process, or the adjudication of formal contract disputes. Therefore, before consulting with an ombudsman, interested parties must first address their concerns, issues, disagreements, and/or recommendations to the contracting officer for resolution.

(b) If resolution cannot be made by the contracting officer, interested parties may contact the installation ombudsman, whose name, address, telephone number, facsimile number, and e-mail address may be found at: http://prod.nais.nasa.gov/pub/pub_library/Omb.html. Concerns, issues, disagreements, and recommendations which cannot be resolved at the installation may be referred to the Agency ombudsman identified at the above URL. Please do not contact the ombudsman to request copies of the solicitation, verify offer due date, or clarify technical requirements. Such inquiries shall be directed to the Contracting Officer or as specified elsewhere in this document.

(c) If this is a task or delivery order contract, the ombudsman shall review complaints from contractors and ensure they are afforded a fair opportunity to be considered, consistent with the procedures of the contract.

(End of clause)

I.13 ACCESS TO SENSITIVE INFORMATION (NFS 1852.237-72) (JUN 2005)

(a) As used in this clause, "sensitive information" refers to information that a contractor has developed at private expense, or that the Government has generated that qualifies for an exception to the Freedom of Information Act, which is not currently in the public domain, and

which may embody trade secrets or commercial or financial information, and which may be sensitive or privileged.

(b) To assist NASA in accomplishing management activities and administrative functions, the Contractor shall provide the services specified elsewhere in this contract.

(c) If performing this contract entails access to sensitive information, as defined above, the Contractor agrees to -

(1) Utilize any sensitive information coming into its possession only for the purposes of performing the services specified in this contract, and not to improve its own competitive position in another procurement.

(2) Safeguard sensitive information coming into its possession from unauthorized use and disclosure.

(3) Allow access to sensitive information only to those employees that need it to perform services under this contract.

(4) Preclude access and disclosure of sensitive information to persons and entities outside of the Contractor's organization.

(5) Train employees who may require access to sensitive information about their obligations to utilize it only to perform the services specified in this contract and to safeguard it from unauthorized use and disclosure.

(6) Obtain a written affirmation from each employee that he/she has received and will comply with training on the authorized uses and mandatory protections of sensitive information needed in performing this contract.

(7) Administer a monitoring process to ensure that employees comply with all reasonable security procedures, report any breaches to the Contracting Officer, and implement any necessary corrective actions.

(d) The Contractor will comply with all procedures and obligations specified in its Organizational Conflicts of Interest Avoidance Plan, which this contract incorporates as a compliance document.

(e) The nature of the work on this contract may subject the Contractor and its employees to a variety of laws and regulations relating to ethics, conflicts of interest, corruption, and other criminal or civil matters relating to the award and administration of government contracts. Recognizing that this contract establishes a high standard of accountability and trust, the Government will carefully review the Contractor's performance in relation to the mandates and restrictions found in these laws and regulations. Unauthorized uses or disclosures of sensitive information may result in termination of this contract for default, or in debarment of the Contractor for serious misconduct affecting present responsibility as a government contractor.

(f) The Contractor shall include the substance of this clause, including this paragraph (f), suitably modified to reflect the relationship of the parties, in all subcontracts that may involve access to sensitive information

(End of clause)

I.14 RELEASE OF SENSITIVE INFORMATION (NFS 1852.237-73) (JUN 2005)

(a) As used in this clause, "sensitive information" refers to information, not currently in the public domain, that the Contractor has developed at private expense, that may embody trade secrets or commercial or financial information, and that may be sensitive or privileged.

(b) In accomplishing management activities and administrative functions, NASA relies heavily on the support of various service providers. To support NASA activities and functions, these service providers, as well as their subcontractors and their individual employees, may need access to sensitive information submitted by the Contractor under this contract. By submitting this proposal or performing this contract, the Contractor agrees that NASA may release to its service providers, their subcontractors, and their individual employees, sensitive information submitted during the course of this procurement, subject to the enumerated protections mandated by the clause at 1852.237-72, Access to Sensitive Information.

(c)(1) The Contractor shall identify any sensitive information submitted in support of this proposal or in performing this contract. For purposes of identifying sensitive information, the Contractor may, in addition to any other notice or legend otherwise required, use a notice similar to the following:

Mark the title page with the following legend:

"This proposal or document includes sensitive information that NASA shall not disclose outside the Agency and its service providers that support management activities and administrative functions. To gain access to this sensitive information, a service provider's contract must contain the clause at NFS 1852.237-72, Access to Sensitive Information. Consistent with this clause, the service provider shall not duplicate, use, or disclose the information in whole or in part for any purpose other than to perform the services specified in its contract. This restriction does not limit the Government's right to use this information if it is obtained from another source without restriction. The information subject to this restriction is contained in pages [insert page numbers or other identification of pages]."

Mark each page of sensitive information the Contractor wishes to restrict with the following legend:

"Use or disclosure of sensitive information contained on this page is subject to the restriction on the title page of this proposal or document."

(2) The Contracting Officer shall evaluate the facts supporting any claim that particular information is "sensitive." This evaluation shall consider the time and resources necessary to protect the information in accordance with the detailed safeguards mandated by the clause at 1852.237-72, Access to Sensitive Information. However, unless the Contracting Officer decides, with the advice of Center counsel, that reasonable grounds exist to challenge the Contractor's claim that particular information is sensitive, NASA and its service providers and their employees shall comply with all of the safeguards contained in paragraph (d) of this clause.

(d) To receive access to sensitive information needed to assist NASA in accomplishing management activities and administrative functions, the service provider must be operating under a contract that contains the clause at 1852.237-72, Access to Sensitive Information. This clause obligates the service provider to do the following:

(1) Comply with all specified procedures and obligations, including the Organizational Conflicts of Interest Avoidance Plan, which the contract has incorporated as a compliance document.

- (2) Utilize any sensitive information coming into its possession only for the purpose of performing the services specified in its contract.
- (3) Safeguard sensitive information coming into its possession from unauthorized use and disclosure.
- (4) Allow access to sensitive information only to those employees that need it to perform services under its contract.
- (5) Preclude access and disclosure of sensitive information to persons and entities outside of the service provider's organization.
- (6) Train employees who may require access to sensitive information about their obligations to utilize it only to perform the services specified in its contract and to safeguard it from unauthorized use and disclosure.
- (7) Obtain a written affirmation from each employee that he/she has received and will comply with training on the authorized uses and mandatory protections of sensitive information needed in performing this contract.
- (8) Administer a monitoring process to ensure that employees comply with all reasonable security procedures, report any breaches to the Contracting Officer, and implement any necessary corrective actions.
- (e) When the service provider will have primary responsibility for operating an information technology system for NASA that contains sensitive information, the service provider's contract shall include the clause at 1852.204-76, Security Requirements for Unclassified Information Technology Resources. The Security Requirements clause requires the service provider to implement an Information Technology Security Plan to protect information processed, stored, or transmitted from unauthorized access, alteration, disclosure, or use. Service provider personnel requiring privileged access or limited privileged access to these information technology systems are subject to screening using the standard National Agency Check (NAC) forms appropriate to the level of risk for adverse impact to NASA missions. The Contracting Officer may allow the service provider to conduct its own screening, provided the service provider employs substantially equivalent screening procedures.
- (f) This clause does not affect NASA's responsibilities under the Freedom of Information Act.
- (g) The Contractor shall insert this clause, including this paragraph (g), suitably modified to reflect the relationship of the parties, in all subcontracts that may require the furnishing of sensitive information.

(End of clause)

[END OF SECTION]

PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

**J.1 LIST OF DOCUMENTS, EXHIBITS, AND ATTACHMENTS
(ARC 52.211-90) (FEB 1997)**

(a) The following documents, exhibits, and attachments are included in the solicitation and resulting contract. Representations and certifications completed by the contractor in response to this solicitation are incorporated by reference in the resulting contract at time of award.

| Title | No. of Pages |
|--|--------------|
| J.1(a)(1). Task Order Procedure Guide | 1 |
| J.1(a)(2). Contract Data Requirements List (CDRL)/Requirements Description | 8 |
| J.1(a)(3). DD Form 254, Contract Security Classification Specification | 2 |
| J.1(a)(4). List of Government Furnished Property | 1 |
| J.1(a)(5). IT Security Plan | TBD |
| J.1(a)(6). Organizational Conflict of Interest Plan | TBD |

(b) The following documents, exhibits, and attachments are included only in the solicitation.

| Title | No. of Pages |
|---|--------------|
| J.1(b)(1). Sample Task Order 1, | 3 |
| J.1(b)(2). Sample Task Order 2, | 3 |
| J.1(b)(3). Sample Task Order 3, | 3 |
| J.1(b)(4). Exhibit 1, Proposal Cover Sheet, JA Form 038 | 1 |
| J.1(b)(5). Cost Template Workbook – Exhibits 2 – 11 | 17 |
| J.1(b)(6). Facility Capital Cost of Money Computation (Form CASB-CMF) | 1 |

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| | |
|--|---|
| J.1(b)(7). Contract Facilities Capital Cost of Money (DD Form 1861) | 1 |
| J.1(b)(8). Past Performance Questionnaire | 6 |
| J.1(b)(09). Quarterly Contractor Financial Management Report (NF 533Q) | 2 |
| J.1(b)(10). Monthly Contractor Financial Management Report (NF 533M) | 2 |

(End of Clause)

[END OF SECTION]

PART IV - REPRESENTATIONS AND INSTRUCTIONS

SECTION K - REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS

**K.1 ANNUAL REPRESENTATIONS AND CERTIFICATIONS (FAR 52.204-8)
(Nov 2011)**

(a)

(1) The North American Industry classification System (NAICS) code for this acquisition is 541330.

