

AWARD/CONTRACT

THIS CONTRACT IS A RATED ORDER >
UNDER DPAS (15 CFR 350)

RA

DOC9

PAGE

1 OF 49

2. CONTRACT NO.

NNC05CA95C

3. EFFECTIVE DATE

January 1, 2005

4. REQUISITION/PURCHASE REQUEST/PROJECT NO.

NA

5. ISSUED BY

NASA Glenn Research Center
Services and Construction Branch
21000 Brookpark Road, Mail Stop 500-312
Cleveland, OH 44135-3191

CODE

CHE/RWS

6. ADMINISTERED BY (If other than Item 5)

7. NAME AND ADDRESS OF CONTRACTOR (No., street, city, country, State and ZIP Code)

Sierra Lobo Incorporated
Attn: George A. Saturnino
11401 Hoover Road
Milan, Ohio 44846

8. DELIVERY

FOB ORIGIN OTHER (See below)

9. DISCOUNT FOR PROMPT PAYMENT: Net 30 Days

10. SUBMIT INVOICES (3 copies unless otherwise specified)

TO THE ADDRESS SHOWN IN ITEM 12

CODE:

FACILITY CODE

11. SHIP TO/MARK FOR

CODE

CHE/RWS

see item 5

12. PAYMENT WILL BE MADE BY

CODE

NASA Glenn Research Center
Commercial Accounts, MS 500-303
21000 Brookpark Road
Cleveland, OH 44135

13. AUTHORITY FOR USING OTHER THAN FULL & OPEN COMPETITION:

10 U.S.C. 2304(c) () 41 U.S.C. 253(c)

14. ACCOUNTING AND APPROPRIATION DATA

15A. ITEM NO.

15B. SUPPLIES/SERVICES

15C. QUANTITY

15D. UNIT

15E. UNIT PRICE

15F. AMOUNT

1

As indicated in the Statement of Work.

1

JOB

\$69,518,013.00

\$69,518,013.00

15G. TOTAL AMOUNT OF CONTRACT > \$69,518,013.00

16. TABLE OF CONTENTS

(X) SEC	DESCRIPTION	PAGE(S)	(X) SEC	DESCRIPTION	PAGE(S)
PART I - THE SCHEDULE			PART II - CONTRACT CLAUSES		
<input checked="" type="checkbox"/> A	SOLICITATION/CONTRACT FORM	1	<input checked="" type="checkbox"/> I	CONTRACT CLAUSES	45-48
<input checked="" type="checkbox"/> B	SUPPLIES OR SERVICES AND PRICES/COSTS	2	PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACH.		
<input checked="" type="checkbox"/> C	DESCRIPTION/SPECS./WORK STATEMENT	3-21	<input checked="" type="checkbox"/> J	LIST OF ATTACHMENTS	49
<input checked="" type="checkbox"/> D	PACKAGING AND MARKING	22	PART IV - REPRESENTATIONS AND INSTRUCTIONS		
<input checked="" type="checkbox"/> E	INSPECTION AND ACCEPTANCE	23	<input type="checkbox"/> K	REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS	
<input checked="" type="checkbox"/> F	DELIVERIES OR PERFORMANCE	24-29	<input type="checkbox"/> L	INSTRS., CONDS., AND NOTICES TO OFFERORS	
<input checked="" type="checkbox"/> G	CONTRACT ADMINISTRATION DATA	30-37	<input type="checkbox"/> M	EVALUATION FACTORS FOR AWARD	
<input checked="" type="checkbox"/> H	SPECIAL CONTRACT REQUIREMENTS	38-44			

CONTRACTING OFFICER WILL COMPLETE ITEM 17 OR 18 AS APPLICABLE

17 CONTRACTOR'S NEGOTIATED AGREEMENT (Contractor is required)

To sign this document and return copies to issuing office. Contractor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified above and on any continuation sheets for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) this award/contract, (b) the solicitation, if any, and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. Attachments are listed herein.

18 AWARD (Contractor is not required to sign this document.) Your offer on

Solicitation Number 04-C4E-002, including the additions or changes made by you which additions or changes are set forth in full above, is hereby accepted as to the items listed above and on any continuation sheets. This award consummates the contract which consists of the following documents: (a) the Government's solicitation and your offer, and (b) this award/contract. No further contractual documents are necessary.


19A. NAME AND TITLE OF SIGNER (Type or print)

George A. Saturnino, President

20A. NAME OF CONTRACTING OFFICER (Type or print)

Ronald W. Sepesi


19B. NAME OF CONTRACTOR

BY 
(Signature of person authorized to sign)

19C. DATE SIGNED

January 12, 2005

20B. UNITED STATES OF AMERICA

BY 
(Signature of Contracting Officer)

20C. DATE SIGNED

January 12, 2005

PART I - THE SCHEDULE

SECTION B - SUPPLIES OR SERVICES AND PRICE/COSTS

B.1 ESTIMATED COST, AWARD FEE, FIXED FEE, AND AWARD TERMS

The total estimated cost, award fee, fixed fee, and award terms are as follows:

	Phase- In Period (60 Days)	Core Requirement (Years 1, 2, 3)	Option (Years 4, 5)	Award Terms			Final Terms		Totals
				Middle Terms			(Year 9)	(Year 10)	(All Years)
Contract Type	FFP	CPAF	CPFF/AT	CPFF/AT	CPFF/AT	CPFF/AT	CPAF	CPAF	XXXXXX
Total Estimated Cost	(b)(4)								
(MAX)Award Fee/Fixed Fee									
Totals	\$0	\$69,518,013.00	\$62,810,292.00	\$32,816,855.00	\$33,934,098.00	\$34,998,165	\$37,088,058.00	\$38,397,444.00	\$309,582,925.00

(End of Clause)

B.2 CONTRACT FUNDING (NFS 18-52.232-81) (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 __TBD__ and covers the following estimated period of performance: __TBD__.

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

(End of Clause)

B.3 SUPPLIES AND/OR SERVICES TO BE FURNISHED (GRC 52.211-105)
(MAY 2002)

The Contractor shall provide all resources (except as may be expressly stated in this contract as furnished by the Government) necessary to perform the requirements delineated in the Specifications/Statement of Work incorporated in clause C.1 and corresponding attachment in Section J (J.1(a)).

(End of Clause)

[END OF SECTION]

SECTION C - DESCRIPTION/SPECIFICATION/WORK STATEMENT

The referenced appendices to The Statement of Work is listed in Section J as Attachment J.1(a).

Statement of Work

Test Facilities Operations, Maintenance & Engineering

TFOME

1.0 INTRODUCTION

The National Aeronautics and Space Administration's (NASA) Glenn Research Center (GRC) requires a contractor to partner with the Engineering and Technical Services Directorate (E&TSD) to provide operations, engineering and maintenance support services for GRC's research facilities and laboratories.

The two organizations within E&TSD responsible for test facilities operations, maintenance, and engineering are the Research Testing Division (RTD) and the Plum Brook Management Office (PBMO). The RTD and PBMO are responsible for management, test engineering, technician support, test operations, and maintenance of the GRC's research test facilities located at Lewis Field in Cleveland, Ohio and Plum Brook Station in Sandusky, Ohio. In essence, the RTD and PBMO contain the test resources to support GRC's test facilities and laboratories. The organizations work in a collaborative fashion with a myriad of customers - internal and external to GRC - to accomplish testing milestones across Aeronautics and Space program areas. They ensure that the test facilities are maintained properly, are available as required to support the testing requirements, and are state-of-the-art in terms of their capabilities.

The intent of this contract is to provide the resources necessary to fulfill the mission objectives of the research facilities and laboratories through a partnership between the RTD/PBMO and the contractor. The mutual goal of this partnership is to meet RTD/PBMO customer's research objectives, development and commercial needs. The success of research, development, and commercial activities at GRC depends on the timely, efficient and quality completion of work described herein. Therefore, RTD/PBMO has a vested interest in ensuring the contractor's success. The work to be performed by the contractor includes testing, development, and general services.

1.1 Mission Description and Objectives

Research test facilities at GRC support a vast variety and number of experiments. Established in the mid-40s, GRC has become a comprehensive, world-class center for aeronautics, space communications, space propulsion and power, and structures and materials research. Researchers from GRC, other NASA Centers, other Federal agencies, other governments, and private industry utilize these facilities for their testing programs. Further information on the GRC mission and its contribution to the NASA vision can be obtained from the web site <http://www.grc.nasa.gov>.

The mission of the RTD/PBMO is to assure safe, cost-effective, responsive and reliable performance and utilization of research laboratories and facilities to accomplish the R&D mission of the GRC. This mission goes beyond conducting high quality test programs and effectively operating test facilities, but also includes the development of: models, space flight hardware, new or modified facilities, new or improved data systems, and test techniques. A long-range goal of RTD/PBMO is to improve the capability of these test facilities to better meet current and future customer needs. Further information on the RTD/PBMO mission and its contribution to the GRC vision are located in Appendix 1.

Successful completion of the mission requires that services be provided safely and in compliance with environmental requirements. The importance of safety in accomplishing these services cannot be overemphasized. The testing often requires high-energy sources that present potential risk to personnel, facilities, and the environment.

Facility testing is accomplished by an integrated team approach that includes input from the customer as well as a mix of RTD/PBMO employees and contract personnel. The goal of the RTD/PBMO/Contractor partnership is to foster an environment conducive to mutual success. Working in conjunction with the government, the successful bidder must provide a quality experience to the research community making GRC's test facilities "the first choice" of our research customers. To this end, RTD/PBMO is prepared to share corporate knowledge, participate in informal discussion, solicit feedback, and coordinate resources with the Contractor. The partnership will also serve as a forum for open discussion in an effort to achieve the following objectives:

- Operating safely and in environmental compliance
- Meeting the agreed upon expectations of the test customer (Quality, Cost, Schedule)
- Resolving issues expeditiously and fairly without confrontation or litigation
- Developing trust and open communication
- Evaluating and exploiting opportunities for marketing and utilization of GRC test facilities
- Striving to make this teaming approach transparent to the customer

GRC is an ISO 9000:2000 certified organization. The Contractor will operate under the GRC certified processes and will not be required to maintain its own ISO 9000 certification.

1.2 Research Facilities, Laboratories and Support Equipment

The facilities covered in this Statement of Work include wind tunnels, engine altitude chambers, engine component facilities, space simulation chambers, zero gravity facilities, instrumentation R&D laboratories, materials and structures R&D laboratories, clean rooms, and rocket test facilities at GRC. Several different test rigs may be housed within a single test facility or building. GRC consists of research test facilities located at both Lewis Field (LF) and the Plum Brook (PB) Station. The PB test facilities are located approximately 60 miles west of LF. RTD/PBMO operates these facilities solely on demand for research and development. The use of these facilities changes with the needs of the research community and industry. Table 1 is a list of the major research facilities and laboratories operated by GRC. Facility descriptions are located at <http://facilities.grc.nasa.gov/>.

Table 1: Research Facilities, Laboratories, and Support Equipment

- 10x10 Supersonic Wind Tunnel and Drive System
- 8x6 Supersonic Wind Tunnel and Drive System

- 9x15 Low Speed Wind Tunnel and Drive System
- Icing Research Tunnel, Drive System and Refrigeration Plant
- Aero-Acoustic Propulsion Laboratory
- 2.2 Second Drop Tower
- Space Power Facility (PB)
- Cryogenic Research Tank Facility (PB)
- Spacecraft Propulsion Facility (PB)
- Hypersonic Tunnel Facility (PB)
- Space Experiments Laboratory
- Zero Gravity Research Facility
- Research Aircraft
- Cryogenic Component Laboratories
- Propulsion Systems Laboratory
- Engine Components Research Laboratory
- Engine Research Building
- Research Combustion Laboratories
- Instrument and Controls Technology Laboratories
- Materials & Structures Laboratories
- Communications Laboratories
- Electric Propulsion Laboratories
- Electric Propulsion Research Laboratories
- Space Power Laboratories

Facilities designated with a (PB) are located at Plum Brook Station; all others are located at Lewis Field.

2.0 SCOPE

The Contractor shall provide all personnel, equipment, tools, materials, vehicles, supervision and other items, except as provided in Section 4.6 "Government Furnished Property and Services" necessary to plan, prepare, and conduct tests; plan and support facility and hardware development; operate, maintain, and repair the facilities; and provide required administrative support.

Successful completion of the RTD/PBMO mission requires the combined effort of, and extensive interaction between, RTD/PBMO and the Contractor. The work described in this Statement of Work will be accomplished by RTD/PBMO, the Contractor, or mixed Contractor/RTD/PBMO test and project teams.