(2) The small business size standard is \$27M.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b)

(1) If the clause at 52.204-7, Central Contractor Registration, is included in this solicitation, paragraph (d) of this provision applies.

(2) If the clause at 52.204-7 is not included in this solicitation, and the offeror is currently registered in CCR, and has completed the ORCA electronically, the offeror may choose to use paragraph (d) of this provision instead of completing the corresponding individual representations and certification in the solicitation. The offeror shall indicate which option applies by checking one of the following boxes:

(i) Paragraph (d) applies.

(ii) Paragraph (d) does not apply and the offeror has completed the individual representations and certifications in the solicitation.

(c)

(1) The following representations or certifications in ORCA are applicable to this solicitation as indicated:

(i) 52.203-2, Certificate of Independent Price Determination. This provision applies to solicitations when a firm-fixed-price contract or fixed-price contract with economic price adjustment is contemplated, unless—

(A) The acquisition is to be made under the simplified acquisition procedures in Part 13;

(B) The solicitation is a request for technical proposals under two-step sealed bidding procedures; or

(C) The solicitation is for utility services for which rates are set by law or regulation.

(ii) 52.203-11, Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions. This provision applies to solicitations expected to exceed \$150,000.

(iii) 52.204-3, Taxpayer Identification. This provision applies to solicitations that do not include the clause at 52.204-7, Central Contractor Registration.

(iv) 52.204-5, Women-Owned Business (Other Than Small Business). This provision applies to solicitations that—

(A) Are not set aside for small business concerns;

(B) Exceed the simplified acquisition threshold; and

(C) Are for contracts that will be performed in the United States or its outlying areas.

(v) 52.209-2, Prohibition on Contracting with Inverted Domestic Corporations—Representation. This provision applies to solicitations using funds appropriated in fiscal years 2008, 2009, or 2010.

(vi) 52.209-5; Certification Regarding Responsibility Matters. This provision applies to solicitations where the contract value is expected to exceed the simplified acquisition threshold.

(vii) 52.214-14, Place of Performance--Sealed Bidding. This provision applies to invitations for bids except those in which the place of performance is specified by the Government.

(viii) 52.215-6, Place of Performance. This provision applies to solicitations unless the place of performance is specified by the Government.

(ix) 52.219-1, Small Business Program Representations (Basic & Alternate I). This provision applies to solicitations when the contract will be performed in the United States or its outlying areas.

(A) The basic provision applies when the solicitations are issued by other than DoD, NASA, and the Coast Guard.

(B) The provision with its Alternate I applies to solicitations issued by DoD, NASA, or the Coast Guard.

(x) 52.219-2, Equal Low Bids. This provision applies to solicitations when contracting by sealed bidding and the contract will be performed in the United States or its outlying areas.

(xi) 52.222-22, Previous Contracts and Compliance Reports. This provision applies to solicitations that include the clause at 52.222-26, Equal Opportunity.

(xii) 52.222-25, Affirmative Action Compliance. This provision applies to solicitations, other than those for construction, when the solicitation includes the clause at 52.222-26, Equal Opportunity.

(xiii) 52.222-38, Compliance with Veterans' Employment Reporting Requirements. This provision applies to solicitations when it is anticipated the contract award will exceed the simplified acquisition threshold and the contract is not for acquisition of commercial items.

(xiv) 52.223-1, Biobased Product Certification. This provision applies to solicitations that require the delivery or specify the use of USDA-designated items; or include the clause at 52.223-2, Affirmative Procurement of Biobased Products Under Service and Construction Contracts.

(xv) 52.223-4, Recovered Material Certification. This provision applies to solicitations that are for, or specify the use of, EPA- designated items.

(xvi) 52.225-2, Buy American Act Certificate. This provision applies to solicitations containing the clause at 52.225-1.

(xvii) 52.225-4, Buy American Act--Free Trade Agreements--Israeli Trade Act Certificate. (Basic, Alternate I, and Alternate II) This provision applies to solicitations containing the clause at 52.225- 3.

(A) If the acquisition value is less than \$25,000, the basic provision applies.

(B) If the acquisition value is \$25,000 or more but is less than \$50,000, the provision with its Alternate I applies.

(C) If the acquisition value is \$50,000 or more but is less than \$67,826, the provision with its Alternate II applies.

(xviii) 52.225-6, Trade Agreements Certificate. This provision applies to solicitations containing the clause at 52.225-5.

(xix) 52.225-20, Prohibition on Conducting Restricted Business Operations in Sudan--Certification. This provision applies to all solicitations.

(xx) 52.225-25, Prohibition on Contracting with Entities Engaging in Sanctioned Activities Relating to Iran—Representation and Certification. This provision applies to all solicitations.

(xxi) 52.226-2, Historically Black College or University and Minority Institution Representation. This provision applies to—

(A) Solicitations for research, studies, supplies, or services of the type normally acquired from higher educational institutions; and

(B) For DoD, NASA, and Coast Guard acquisitions, solicitations that contain the clause at 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns.

(2) The following certifications are applicable as indicated by the Contracting Officer:

___ (i) 52.219-22, Small Disadvantaged Business Status.

___ (A) Basic.

___ (B) Alternate I.

___ (ii) 52.222-18, Certification Regarding Knowledge of Child Labor for Listed End Products.

___ (iii) 52.222-48, Exemption from Application of the Service Contract Act to Contracts for Maintenance, Calibration, or Repair of Certain Equipment Certification.

___ (iv) 52.222-52 Exemption from Application of the Service Contract Act to Contracts for Certain Services--Certification.

___ (v) 52.223-9, with its Alternate I, Estimate of Percentage of Recovered Material Content for EPA-Designated Products (Alternate I only).

___ (vi) 52.227-6, Royalty Information.

___ (A) Basic.

___ (B) Alternate I.

X (vii) 52.227-15, Representation of Limited Rights Data and Restricted Computer Software.

(d) The offeror has completed the annual representations and certifications electronically via the Online Representations and Certifications Application (ORCA) website at <http://orca.bpn.gov> . After reviewing the ORCA database information, the offeror verifies by submission of the offer that the representations and certifications currently posted electronically that apply to this solicitation as indicated in paragraph (c) of this provision have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below [*offeror to insert changes, identifying change by clause number, title, date*]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

| FAR Clause | Title | Date | Change |
|------------|-------|------|--------|
| | | | |
| | | | |

Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications posted on ORCA.

(End of Provision)

K.2 REPRESENTATION OF LIMITED RIGHTS DATA AND RESTRICTED COMPUTER SOFTWARE (FAR 52.227-15) (DEC 2007)

(a) This solicitation sets forth the Government’s known delivery requirements for data (as defined in the clause at 52.227-14, Rights in Data--General). Any resulting contract may also provide the Government the option to order additional data under the Additional Data Requirements clause at 52.227-16, if included in the contract. Any data delivered under the resulting contract will be subject to the Rights in Data--General clause at 52.227-14 included in this contract. Under the latter clause, a Contractor may withhold from delivery data that qualify as limited rights data or restricted computer software, and deliver form, fit, and function data instead. The latter clause also may be used with its Alternates II and/or III to obtain delivery of limited rights data or restricted computer software, marked with limited rights or restricted rights notices, as appropriate. In addition, use of Alternate V with this latter clause provides the Government the right to inspect such data at the Contractor’s facility.

(b) By completing the remainder of this paragraph, the offeror represents that it has reviewed the requirements for the delivery of technical data or computer software and states [*offeror check appropriate block*]—

(1) None of the data proposed for fulfilling the data delivery requirements qualifies as limited rights data or restricted computer software; or

(2) Data proposed for fulfilling the data delivery requirements qualify as limited rights data or restricted computer software and are identified as follows:

(c) Any identification of limited rights data or restricted computer software in the offeror's response is not determinative of the status of the data should a contract be awarded to the offeror.

(End of provision)

[END OF SECTION]

SECTION L - INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS

L.1 LISTING OF PROVISIONS INCORPORATED BY REFERENCE (FAR 52,252-2) (FEB 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es):

<http://www.acquisition.gov/com/far/index.html>
<http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm>

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

| CLAUSE NUMBER | DATE | TITLE |
|------------------|----------|---|
| 52.204-6 | APR 2008 | DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER |
| 52.209-2 | JUL 2009 | PROHIBITION ON CONTRACTING WITH INVERTED DOMESTIC CORPORATIONS- REPRESENTATIONS |
| 52.215-1 | JAN 2004 | INSTRUCTIONS TO OFFERORS – COMPETITIVE ACQUISITION |
| 52.215-16 | JUN 2003 | FACILITIES CAPITAL COST OF MONEY |
| 52.215-22 | OCT 2009 | LIMITATIONS ON PASS-THROUGH CHARGES- IDENTIFICATION OF SUBCONTRACT EFFORT |
| 52.222-24 | FEB 1999 | PREAWARD ON-SITE EQUAL OPPORTUNITY COMPLIANCE EVALUATION |

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) PROVISIONS

| CLAUSE NUMBER | DATE | TITLE |
|---------------|----------|--|
| 1852.227-71 | APR 1984 | REQUEST FOR WAIVER OF RIGHTS TO INVENTIONS |
| 1852.227-84 | DEC 1989 | PATENT RIGHTS CLAUSES |
| 1852.228-80 | SEP 2000 | INSURANCE - IMMUNITY FROM TORT LIABILITY |
| 1852.233-70 | OCT 2002 | PROTESTS TO NASA |
| 1852.245-80 | JAN 2011 | GOVERNMENT PROPERTY MANAGEMENT INFORMATION |

(End of Provision)

L.2 TYPE OF CONTRACT (FAR 52.216-1) (APR 1984)

The Government contemplates award of an Indefinite Delivery/Indefinite Quantity Cost-Plus-Fixed-Fee contract resulting from this solicitation.

(End of Provision)

L.3 REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA (FAR 52.215-20) (OCT 1997) (ALTERNATE IV) (OCT 1997)

(a) Submission of cost or pricing data is not required.

(b) Provide information described below: The offeror shall complete the Price Template Workbook provided at J.1(b)(5).

(End of provision)

L.4 SERVICE OF PROTEST (FAR 52.233-2) (SEP 2006)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the Government Accountability Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from:

Attn: NASA-Ames Research Center
 Elisban Rodriguez, Contracting Officer
 Bldg. 241, Rm. 246
 P.O. Box 1
 Moffet Field, CA 94035-0001

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of Provision)

L. 5 PROPOSAL PAGE LIMITATIONS (NFS 1852.215-81) (FEB 1998)(ARC MODIFIED SEP 2004)

a) The following page limitations are established for each portion of the proposal submitted in response to this solicitation.

| Proposal Section | Page Limit |
|--|-------------------|
| Volume I, Mission Suitability Proposal | 75 |
| Volume II, Past Performance Proposal | 40 |
| Volume III, Cost Proposal | No Limit |

*Organizational Conflicts of Interest Avoidance Plan does not count against the page limit of Volume I.

(b) A page is defined as one side of a sheet, 8 1/2" x 11", with at least one inch margins on all sides, using not smaller than 12 point type. Foldouts count as an equivalent number of 8 1/2" x 11" pages. The metric standard format most closely approximating the described standard 8 1/2" x 11" size may also be used.

(c) Title pages and tables of contents are excluded from the page counts specified in paragraph (a) of this provision. In addition, the Cost section of your proposal is not page limited. However, this section is to be strictly limited to cost and price information. Information that can be construed as belonging in one of the other sections of the proposal will be so construed and counted against that section's page limitation.

(d) If final revisions are requested, separate page limitations will be specified in the Government's request for that submission.

(e) Pages submitted in excess of the limitations specified in this provision will not be evaluated by the Government and will be returned to the offeror.

(End of Provision)

L.6 PROPOSAL PREPARATION--GENERAL INSTRUCTIONS

(a) Proposing Entity. Offerors proposing as a team, or other such business arrangement, shall fully describe this team or arrangement by outlining the relationship, commitment, and responsibilities of the parties. This documentation shall be provided, as appropriate, in the proposal and as requested in paragraph (b)(2) below.

(b) Format.

(1) Offerors shall submit proposals in three volumes as specified below. Each part of the proposal shall be complete and prepared in accordance with solicitation instructions to enable concurrent and separate evaluation of each part. Unless otherwise noted, all proposal components shall be submitted as printed (paper) copies.

Copies

| | | |
|------------|------------------------------|--------------|
| Volume I | Mission Suitability Proposal | Original + 5 |
| Volume II | Past Performance Proposal | Original + 5 |
| Volume III | Cost Proposal | Original + 5 |

- (2) Include a cover letter in Volume III of the proposal. The cover letter must be signed by an official authorized to contractually bind your company. As part of that letter, please provide the following information and/or attachments:
- The names, address(es), telephone numbers, facsimile numbers, and email addresses of persons to be contacted for clarification of questions.
 - A complete description of any proposed teaming or other such business arrangements (L.6(a)).
 - A statement that the proposal is firm for a period of not fewer than 180 days.
 - A statement of the acceptance of the anticipated contract provisions and proposed schedule, or specific exceptions taken to any of the terms and conditions.
 - A completed copy of the Standard Form 33, signed by an official authorized to contractually bind the Offeror. Include written acknowledgement of any solicitation amendments.
 - A completed response to Section B, "Supplies or Services and Prices/Costs," with the proposed amounts inserted in the appropriate blank spaces.
 - A completed response to Section I, "Contract Clauses," FAR 52.227-23, Rights to Proposal Data (Technical).
 - A completed response to Section K, "Representations, Certifications, and Other Statements of Offerors."
 - A completed copy of Attachment J.1(b)(4), Exhibit 1, Proposal Cover Sheet, Form JA 038.
 - A listing of the status of the most recent reviews of the Offeror's management system(s) (e.g., purchasing, accounting, property, estimating). Data must identify the type of review, including the results of the review; the cognizant Government agency making the review; contact information for the cognizant Government review; systems approvals, if any; and the last date of any system approvals. The Offeror must clearly indicate whether or not it has a DCAA-approved accounting system and a DCMA-approved purchasing system.

- (3) All proposal volumes shall be submitted to the address specified NO LATER THAN the date and time prescribed in Block 9 of the SF33.
- (4) The pages of each proposal volume shall be numbered and identified with the Offeror's name, RFP number, and date. The table of contents must list figures and tables separately. Where necessary, a cross-reference sheet to other volumes shall be included. Each volume shall contain a more detailed table of contents to delineate the subparagraphs within that volume. Tab indexing shall be used to identify Sections. Each volume shall contain a glossary of all abbreviations and acronyms used, with an explanation for each. Title pages, tables of contents, cross-referencing matrices, lists of figures and list of tables, blank dividers, tabs, and glossaries do not count against the page limitations for their respective volumes. Further page limitations are set forth in this Section L, paragraph L.5, "Proposal Page Limitations."
- (5) Two (2) electronic copies each of Mission Suitability, Past Performance and cost shall be submitted (in addition to the hard copies specified in (b)(1) above) in Portable Document Format (PDF), except that the electronic copies of the Price Template Workbook in Section J, Attachment J.1(b)(5), are required to be saved and submitted in their Excel (.xlsx) format, not in PDF. An electronic copy of the Cover Letter may be included with the electronic version of Volume 1. The electronic format data shall be provided on quality, virus-scanned, virus-free CD-R/CD-RW with an external label indicating: (1) the name of the Offeror, (2) the RFP number, and (3) a list of the files contained on the CD. In the event of any inconsistency between data provided on electronic media and proposal hard copies, the original hard copy data will be considered to be the intended data.
- (6) Proposals shall be submitted in a format that addresses all evaluation factors. Information pertinent to the factors shall be included in their respective proposal volumes. The proposal content must provide a basis for evaluation against the requirements of the solicitation. Offerors must identify and discuss risk factors and issues throughout the proposal where they are relevant, and describe their approach to managing these risks, pursuant to NFS 1815.203-72, "Risk Management."
- (7) **BINDING AND LABELING:** Each volume of the proposal shall be separately bound in a three-ring loose-leaf binder that shall permit the volume to lie flat when open. Staples shall not be used. A cover sheet shall be bound in each book, clearly marked as to volume number, title, copy number, solicitation identification, and the Offeror's name. The same identifying data shall be placed on the spine of each binder. The Offeror shall apply all appropriate markings including those prescribed in accordance with FAR 52.215-1(e), "Restriction on Disclosure and Use of Data," and FAR 3.104-5, "Disclosure, Protection, and Marking of Contractor Bid or Proposal Information and Source Selection Information."
- (8) **LATE SUBMISSION:** Any volume submitted after the specified time will cause the entire proposal to be considered late in accordance with provision FAR

52.215-1, “Instructions to Offerors–Competitive Acquisition.”

- (c) Mission Suitability (Volume I). Both management and technical information shall be included in the Mission Suitability Proposal. No cost data shall be included except for a schedule of wages, salaries, and benefits. Information shall be precise, factual, current, detailed, and complete. Offerors shall not assume that the Source Evaluation Committee is aware of company abilities, capabilities, plans, facilities, organization, or any other pertinent fact that is important to the accomplishment of the work. The evaluation will be based on the information presented in the written mission suitability proposal. The proposal must specifically address each listed evaluation subfactor.
- (d) Past Performance Proposal (Volume II). The Past Performance factor indicates the relevant quantitative and qualitative aspects of each Offeror’s record of performing services, or delivering products, similar in size, content, and complexity of the requirements of this solicitation.
- (e) Price/Cost Proposal (Volume III). Cost proposals must contain sufficient pricing information to support negotiation of the contract type noted in this Section L, paragraph L.2, FAR 52.216-1, “Type of Contract.”