The services available under this contract can be provided to any customer as approved by the Contracting Officer (CO) and Contracting Officer Technical Representative (COTR). These services may also be provided to other facilities at GRC, or other installations if needed, in order to complete the mission. In general, however, the services provided under this contract will pertain to the facilities listed in Table 1.

The Contractor will support RTD/PBMO's mission in two ways. In the first instance, the contractor will have responsibility for all day-to-day testing, development, operations, and maintenance activities. These activities include, but are not limited to:

- Customer interaction
- Following the GRC Safety Permit Process

- Work management and control
- Facilities operations and testing
- Facility maintenance, repair, modification
- Coordination of instrumentation calibration and repair, instrumentation metrology and data systems maintenance
- Test Engineering, including project management, planning, design, and implementation
- Facility engineering services including; facilities engineering, reliability engineering, safety and risk engineering evaluations, project management/planning support
- Reconfiguration and modification to test facility support systems
- Research facility technology development, including facility automation systems, data acquisition systems, instrumentation systems and test techniques
- Facilities, flight hardware, and model/test apparatus development
- Configuration Management including; documentation, drawing files, equipment specifications, warranties, etc.
- Marketing of GRC test facilities

More specific descriptions of the above activities are located in Appendix 2.

In the second instance, the contractor will augment the current civil servant staff, performing functions identical to the above list in other test facilities and research labs at GRC. It is anticipated that continued attrition of the civil servant workforce will result in the transfer of complete engineering, operations, and maintenance responsibilities for additional facilities to the contractor during the life of this contract. The contractor may also be requested to augment RTD/PBMO's administrative support staff.

Facility test schedules are established by the government Facility Managers. The Contractor is typically consulted by the Facility Managers to assure technical viability and resource practicality of schedule commitments. The schedules are made available to the Contractor via internal web sites, examples are in Appendix 1. The main focus of this contract is to complete the work associated with these schedules.

The nature of the research testing business is subject to frequent change due to problems such as; hardware and/or software delays, instrumentation issues, researcher availability, funding issues, etc. Facility test schedules are rarely consistent from one quarter to the next. In order to minimize test cost and schedule impacts to our customers, the contractor shall size and deploy its appropriately skilled staff in response to the changing demands of the scheduled research testing.

2.1 Excellence in Safety and Occupational Health

The Contractor shall ensure proactive and sustained excellence in providing for the safety and occupational health of the public, employees, and high value equipment and property. Basic characteristics and attributes of safety and occupational health excellence include, but are not limited to:

- a) Achievement of the NASA expectation for zero mishaps in the workplace
- b) A comprehensive and effective safety and health program that includes:
 1. Management commitment and employee involvement
 2. System and worksite hazard analysis
 3. Hazard prevention and control

4. Safety and health training

The Contractor shall ensure that in all its performance under this contract:

- The Contractor shall adhere to the Glenn Safety Manual as it applies to RTD/PBMO activities
- All appropriate personnel are trained in procedures, policies, and practices in accordance with current GRC, OSHA, EPA, and other applicable federal, state, and local regulatory agency standards
- All operators of equipment that are required to be licensed and/or certified and have current licenses/certifications
- All its employees will participate with RTD/PBMO in safety inspections and safety awareness training in accordance with the Glenn Safety Office
- The Contractor shall provide all safety and occupational health equipment required to perform the work specified in this contract, except for that provided by the Government

Further details about GRC's Safety Office and safety policies may be found in Appendix 3.

2.1.1 Safety Plan

Prior to commencing work under this contract, the Contractor shall submit a Safety Plan to the Contracting Officer (CO) for approval. This plan shall be followed by all Contractor personnel and shall incorporate the requirements of applicable NASA, GRC, and OSHA safety regulations and instructions and this contract.

2.1.2 Inspections

The Contractor's workspace may be inspected periodically for OSHA and NASA violations. Abatement of violations will be the responsibility of the Contractor as determined by the Government. The Contractor shall provide assistance to applicable NASA and GRC organizations and the OSHA inspector if a complaint is filed. In the event that a regulatory agency assesses a monetary fine or penalty against the Government for violations which directly result from performance by the Contractor in carrying out their responsibilities under this contract, the Contractor shall reimburse the Government for the amount of that fine or penalty and other related costs incurred by the Government. Any such reimbursement shall be accomplished by a contract credit.

2.1.3 Accidents

The Contractor shall report accidents and incidents in accordance with the appropriate GRC, NASA, and OSHA regulations and instructions.

2.1.4 Environmental Protection and Policies

The Contractor shall use trained, licensed personnel to clean up any hazardous waste spills that result from the Contractor's actions. The costs associated with such cleanup are fully the responsibility of the Contractor. The Contractor shall comply with the instructions of the cognizant GRC Industrial Safety, Occupational Health and Environmental Engineering and Management Offices with respect to avoidance of conditions which create a nuisance or which may be hazardous to the health and safety of on-site personnel. The Contractor shall observe and adhere to all requirements for handling and storage of combustible supplies, materials, waste, and trash. Any oils and lubricants generated by the Contractor, including those removed

from Government owned equipment, resulting from work of the Contractor (i.e., PM) shall be disposed of in accordance with GRC instructions.

Further details about GRC's Environmental Management Office and policies may be found in Appendix 3.

3.0 REQUIREMENTS

The requirements of this contract are organized into three performance areas: Testing, Development, and General Services. These performance areas reflect the major activities in that area:

Testing:

- Test Planning
- Test Preparation
- Test Operations
- Post-test Activities

Development:

- Facilities
- Flight Hardware
- Model/Test Apparatus

General Services:

- Operation of Support Equipment
- Maintenance & Repairs

Further information on the RTD/PBMO procedures is located in Appendix 2.

NASA anticipates that a wide variety of skills will be required to successfully perform the services described in this Section. Further, NASA expects that Contractor personnel will consist of engineers and technicians of various disciplines, test and project managers, crafts-persons, managers, supervisors, and administrative support persons.

In order to accomplish the scope of this contract, special certifications and/ or security clearances may be required. Specific certifications/training etc. may be required during work performance. Examples of these special certifications are located in Appendix 4. In these instances, the contractor will acquire and maintain these certifications and clearances.

The Contractor shall maintain a training, security, safety and environmental database for each employee. The database shall include, as a minimum, name of employee, position or title, required or unique training, certifications, licenses and status (i.e. completion and expiration dates).

RTD/PBMO expects the Contractor to recommend changes to test, development and general service processes in order to improve safety and performance or reduce costs. The Contractor shall strive to significantly reduce and aggressively control the cost of GRC research facility operations, maintenance, and engineering services while maintaining technical excellence within acceptable levels of risk. However, RTD/PBMO retains the right to approve changes.

The work described in Sections 3.1, 3.2 and 3.3 will be accomplished by the Contractor, or shared by means of mixed Contractor/RTD/PBMO test and project teams. The work descriptions in these sections assume the contractor has full responsibility for a given test or development project. When the Contractor is assigned work in a mixed Contractor/RTD/PBMO test and project team, the COTR will specify the subset of activities to be performed by the Contractor.

3.0.1 Work Breakdown Structure

Appendix 5 contains a Work Breakdown Structure (WBS). Each WBS element describes specific work performed in a facility/laboratory work area. The WBS elements are organized into functional work groups. The COTR will issue new WBS elements, or modify existing WBS elements, as needed to clarify work to be performed.

The work described in this Statement of Work and in the WBS will be phased in at separate times. Table 2 identifies the phases anticipated by WBS.

Table 2: TFOME Work Phasing

Contract Phase	Work Area	WBS Elements	Anticipated Start Date
Phase A	GRC Technical	1.1.1, 1.2.1, 1.3.1, 1.4.1, 1.5.1, 1.6.1, 1.7.1, 1.8.1, 1.9.1, 1.10.1, 1.11.1	Contract Start
Phase B	GRC Engineering	1.1.2, 1.2.2, 1.3.2, 1.4.2, 1.5.2, 1.6.2, 1.7.2, 1.8.2, 1.9.2, 1.10.2, 1.11.2	4-8-2006
Phase C	Plum Brook	2.1.1, 2.2.1, 2.3.1	8-1-2010

3.0.2 Hours of Operation

Normal operations are Monday through Friday, 7:00 a.m. to 5:30 p.m., except for Federal holidays. However, second and third shift operations are required to support research and maintenance activities. The Contractor shall be required to work other than normal Center operational hours to support the requirements of this contact. Recognized Holidays are in accordance with Section H.

3.0.3 Emergencies

In the event of an emergency or other unusual occurrence adversely affecting NASA's interests, the Contractor shall summon and/or render appropriate assistance to control and/or ameliorate the situation. This may include providing advance first aid or CPR, protecting evidence at a crime or accident scene, providing crowd control, or securing area following a natural disaster.

3.0.4 Workmanship and Materials Standards

3.0.4.1 Quality Standards

All workmanship shall be accomplished in conformance with approved and accepted industry standards; equipment manufacturer's standards; all applicable, local, state, and federal standards; applicable NASA standards, and building and safety codes. Quality shall be defined

as – each Work Order or Work requirement performed and completed in a manner which assures the equipment, system or experiment operates as it was designed to function, assures the safety of all personnel and displays the efficient use of time and materials

3.0.4.2 Work Completion

When the Contractor completes work on a system or piece of equipment; that system or equipment shall be free of missing components or defects which would prevent it from functioning as originally intended and designed. Corrective, repair, and replacement work shall be carried to completion including operational checks and cleanup of the job site. Except where otherwise noted, replacements shall match existing in function, dimensions, finish, color, and design.

3.1 Testing

The goal of the RTD/PBMO is to safely meet the research, development, or commercial customer's requirements on time, at the lowest possible cost, and meeting or exceeding customer data requirements. Testing services are comprised of the four phases of a test in GRC's facilities: Test Planning, Test Preparation, Test Operations, and Post-test Activities. The sections describing these phases include the goals, a general description of the process, and work requirements to successfully perform a test. During these phases, the schedule, cost, test requirements, and data accuracy need to be continually reviewed and balanced. Therefore, constant communication is required at all times among RTD/PBMO, the customer, and the Contractor.

RTD/PBMO will assign lead responsibility (may be Government or Contractor) for a given test. This will occur when a test is approved by RTD/PBMO (with inputs from its Contractor partner). The Contractor shall be expected, at a minimum, to:

- Manage available resources, budget, and approve changes
- Facilitate completion of work performed by other disciplines
- Facilitate coordination between disciplines
- Facilitate resolution of problems
- Report status to customer, Contractor and RTD/PBMO Management
- Oversee Safety and Mission Assurance process
- Provide a single point of contact for test issues
- Facilitate system integration and testing activities

The work described in Section 3.1 will be accomplished by the Contractor, or shared by means of mixed Contractor/RTD/PBMO test and project teams. The work descriptions in this section assumes the contractor has full responsibility for a given test or facility. The Contractor's specific role in any of these scenarios will be determined by the COTR.

3.1.1 Test Planning

The goal of test planning is for RTD/PBMO, the Contractor and the Customer to agree on test requirements, test cost, schedule, and the responsibility for tests and deliverables. Test planning begins upon receipt of a customer test request and continues throughout subsequent test preparation, test operations, and post-test phases of the test.

Initially, the test planning team may consist of only the test project manager, Facility Manager and Customer representatives. As needed, input from Contractor engineers and/or technicians

may be required to support the effort to develop a Work Plan. Elements of test planning include:

- Review and optimize customer requirements
- Conduct initial test planning meeting
- Define approach to satisfy customer test requirements
- Obtain RTD/PBMO and Customer approval
- Develop a Work Plan

3.1.1.1 Generate a Work Plan

The Contractor shall develop Work Plans to meet customer requirements. The Work Plan requires Government approval and typically includes:

- Estimates for cost, labor, equipment and material
- Work breakdown structure and test specific schedule
- Engineering approach
- Plans for calibration and checkout of instrumentation, programming and checkout of software, design, procurement, fabrication, assembly, and checkout of subsystems
- Approaches to resolving special matters pertaining to Safety, Environmental Protection, and Mission Assurance, configuration management, and maintenance
- Known technical and cost risks associated with the test

3.1.2 Test Preparation

The goal of Test Preparation is to ensure that all required facility systems and test hardware are ready to begin Test Operations.

The documentation required for any given test shall be maintained per customer requirements as outlined in the Work Plan. As part of the Test Preparation stage, the Contractor will assure completion of the following documentation:

- Safety Permit documentation
- Facility configuration control documents
- Design documents

The Contractor will complete development, fabrication, acquisition, installation and end-to-end functionality checks for all new, reconfigured or modified model and facility systems, including but not limited to:

- Instrumentation
- Data-acquisition and specialized model system software including test-dependent or user-supplied software
- Data systems including user-supplied hardware
- Model controls including user-supplied model controls
- Model and associated mounting hardware
- Facility modifications

The final steps of the Test Preparation phase typically include verification activities such as: test readiness reviews, operational readiness reviews, and/or final safety walkthroughs. The type of

verification activity depends on the facility or activity and will be specified by the RTD/PBMO to the Contractor. The Contractor is responsible for completing all verification activities prior to testing. The Contractor shall verify that any training on model and facility hardware or systems, software, and operations is completed.

3.1.2.1 Safety Permit Documentation and Support

The Contractor shall prepare documentation necessary for submittal to NASA GRC Safety Committees as part of the safety permit request and annual permit renewal request processes. The GRC Safety Permit Process is detailed in the Glenn Safety Manual located in Appendix 3.

3.1.3 Test Operations

The goal of Test Operations is to safely and productively satisfy the Customer's research, development, and commercial objectives.

The Contractor shall provide support to conduct testing in aerospace research facilities, laboratories, and organizations at GRC in accordance with specific Standard Operating Procedures (SOPs) for each individual facility. The safe and efficient operation of the test facilities requires qualified facility personnel with specific technical training and proof of proficiency. Specific certifications/training etc. will be identified in the AWR. Examples of these special certifications are located in Appendix 4, the AWRs are located in Appendix 5. These personnel qualifications are a prerequisite to operate the individual facilities. Test Operations typically include:

- Test article, facility equipment and system pre-run setup and checkout
- Coordination with Air & Electrical Power Dispatchers
- Facility and test execution according to test and facility procedures
- Data acquisition, reduction and display
- Problem trouble-shooting encountered during test
- Re-running any test points

Examples of facility operating procedures are located in Appendix 6.

3.1.4 Post-Test Activities

The goal of Post-Test Activities is to deliver the test hardware and final data to the Customer and restore the facility systems to their baseline configuration.

Post Test Activities typically include:

- Transmittal of final data to the Customer per Work Plan
- Completion of final Test Documentation, including documents describing facility modifications made to support the test
- Documentation of lessons learned, and identification of proposed changes to procedures
- Facility is returned to the base-line configuration
- Instrumentation is removed and returned to inventory or customer
- Model-related adaptive hardware is removed and returned to inventory
- Test debriefing is conducted

3.2 Development

In addition to providing testing services, RTD/PBMO develops a wide variety of facilities and hardware for its customers. Project types typically include:

- Facility Development
- Model/Test Apparatus Development
- Flight Hardware Development

RTD/PBMO will assign lead responsibility (may be Government or Contractor) for a given project. This will occur when a development project is approved by RTD/PBMO (with inputs from its Contractor partner). The Contractor shall be expected, at a minimum, to:

- Develop Project Requirements Document with detailed cost estimate and schedule
- Produce Project Plan detailing work breakdown structure, resource requirements and their allocation, schedule
- Complete Studies, Conceptual Design, Design Reviews, and Final Design
- Oversee Safety and Mission Assurance process
- Complete personnel training
- Report to Customer and RTD/PBMO Management on status
- Manage available resources, budget, and recommend changes
- Complete fabrication, software programming, assembly, and installation
- Complete and document repairs and changes
- Ensure that project results are consistent with project requirements
- Facilitate system integration and testing activities
- Plan and perform an integrated systems test and participate in final reviews necessary to qualify system readiness
- Assure appropriate configuration management
- Conduct closeout activities

Smaller, less complex projects will have greatly reduced planning and documentation requirements.

3.2.1 Facility Development

Facility Development projects are generally focused on improving or modifying the capabilities of a facility to support a specific test or may be driven by future needs.

Typical facility development projects include upgrades or enhancements to systems/subsystems in GRC facilities, Table 1. These are not considered construction of facilities projects.

3.2.2 Model/Test Apparatus Development

Model/Test Apparatus Development projects focus on models and test apparatus such as mounting hardware, test platforms, and test specific auxiliary systems.

3.2.3 Flight Hardware Development

Flight Hardware Development projects range from the construction of major International Space Station research facilities to small hardware for research aircraft. Flight Hardware Development also includes qualification testing of flight hardware.

3.3 General Services

This section describes additional work to be performed by the Contractor in supporting RTD/PBMO's mission. The General Services described in this section include:

- Operation of support facilities
- Maintenance and repairs
- Plumbrook infrastructure and general institutional support services

3.3.1 Operation of Support Facilities

The Contractor will have primary responsibility for the operation and maintenance of the two 10x10 SWT drive systems and air dryer, the 8x6 SWT drive system and air dryer, the refrigeration system providing support to the IRT, the refrigeration system in EPL, and the steam plant required for operation of HTF and B-2 at PB. See Appendix 7 for further description of support systems. Contractor responsibilities shall include:

- Operation of the Support Facilities
- Coordination of short term and long term operations with appropriate organizations
- Coordination of the planning and implementation of maintenance, calibration, and repair activities to minimize operational impacts
- Assurance that no safety or environmental regulation violations occur during performance of this work.

3.3.2 Maintenance and Repairs

RTD/PBMO shares responsibility with other GRC organizations for the maintenance and repair of the GRC facilities listed in Table 1. Teams responsible for maintenance and repair projects will be assembled from Government and/or Contractor personnel representing the relevant disciplines required to complete the project. In addition, these teams may include other NASA contractors depending on the nature of the project. The Contractor shall request services from, and schedule coordination with, these other organizations as required. The Contractor shall coordinate maintenance and repair work with these other organizations in order to maximize facility availability. Maintenance and Repair services will be detailed in Work Orders.

Maintenance and repair services include:

- Scheduled maintenance
- Emergency repairs
- Machinery repair
- Calibration services
- Configuration control

Services under this section apply to facility systems, sub-systems, equipment and components. This includes structural, electrical, mechanical, and controls aspects of the facilities as well as data acquisition and reduction systems and computers. The Contractor is expected to perform maintenance and repair services on equipment according to the Original Equipment Manufacturer's (OEM) specifications, manufacturer's recommendations, and relevant GRC manuals unless the COTR approves an alternate approach.

As part of the continuing improvement of the maintenance and repair programs, the Contractor is expected to propose changes to existing procedures. The Contractor shall communicate to RTD/PBMO repair needs with justifications.

Examples of facility maintenance procedures are in Appendix 8.

3.3.3 Infrastructure and General Institutional Support Services

The Contractor shall provide infrastructure and general institutional support to the GRC Plumbrook Station.

Plumbrook infrastructure and general institutional support includes:

- Grounds maintenance
- Vehicle maintenance
- Heavy equipment operation
- Shipping and receiving
- Janitorial
- Equipment maintenance
- Utilities operation and maintenance
- Mail distribution
- Safety
- Environmental monitoring
- Quality Assurance
- Clerical
- Work control

4.0 MANAGEMENT AND ADMINISTRATION

The management and administration functions are those necessary to successfully execute testing at GRC LF and PB as described in this performance work statement. The Contractor's management team shall focus on accomplishing safe test operations using sound business practices. This team shall efficiently utilize personnel across and within the locations and will, to the maximum extent possible, streamline and consolidate business and technical processes.

4.1 Work Identification

RTD/PBMO will provide schedules of tests, projects, and testing requirements as customers are identified. The roles and responsibilities of both RTD/PBMO and the Contractor may be further identified so that the work to be provided by the Contractor can be quantified and evaluated based on performance.

For each test, project, or major assignment, the Contractor shall be responsible for estimating cost, establishing budgets, developing a major milestone schedule, monitoring actual progress against plan, identifying problems, and taking appropriate corrective action. Schedules of planned versus actual will include, but not be limited to, normal daily activities, reporting requirements, PM's, Work Orders, squawk sheets, record keeping, meetings and BMS requirements associated with the schedules. These responsibilities are in addition to the actual execution of the technical requirements.

Within the requirements for a Work Plan (Reports of Work Clause), the Contractor shall provide cost estimates associated with identified test, projects, and assignments, including all labor, materials, schedule, and assumptions; and develop an Implementation Plan prior to initiating activity. The Contractor shall ensure NASA is notified when actual cost of the work has reached 85%, 90%, and 100% of estimated amounts. At no time shall the estimated funds on any work request be exceeded without approval from the NASA CO or COTR.

4.2 Work Control Systems

The Contractor shall utilize NASA provided work management systems for the conduct of day-to-day activities. GRC currently utilizes Data Stream MP2 and 7i work management systems (or their successor) to manage technical work in the facilities. In this work management system, specific, individual Work Orders are generated each day that will further define the technical requirements.

The COTR, customer or authorized designee, will identify work in a Work Order, which shall be performed by the Contractor in accordance with the information (specifications, drawings, etc.) provided in the Work Order. Acceptable performance of a Work Order is defined as on-time delivery of a work product that conforms to the form, fit, or function of the Work Order description or specification. Each Work Order will have an expected due date, and will be designated as either "routine" or "urgent". The Contractor shall assume that any Work Order not specifically designated as "urgent" will be designated as "routine". The Contractor shall treat each Work Order as a discrete item (that is, the Contractor shall keep an individual record of each Work Order, its completion schedule/status, costs/materials/labor-hours associated with that specific Work Order, etc.). The Contractor shall review all Work Orders within 1 workday after formal release, and shall inform the COTR, customer or authorized designee, if any impediments to completion are anticipated (i.e. repairs or modifications to the equipment or facility/laboratory, supplies not currently in stock, other work of perceived higher priority, etc.). The COTR, customer or authorized designee, will determine how the Government will address any potential impediments to Work Order completion.

The Contractor and/or NASA personnel, in the course of their work duties, often generate "Squawk sheets". Squawk sheets are not Work Orders (which are issued by the COTR or authorized designee), but they may sometimes be treated in a similar fashion: Some squawk sheets are designated as urgent, some have due dates, and some may be tracked separately.

The Contractor shall input on a daily basis, data for all completed work orders in the Work Control Systems including; hours worked, trades required, materials required, problems or discrepancies, etc. Further information detailing RTD/PBMO processes is located in Appendix 2. The Contractor shall notify the COTR of any Work Orders which fall outside the scope of current SOW or WBS.

4.3 Funding

The Contractor shall prepare funding documents, using a properly-completed Optional Form 347, and route them electronically for signature by the Contracting Officer and distribution by the government. The Contractor shall also maintain status information on each funding action, which shall be made available to the COTR upon request.

4.4 Financial And Technical Reporting

4.4.1 Work Plan

Work Plans in accordance with the Reports of Work clause of this contract.

4.4.2 Monthly Financial Reporting

Monthly Financial Reports (533M0 shall be in accordance with the Reports of Work clause of this contract.

4.4.3 Technical Reporting

Monthly Technical Progress Report shall be in accordance with the Reports of Work clause of this contract.

From time to time the Contracting Officer or COTR may require special reports. These reports generally are requests for information in the areas of size of staff, property, facilities, or cost.

4.5 Progress Review Meetings

The Contractor shall attend and actively participate in progress meetings conducted by the Government. The meeting (established by the COTR) will review overall contract status, work completed versus work scheduled, problems, issues and concerns.

4.6 Government Furnished Property and Services

Government owned facilities; equipment and material that are used by incumbent contractors providing these services will be provided to the Contractor and may be used by the Contractor in support of the work included in this contract. The Government will provide these Government owned facilities, equipment, and materials to the Contractor for use only in connection with this contract. These facilities include shop areas, storage areas, and office space. The Government shall provide basic janitorial services for Government furnished facilities. The use of Government furnished facilities, property and services for other purposes is prohibited. All such facilities, equipment, and materials will be provided in "as is" condition.

4.6.1 Joint Inventory

The Contractor and the COTR shall conduct a joint inventory during the phase in period but not later than five (5) days before commencing work under this contract to determine the exact number and serviceability of GFP, tools, equipment and materials offered to the Contractor. Within 30 days of this inventory, the Contractor shall provide the COTR with a written listing of all facilities, equipment, tools and materials that the Contractor will use and for which the Contractor shall assume accounting responsibility. The remaining items will remain the responsibility of the Government. Government furnished items shall not be removed from GRC, unless approved in advance by the COTR.