(End of Provision)

L.7 PROPOSAL PREPARATION--SPECIFIC INSTRUCTIONS

The contract award will be based on evaluation of the following factors:

- Mission Suitability
- Past Performance
- Cost

Proposals shall be submitted in a format that follows the format of the factors and their subfactors. Each proposal volume shall only contain information germane to that respective factor. Only information pertinent to the factors and subfactors shall be submitted in the Offeror’s proposal volumes. (See the weighting for the factors and subfactors in Section M.3)

- (a) Mission Suitability Proposal (Volume I). The Mission Suitability factor indicates, for each Offeror, the merit or excellence of the work to be performed or product to be delivered. Information must be precise, factual, current, detailed, and complete. Offerors must not assume that the SEC is aware of their company abilities, capabilities, plans, facilities, organization, or any other pertinent fact that is important to the accomplishment of the work.
- (1) The evaluation will be based on the information presented in the written proposal. The proposal must specifically address each listed evaluation subfactor. Offerors may recommend minor changes within the Statement of Work in instances where such changes would improve performance. Proposed changes must be specifically identified along with a proposed implementation thereof and a justification for the change.

Offerors' mission suitability proposals shall also include technical proposals for the three (3) sample tasks listed at J.1(b) of the solicitation.

- (2) The content of the Offeror's Mission Suitability Proposal shall provide the basis for evaluation of the Offeror's response to the technical requirements of the RFP. Offerors shall identify and discuss risk factors and issues throughout the proposal where they are relevant, and describe their approach to managing these risks. Offerors shall recommend potential efficiencies to be taken and their approach for implementation.
- (3) Offeror must adequately demonstrate that they will be able to fully perform the work with the resources proposed.

(1). Technical Capability, Staffing, and Facilities (Subfactor)

The proposal should accurately characterize the technical expertise and capabilities of the personnel, rotary wing analysis and modeling tools available, and research facilities to be used to meet the requirements of the statement of work. Key personnel are to be identified in the specific areas noted in the statement of work as representative of the technical expertise to be used. Education, experience, publications, participation in technical societies, awards, patents, and training are all means to substantiate technical expertise. Any issues or shortcomings in providing technical competence in an area of the statement of work should be identified and explained as to how this limitation will be overcome. State of the art analysis and modeling tools in use and experience with them should be described. Access to facilities, including test articles, laboratories, computational systems, aircraft, and their supporting equipment and subsystems should be characterized to the extent necessary to provide a basis of capability to meet the requirements of the statement of work.

(2) Understanding the Requirement (Subfactor)

(i) Overall Understanding and Approach

Provide a detailed narrative describing your proposed approach for performing the work required in the Statement of Work (SOW), demonstrating your understanding of the requirements as described in the Statement of Work. Include in your discussion your understanding of the critical issues involved in conducting advanced rotary wing research and development with a focus on analysis, testing, and validation. For the sample tasks provided, explain an approach to task execution that not only meets stated requirements but also maximizes the technical output and benefit to the Government through the approach selected. Provide sufficient detail in the proposal and three sample tasks, to document your ability to understand and address the scope of effort that is captured in the Statement of Work, in particular understanding and approaches to meeting requirements that are not addressed in the specific sample tasks provided. The proposal should highlight computer modeling, design and development, fabrication, testing, analysis, system engineering, project management, technical writing, security and other functions necessary to complete projects as required. This description should address your proposed approach for a process that will enhance workflow, increase productivity, improve quality and reduce cost. Highlight any innovative approaches, the justification and expected advantage to the Government. Describe your approach in identifying, reporting and resolving typical

problems that may be encountered in satisfying the requirements of the SOW. Describe areas of potential risk to the successful fulfillment of the requirements and approaches for minimizing their impact as appropriate. Describe your approach to safety issues and quality assurance and your understanding of NASA guidelines and procedures. Any exceptions, qualifications, or changes to the SOW should be described in detail.

(3) Management Plan (Subfactor)

Provide a detailed Management Plan describing your proposed organizational structure and management approach, emphasizing how you propose to accomplish and control the effort necessary for fulfillment of the SOW requirements. Describe supervisory responsibility, lines of authority, subcontracts or cooperative business arrangements and relationships to other entities. Explain who will perform the work, and who will have authority over the contract, and/or an ability to impact the performance of the contract, and who has overall contract management authority.

Describe your plans for tracking and controlling work and for supervising and monitoring performance including methods for monitoring, maintaining and enhancing the quality of any task deliverables. Describe any proposed subcontracting and or cooperative business arrangements, their operational and technical benefits to NASA, and the effectiveness of your proposed approach for managing these arrangements to ensure meeting the requirements of the statement of work.

An Organizational Conflicts of Interest Avoidance Plan shall be provided with the proposal. The Plan shall include a narrative which describes the Contractor's procedures to ensure compliance with, and assurance that all safeguards are in place to maintain control, handling and non-disclosure of sensitive data in conformance with contract requirements. Specifically, the Plan shall address all the requirements identified in Section H, Clause H.15 (Organizational Conflicts of Interest and Limitation on Future Contracting) and Section I, paragraph I.12 (NFS 1852.237-72, Access to Sensitive Information) relative to the Offeror's understanding and proposed methodology for implementation of the above contract requirements.

(b) **Past Performance Proposal (Volume II)**.

The goal of this factor is to obtain information regarding the Offeror and major subcontractors' relevant past performance specifically in the areas of technical performance, contract management, and corporate management responsiveness. "Major subcontractors," for purposes of this section of the solicitation, is defined as subcontractors performing work valued at greater than or equal to 10% or more of the value of the resultant contract or of the Offeror's total proposal "Offeror" and "major subcontractor," for purposes of this solicitation include predecessor companies.

1. General Instructions

The Past Performance Proposal shall include:

- a. A list of relevant contracts for the Offeror and each major subcontractor:

A maximum of three (3) for the Offeror and a maximum of three (3) per major subcontractor. A relevant contract is defined as a Government or Industry contract with similar scope in excess of \$5M total value, completed no more than five (5) years ago or on-going, involving related types of effort. These contracts shall demonstrate the Offeror's and each major subcontractor's capabilities to perform this requirement. Include the contract numbers; contract type; Government agency or industry placing the contract; Contracting Officer or equivalent, telephone number, and email address; and a brief description of Offeror's and each major subcontractor's part of the work and the total dollar value of the Offeror's and each major subcontractor's portion. Industry contracts involving subcontracting to another company that may have a prime contract with some area of the government are acceptable. If the Offeror or major subcontractor(s) does not have enough relevant contracts that meet the value requirement, information may be provided for contracts of a lesser value.

- b. For each contract identified in paragraph (a) above, specify and explain the amounts of cost growth, or increases to contract value. Explain growth resulting from extensions to the period of performance; from work added to the scope of the contract; and from performance that cost more than originally predicted or estimated. For Firm Fixed Price (FFP) contracts identified in paragraph (a) above, describe how you were able to satisfy the Contractual requirements within the proposed price. Describe innovative approaches utilized in the performance of FFP Contracts.
- c. For each of the contracts identified in paragraph (a) above, identify and explain any serious performance problems, any termination for default, any environmental violations, and any safety violations cited.
- d. For each of the contracts identified in paragraph (a) above, the Offeror shall request the customer to complete a Past Performance Questionnaire to be submitted directly to the Contracting Officer. Attachment 2, Past Performance Questionnaire, includes a cover letter template containing submission instructions.
 - (1) Each Offeror and major subcontractor shall complete Table 1 of the Past Performance Questionnaire identified in Section J.1, "List of Documents, Exhibits, and Attachments," for each reference identified in section (d)(2) below.
 - (2) Each Offeror and any proposed major subcontractor shall send a Past Performance Questionnaire which is blank except for the information completed in Table 1 as directed in paragraph L.7(b)(1)(d)(1), to the cognizant Contracting Officer or the Contracting Officer's Technical Representative of no more than three (3) relevant completed (completed within the last five years) or active (underway at least one year) contracts. All Past

Performance Questionnaires shall be drawn from paragraph (a) above. The Offeror is responsible for ensuring that the respondent completes and submits the questionnaire directly to the NASA Ames Research Center Contracting Officer no later than 10 days prior to proposal due date. The questionnaires returned to the Government will not be counted against the proposal's page limitation.

- (3) Each Offeror and major subcontractor shall provide NASA Ames Research Center Contracting Officer a list of contracts from whom Offerors have requested past performance information 15 days prior to proposal due date, via email to Elisban Rodriguez at elisban.u.rodriguez@nasa.gov

2. Major Areas to be Evaluated

Information regarding relevant technical performance, contract management, corporate management responsiveness, and other information shall be supplied by the Offeror and major subcontractors for the reference contracts that are identified in the paragraphs above (see paragraph (b)1.a.).

- a. *Relevant Technical Performance.* The Offeror and major subcontractors shall provide any relevant technical performance information for each of their reference contracts to assist in the Government's evaluation on each of the following topics:
 - Compliance with technical and schedule requirements
 - Contractor flexibility and effectiveness in dealing with changes to technical requirements
 - Innovation and resource-efficient solutions to satisfy requirements
 - Key personnel performance
 - Ability to assess and re-assign staff based on technical performance
 - Problems encountered and their resolutions
 - Approach to dealing with short-term, high-demand requirements
 - Infusion of best practices and lessons learned
- b. *Contract Management.* The Offeror and major subcontractors shall provide any contract management information for each of their reference contracts to assist in the Government's evaluation on each of the following topics:

- Employee safety record
 - Simultaneous management of a large number of complex tasks of varying sizes
 - Conformance with the terms and conditions of contracts, including delivery of products and reports, and adherence to cost and schedule constraints
 - Effective flow-down of requirements to subcontracts and method for monitoring subcontract performance
 - Efficiency and effectiveness of approach used to attract and retain employees
 - Management of the phase-in period to ensure efficient continuation of operations during contract turn-over
 - Efficiency of management and negotiations of task orders and changes thereto
 - Quality of cost estimating and performance, including frequency, root causes, and management of cost over- and under-runs exceeding five percent of the initial cost estimate.
 - Use of key personnel as proposed
 - Use of personnel with the appropriate skills and expertise
 - Proactiveness and degree of cooperation in resolving issues
 - Stability of contractor workforce, both for key and other personnel, during the first twelve months of the contract period of performance
- c. *Corporate Management Responsiveness.* The goal of this area is to obtain information regarding the Offeror's and major subcontractors' relevant corporate management responsiveness past performance. The Offeror and major subcontractors shall provide any corporate management responsiveness information for each of its reference contracts to assist in the Government's evaluation. The following topics must be addressed:
- Responsiveness of corporate management to contract problems
 - Impact of corporate management involvement in the operation of the contract
 - Ability to operate free from organizational conflicts of interest

d. *Other Information.* For all relevant contracts identified in (b)1.a. above, the Offeror and major subcontractors shall:

- Describe any significant awards and certifications received that are relevant to solicitation requirements
- Describe any serious performance problems, termination for default, or regulatory violations
- For Award Fee or Incentive Fee Contracts, provide the rating scale and the fee evaluation scores for all evaluation periods
- Provide examples of innovative methods implemented by the contractor that resulted in cost savings to the customer

Past performance information may also be obtained through the Contractor Performance Assessment Reporting System (CPARS) or similar systems of other Government departments and agencies, questionnaires tailored to the circumstances of this acquisition, Defense Contract Management Agency (DCMA) channels, interviews with Program Managers and Contracting Officers, and other sources known to the Government, including commercial sources.

Offerors are notified that, in conducting an assessment of past performance, the Government reserves the right to use both data provided by the Offeror and data obtained from other sources.

(c) Cost Proposal (Volume III)

1. INTRODUCTION

Offerors' cost/price proposals shall consist of estimated costs and proposed fee for the three (3) sample tasks listed at J.1(b) of this solicitation. Proposed costs will be analyzed to determine the cost/price and associated risks of doing business with the offeror. If certification of cost or pricing data is required in accordance with Federal Acquisition Regulation 15.403, the successful offeror will be required to submit a Certificate of Current Cost or Pricing Data in the form set forth in FAR 15.406-2 prior to the execution of any contract to be awarded as a result of this solicitation.

To ensure that the Government is able to perform a fair assessment of the proposed pricing, each Offeror is required to submit a Cost proposal that is suitable for evaluation. A cost volume that is suitable for evaluation shall:

- a) Explain in detail all pricing and estimating techniques;

- b) Disclose the basis of all projections, rates, ratios, percentages, and factors in sufficient detail to facilitate the Source Evaluation Committee's (SEC's) understanding and ability to mathematically verify these estimating tools;
- c) Comply with applicable Federal Acquisition Regulation (FAR) and NASA FAR Supplement (NFS) requirements;
- d) Include a narrative portion that explains all judgmental elements of cost/price projections and profit policies including any proposed price ceilings and team profit sharing arrangements; and
- e) Include all templates required in this RFP.

The Offeror's cost proposal shall be submitted in one volume labeled "Volume III Cost Proposal."

The RFP-specified formats provided herein are structured on a Contract Year (CY) basis. In preparing the proposal, summary level information is required on the templates, however, the Offeror's own format shall be used for submitting supporting information. Offerors are instructed to complete all applicable templates provided herein, and provide supporting information to explain the basis of estimate for the proposed amounts.

For cost purposes, Major Subcontractors are defined as those subcontractors providing a total contract value of \$100,000.00 per year or \$500,000.00 for the five year inclusive effort.

In addition to the Prime Offeror submitting a Volume III, Cost Proposal, for any major subcontract that has a potential estimated total value in excess of \$100,000.00 per year or \$500,000.00 for the five year inclusive effort, a Volume III, Cost Proposal must be provided following the subsequently specified format.

Cost proposals shall be submitted using Government provided pricing templates described below. The templates are included as J.1(b)(5), Cost Template Workbook.

Prospective subcontractors shall submit proprietary cost data in a sealed envelope through the Prime Offeror. The Prime Offeror is responsible for submitting a comprehensive proposal including all required subcontractor proposals no later than the date and time specified in this RFP.

A WYE (Work Year Equivalent) is a full time equivalent that is defined as follows: the proposed productive hours needed to comprise one average full time employee. A WYE may be comprised of one employee or several part time employees. A productive WYE is defined as follows: the total available hours for productive work in a year, excluding overtime and paid time off (vacation, holiday, etc.).

All dollar amounts for proposed costs shall be rounded to the nearest dollar. All direct labor rates shall be rounded to the nearest penny, \$xx.xx. All indirect cost rates (percentages) shall be rounded to the second decimal place, xx.xx%.

2. EXCEL COSTING MODEL (ECM) FILE

Format: In order to achieve standardization, the Excel Costing Model includes one (1) workbook entitled Cost Template Workbook. The worksheets located within the workbook contain the following:

- Exhibit 1: Proposal Cover Sheet (J.1(b)(4), not in workbook)
- Exhibit 2: Summary of Proposed Cost and Award Fee, Prime
- Exhibit 3: Summary of Elements of Cost
- Exhibit 4: Summary of Proposed Direct Labor Rates
- Exhibit 5: Direct Labor Cost Summary
- Exhibit 6: Summary of Indirect Cost Rates
- Exhibit 7: Overhead and/or Fringe Benefits
- Exhibit 8: General and Administrative Expense (G&A)
- Exhibit 9: Minor Subcontractor Template
- Exhibit 10: Incumbency Assumptions
- Exhibit 11: Schedule of Subcontracts

Formulas: All formulas used in the workbooks must be clearly visible in the individual cells and verifiable. Whereas linking among the spreadsheets or workbooks may be necessary, the use of external links (source data not provided to NASA) of any kind is prohibited. The workbooks must contain no macros or hidden cells.

Locks: The ECM shall not be locked/protected or secured by passwords.

3. COST PROPOSAL ORGANIZATION

The Government intends to use a personal computer with Microsoft Excel to aid in the evaluation of the cost/price proposal. In addition to the hardcopy requirements of the preceding section, each prime and subcontractor is required to submit its ECM and any other electronic cost data, including formulas, on CD(s).

Exhibit 1, Proposal Cover Sheet: A single page containing all the information specified in Section 1, General Instructions, Part A, Items 1 through 11 of Table 15-2 as shown in FAR 15.408 is required. JA Form 038, J.1(b) Attachment 4, must be completed and used to satisfy this requirement. The proposal cover sheet shall be properly completed and signed by an official authorized to contractually bind your company. Proper completion includes identification of the cognizant Defense Contract Audit Agency (DCAA) office, and, in the reference columns, the pricing information submitted.

The Offeror shall propose costs for meeting the requirements of the three (3) sample tasks shown in J.1(b) of this solicitation. I.3(a)(2).

Exhibit 2, Summary of Cost and Fee: This exhibit includes the total cost, total fee, total cost plus fee, and a grand total broken out by individual contract years for each of the sample task orders.

Exhibit 3, Summary of Elements of Costs: This exhibit summarizes the elements of cost (excluding facilities capital cost of money and fee) by contract year for each sample task order. Details of the various elements of cost are to be shown in the schedules. Identify all other direct costs (ODCs) applicable to this requirement. Examples of ODC types have been included in the exhibit. Indicate the reasons for these costs and the basis for pricing. A separate Exhibit 3 must be provided for each sample task order.

Exhibit 4, Summary of Proposed Direct Labor Rates: This exhibit summarizes the Offeror’s proposed direct labor rates. This exhibit should show all proposed labor categories, the proposed source of staffing for each labor category (retained incumbent employees, current employees of the offeror or new hire), the proposed first year rate for each category, proposed WYEs, proposed escalation factors for Years 2 through 5 (as well as Year 1 rates escalated for Years 2 through 5, the equivalent Year 1 annual salary based on the Year 1 proposed hourly rates, and the basis of the proposed Year 1 hourly rate (such as actual salary, salary survey, company category average, collective bargaining agreement, DOL wage determination.).