4.6.2 Property Management

The Contractor shall implement a property control system for those items identified in the Joint Inventory for which the Contractor has assumed accounting responsibility. The Contractor shall adhere to policies and procedures for "NASA GRC On-Site Contractors" located in Appendix 9. High value tools and equipment must be tagged, secured, and disposed of in accordance with NASA and GRC regulations. Low value tools and equipment are not tagged or tracked in the NASA Equipment Management System (NEMS); however the Contractor shall maintain accountability for the equipment. The Contractor shall furnish a quarterly inventory report to the COTR.

The total or partial breakdown or failure of the Government furnished items shall not relieve the Contractor of responsibility to fully perform the work of the contract. On completion of the contract, all Government furnished tools and equipment, including specialized predictive testing and inspection equipment and tools, shall be returned to the Government in the same condition

as received, except for normal wear and tear. Tools and equipment that are direct expensed to the contract shall remain the property of the Government. The Contractor shall be responsible for the cost of any repairs or replacement caused by negligence or abuse by the Contractor personnel.

4.7 Contractor Furnished Items

The Contractor shall procure subcontract services, consumables, equipment, tools, and parts, such that they are available when required and meet stated specifications. At the conclusion of this contract, all such acquired material, directly expensed to this contract, shall remain the property of the Government.

4.7.1 Critical Spares

The Contractor will maintain, procure replacement parts, warehouse and issue those parts and materials listed on the Critical Spares List, Appendix 10, in the quantities shown. The Contractor shall be liable for damage to Government systems and equipment, or loss of revenue due to research facility downtime, resulting from the inadequate maintenance of critical spares.

4.8 NASA's Integrated Financial Management Program

The Contractor shall have knowledge of NASA's Integrated Financial Management Program (IFMP).

4.9 Information Technology (IT)

4.9.1 IT Equipment

All IT needs (computers/pagers/lan telephones etc.) and access to the GRC network will be provided by GRC through the ODIN contractor.

4.9.2 IT Security

The Contractor shall comply with the GRC IT Security (ITS) Program. The GRC IT Security Program is comprised of a set of policies, procedures, and guidelines for ensuring the security of GRC's IT resources. This program encompasses IT Security management, planning, implementation, and performance evaluation. The IT Security Program covers all IT resources including, but not limited to, computers, networks, telecommunications systems, applications, data and information. For more information see RFP Section I.

4.10 Project Manager

The Contractor shall appoint an on-site Project Manager with the authority for all coordination and direction of activities.

4.11 Critical Personnel Listing

The Contractor shall provide to the COTR a list of the Contractor's critical personnel and a means of contacting these individuals in the event of an emergency or during off-hours. The Contractor shall notify the COTR of changes in the list of the Contractor's key personnel within three (3) working days.

4.12 Contractor Licensing, Certification, and Specific Experience Requirements

The Contractor shall provide personnel that have the appropriate skills for that trade. The degree of skills shall be commensurate with that required for the work. Those personnel working in trades, whose performance requires license or certification or both, shall be so licensed/certified and said documentation shall be made available to the COTR upon request. The Contractor shall ensure all necessary certification and licensing requirements for performing work under this contract remains current for the work being performed. When specified, the Contractor shall obtain various levels of security clearances for designated personnel. When entry authorization to Restricted Areas is required for performance of Contractor duties, the Contractor shall assure timely access by notifying the COTR or designee at least three (3) working days prior to need; the "planned schedule" and the "actual schedule" shall reflect the entry authorization processes performed by the Contractor.

5.0 PHASE-IN/PHASE-OUT

This section describes requirements to be fulfilled by the Contractor in order to; transition into day-to-day operations after contract award, integrate the elements of our four existing contracts following fulfillment of their individual terms, and requirements for turning over operations to future contractors at the completion of the contract.

5.1 Phase-In

After the GESS contract expiration, test engineering responsibility for LF will be integrated (anticipated in the 5/06 time frame). Full test facility operation, maintenance and engineering of PB facilities will be folded in based on PBSOG contract status. Responsibility for PB test facilities could occur anywhere between 8/05 and 8/09. Before all elements are integrated, the TFOME contractor shall work with existing contractor staff and assure seamless facility operation to our test customers.

5.2 Schedule

No later than 60 calendar days, from the beginning of the phase-in period, the staff of the incoming Contractor shall be fully qualified and certified, or certification procedures begun, to accomplish the requirements of the contract. The incoming Contractor shall present a written Status Report to the COTR.

6.0 ABBREVIATIONS AND ACRONYMS

AAPL	Aero Acoustic Propulsion Laboratory
ANCF	Advanced Noise Control Fan
AWR	Area Work Requirements
B-2	Spacecraft Propulsion Facility
BMS	Glenn Business Management System
CAD	Central Air Dispatch
CAS	Central Air System
CBI	Confidential Business Information
CBM	Condition Based Maintenance
CM	Configuration Management
CMMS	Computerized Maintenance Management System
CO	Contracting Officer
COTR	Contracting Officer's Technical Representative

CPIF/AF	Cost-Plus-Incentive-Fee/Award-Fee
DoD	Department of Defense
E&TSD	Engineering and Technical Services Directorate
EPA	Environmental Protection Agency
FAR	Federal Acquisition Regulation
GESS	Glenn Engineering & Scientific Support
GFP	Government Furnished Property
GPD	Glenn Policy Directive
GPG	Glenn Policy Guideline
GRC	Glenn Research Center
HTF	Hypersonic Tunnel Facility
IRT	Icing Research Tunnel
ISO	International Standardization for Organization
IST	Integrated Systems Tests
IT	Information Technology
K-Site	Cryogenic Research Tank Facility
LF	Lewis Field
M&R	Maintenance & Repair
MORE	Maintenance Operations Recertification & Engineering
NASA	National Aeronautics and Space Administration
NATR	Nozzle Acoustic Test Rig
NEMS	NASA Equipment Management System
O&M	Operation and Maintenance
ODIN	Outsourcing Desktop Initiative for NASA
OME	Operations Maintenance Engineering
ORR	Operational Readiness Review
OSHA	Occupational Safety and Health Administration
PACS	Probe Actuator Control System
PB	Plum Brook Station
PBMO	Plum Brook Management Office
PBOS	Plum Brook Operational Services
PBOSG	Plum Brook Operational Services Group
PD	Power Dispatch
PLR	Power Lift Rig
PM	Preventive Maintenance
PMA	President's Management Agenda
PT&I	Predictive Testing and Inspection
R&D	Research & Development
RCM	Reliability Centered Maintenance
RFP	Request for Proposal
RTD	Research Testing Division
SHEST	Safety, Health, Environmental and Security Training
SHJAR	Small Hot Jet Acoustic Rig
SOP	Standard Operating Procedure
SOW	Statement of Work
SEMA	Safety, Environmental, and Mission Assurance
SWT	Supersonic Wind Tunnel
TFOME	Test Facilities Operations Maintenance & Engineering
TFSS	Technical & Fabrication Support Services
TRR	Test Readiness Review
VPP	Voluntary Protection Program
WBS	Work Breakdown Structure



WP Work Plan

7.0 Appendices

1. RTD/PBMO Mission & Its Contribution to GRC Vision
 - a. RTD
 - RTD Facility Schedules
 - b. PBMO
2. Glenn Business Management System (BMS)
 - a. RTD
 - Research Testing Documents
 - Reference Documents
 - b. PB
 - Reference Documents
 - Work Instructions
3. Details of GRC's Safety Office & Safety Policies and GRC's Environmental Management Office & Policies
 - a. GRC's Safety Office
 - GRC's Safety Manual
 - b. GRC's Environmental Management Offi
 - Occupational Safety, Health & Environmental Requirement
 - Safety, Health, Environmental and Security Training (SHEST)
4. Special Certifications
 - a. Representative List of Special Certifications
 - b. Required Safety Training Courses
5. Work Breakdown Structure (WBS) Requirements
6. Examples of Facility Operating Procedures
7. Support Equipment Descriptions
8. Examples of Facility Maintenance Procedures
9. Property Management Policies & Procedures
 - a. NASA Equipment Management Services
 - NASA Agency Minimum Standard – Sensitive Items
 - b. Property, Supply and Equipment
10. Critical Spare Parts

(End of Clause)

[END OF SECTION]

SECTION D - PACKAGING AND MARKING

D.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

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
------------------	------	-------

None included by reference.

(End of Clause)

[END OF SECTION]

SECTION E - INSPECTION AND ACCEPTANCE

E.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

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
52.246-3	MAY 2001	INSPECTION OF SUPPLIES--COST-REIMBURSEMENT
52.246-5	APR 1984	INSPECTION OF SERVICES--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 3 copies, an original and 2 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)

E.3 INSPECTION AND ACCEPTANCE (GRC 52.246-92)(JAN 1987)

Final inspection and acceptance of all work performed under this contract, including all deliverable items will be performed at destination.

(End of Clause)

[END OF SECTION]

SECTION F - DELIVERIES OR PERFORMANCE

F.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

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
52.211-15	SEP 1990	DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS
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 - BASIC AND OPTIONS (GRC 52.211-93) (MAY 2002)

	Start Date
Phase-In	Contract Effective Date
Phase A	2 Months Post Contract Effective Date
Phase B	Commences April 8, 2006
Phase C	Earliest: August 1, 2006. Latest: August 1, 2010

The contract "core" period of performance is three years. The contract "core" three year period of performance may be extended by one two year option period in accordance with the clause I.5. Additionally, the contract period of performance may be further extended in one year increments, up to an additional five (5) years in accordance with the contract's Award Fee/Award Term clause (G.2). The maximum contract period of performance shall not extend beyond ten (10) years.

(End of Clause)

F.3 REPORTS OF WORK (GRC 52.227-118) (MAY 2003)

The following clause describes those types of plans/reports required under this contract.

A. FOB POINT FOR ALL REPORTS

All reports shall be delivered FOB Destination to the recipients of reports. The Contractor is solely responsible for assuring that delivery is made to every specific recipient named (that is, the Contractor shall not ship multiple copies to one recipient with the expectation that those reports will then be distributed to other named recipients).

B. WORK PLAN**(1) Original Work Plan**

The Contractor shall submit three (3) copies of a detailed Work Plan to the COTR for approval. The initial submittal shall be during the contract transition period but not later than ten (10) calendar days before the full performance start date of the contract. The Work Plan shall take into consideration the testing and operation requirements identified for the first six months of the contract and consist of the following:

- (a) A narrative statement reflecting the management and technical approach to accomplish testing and operation requirements identified for the first 6 months of the contract.
- (b) A program schedule identifying milestones, tasks, activities, events.
- (c) Detailed cost estimates to accomplish the identified testing and operation requirements for the first six months.
- (d) A list of identified contract deliverables for the first six months.
- (e) Associated risks to accomplish the identified testing and operation requirements.

(2) Revisions to Work Plan

The Contractor shall submit revisions to the Work Plan as indicated below. Each revision to the Work Plan shall be approved by the NASA Project Manager/COTR prior to implementation by the Contractor.

- (a) every 6 months,
- (b) when directed by the NASA Project Manager / COTR, and / or
- (c) whenever the testing and operation requirements have changed to the extent the Contractor believes such revision is deemed desirable for optimum achievement of contract objectives.

B. NEW TECHNOLOGY REPORTS (IF EITHER CLAUSE FAR 52.227-11, PATENT RIGHTS -- RETENTION BY THE CONTRACTOR (SHORT FORM), OR CLAUSE NFS 1852.227-70, NEW TECHNOLOGY, IS APPLICABLE TO THIS CONTRACT)

If applicable, the Contractor shall disclose new technology discovered under this contract as it occurs using NASA Form 1679. The Final New Technology Report shall be submitted on Form C-3041. Final payment may be withheld pending receipt/approval of the Final New Technology Report.

C. COSTING RUN-OUT REPORT

No later than June 30th of each year of this contract, the Contractor shall provide an informal statement that indicates how the funds currently allocated to the contract will be consumed by September 30th of the subject year. In this Costing Run-Out Report, the Contractor shall notify the Contracting Officer if there are any claims that could arise from the deobligation of all or part of the funds that will not be consumed by that date. Funds that will not be consumed by September 30th may be unilaterally deobligated by the Government.

D. TECHNICAL PROGRESS REPORTS

(1) WRITTEN REPORTS shall be brief, factual and informal. They shall be prepared as set forth below:

(a) A cover page containing:

(1) Contract number and title.

(2) The type of report ("Monthly Technical Progress Report", etc.), sequence number of the report (when applicable), and the period/unit being reported.