The following annual rates of escalation are recommended by NASA Headquarters, but are not mandatory. Offerors shall provide adequate supporting rationale for proposed escalation rates proposed if different from the Government Rate of Change.

| Calendar Year | Rate of Change |
|---------------|----------------|
| 2012 | 2.6% |
| 2013 | 2.8% |
| 2014 | 3.0% |
| 2015 | 3.1% |
| 2016 | 3.1% |
| 2017 | 3.1% |

Exhibit 5, Direct Labor Cost Summary: This exhibit shows the direct labor cost for IDIQ for each contract year with the labor rates from Exhibit 4 used to compute the cost. A separate Exhibit 5 must be completed for each of the sample tasks.

Identify the number of nonproductive hours per person per year. A nonproductive hour is an hour expended for non-work time such as vacation, holidays, sick leave, and other personal leave. State the number of hours for each of these elements. Explain how the nonproductive hours will be accumulated and charged. State policies for treating accumulated vacation and unused sick leave hours, as well as for their treatment at

contract completion. Explain policies for overtime eligibility, the amount of overtime premium, and charging of premium. This includes the application of benefits (full or partial) to be applied to the overtime premium. Also explain, if applicable, treatment, rates, and cost for shift differentials.

Exhibit 6, Summary of Indirect Cost Rates: This exhibit reflects the overhead and/or fringe benefits and G&A rates by contract year and Offeror's fiscal year. Other burden rates (e.g., material overhead, subcontracts admin.) must be shown separately. This exhibit summarizes the Offeror's fiscal year date from Exhibits 7 and 8. Identify the Offeror's fiscal year in the space provided (e.g., 12-31-09), and show the Offeror's rates for its applicable accounting periods for the various contract years. Provide explanations for deviations of the contract rate from the fiscal year rates.

Exhibit 7, Overhead and/or Fringe Benefits: This exhibit shows, by offeror's fiscal year, each item of expense included in the Overhead or fringe benefits pool. In addition to showing projected expenses through the life of the contract, show the actuals for each of the prior three fiscal years. If more than one overhead pool is proposed, a separate Exhibit 7 must be included for each pool and appropriately identified. Provide the base for distribution and the amount of the base on this schedule. The basis for forecast of overhead shall also be provided and an explanation in support of any significant changes in either expenses or base of application that exist from one year to the next. If the offeror has a negotiated Forward Pricing Rate Agreement with the cognizant Government agency, a copy of the signed agreement may be submitted in lieu of Exhibit 7.

Exhibit 8, General and Administrative Expense Schedule: This schedule shows, by offeror's fiscal year, each item of expense included in the G&A pool. In addition to showing projected expenses through the life of the contract, show the actuals for each of the prior three fiscal years. Provide the base for distribution and the amount of the base, segregated by firmed (backlog) and prospective business, on this schedule. The basis for projections of G&A shall also be provided and an explanation in support of any significant changes in either expenses or base of application that exist from one year to the next.

A few cost elements are included on the template that represent the type of cost detail into which the Government requires visibility. If these cost elements are not applicable to your proposed G&A cost pool, leave blank.

If the offeror has a negotiated Forward Pricing Rate Agreement with the cognizant Government agency, a copy of the signed agreement may be submitted in lieu of Exhibit 8.

Exhibit 9, Minor Subcontractor Template: The minor subcontractor template is required of the prime only. This template is intended to provide the Government a concise assessment of the substance of minor subcontracts. Minor subcontracts are those that subcontract that have an estimated total value of less than \$100,000.00 per year or \$500,000.00 for the five year inclusive effort. Two examples showing how this template

is to be completed are included on this template. Examples should be removed from the exhibit when the Offeror's proposal is submitted.

Exhibit 10, Incumbency Assumptions Template: This template is required of the Offeror proposed as prime and all proposed major subcontractors. This template provides visibility into any incumbency assumptions proposed by each Offeror pertaining to incumbency labor rates and incumbency seniority rights for fringe benefits purposes. The Offeror shall indicate in the space provided, the percentage of the incumbent workforce it expects to retain.

In the two sections of the template, the Offeror shall select only one option in each category.

In the area entitled, "Labor Rates," the Offeror shall pick one of the three options: (1) Proposing to pay current incumbent labor rates, (2) Proposing to not pay current incumbent labor rates or, (3) Other. The Government understands that a non-incumbent Offeror may be only able to estimate what the current incumbents are making; however, the SEC wants to understand the Offeror's intentions regarding pay for these employees if retained. The Offeror will provide a narrative explanation supporting or explaining the reason for selecting any of the options, particularly if option, "Other" is selected. Explain how the Offeror's proposed salary structure will allow the Offeror to capture the proposed percentage of the qualified incumbent workforce.

In the area entitled, "Seniority Rights," the Offeror shall pick one of the three options: (1) Proposing to maintain seniority rights for fringe purposes, (2) Proposing to not maintain seniority rights for fringe purposes, or (3) Other. The Government understands that a non-incumbent Offeror may be only able to estimate the current incumbent's seniority levels; however, the SEC wants to understand the Offeror's intentions regarding seniority for these employees if retained. The Offeror shall provide a narrative explanation supporting or explaining the reason for selecting any of the options, particularly if option, "Other" is selected. Explain how not maintaining seniority rights for fringe benefit purposes will allow you to capture and maintain the proposed percentage of the incumbent workforce.

Exhibit 11, Schedule of Subcontracts: This schedule summarizes the activity proposed to be subcontracted and includes all subcontracts that have an aggregate cost of \$500,000 or more. These subcontractors are required to submit all applicable cost exhibits and schedules specified in this RFP. Provide subcontract costs completely broken down by cost element for evaluation. In addition, provide the following information:

- A brief description of work to be subcontracted;
- Number of quotes solicited and received;
- Type of proposed subcontract (i.e., firm-fixed price, cost-plus-fixed-fee, labor hour, etc.);
- Subcontractor selected and basis for selection; and
- Cost or price analysis performed by the offeror.

4. ACCOUNTING SYSTEM

The offeror must provide a brief description of its accounting system. Award of a cost-reimbursement type contract requires an accounting system capable of accurately collecting, segregating and recording costs by contract. If your system has previously been reviewed, and approved by the Government, provide the name and telephone number of the cognizant Government office.

5. FACILITIES CAPITAL COST OF MONEY

The amount for Facilities Capital Cost of Money must be separately identified and computed in accordance with Cost Accounting Standards (CAS) 414. To claim this cost, the amount must be calculated using Forms CASB-CMF and DD 1861. (See Section J for attachments.) NOTE: When facilities capital cost of money is included as an item of cost in the offeror's proposal, it shall not be included in the cost base for calculating profit/fee.

6. FIXED FEE

Submit the proposed fixed fee rate to be used on the contract. The fixed fee will be established by application of the proposed fixed fee rate to the estimated cost, not the actual cost, of the task. The proposed fixed fee rate will apply to all task orders and changes under the contract.

(End of Provision)

[END OF SECTION]

SECTION M - EVALUATION FACTORS FOR AWARD TO OFFERORS

**M.1 LISTING OF PROVISIONS INCORPORATED BY REFERENCE (FAR 52.252-2)
(FEB 1998)**

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

| CLAUSE NUMBER | DATE | TITLE |
|------------------|------|-------|
|------------------|------|-------|

None included by reference.

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) PROVISIONS

| CLAUSE NUMBER | DATE | TITLE |
|------------------|------|-------|
|------------------|------|-------|

None included by reference.

(End of Provision)

M.2 EVALUATION APPROACH (NOV 2004)

(a) General. The contract award will be based on the evaluation of three factors: Mission Suitability (Volume I), Past Performance (Volume II) and Cost/Price (Volume III).

(1) This provision is intended to explain the rationale and precise criteria by which proposals will be assessed by the evaluation team. Offerors are to prepare proposals with these criteria in mind (i.e., in terms of both content and organization), in order to assist the team in determining the relative merit of proposals in relation to the requirements as defined in Section C.

(2) The Government may award a contract based on the initial offers received, without discussion of such offers. Accordingly, each offeror shall submit its initial proposal to the Government using the most favorable terms from a price and technical standpoint.

(3) Proposals will be evaluated in accordance with the requirements of FAR Subpart 15.3, "Source Selection," as supplemented by NFS Subpart 1815.3, "Source Selection." Offerors shall recognize that the initial evaluation of proposals and the determination of the competitive range, if any, will be made upon a review of the proposals only, plus some independent investigations that may be made with regard to Past Performance.

Discussions will be held only if award on the basis of initial offers is determined not to be in the Government’s best interest. If written or oral discussions are conducted, the Government will seek revised proposals from offerors within the competitive range.

(4) At the conclusion of discussions (if applicable), as stipulated in FAR 15.307, a Final Proposal Revision (FPR) will be requested from all offerors still within the competitive range. The FPR shall be submitted in the form of a contractual document (including revisions to the original proposal) that has been executed by an individual with the authority to bind the offeror. Selection will be made in accordance with the evaluation criteria set forth below. Contract award will be made without subsequent discussions or negotiation.

(5) The Source Evaluation Committee (SEC) will present its findings to the Source Selection Authority (SSA). The SSA’s decision shall be based on a comparative assessment of proposals against all source selection criteria in the solicitation. While the SSA may use reports and analyses prepared by others, the source selection decision shall represent the SSA's independent judgment. The Government intends to award a contract resulting from this solicitation to the responsible offeror whose proposal represents the best value after evaluation in accordance with the factors and subfactors in the solicitation.

(b) Evaluation Factors. There are three evaluation factors for this procurement: Mission Suitability, Past Performance, and Cost/Price. A general definition of these factors may be found at NFS 1815.304, “Evaluation factors and significant subfactors.” Specific information regarding each factor is provided below:

(1) Mission Suitability Factor. The Mission Suitability factor indicates, for each offeror, the merit or excellence of the work to be performed and the ability of the offeror to accomplish what is offered, or the product to be delivered. The Mission Suitability Factor is rated by adjective and numerically scored in accordance with NFS 1815.305(a)(3), "Technical Evaluation," and the following table:

| ADJECTIVAL RATING | DEFINITIONS | PERCENTILE RANGE |
|-------------------|--|------------------|
| Excellent | A comprehensive and thorough proposal of exceptional merit with one or more significant strengths. No deficiency or significant weakness exists. | 91-100 |
| Very Good | A proposal having no deficiency and which demonstrates over-all competence. One or more significant strengths have been found, and strengths outbalance any weaknesses that exist. | 71-90 |
| Good | A proposal having no deficiency and which shows a reasonably sound response. There may be strengths or weaknesses, or both. As a whole, weaknesses not offset by strengths do not significantly detract from the offeror's response. | 51-70 |
| Fair | A proposal having no deficiency and which has one | 31-50 |

| | | |
|------|---|------|
| | or more weaknesses. Weaknesses outbalance any strengths. | |
| Poor | A proposal that has one or more deficiencies or significant weaknesses that demonstrate a lack of overall competence or would require a major proposal revision to correct. | 0-30 |

Overall, the offeror’s Mission Suitability proposal will be evaluated based on the offeror’s ability to fulfill the technical requirements while meeting quality, schedule, and safety requirements. The compatibility between the proposed technical approach and proposed total compensation to accomplish the work will be an important consideration in the evaluation of this factor. In addition, proposal risk will be evaluated with respect to cost and performance or technical aspects.

(2) Past Performance Factor. This factor indicates the relevant quantitative and qualitative aspects of each Offeror's record of performing services or delivering products similar in size, content, and complexity to the requirements of the current acquisition. This factor provides an opportunity to evaluate the quality of goods and services provided by the Offerors to the agency and other organizations as either a prime or subcontractor.

The Past Performance evaluation assesses the contractor's performance under previously awarded contracts. The past performance evaluation is an assessment of the Government’s level of confidence in the Offeror’s ability to perform the solicitation requirements. The past performance evaluation shall be in accordance with FAR 15.305(a)(2) and NFS 1815.305(a)(2). When applying the definitions below to arrive at a confidence rating, the SEC’s evaluation shall clearly document each Offeror’s relevant past performance and the currency of the past performance to assess the Offeror’s overall confidence rating assigned. Past Performance shall be evaluated for each Offeror using the following levels of confidence ratings:

Definition of Ratings

| | |
|-------------------------------|---|
| Very High Level of Confidence | The Offeror’s relevant past performance is of exceptional merit and is very highly pertinent to this acquisition; indicating exemplary performance in a timely, efficient, and economical manner; very minor (if any) problems with no adverse effect on overall performance. Based on the Offeror’s performance record, there is a very high level of confidence that the Offeror will successfully perform the required effort. (One or more significant strengths exist. No significant weaknesses exist.) |
| High Level of Confidence | The Offeror’s relevant past performance is highly pertinent to this acquisition; demonstrating very effective performance that would be fully responsive to contract requirements with contract requirements accomplished in a timely, efficient, and economical manner for the most part with only minor problems with little identifiable effect on overall performance. Based on the Offeror’s performance record, there is a high level of confidence that the Offeror will successfully |

| | |
|------------------------------|---|
| | perform the required effort. (One or more significant strengths exist. Strengths outbalance any weakness.) |
| Moderate Level of Confidence | The Offeror’s relevant past performance is pertinent to this acquisition, and it demonstrates effective performance; fully responsive to contract requirements; reportable problems, but with little identifiable effect on overall performance. Based on the Offeror’s performance record, there is a moderate level of confidence that the Offeror will successfully perform the required effort. (There may be strengths or weaknesses, or both.) |
| Low Level of Confidence | The Offeror’s relevant past performance is at least somewhat pertinent to this acquisition, and it meets or slightly exceeds minimum acceptable standards; adequate results; reportable problems with identifiable, but not substantial, effects on overall performance. Based on the Offeror’s performance record, there is a low level of confidence that the Offeror will successfully perform the required effort. Changes to the Offeror’s existing processes may be necessary in order to achieve contract requirements. (One or more weaknesses exist. Weaknesses outbalance strengths.) |
| Very Low Level of Confidence | The Offeror’s relevant past performance does not meet minimum acceptable standards in one or more areas; remedial action required in one or more areas; problems in one or more areas which, adversely affect overall performance. Based on the Offeror’s performance record, there is a very low level of confidence that the Offeror will successfully perform the required effort. (One or more deficiencies or significant weaknesses exist.) |
| Neutral | In the case of an Offeror without a record of relevant past performance or for whom information on past performance is not available, the Offeror may not be evaluated favorably or unfavorably on past performance [see FAR 15.305(a) (2) (ii) and (iv)]. |

(3) **Cost Factor.** This factor is used to assess what each offeror’s proposal will cost the Government should it be selected for award. Proposed costs are analyzed to determine the cost/price and associated risks of doing business with an offeror based upon the offeror’s proposed approach for the proposed cost. A cost realism analysis will be performed to assess the reasonableness and realism of the proposed costs. It is not numerically scored.

(c) **Mission Suitability Factor (Volume I).** The following evaluation subfactors will evaluate the offeror’s approaches to implementing the functions and specifications delineated in the Statement of Work. Through the Mission Suitability Factor, the SEC seeks to determine that the offeror indicates a thorough understanding of the work that is expected to be accomplished. The SEC is primarily interested in the entities (an entity is defined as an organization such as a division or branch of a corporation, or a parent, subsidiary, or affiliate of the corporation) actually performing the work with regard to their formal training, technical expertise and capability to perform.

The subfactors are: Understanding the Requirement, Technical Capability, Staffing and Facilities, and Management Plan.

(1). Technical Capability, Staffing, and Facilities (Subfactor)

The proposal will be evaluated as to the technical expertise and capabilities of the personnel, rotary wing analysis and modeling tools available, and research facilities to be used to meet the requirements of the statement of work. Key personnel identified in the specific areas will be evaluated in the ability to be responsive to sample tasks and to the scope of effort within the statement of work. The level education, experience, publications, participation in technical societies, awards, patents, and training will be used to judge technical expertise. Any issues or shortcomings in providing technical competence in an area of the statement of work not identified and explained as to how this limitation will be overcome will be negatively judged. State of the art analysis and modeling tools in use and experience with them will be assessed. Access and quality of facilities, including test articles, laboratories, computational systems, aircraft, and their supporting equipment and subsystems will be evaluated on the likelihood to provide a strong basis of capability to meet the requirements of the statement of work.

(2). Understanding the Requirement (Subfactor)

The narrative will be evaluated based on the completeness with respect to elements listed in Section L, degree of understanding of the functions and tasks to be performed and the different disciplines involved, and how these disciplines are to be applied to current and future NASA facilities, programs and projects supported by this contract. Simply restating the Statement of Work (SOW) will be unacceptable and evaluated as such. The narrative evaluation will be based on:

The offeror's understanding of the technical functions identified in the SOW and the soundness, technical merit, innovativeness, efficiency, and effectiveness of the offeror's proposed plan for accomplishing the requirements. The offeror will be evaluated on its understanding of the requirements as described in the Statement of Work. For the sample tasks provided, assessments will be made to judge the approach to task execution that not only meets stated requirements but also maximizes the technical output and benefit to the Government through the approach selected. Adequacy of understanding and approaches to meeting requirements that are not addressed in the specific sample tasks provided will be assessed. Ability to pursue and conduct modeling, design and development, fabrication, testing, analysis, system engineering, project management, technical writing, security and other functions necessary to complete projects will be analyzed. Special emphasis will be given to enhancing workflow, increasing productivity, improving quality and realizing cost targets. Other areas to be assessed and evaluated include the approach in identifying, reporting and resolving typical problems that may be encountered in satisfying the requirements of the SOW, areas of potential risk to the successful fulfillment of the requirements and approaches for minimizing their impact as appropriate. The realism, effectiveness and innovativeness of the offeror's proposed approach to ensuring technical quality and to staying abreast of current research and innovative technologies shall also be evaluated.