(3) Contractor's name, address, and organizational segment generating the report.

(4) Signature of Contractor's cognizant Project Manager (or, if submitted electronically, an unambiguous indicator that the Project Manager has generated/reviewed the report)

(5) Date of issuance.

(6) Inclusion of the following statement: "Prepared for NASA Glenn Research Center, Cleveland, OH 44135."

(b) Section I -- Technical Progress Summary: A description of the work, identified by WBS, performed during the report period and the overall technical progress achieved. The current schedule status shall also be addressed in this summary.

(c) Section II -- Current Problem(s): A description of any current problem(s) which may impede technical, schedule and/or cost performance, along with proposed corrective action(s). Include an explanation of how the problems could affect the cost and schedule of the reporting categories in the financial and schedule reports if applicable, as well as the effects at the total contract level.

(d) Section III -- Risk Management: Include a list of Significant Open Risks and associated Mitigation Plans. Significant Open Risks are those that have the potential to affect major development milestones & goals, such as a delivery delay, a design-freeze date, a cost ceiling, a safety or health concern, environmental impacts, a technical trade-off decision, etc. Further guidance, if needed, is available from the GRC Risk Management reference documents (listed below), which are available at the following web-sites:

(1) NPR 7120.5A -- "Program and Project Management Processes and Requirements", Chapter 4 -- "Program/Project Management Systems Requirements"
http://nodis3.gsfc.nasa.gov/library/lib_docs.cfm?range=7___ (note: the FOUR "blank" spaces in the above address are actually "underline" marks)

(2) GRC-P2.9 -- "Risk Management" <https://nasalivelink.grc.nasa.gov/livelink/livelink?func=ll&objId=241550&objAction=browsebmsfolder&sort=documentnumber>

(3) Report Period, Dates and Submission

E. FINANCIAL MANAGEMENT REPORTS

(1) The Contractor shall submit the following financial reports pursuant to clause NFS 1852.242-73, "NASA Contractor Financial Management Reporting":

(a) NASA Form 533M (Monthly Contractor Financial Management Report)

(b) NASA Form 533Q (Quarterly Contractor Financial Management Report)

Upon written request, the Contracting Officer may authorize an alternative format that provides substantially the same level of detail as the required Form 533(s), but is more compatible with

the Contractor's standard accounting/reporting format.

(2) If NFS 1852.242-74 (Notice of Earned Value Management System) is applicable to this contract, then the Contractor shall submit the Modified Cost Performance Report (NFS 1852.242-76) as required therein.

(3) The Reporting Categories of the Financial Reports are:

- i. Direct Labor Categories/Hours/Dollars
- ii. Labor Overhead Dollars
- iii. G&A Dollars
- iv. Other Indirect Dollars
- v. Travel Dollars
- vi. Materials/Supplies Dollars
- vii. Other Direct Cost Dollars
- viii. COM Dollars
- ix. Fee Dollars

(4) Within ten (10) working days after the cutoff date, the Financial Report(s) shall be submitted in the number of copies and to the addresses indicated in the "Document Distribution Requirements".

(5) Preparation

The required report(s) shall be prepared in accordance with the instructions contained in the aforementioned clause, NPG 9501.2 (NASA Contractor Financial Management Reporting) and on the reverse of the forms. The Internet address for NPG 9501.2 is:

<http://www.hq.nasa.gov/office/codeb/npg95012.htm>.

(6) Report Periods, Dates and Submission

(a) The cutoff date to be used for all 533 reports is the closing date of the Contractor's accounting month that has just been completed.

(b) The first 533M report shall be submitted within thirty (30) calendar days after incurrence of cost and, as with all subsequent 533M reports, is due not later than the tenth working day of the month after the close of the Contractor's accounting month. The regular 533Q report (which is a PLANNING report) shall be submitted not later than the tenth (10th) working day of the month preceding the quarter being reported.

(c) The 533 report(s) shall be submitted electronically and in hardcopy format.

(7) IF the value of this contract (including options, whether exercised or unexercised) EXCEEDS \$1 MILLION, and the Contractor is submitting Financial Reports that provide both actual expenditures from past months and estimated expenditures for current/future months, THEN the Contractor shall provide a short explanation (approximately one sentence) of any variance WHICH EXCEEDS 5%, between a previous estimated month-specific expenditure and the actual expenditure experienced. [Example: The March 533M states that Actuals for March were \$80K and Planned expenditures for April are \$100K. The

April 533M states that Actuals for April were \$92K, which is a variance of 8% (from the "March Planned" number of \$100K). A short explanation -- "widget prices were unusually low" -- is required.]

F. ELECTRONIC SUBMISSIONS.

The government requires electronic submittal of all reports, except that at least one copy of each financial report must be a signed hardcopy. The signed hardcopy may be received no later than 20 working days after the close of the report period, so long as the electronic copy was provided within 10 working days after the close of the report period. (If the Contractor submits its financial report with an electronic signature, a signed hardcopy is not required.) All other reports, unless elsewhere noted, may be submitted by e-mail, or via the internet, or by some other electronic method, in lieu of a hardcopy. Dedicated Web-Sites, accessible via password and updated by the Contractor, are acceptable reporting tools for Technical Progress Narratives (See Section B, above) and the Draft Final Report, if compatible with the current NASA Glenn Research Center hardware/software and authorized by the COTR. CD/disc submittals are acceptable reporting tools for Technical Progress Narratives (See Section B, above) and the Draft Final Report, if compatible with the current NASA Glenn Research Center hardware/software and authorized by the COTR.

G. FINAL TECHNICAL REPORT

If required by the Government.

The following requirements are supplemental to those stated in NFS clause 1852.235-73.

- (1) In addition to the requirements of NPG 2200.2, the format and content of the Final Report shall also follow NASA-SP--1999-7602 "NASA Publications Guide for Authors", incorporated herein by reference and made a part hereof. This document is available at <http://www.sti.nasa.gov> [Click on "Publish STI" and scroll down to "NASA-SP--1999-7602", where you can choose the format for viewing the publication].
- (2) The Final Report shall include a section entitled "New Technology". This section shall identify all non-patentable discoveries such as improvements, innovations, and computer codes; and all patentable inventions, whether developed or discovered during the performance of the contract. Possible secondary applications of reported new technology shall also be included in this section.
- (3) The Contractor shall submit an electronic copy of a DRAFT-FINAL REPORT to the NASA COTR within 30 days after completion of the technical effort. The COTR's review will address technical accuracy, conformance with applicable law, policy and publication standards, and a determination of the availability and distribution of NASA-funded documents containing scientific and technical information (STI), (NASA Form 1676, NASA Scientific and Technical document Availability Authorization (DAA)). Approval or disapproval (in part or in total) of the draft-final report will be accomplished by NASA within thirty (30) days after receipt. Disapproved draft-final reports shall be resubmitted within 10 working days for review following correction of the cited deficiency, unless otherwise directed by the NASA Contracting Officer or NASA Project Manager/COTR.
- (4) Within thirty (30) calendar days after notification of approval of the Contractor's draft-final report, the Contractor shall distribute the approved Final Report electronically and in hardcopy. Each hardcopy Final Report shall consist of one reproducible copy of the Final Report itself, plus one set of glossy continuous tone prints of all photographic materials included in the Final Report.
- (5) Printing, duplicating, binding and other reproduction required under this contract is subject to the provisions of the Government Printing and Binding Regulations published by the Joint Committee on Printing, Congress of the United States and the clause at NFS 1852.208-81 entitled "Restrictions on Printing and Duplicating".
- (6) The Contractor is solely responsible for managing the technical effort, the schedule, and the contract funds to ensure delivery of the Draft-Final Report and the Final Report on time. Failure to deliver the Final Report as scheduled, or a request that additional funding be provided by the government to ensure



delivery of the Final Report, may result in a Performance Evaluation of "Unsatisfactory", or a reduction in profit/fee equal to the additional cost associated with delivery of the Final Report, or both.

H. OTHER REPORTS

The contractor shall also provide the following reports:

- Contractor Monthly Accident Report (CMAR)
- Mishap report (NF 1627),
- 2nd, 3rd shift Roster
- Centrally Reportable Equipment
- Quarterly Property Management Report

These reports are further described in detail in Section J.1 (h)

In the event that a deliverable report, document, etc. is required elsewhere in this contract but is not described in this clause, the Contractor shall notify the Contracting Officer immediately. The government will treat the insertion of a description of an existing contract-required deliverable report/document/etc. as a no-cost administrative change.

(End of Clause)

[END OF SECTION]

SECTION G - CONTRACT ADMINISTRATION DATA

G.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

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	JUL 2000	NASA CONTRACTOR FINANCIAL MANAGEMENT REPORTING

(End of Clause)

G.2 AWARD FEE/AWARD TERM

As described herein, the contract period of performance may be extended in accordance with the contract Award Fee/Award Term Plan.

a. Award Fee/Award Term Plan: The NASA approved Award Fee/Award Term Plan will be provided to the Contractor prior to the conclusion of the phase-in period. The Award Fee/Award Term Plan will provide for evaluation of both technical and cost performance and serve as the basis for any award fee or award term decisions. The Award Fee/Award Term Plan may be revised by the Government and re-issued to the Contractor 15 days prior to the commencement of any 6-month evaluation period. An Award Fee/Award Term Determination Official (DO) will be appointed by the Government and is responsible for the overall award fee/award term evaluation and subsequent award fee/award term decisions.

b. Administration: The award fee/award term evaluation will be completed on a six month basis. During contract years 1-3, 9, and 10, the contract will be award fee. A six month evaluation will be made for each Award Fee period. During years 4-8, the contract will be Award Term. The Award Term will be comprised of two successive 6 month evaluations. These six-month evaluations will then be jointly considered for an annual score. During the years that Award Fee provisions are in affect, the total possible Award Fee available to be earned is 7.5% of the estimated costs. During the years that the award term provisions are in affect, the Award Fee amount will revert to a Fixed Fee at 5% of the estimated costs.

c. Award Fee/Award Term Decisions: As prescribed in the Award Fee/Award Term Plan, the evaluated score will translate into an award fee payment or an award term "year" based on the evaluated performance. Award Fee/Award Term determinations are unilateral decisions made solely at the discretion of the Government.

10/1/2001

d. Cancellation: Commencing in contract year four, either the Government or the Contractor can cancel any unawarded award term years by providing written notice to the other Party not less than 60 days before the start of an annual contract year.

e. Automatic Re-competition Decision: If at any point in the contract period of performance only one contract year remains, the contract will end at the conclusion of that period. The contractor cannot be awarded an additional year in any final year of the contract period.

f. Review Process: The Contractor may request a review of the annual award term decision. The request shall be submitted in writing to the Contracting Officer within 15 days after notification of the award term decision. The GRC Center Director will appoint a Review Official to review any award term decision. Decisions by the Review Official are considered "Final" and not subject to further reviews or appeals.

g. Reserve Fee: After 85 percent of the potential award fee or fixed fee has been paid, the Contracting Officer may direct the withholding of further payment of award fee until a reserve is set aside in an amount that the Contracting Officer considers necessary to protect the Government's interest. This reserve shall not exceed 15 percent of the total potential award fee.

h. Award Fee Allocation: The amount of award fee which can be awarded in each evaluation period is limited to the amounts set forth at clause B.1. Award fee which is not earned in an evaluation period cannot be reallocated to future evaluation periods.

i. Provisional Fee:

(1) Provisional award fee payments will be made under this contract pending the determination of the amount of fee earned for an evaluation period. If applicable, provisional award fee payments will be made to the Contractor on a monthly basis. The total amount of award fee available in an evaluation period that will be provisionally paid is the lesser of 80% or the prior period's evaluation score.

(2) Provisional award fee payments will be superseded by the final award fee evaluation for that period. If provisional payments exceed the final evaluation score, the Contractor will either credit the next payment voucher for the amount of such overpayment or refund the difference to the Government, as directed by the Contracting Officer.

(3) If the Contracting Officer determines that the Contractor will not achieve a level of performance commensurate with the provisional rate, payment of provisional award fee will be discontinued or reduced in such amounts as the Contracting Officer deems appropriate. The Contracting Officer will notify the Contractor in writing if it is determined that such discontinuance or reduction is appropriate.

(4) Provisional award fee payments will not be made prior to the first award fee determination by the Government.

j. Cost and Fee Re-Opener: If during actual contract performance, the Contractor's and/or Government's assumptions used to initially develop cost and fee totals vary by more than +/- 10% the Parties hereby agree to reopen contract cost and fee provisions for the purpose of establishing revised cost and fee totals.

(End of Clause)

G.3 SUBMISSION OF VOUCHERS FOR PAYMENT (NFS 1852.216-87) (MAR 1998) (GRC MODIFICATION) (APR 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, they shall be prepared in accordance with paragraph (c) of this clause and submitted to:

NASA - Glenn Research Center Commercial Accounts Mail Stop 500-303 21000 Brookpark Road
Cleveland, OH 44135

(2) For any period that the Defense Contract Audit Agency has authorized the Contractor to submit interim 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 follows:

- (i) Copy 1 - NASA Contracting Officer
- (ii) Copy 2 - DCAA Auditor
- (iii) Copy 3 - Contractor
- (iv) Copy 4 - Contract Administration Office, if delegated
- (v) Copy 5 - GRC Project Manager

(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 the cognizant DCAA office

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

- (i) Copy 1 - NASA Contracting Officer
- (ii) Copy 2 - DCAA Auditor
- (iii) Copy 3 - Contractor
- (iv) Copy 4 - Contract Administration Office, if delegated
- (v) Copy 5 - GRC Project Manager

(3) The Contracting Officer may designate other recipients as required.

(d) Public vouchers for payment of fee shall be prepared similarly to the procedure in paragraph (c) of this clause, and be forwarded to:

NASA - Glenn Research Center Commercial Accounts Mail Stop 500-303 21000 Brookpark Road
Cleveland, OH 44135

This 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)

(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 but 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.5 LIST OF INSTALLATION-ACCOUNTABLE PROPERTY AND SERVICES (NFS 1852.245-77) (JUL 1997) (GRC MODIFICATION) (MAR 2004)

In accordance with the clause at 1852.245-71, Installation- Accountable Government Property, the Contractor is authorized use of the types of property and services listed below, to the extent they are available, in the performance of this contract within the physical borders of the installation which may include buildings and space owned or directly leased by NASA in close proximity to the installation, if so

designated by the Contracting Officer. The user responsibilities of the Contractor are defined in paragraph (a) of the clause at 1852.245-71, Installation-Accountable Government Property.

(a) On-site office space, work area space, telephone service, utilities, and parking.

(b) General- and special-purpose equipment, including office furniture.

(1) Equipment to be made available is listed in Attachment J.1(c). This equipment is provided "as is". In addition, "untagged" equipment, specifically office furniture (desks, chairs, file cabinets, tables, etc.) is available for all on-site contractor personnel. The Government retains accountability for this property under the clause at 1852.245-71, Installation- Accountable Government Property, regardless of its authorized location.

(2) Access to equipment commonly used by personnel working in the immediate area, such as a printer, FAX machine, copier, scanner, etc.

(3) If the Contractor acquires property, title to which vests in the Government pursuant to other provisions of this contract, this property also shall become accountable to the Government upon its entry into Government records as required by the clause at 1852.245-71, Installation-Accountable Government Property.

(4) The Contractor shall not bring to the installation for use under this contract any property owned or leased by the Contractor, or other property that the Contractor is accountable for under any other Government contract, without the Contracting Officer's prior written approval.

(c) Office supplies from stores stock, such as pens, pencils, notepads, stapler, tape dispenser, etc..

(d) Publications and blank forms stocked by the installation.

(e) Connectivity access to the GRC local area network. All contractor-supplied IT equipment and software shall strictly comply with all current and future Government, NASA, and Glenn relevant policies and standards. Further, the contractor shall be solely responsible for ensuring compatibility and interoperability with Glenn systems wherever required.

(f) Safety and fire protection for Contractor personnel and facilities.

(g) Fitness Center facilities under the following conditions:

(1) Applications shall be submitted to, and shall be processed by, the support service contractor currently operating the Fitness Center for the Government.

(2) The procedure for receiving and processing applications, obtaining a medical authorization from a licensed physician, and selection of applicants for participation will be similar to the procedure for Government employees.

(3) All individuals applying for participation shall sign a statement waiving the Government from any liability for personal injury during participation in Fitness Center activities.

(h) Medical treatment of a first-aid nature for Contractor personnel injuries or illnesses sustained during on-site duty. In all instances of severe injury, or sudden life threatening illness (e.g. heart attack), the Emergency Medical Technician Squad shall be summoned immediately, by dialing 911. Referrals to tertiary care centers and for private physicians will be made in cases requiring long term follow-up, or when specific services required are unavailable on-site.

(i) Cafeteria privileges.

(j) Building maintenance, including janitorial services, for facilities occupied by Contractor personnel. Building maintenance includes structural repairs and HVAC unit service, but does not include contractor-desired alterations or improvements to office walls, floor coverings, or doors.

(k) Mail and package delivery and intra-center movement of equipment.

(l) Installation services and facilities checked below:

Library services

Equipment calibration services

Government-owned motor pool vehicles

Child care facility, under similar terms and conditions applied to GRC civil servants

Airport shuttle service

Vehicle maintenance and fuel

Other: Fitness Center

(End of Clause)

**G.6 CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR)
(GRC 52.242-92) (AUG 2002)**

A Contracting Officer's Technical Representative (COTR) will be delegated under this contract pursuant to the clause at 1852.242- 70 entitled "Technical Direction". The contractor will receive a copy of this delegation at the time of award of any contract or shortly thereafter. This delegation will take place on a NASA Form 1634 and will list not only the COTR delegated, but also his/her duties and responsibilities. Throughout this solicitation/contract there may be references made to a variety of different titles, including "NASA Project Manager", "NASA Technical Monitor", and "NASA Contract Monitor". Unless specifically stated otherwise, these titles all refer to the COTR.

(End of Clause)

**G.7 PROVIDING INSTALLATION ACCOUNTABLE GOVERNMENT
PROPERTY/FACILITIES TO CONTRACTORS (GRC 52.245-108) (FEB 2001)**

a. In accordance with FAR 45.101 and NFS1845.102, it is policy of the Government that Contractors shall furnish all facilities required for performing Government contracts. "Property/Facilities" as defined in FAR 45.101 and 45.302-1 include real property and plant equipment including personal property such as general purpose off-the-shelf equipment, machine tools, test equipment, and vehicles. "Facilities" do not include components, material, parts, special test equipment, special tooling or agency-peculiar property.

b. The Government will provide EXISTING facilities for performance of this contract as listed elsewhere in the solicitation on an "as is" basis. These facilities are subject to the requirements as described in 182.245-71 and 1852.245-77. Overall property accountability will rest with the Government while user responsibility shall rest with the contractor. For any of these existing facilities that reach the end of their useful life or it is deemed to beyond economical repair, the Government will make a "strategic investment" decision to replace the facilities at Government expense or request that the contractor replace the facility at contractor expense.

c. The price or cost associated with the direct replacement these of these facilities may be subject to an equitable contract adjustment with the approval of the contracting officer.

(End of Clause)

**G.8 1852.245-71 INSTALLATION-ACCOUNTABLE GOVERNMENT PROPERTY
ALT I (MARCH 1989)**

(a) The Government property described in the clause at 1852.245-77, List of Installation- Accountable Property and Services, shall be made available to the Contractor on a no-charge basis for use in performance of this contract. This property shall be utilized only within the physical confines of the NASA installation that provided the property. Under this clause, the Government retains accountability for, and title to, the property, and the Contractor assumes the user responsibilities to maintain the equipment in a safe and responsible manner and in good working order.

The contractor shall establish and adhere to a system of written procedures for compliance with these user responsibilities. Such procedures must include holding employees liable, when appropriate, for loss, damage, or destruction of Government property.

(b)(1) The official accountable recordkeeping, physical inventory, financial control, and reporting of the property subject to this clause shall be retained by the Government and accomplished by the installation Supply and Equipment Management Officer (SEMO) and Financial Management Officer. If this contract provides for the contractor to acquire property, title to which will vest in the Government, the following additional procedures apply:

(i) The contractor's purchase order shall require the vendor to deliver the property to the installation central receiving area;

(ii) The contractor shall furnish a copy of each purchase order, prior to delivery by the vendor, to the installation central receiving area:

(iii) The contractor shall establish a record of the property as required by FAR 45.5 and 1845.5 and furnish to the Industrial Property Officer a DD Form 1149 Requisition and Invoice/Shipping Document (or installation equivalent) to transfer accountability to the Government within 5 working days after receipt of the property by the contractor. The contractor is accountable for all contractor-acquired property until the property is transferred to the Government's accountability.

(iv) Contractor use of Government property at an off-site location and off-site subcontractor use require advance approval of the contracting officer and notification of the SEMO. The contractor shall assume accountability and financial reporting responsibility for such property. The contractor shall establish records and property control procedures and maintain the property in accordance with the requirements of FAR Part 45.5 until its return to the installation.

(2) After transfer of accountability to the Government, the contractor shall continue to maintain such internal records as are necessary to execute the user responsibilities identified in paragraph (a) and document the acquisition, billing, and disposition of the property. These records and supporting documentation shall be made available, upon request, to the SEMO and any other authorized representatives of the contracting officer. As prescribed in 1845.106-70(b)(2), insert the following as subparagraph (b)(3) of the basic clause:

(3) The contractor shall not utilize the installation's central receiving facility for receipt of Contractor-acquired property. However, the Contractor shall provide listings suitable for establishing accountable records of all such property received, on a quarterly basis, to the Contracting Officer and the Supply and Equipment Management Officer.

(End of Clause)

G.9 INDIRECT COST CEILING (GRC 52.231-90) (JAN 1996)

(a) Reimbursement Ceiling Rates

Final payment for overhead, G&A expenses and any other indirect cost pools shall be based on the application of the actual audited rates, but shall not exceed the Offeror proposed ceilings outlined below. Ceilings rates and specific cost elements (or accounts) that comprise all indirect cost pools that apply to this contract shall be submitted as part of the cost proposal, cost pools not defined and submitted in are not reimbursable under this contract.

Ceiling rates shall also be indicated in the table below:

For Contract Years	G&A (%)	G&A Base
CY1-CY10	(b)(4)	

The ceiling rates for CY1-CY10 are rates for the total indirect expenses and total contract cost bases for the years specified. Rates shall not vary within the individual years. Increased indirect costs during the term of this contract that result from such items as statute, court decisions and/or written rulings or regulations by the Internal Revenue Service or other taxing authority, may be cause for adjustment of the indirect ceiling affected. Notwithstanding the above, in the event that the actual overhead, G&A, or other indirect cost pool rates exceed their respective ceilings, an overrun amount in one pool shall not be reimbursed under any other cost pool. Under runs from one Contractor-fiscal year shall not be applied to overruns of another fiscal year. All costs in excess of the said indirect ceilings are not reimbursable under this or any other Government contract. Specific cost elements (or accounts) that comprise the overhead and G&A expense pools and cost bases which are subject to the agreed-upon ceilings are itemized and described in the cost proposal. The Contractor shall advise the NASA Contracting Officer of any planned or approved accounting changes that would impact the subject indirect rates and demonstrate how the changes will impact negotiated ceilings. The NASA Contracting Officer agrees to review the above ceilings rates in concert with clause G.2(j) and revise such rates if circumstances merit such a change. Where accounting changes have the effect of moving costs from one expense pool to another that potentially results in a circumvention around a rate ceiling(s), the NASA Contracting Officer shall agree to only those rate ceiling changes that either have no effect on or decrease the net effective cost chargeable to the contract.

(b) Provisional Indirect Billing Rates:

For both overhead and G&A expenses, the Contractor may submit interim billings based on actual, cumulative pool costs not to exceed the lesser of the ceiling rates or the cognizant Government auditor-approved provisional billing rates. To prevent substantial over or under payment (except where a ceiling is reached), the provisional billing rates shall be reviewed at least annually by the Contractor. Whenever actual rates are + or - 5% of the current billing rate, the Contractor shall propose revisions for the NASA Contracting Officer's approval. Proposed revisions are subject to review by Government auditors.