(3). Management Plan (Subfactor)

The offeror's planned organizational structure and management approach, including supervisory responsibility, lines of authority, subcontracts or cooperative business arrangements, and relationships to other entities will be evaluated. The Government will evaluate who will perform the work under the contract, has authority over the contract, and/or an ability to impact the performance of the contract, and who has overall contract management authority. The offeror's approach for tracking and controlling all work and for supervising and monitoring performance including methods for monitoring, maintaining and enhancing the quality of work and maintaining customer satisfaction will be evaluated. The offeror's proposed management structure, functions, authority, and reporting system will be evaluated on applicability to the anticipated type of work described in the SOW and on innovativeness in terms of efficiency and effectiveness. Evaluation will include the efficient and effective use of proposed sub-contracting and cooperative business arrangements, their operational and technical benefits to NASA, and the effectiveness of the proposed approach for managing these arrangements to assure that the Government obtains quality products.

The Offeror's Organizational Conflict of Interest Avoidance Plan will be evaluated for a complete and comprehensive response to ensuring compliance with and assurance that all safeguards are in place to maintain control, handling and non-disclosure of sensitive data in conformance with contract requirements. Specifically, the Plan will be evaluated to ensure it addresses all the requirements identified in Section H, Clause H.15, Organizational Conflict of Interest, and Limitation of Future Contracting, and Section I, paragraph I.12, NFS 1852.237-72, Access to Sensitive Information relative to the Offeror's understanding and proposed methodology for implementation of the above contract requirements.

(d) Past Performance Factor (Volume II)

By acquiring and reviewing information from a variety of sources, the Government will evaluate each Offeror's suitability to fulfill the requirements of this contract. The Government will evaluate the currency and relevance of the information, source of the information, context of the data, and general trends in performance of the Offeror and major subcontractors, predecessor companies, key personnel who have relevant experience, subcontractors and an organization that will substantially contribute to the proposed contract, or have the potential to significantly impact performance of the proposed contract. Specifically, the Government will evaluate information on past and current performance regarding relevant technical performance, contract management, and corporate management responsiveness and other information.

The explanations and amounts of cost savings or growth will be evaluated. The reasons for any terminations for default, environmental or safety violations and schedule slips will also be evaluated.

If an Offeror does not have any relevant past performance history as determined herein, it will not be evaluated favorably or unfavorably and will be given a neutral adjectival rating.

1) **Past Performance Evaluation Criteria**

The Government will review recent and active contracts (as defined in Provision L.7-b), to determine the relevancy of the experience to the work anticipated to be performed under this proposed contract. The past performance of the Offeror and major subcontractors will be thoroughly evaluated in the following areas: Relevant Technical Performance, Contract Management, Corporate Management Responsiveness, and Other Information. The Government will also evaluate other information submitted by the Offeror and major subcontractors as well as information from other sources as described in Section L.

2) **Relevant Technical Performance.**

The Government will review relevant recent and active contracts to assess the quality of the technical work performed under those contracts. The Government will consider the currency and relevance of the information, source of the information, context of the data, and general trends in performance of the offer or and major subcontractors. In evaluating technical performance, consideration will be given to the following:

- Compliance with technical and schedule requirements
- Contractor flexibility and effectiveness in dealing with changes to technical requirements
- Innovation and resource-efficient solutions to satisfy requirements
- Key personnel performance
- Ability to assess and re-assign staff based on technical performance
- Problems encountered and their resolutions
- Approach to dealing with short-term high demand requirements
- Infusion of best practices and lessons learned

3) **Contract Management.**

The Government will evaluate the Offeror's and major subcontractors' recent and current performance in the area of contract management. The Government will consider the currency and relevance of the information, source of the information, context of the data, and general trends in performance of the Offeror and subcontractors. In evaluating contract management, consideration will be given to the following:

- Employee safety record
- Qualifications, effectiveness, and authority of on-site contract management

- Simultaneous management of a large number of complex tasks of varying sizes
- Conformance with the terms and conditions of contracts, including delivery of products and reports, and adherence to cost and schedule constraints
- Effective flow-down of requirements to subcontracts and method for monitoring subcontract performance
- Efficiency and effectiveness of approach used to attract and retain employees
- Management of the phase-in period to ensure efficient continuation of operations during contract turn-over
- Efficiency of management and negotiations of task orders and changes thereto
- Quality of cost estimating and performance, including frequency, root causes, and management of cost over- and under-runs exceeding five percent of the initial cost estimate

4) **Corporate Management Responsiveness.**

The Government will evaluate the Offeror's and major subcontractors' corporate relevant past performance, and the relationship of the Offeror to any entities within the corporation that will substantially contribute to the proposed contract or have the potential to significantly impact the proposed contract, and how well they have worked together in the past. The Government will consider the currency and relevance of the information, source of the information, context of the data, and general trends in performance of the Offeror and major subcontractors. The Government will evaluate the impact of the Offeror's, major subcontractor's, and other entities' decisions in the following areas:

- Responsiveness of corporate management to contract problems
- Impact of corporate management involvement in the operation of the contract
- Ability to operate free from organizational conflicts of interest

5) **Other Information.**

The Government will also evaluate the following for all relevant contracts:

- Significant awards and certifications received that are relevant to solicitation requirements
- Any serious performance problems, termination for default, or regulatory violations

- For Award Fee or Incentive Fee Contracts the fee evaluation scores for all evaluation periods
- Examples of innovative methods that resulted in cost savings to the customer

Past performance will also be evaluated based on information obtained through the Contractor Performance Assessment Reporting System (CPARS) or similar systems of other Government departments and agencies, questionnaires tailored to the circumstances of this acquisition, Defense Contract Management Agency (DCMA) channels, interviews with program managers and contracting officers, and other sources known to the Government, including commercial sources.

Offerors are notified that, in conducting an assessment of past performance, the Government reserves the right to use both data provided by the Offeror and data obtained from other sources.

Past Performance Adjectival Ratings. The Government will obtain past performance information as stated in Section L. The Government will evaluate this information in accordance with the criteria below and assign strengths and weaknesses. The results of this evaluation will be consolidated into an adjectival rating. The rating system that will be used by the Government to determine the adjectival rating for each offeror is as follows.

(e) Cost Factor (Volume III)

(1) The cost evaluation will be conducted in accordance with FAR 15.305(a)(1) and NFS 1815.305(a)(1)(B).

(2) Offerors should refer to FAR 2.101(b) for a definition of “cost realism” and to FAR 15.404-1(d) for a discussion of “cost realism analysis” and “probable cost”. The terms “proposed and probable cost” are exclusive of fee. Any proposed fee is not adjusted in the probable cost assessment.

(2) The Government will determine the Probable Cost of each Offeror’s proposal by evaluating the realism of each offeror’s proposed costs to ensure the offeror understands the magnitude and complexity of the effort. This will include an evaluation of the extent to which proposed costs indicate a clear understanding of solicitation requirements, and reflect a sound approach to satisfying those requirements. This assessment will consider technical/management risks identified during the evaluation of the proposal and associated costs. Cost information supporting a cost judged to be unrealistic and the technical/management risk associated with the proposal will be quantified by the Government evaluators and included in the assessment for each offeror.

(End of Provision)

M.3 WEIGHTING AND SCORING (MODIFIED NOV 2004)

(a) The essential objective of the proposal process is to identify and select the contractor able to successfully meet the Government's needs in the manner most advantageous to the Government, all factors considered. The relative probabilities of offerors to accomplish this will be judged by evaluation of specific factors. These factors are described in Section M.2 (Evaluation Approach).

(b) The Mission Suitability Factor will be rated by adjective and numerically weighted and scored in accordance with the numerical system established below. The other factors (i.e., Past Performance and Cost/Price) are not similarly weighted or scored. Past Performance is assigned an adjectival rating. Cost/Price will be evaluated for realism, a probable cost adjustment will be made if appropriate, and a confidence level rating will be assigned. There are no formulae for making trade-offs or correlations between mission suitability points and probable cost dollars. The Source Selection Authority's (SSA) decision shall be based on a comparative assessment of proposals against all source selection criteria in the solicitation. While the SSA may use reports and analyses prepared by others, the source selection decision shall represent the SSA's independent judgment.

(c) For the purpose of selecting a contractor for contract award, Mission Suitability is moderately more important than Past Performance, and Past Performance is moderately more important than Cost. Mission Suitability and Past Performance when combined are significantly more important than Cost. Offerors shall note that items within any factor, if found to be unsatisfactory, may be the basis for rejection of an offer.

(d) The numerical weights assigned to the subfactors are indicative of the relative importance of those evaluation areas. The Mission Suitability subfactors to be evaluated are weighted for purposes of assigning numerical scores as follows:

| Subfactor | Assigned Weight |
|--|-----------------|
| Technical Capability, Staffing, and Facilities | 400 |
| Understanding the Requirement | 350 |
| Management Plan | 250 |
| <i>Total</i> | 1,000 |

(End of Provision)

[END OF SECTION]