(End of Clause)

[END OF SECTION]

SECTION H - SPECIAL CONTRACT REQUIREMENTS

H.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

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
52.219-11	FEB 1990	SPECIAL 8(a) CONTRACT CONDITIONS
52.223-5	AUG 2003	POLLUTION PREVENTION AND RIGHT- TO-KNOW INFORMATION

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

CLAUSE NUMBER	DATE	TITLE
1852.208-81	OCT 2001	RESTRICTIONS ON PRINTING AND DUPLICATING
1852.223-74	MAR 1996	DRUG- AND ALCOHOL-FREE WORKFORCE
1852.223-75	FEB 2002	MAJOR BREACH OF SAFETY OR SECURITY
1852.225-70	FEB 2000	EXPORT LICENSES
		Insert in Paragraph (b): GRC
1852.237-70	DEC 1988	EMERGENCY MEDICAL SERVICES AND EVACUATION
1852.242-72	AUG 1992	OBSERVANCE OF LEGAL HOLIDAYS (ALT II) (OCT 2000)

(End of Clause)

H.2 SAFETY AND HEALTH

1852.223-70 Safety and Health Plan

SAFETY AND HEALTH PLAN
(APRIL 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.3 (LIMITED) RELEASE OF CONTRACTOR CONFIDENTIAL BUSINESS INFORMATION (CBI) (GRC 52.203-91) (OCT 2000)

(a) NASA may find it necessary to release information submitted by the Contractor, either in response to this solicitation or pursuant to the provisions of this contract, to individuals not employed by NASA. Business information that would ordinarily be entitled to confidential treatment may be included in the information released to these individuals. Accordingly, by submission of this proposal, or signature on this contract or other contracts, the Contractor hereby consents to a limited release of its confidential business information (CBI).

(b) Possible circumstances where the Agency may release the Contractor's CBI include, but are not limited to, the following:

(1) To other Agency contractors and subcontractors, and their employees tasked with assisting the Agency in handling and processing information and documents in the evaluation, the award or the administration of Agency contracts, such as providing both pre-award and post-award audit support and specialized technical support to NASA's technical evaluation panels;

(2) To NASA contractors and subcontractors, and their employees engaged in information systems analysis, development, operation, and maintenance, including performing data processing and management functions for the Agency.

(c) NASA recognizes its obligation to protect the Contractor from competitive harm that could result from the release of such information to a competitor. Except where otherwise provided by law, NASA will permit the limited release of CBI under subparagraphs (1) or (2) only pursuant to non-disclosure agreements signed by the assisting contractor or subcontractor, and their individual employees who may require access to the CBI to perform the assisting contract.

(d) NASA's responsibilities under the Freedom of Information Act are not affected by this clause.

(e) The Contractor agrees to include this clause, including this paragraph (e), in all subcontracts at all levels awarded pursuant to this contract that require the furnishing of confidential business information by the subcontractor.

(End of Clause)

H.4 NASA SYSTEM ADMINISTRATOR SECURITY CERTIFICATION (GRC 52.204-95) (JUL 2003)

In addition to any other requirements of this contract, all individuals who perform tasks as a system administrator or have authority to perform tasks normally performed by system administrator shall be required to demonstrate knowledge appropriate to those tasks. This demonstration, referred to as the NASA System Administrator Security Certification, is a NASA funded two-tier assessment to verify that system administrators are able to--

1. Demonstrate knowledge in system administration for the operating systems for which they have responsibility.
2. Demonstrate knowledge in the understanding and application of Network and Internet Security.

Certification is granted upon achieving a score above the certification level on both an Operating System test and the Network and Internet Security Test. The Certification earned under this process will be valid for three years. The criteria for this skills assessment has been established by the NASA Chief Information Officer. The objectives and procedures for this certification can be obtained by contacting the IT Security Awareness and Training Center at (216) 433-2063.

A system administrator is one who provides IT services, network services, files storage, web services, etc. to someone else other than themselves and takes or assumes the responsibility for the security and administrative controls of that service or machine. A lead system administrator has responsibility for information technology security (ITS) for multiple computers or network devices represented within a

system; ensuring all devices assigned to them are kept in a secure configuration (patched/mitigated); and ensuring that all other system administrators under their lead understand and perform ITS duties. An individual that has full access or arbitral rights on a system or machine that is only servicing themselves does not constitute a "system administrator" since they are only providing or accepting responsibility for their system. An individual that is only servicing themselves is not required to obtain a System Administrator Certification.

(End of Clause)

H.5 CONTRACTORS' DUTIES AND RESPONSIBILITIES ON-SITE (GRC 52.209-90) (SEP 2002)

I. BADGES

All Contractor personnel having a need to enter areas of the Glenn Research Center or Plum Brook Station shall have an identification badge or pass. This badge or pass shall be obtained at the entrance of the Glenn Research Center or Plum Brook Station. In addition to the requirements contained herein, the Contractor shall comply with Glenn Procedures and Guidelines GLPG 3730.1, Managing Conduct and Other Employee Issues, incorporated herein by reference and made a part hereof.

Resident Contractors (employees with picture badges)

1. The on-site company supervisor will notify the Main Gate Badge Clerk at PABX 3-2206 when a new employee is reporting to work. The Badge Clerk will give the company supervisor specific instructions as to how the new employee will be badged, photographed, fingerprinted, etc.

2. When an employee terminates and/or resigns employment, the company shall issue to the employee NASA Form C-10087, Non-NASA Separation Clearance Record. The company shall be responsible for making an inquiry of all offices listed on the form to see if the employee has any outstanding Government items. The employee shall then take this form to all offices that list he/she has outstanding items. The employee's last stop is for the return of their Government issued I.D. badge.

3. The Company shall ensure that the terminated and/or resigned employee has returned his/her badge to the Main Gate Badge Clerk. Final clearance of a Contractor upon completion of a contract will depend in part upon accounting for all badges issued to employees during the performance of the contract. It should be recognized that security badges are Government property and any alteration or misuse of these badges may be prosecuted as a violation of Section 499, Title 18, U.S. Code.

Non-Resident Contractors (employees with non-picture badges)

1. The Contractor's on-site manager shall comply with the Badge and Property Regulations (NASA Form C-421) a copy of which will be given the Contractor's supervisors at the time of the Construction Site Showing. The Badge and Property Regulations are quoted below:

A. The following regulations have been adopted governing the control of Contractor's Badges at the Glenn Research Center.

1. Ensure that each company employee is in possession of NASA Form C-9975 prior to reporting to work for badging purposes. Employees not in possession of the above mentioned form will be delayed at the gate until such time as the company supervisor/foreman or his representative reports to the Main Gate with the appropriate paperwork for badging.

2. Report lost badges immediately.

3. Upon termination of duties, each employee's badge will be collected and returned to the Main Gate by the Contractor. Final clearance of a Contractor upon completion of a contract will depend in part upon the accounting for all badges issued to employees during the performance of the contract. It should be recognized that security badges are Government property and any alteration or misuse of these badges may be prosecuted as a violation of Section 499, Title 18, U.S. Code.

II. NASA-OWNED PROPERTY

1. The term "NASA-Owned Property" refers to all controlled (tagged) and non-tagged equipment, library property, security badges, computer passwords and other property furnished by the Government during the course of the contract.
2. The Contractor shall ensure that all NASA-Owned property issued to its employees is returned and in satisfactory condition upon termination of an employee's duties. In cases where accountability for the property is transferred from one employee to another, the NASA Equipment Management System (NEMS) Control office of the Logistics Management Division must be notified. At the completion of the Government contract, all property will be returned, and the contract value will be adjusted for any property not accounted for.
3. When access to Federal computer systems has been granted, the Contractor shall ensure that its employees comply with the clause of the contract entitled "SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION RESOURCES (NFS 1852.204-76)".

III. EMERGENCIES

1. The Contractor shall ensure that its employees are informed that Emergency, Fire, Medical, Safety, and Security assistance can be summoned by Dialing "911" on the Center's PABX telephone system. Emergencies are defined as incidents involving serious personal injury or damage that causes a possible hazardous condition, or any incidents that require immediate attention of the Plant Protection Department or Security. All other medical treatment is the responsibility of the Contractor.
2. For incidents not classified as an emergency, contractor personnel shall be instructed to immediately notify the Contracting Officer's Technical Representative (COTR)(rather than dialing "911") in the event of an accident involving either personal injury or damage to property whether public or private, including damage to motor vehicles. They shall cooperate fully with the Government Accident Investigator and the Center Accident Investigation Board. This cooperation shall include interviews at the accident site and/or at a Board meeting.
3. The Chairman of the appropriate Accident Investigation Board will notify the Contractor through the COTR as to the date and time and location of the Board meeting. The Board meetings will be held between the hours of 8:15 a.m. and 4:45 p.m. regular work days Monday through Friday.
4. For Contractor duties where continuous manning of posts is mandatory during a work shift, the Contractor shall provide substitute personnel as required for manning these posts during the meeting of the Accident Investigation Boards.

IV. TRAFFIC

1. The Contractor agrees to comply, and agrees to require that all of its personnel will comply with all posted traffic signs, signals and instructions of personnel assigned for traffic control and parking purposes and with the provisions of NPD 1600.2 and NHB 1620.1 incorporated herein by reference and made a part hereof.
2. The Government reserves the right to bar from the Glenn Research Center any Contractor employee who has failed to comply with such signs, signals, instructions and the provisions of NPD 1600.2 and NHB 1620.1. The period of the bar shall be as determined appropriate by the Contracting Officer subject to the provisions of NPD 1600.2 and NHB 1620.1. The Contracting Officer will notify the Contractor in writing, setting forth the name(s) of the affected employees(s) and the time period(s) of the bar(s). No action by the Government in barring any Contractor employee from the Glenn Research Center shall be the basis for any claim whatever by the Contractor under this contract, nor shall it excuse the Contractor from complying with any provision of this contract.

V. ON-SITE STANDARDS OF CONDUCT

1. The Contractor's entry onto the Center shall be pursuant to fulfilling its contractual obligations, and any related activities thereto. Contractor personnel gaining access to Glenn facilities are required to certify

that they meet the minimum ethical standards for entry onto a Government facility. Falsification of this certification could lead to criminal prosecution.

2. The Contractor agrees to comply, and agrees to require that all of its personnel will comply with all applicable Federal and State statutes and regulations, NASA policy and guidance documents, Glenn policy and guidance documents, and other regulations pertaining to personal conduct while on-site. Any conduct prejudicial to the efficient operation of the Center shall be cause for removal from the Center.

VI. PROHIBITION OF FIREARMS

Firearms or weapons of any kind are strictly prohibited at the Glenn Research Center.

VII. SECURITY INCIDENTS

Theft of Property, Bomb threats, malicious damage and any other threat or violent situations shall be immediately reported to the Security Office.

VIII. PROPERTY PASSES

A Contractor Property Pass (NASA Form C-702) is required for the removal of all Contractor owned property and equipment and must be presented to the gate guard upon exit. This form can be obtained from the COTR (or designee) or the Glenn employee responsible for the Contractor's presence at the Center. This form must contain a complete description of the material/equipment being removed and should be signed by the authorized Government employee. Material relating to a specific contract or purchase order must be identified by insertion of the appropriate contract/purchase order number on the pass by the COTR or designee.

IX. AFTER-HOUR ACCESS

During normal working hours, 7:00 a.m. to 5:30 p.m. Monday through Friday, the guards at the gates will permit your entrance and departure. At any other time (other than normal hours), advance clearance is required, and may be obtained through the Glenn/Plum Brook COTR or Inspector who will then make the request to the Main Gate Sergeant PABX 3-2204 at Glenn and 3-3221 at Plum Brook. After-hour clearances as approved by the COTR Inspector are certification to the guards as authority for admittance of a contractor during off hours, including Saturdays, Sundays, and Holidays.

X. CONTRACTOR IDENTIFICATION

To avoid situations whereby the actions of onsite contractor employees can be construed as that of Government officials, the onsite contractor shall take the following actions:

- (1) Insure that employees properly display their badge at all times.
- (2) Institute a policy whereby employees who, in their normal course of duties, answer telephone inquiries, participate in meetings with Government and other contractor personnel or deal with the general public appropriately identify themselves so their actions cannot be construed as that of Government officials.
- (3) Institute a policy whereby business correspondence, including emails and memoranda, includes the name of the company in the signature line. Use company letterhead for internal company matters and letters/memos signed by company personnel.
- (4) For onsite office space primarily occupied by company personnel, clearly indicate on the exterior of the office space the company name.

(End of Clause)

H.6 DETERMINATIONS OF WAGE REASONABLENESS DURING CONTRACT PERFORMANCE AND PRIOR TO EXERCISE OF OPTIONS (GRC 52.215-112) (SEP 2001)

(a) The contractor must notify the Contracting Officer (CO) at any time during the performance of this contract when a general wage increase is contemplated for any groups of their employees.

(b) Prior to any preliminary notice of the Government's intent to exercise an option, the CO will request that the Contractor provide either: (1) A comparison of the anticipated wages for the option period against the recent versions of the surveys used to prepare the original proposal and an explanation of any anticipated wages in excess of those expected during the negotiation of the original contract, or (2) A signed statement that all wages planned to be paid during the option period will be no greater than those required by the applicable Wage Determination(s).

(End of Clause)

H.7 CONFIGURATION MANAGEMENT (GRC 52.242-95) (OCT 2003)

The Contractor shall maintain a Configuration Management System, accessible to the Government, that complies with Glenn Research Center Procedure No. GRC-P2.8 entitled "Configuration Management (CM) & Data Management (DM)".

(End of Clause)

H.8 1852.209-71 LIMITATION OF FUTURE CONTRACTING (DECEMBER 1988)

(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 invited to FAR Subpart 9.5--Organizational Conflicts of Interest.

(b) The nature of this conflict is described below:

The NASA-GRC Aerospace facilities were constructed as a national aeronautical research resource to be utilized by private industry, universities, DoD, NASA and other Government agencies. Consequently, private Aerospace manufacturers conduct tests in these facilities. The contractor operating and maintaining these facilities will be responsible for all or major aspects of test operation from inception through post-test documentation of test articles that are tested in these facilities and, as a result, will have access to proprietary data developed by other firms. Access by the operations/maintenance Contractor to Government-sensitive or third party proprietary data creates a potential organizational conflict of interest.

(c) The restrictions upon future contracting are as follows: (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) To the extent that the work under this contract requires access to proprietary, business confidential, or financial data of other companies, and as long as these data remain proprietary or confidential, the Contractor shall protect these data from unauthorized use and disclosure and agrees not to use them to compete with those other companies.

(End of Clause)

[END OF SECTION]

PART II - CONTRACT CLAUSES

SECTION I - CONTRACT CLAUSES

I.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

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
52.202-1	JUL 2004	DEFINITIONS (JUL 2004)
52.203-3	APR 1984	GRATUITIES
52.203-5	APR 1984	COVENANT AGAINST CONTINGENT FEES
52.203-6	JUL 1995	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT
52.203-7	JUL 1995	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	JUN 2003	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS
52.204-2	AUG 1996	SECURITY REQUIREMENTS
52.204-4	AUG 2000	PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER
52.204-7	OCT 2003	CENTRAL CONTRACTOR REGISTRATION
52.208-9	JUL 2004	CONTRACTOR USE OF MANDATORY SOURCES OF SUPPLY AND SERVICES (JUL 2004)
52.209-6	JUL 1995	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT
52.211-5	AUG 2000	MATERIAL REQUIREMENTS
52.215-2	JUN 1999	AUDIT AND RECORDS--NEGOTIATION
52.215-8	OCT 1997	ORDER OF PRECEDENCE - UNIFORM CONTRACT FORMAT
52.215-10	OCT 1997	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA
52.215-11	OCT 1997	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA-- MODIFICATIONS
52.215-12	OCT 1997	SUBCONTRACTOR COST OR PRICING DATA
52.215-13	OCT 2004	SUBCONTRACTOR COST OR PRICING DATA - MODIFICATIONS
52.215-15	JAN 2004	PENSION ADJUSTMENTS AND ASSET REVERSIONS (OCT 2004)
52.215-18	OCT 1997	REVERSION OR ADJUSTMENT OF PLANS FOR POSTRETIREMENT BENEFITS (PRB) OTHER THAN PENSIONS
52.215-19	OCT 1997	NOTIFICATION OF OWNERSHIP CHANGES
52.215-21	OCT 1997	REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING

52.216-7	DEC 2002	DATA -- MODIFICATIONS (ALTERNATE II) (OCT 1997) ALLOWABLE COST AND PAYMENT Insert 30 th in Paragraph (a)(3).
52.217-2	OCT 1997	CANCELLATION UNDER MULTIYEAR CONTRACTS
52.217-8	NOV 1999	OPTION TO EXTEND SERVICES
52.219-8	OCT 2000	UTILIZATION OF SMALL BUSINESS CONCERNS
52.219-18	JUN 2003	NOTIFICATION OF COMPETITION LIMITED TO ELIGIBLE 8(A) CONCERNS
52.222-1	FEB 1997	NOTICE TO THE GOVERNMENT OF LABOR DISPUTES
52.222-2	JUL 1990	PAYMENT FOR OVERTIME PREMIUMS Insert "\$__0__" in paragraph (a).
52.222-3	JUN 2003	CONVICT LABOR
52.222-4	SEP 2000	CONTRACT WORK HOURS AND SAFETY STANDARDS ACT-OVERTIME COMPENSATION
52.222-21	FEB 1999	PROHIBITION OF SEGREGATED FACILITIES
52.222-26	APR 2002	EQUAL OPPORTUNITY
52.222-20	DEC 1996	WALSH-HEALEY PUBLIC CONTRACTS ACT
52.222-35	DEC 2001	EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS
52.222-36	JUN 1998	AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES
52.222-37	DEC 2001	EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS
52.222-41	MAY 1989	SERVICE CONTRACT ACT OF 1965, AS AMENDED
52.222-42	MAY 1989	STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES
52.222-47	MAY 1989	SERVICE CONTRACT ACT (SCA) MINIMUM WAGES AND FRINGE BENEFITS N/A is the incumbent Contractor. N/A is the labor union.
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
52.223-10	AUG 2000	WASTE REDUCTION PROGRAM
52.223-12	MAY 1995	REFRIGERATION EQUIPMENT AND AIR CONDITIONERS
52.223-14	AUG 2003	TOXIC CHEMICAL RELEASE REPORTING
52.225-1	JUN 2003	BUY AMERICAN ACT-SUPPLIES
52.225-3	OCT 2004	BUY AMERICAN ACT-FREE TRADE AGREEMENTS - ISRAELI TRADE ACT (OCT 2004)
52.225-13	DEC 2003	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES
52.227-1	JUL 1995	AUTHORIZATION AND CONSENT
52.227-2	AUG 1996	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT
52.227-11	JUNE 1997	PATENT RIGHTS-RETENTION BY THE CONTRACTOR (SHORT FORM) (JUN 97) (AS MODIFIED BY 1852.227- 11) (MAY 2002)
52.227-14	JUN 1987	RIGHTS IN DATA--GENERAL As modified by 1852.227- 14 NASA FAR Supplement (OCT 1995)
52.228-7	MAR 1996	INSURANCE--LIABILITY TO THIRD PERSONS
52.232-9	APR 1984	LIMITATION ON WITHHOLDING OF PAYMENTS
52.232-17	JUN 1996	INTEREST
52.232-18	APR 1984	AVAILABILITY OF FUNDS
52.232-22	APR 1984	LIMITATION OF FUNDS
52.232-23	JAN 1986	ASSIGNMENT OF CLAIMS
52.232-25	OCT 2003	PROMPT PAYMENT (ALTERNATE I) (FEB 2002)

52.232-34	MAY 1999	PAYMENT BY ELECTRONIC FUNDS TRANSFER-- OTHER THAN CENTRAL CONTRACTOR REGISTRATION
52.233-1	JUL 2002	DISPUTES (ALTERNATE I) (DEC 1991)
52.233-4	OCT 2004	APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM (OCT 2004)
52.233-3	AUG 1996	PROTEST AFTER AWARD (ALTERNATE I) (JUN 1985)
52.237-2	APR 1984	PROTECTION OF GOVERNMENT BUILDINGS, EQUIPMENT, AND VEGETATION
52.237-3	JAN 1991	CONTINUITY OF SERVICES
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 II) (APR 1984)
52.244-2	AUG 1998	SUBCONTRACTS (ALTERNATE I) (AUG 1998)
52.244-5	DEC 1996	COMPETITION IN SUBCONTRACTING
52.244-6	JUL 2004	SUBCONTRACTS FOR COMMERCIAL ITEMS (JUL 2004)
52.245-5	JUN 2003	GOVERNMENT PROPERTY (COST- REIMBURSEMENT, TIME-AND- MATERIAL, OR LABOR- HOUR CONTRACTS)
52.245-19	APR 1984	GOVERNMENT PROPERTY FURNISHED "AS IS"
52.246-25	FEB 1997	LIMITATION OF LIABILITY-- SERVICES
52.249-6	SEP 1996	TERMINATION (COST-REIMBURSEMENT)
52.249-14	APR 1984	EXCUSABLE DELAYS
52.251-1	APR 1984	GOVERNMENT SUPPLY SOURCES
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
1852.204-75	SEP 1989	SECURITY CLASSIFICATION REQUIREMENTS
1852.204-76	JUL 2002	SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION TECHNOLOGY RESOURCES
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
1852.228-75	OCT 1988	MINIMUM INSURANCE COVERAGE
1852.237-70	DEC 1988	EMERGENCY EVACUATION PROCEDURES
1852.243-71	MAR 1997	SHARED SAVINGS

(End of Clause)

I.2 RIGHTS TO PROPOSAL DATA (TECHNICAL) (FAR 52.227-23) (JUN 1987)

Except for data contained on pages _____ TBD _____, it is agreed that as a condition of award of this contract, and notwithstanding the conditions of any notice appearing thereon, the Government shall have unlimited rights (as defined in the "Rights in Data--General" clause contained in this contract) in and to the data contained in the proposal dated _____ TBD _____ upon which this contract is based.

(End of Clause)

**I.3 CLAUSES INCORPORATED BY REFERENCE (FAR 52.252-2)
(FEB 1998)**

This contract incorporates one or more clauses 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. Also, the full text of a clause may be accessed electronically at this/these address(es): <http://www.arnet.gov/far/>
<http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm>

(End of Clause)

I.4 OMBUDSMAN (NFS 1852.215-84) (JUN 2000)

(a) An ombudsman has been appointed to hear and facilitate the resolution of concerns from Offerors, potential Offerors, and contractors during the pre-award and post-award 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: Dr. Sunil Dutta NASA Glenn Research Center 21000 Brookpark Road, Mail Stop 3-9 Cleveland, OH 44135-3191; Telephone: (216) 433-8844 FAX: (216) 433-2946 e-mail: Sunil.Dutta@grc.nasa.gov

Concerns, issues, disagreements, and recommendations which cannot be resolved at the installation may be referred to the NASA ombudsman, the Director of the Contract Management Division, at 202-358-0422, facsimile 202-358-3083, e-mail sthomps1@hq.nasa.gov. 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.

(End of Clause)

**I.5 OPTION TO EXTEND THE TERM OF THE CONTRACT (FAR 52.217-9)
(MAR 2000)**

(a) The Government may extend the term of this contract by exercising the option for services for years 4 & 5, via written notice to the Contractor within 30 days; provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least 60 days before the contract expires. The preliminary notice does not commit the Government to an extension.

(b) If the Government exercises this option, the extended contract shall be considered to include this option clause.

(c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed 10 years.

(End of Clause)

[END OF SECTION]



PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS
 (Electronic Copies Available by Request)

J.1 LIST OF ATTACHMENTS - NEGOTIATED (GRC 52.215-102)
 (AUG 2002) (t)-(z) *Reserved for Future Attachments*

The following documents are attached hereto and made a part of this contract:

NO. OF ATTACHMENT	DATE	PAGES
(a) Statement of Work/Attachments	6/30/04	25 (plus attachments) (Electronic Attachment Disk)
(b) List of Government-Furnished Property	6/30/04	N/A (Spreadsheet) (Electronic Attachment Disk)
(c) List of Installation Provided Property		To be provided by the Government.
(d) Reliability and Quality Assurance Plan [TBD] Including System Safety Program Plan		To be submitted and approved by the Government.
(e) Safety and Health Plan		To be submitted and approved by the Government.
(f) Configuration Management Plan		To be submitted and approved by the Government.
(g) U.S. Department of Labor Register of Wage Determination and Fringe Benefits Under the Service Contract Act Number 1994-2416 (Rev. 18)	9/2/03	10 (See Electronic Attachment Disk)
(h) Data Requirements Document (DRD)	6/30/04	7 (See Electronic Attachment Disk)
(k) GRC Risk Management Center Procedure P2.9	12/18/02	8 (See Electronic Attachment Disk)
(l) Time Card Operating Instruction	6/30/04	1 (See Electronic Attachment Disk)
(m) Mishap Report	3/01	4 (See Electronic Attachment Disk)
(n) 533 Form (with Instructions)	9/1984	2 (See Electronic Attachment Disk)
(r) Award Term and Performance Evaluation Plan	6/28/04	19 To be provided by the Government.
(s) Surveillance Plan	6/29/04	5 To be provided by the Government.

(END OF SECTION)